Appendix A

NOP Scoping Meeting Materials, NOP and Scoping Meeting Comments

A-1 NOP

City of Carpinteria

MAY 29, 2025
NOTICE OF PREPARATION FOR A DRAFT ENVIRONMENTAL IMPACT REPORT AND NOTICE OF SCOPING MEETING
(held in person and virtually) June 16, 2025, at 5:30 P.M.

SURFLINER INN
PROJECT NO. 23-2254-DP/CUP/CDP/ARB
499 LINDEN AVENUE
APNS 004-105-011 & 004-105-026

PURPOSE OF THIS NOTICE AND SCOPING MEETING: This Notice of Preparation (NOP) is being issued by the City of Carpinteria (City) for the above-referenced project (Project) located in the City and proposed by 499 Linden Managers, LLC. The purpose of the NOP is to advise the public and Responsible Agencies that a Draft Environmental Impact Report (DEIR) is being prepared to study the environmental impacts of the Project and to provide an opportunity for comment on the anticipated range of issues to be studied within the DEIR.

The City is the Lead Agency for the Project and has determined that a DEIR in accordance with the requirements of the California Environmental Quality Act (CEQA) and the CEQA implementation guidelines will be prepared for the Project. The City is seeking input on the scope of the topics to be addressed within the DEIR. The topics to be analyzed within the DEIR are outlined in the Section below entitled "**DEIR Scope Of Analysis**". This NOP is being circulated pursuant to California Public Resources Code section 211153(a) and section 15082 (b) of Title 14 of the California Code of Regulations ("CEQA Guidelines"), is being provided for thirty (30) days, and will serve as the baseline for environmental analysis. The NOP period is expected to commence on May 29, 2025, and will conclude on June 27, 2025.

In addition, an in-person and virtual scoping meeting will be held on June 16, 2025, at Carpinteria City Hall located at 5775 Carpinteria Avenue, Carpinteria, CA 93013 at 5:30 pm as indicated below.

PROJECT DESCRIPTION:

Surfliner Inn

The proposed hotel would be a two-story contemporary cottage-style hotel with rooftop deck and would have a building footprint of approximately 15,500 square feet, not including patios, walkways, terraces, and landscaping. The interior floor space is proposed to be 28,290 square feet in size and

contain 36 guest rooms, a manager's unit, café, visitor center, and a roof-top bar/lounge/event and swimming pool areas.

The hotel would be located on the eastern portion of existing City Parking Lot #3 (commonly known as the Amtrak Lot), which currently contains a total of 113 parking spaces and a public restroom. The area designated for the hotel would encompass the easternmost 30,000 square feet of the approximately 50,094 square foot site which is currently developed with 67 parking spaces and a public restroom building. The building's height would range from 25 – 29 feet for the main roof line, and up to 30 feet to the top of the rooftop bar trellis; with the maximum height of the highest stair/elevator tower architectural projection reaching 37 feet 1 inch in height. The main hotel entrance would be located at a porte cochère on the western side of the hotel facing the remainder of Parking Lot #3. Vehicular access to the hotel would be through City Parking Lot #3, via Fifth Street. Required parking for the hotel is proposed to be accommodated by a shared use parking arrangement (described in more detail within the parking description below).

The first floor of the hotel would be 15,110 square feet in size and would include a lobby, 17 guest rooms, a manager's unit, café/restaurant, visitor center, and administrative, storage, mechanical, trash and bicycle storage areas. Each guest room on the first floor and the manager's unit would have a private outdoor patio. The 1,111 square foot public café/restaurant is proposed to be located at the southeast corner of the site, fronting Linden Avenue, and would feature a 390 square foot outdoor dining patio area. The proposed 245 square foot visitor center would be adjacent to the café/restaurant and similarly oriented towards Linden Avenue.

The second floor of the hotel would be 13,180 square feet in size and would contain 19 guest rooms, restrooms, and storage. Each guest room and suite on the second floor would have a private balcony. The roof of the hotel would feature an open approximately 6,877 square roof terrace consisting of an outdoor rooftop bar and seating area of 1,280 square feet, an event area of 2,000 square feet, guest lounge of 310 square feet, a swimming pool area of 1,865 square feet, pool equipment room of 122 square feet, landscape planter areas of 1,292 square feet, and stairways and elevator shafts.

Staffing

The hotel is expected to require staff around the clock with 10 to 11 employees per shift, and a total of three shifts per day. The Project also includes an on-site manager's unit. The most hotel employees would be present during the morning shift, and the least hotel employees would be present during the night shift. The café/bar is anticipated to have two shifts with 7-8 employees per shift, and offer seating for 40 guests plus the additional roof-top bar and lounge area.

Parking

A total of 139 parking spaces would be provided for the Project. The proposed Project would operate under a conjunctive parking arrangement which would accommodate parking for hotel guests, hotel employees, and the general public within the reconfigured City Parking Lot #3 and the proposed City Parking Lot #4. A total of 25 electric vehicle car charging stations are proposed. The parking lots would feature both permeable and impermeable surfaces. The Project also includes a total of eighteen bicycle storage and bicycle parking spaces.

City Parking Lot #3 Reconfiguration
The remaining portion of City Parking Lot #3 ("Lot 3") not occupied by the hotel, approximately 20,094 square feet in area, would be reconfigured and would provide 46 parking spaces. The parking lot would continue to be accessed from the existing westernmost entrance from Fifth Street. A bicycle storage room attached to the hotel building would accommodate secure storage of eight bicycles for hotel guests and additional bicycle racks accommodating four bicycles would be provided for public use near the café and visitor center along the Linden Avenue frontage. Eight electric vehicle charging spaces would be provided in the reconfigured Lot 3.

New City Parking Lot #4
The proposed new public parking lot on the south side of the Union Pacific railroad (UPRR) tracks ("Lot 4") would be 55,321 square feet in area and provide 93 parking spaces, with vehicular access from Linden Avenue. Seventeen electric vehicle charging spaces would be provided. The proposed Lot 4, including the public restroom relocation, would be constructed by the City with funds provided by the developer of the proposed hotel Project. The existing public restrooms that are presently at the corner of Linden Avenue and Fifth Street would be relocated to this new parking lot facing Linden Avenue. Additional public bicycle racks accommodating six bicycles would be provided adjacent to the restroom. A locked secondary emergency access gate is proposed at the end of Elm Avenue to provide emergency vehicle access and an emergency ingress/egress route to the public parking lot and adjacent neighborhood. This parcel was acquired from the UPRR in 2013 and currently includes an informal public trail from Holly Avenue to Linden Avenue. This proposed parking lot would be constructed prior to commencement of construction for the hotel and reconfigured Lot 3 to ensure no loss of public parking during construction of the Project. A new 5-foot-wide decomposed granite public pathway is proposed along the northern boundary of the parking lot, terminating to the east at the sidewalk along Linden Avenue to replace the existing interim Linden to Holly Trail segment.

Landscaping

Landscaped areas for the proposed Project would total 28,235 square feet, comprised of the following areas:

Parking Lot 3 and Hotel Site Landscape Areas:
Onsite: 11,023 square feet (22%)
Offsite (Fifth Street and Linden Avenue Rights-of-Way): 9,255 square feet
Roof-level (raised planters on roof): 1,292 square feet

Parking Lot 4 Landscape Area:
6,665 square feet (12%)

Storm Water Improvements

The proposed Project includes a "Tier 4" storm water plan (projects with 22,500 square feet or more of impervious surfaces) which incorporates Low Impact Development (LID) measures including the use of permeable surfaces for portions of the new and reconfigured parking areas and the installation of underground retention chambers to treat and limit storm water discharge from the site.

Grading

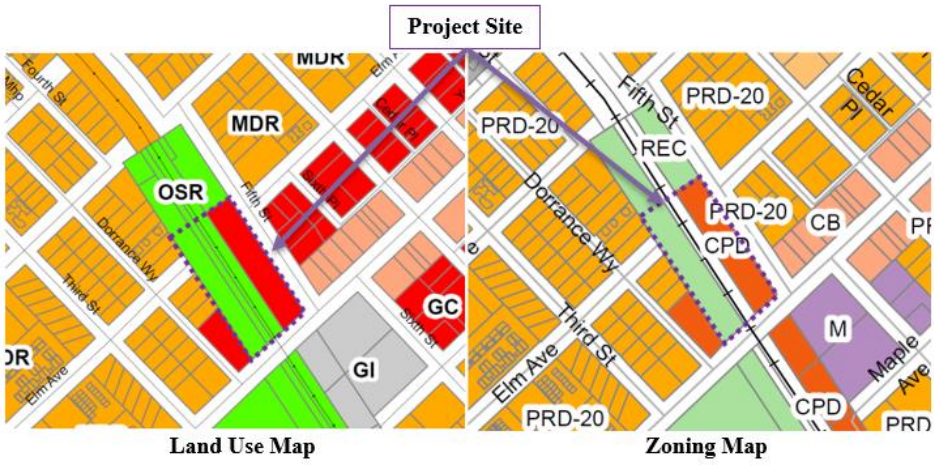
Total grading for the proposed Project would include approximately 1,160 cubic yards of cut, 360 cubic yards of fill, and 800 cubic yards of export:

	Cut (CY)	Fill (CY)	Export (CY)
Hotel Site	340	330	10
Parking Lot #4	820	30	790
Total	1,160	360	800

General Plan / Zoning

The proposed hotel site within Lot 3 is designated General Commercial (GC) on the City's General Plan/Coastal Plan Land Use Plan (GP/CLUP) Map and is located within Community Design Subarea 2: Downtown/Old Town District by the Community Design Element of the GP/CLUP and immediately abuts Community Design Subarea 2a, the Downtown Core District along Linden Avenue. The hotel site is zoned Commercial Planned Development (CPD), and is not subject to any Overlay Districts. The City acquired the parcel in 1989, with the zoning designation of CPD.

The proposed new Lot 4 site is designated Open Space/Recreation (OSR) on the City's General Plan/Coastal Plan Land Use Plan Map and is located within Community Design Subarea 1: Downtown Beach Neighborhood District of the Community Design Element of the City's General Plan/Coastal Land Use Plan. The proposed new City Parking Lot #4 site is zoned Recreation (REC), and is not subject to any overlay requirements. This parcel was rezoned from CPD to REC in 2016 as part of a city-wide consistency rezoning effort.



Additional information, as well as a frequently asked questions (FAQ) summary is available on the City's website at https://carpinteriaca.gov/city-hall/community-development/linden-inn-project/.

PROJECT LOCATION: The project site for the Surfliner Inn is located at 499 Linden Avenue (Assessor's Parcel Number 004-105-011); the project site for Parking Lot #4 is located just southwest of the railroad tracks and northwest of 389 Linden Avenue (Assessor's Parcel Number 004-105-026) in Carpinteria, California.

CORTESE LIST: The project site for Parking Lot #4 located just southwest of the railroad tracks and northwest of 389 Linden Avenue (Assessor's Parcel Number 004-105-026) is listed as a closed leaking underground storage tank site and is on the Cortese List. Site closure means that the regulatory agency has concluded that the site does not pose a risk to the public or the environment.

DEIR SCOPE OF ANALYSIS: The DEIR will address the following key issue areas listed in CEQA Guidelines Appendix G Checklist:

Aesthetics	Hydrology and Water Quality
Air Quality	Land Use and Planning
Biological Resources	Noise
Cultural Resources	Public Services
Energy	Recreation
Geology and Soils	Transportation
Greenhouse Gas Emissions	Tribal Cultural Resources
Hazards and Hazardous Materials	Utilities and Service Systems

In addition, the DEIR will consider the following issues which are anticipated to have a less than significant finding:

Agriculture and Forestry Resources	Population and Housing
Mineral Resources	Wildfire

ENVIRONMENTAL SCOPING MEETING: The City of Carpinteria will conduct an in-person and virtual public scoping meeting to solicit comments regarding the list of topics to be studied within the DEIR. The Scoping Meeting has been scheduled as follows:

MEETING DATE AND TIME: **June 16, 2025, at 5:30 P.M.**

PLACE **Carpinteria City Hall – Council Chambers**
5775 Carpinteria Avenue, Carpinteria CA 93013

VIRTUAL LINK: https://us02web.zoom.us/j/86196112984

NOTE: The Scoping Meeting on June 16, 2025, is to answer clarifying questions and receive public comments. It is not a decision-maker meeting.

Interested people are encouraged to provide public comments during the meeting in person or virtually through the Zoom teleconference, by following the instructions listed below. Written comments may be submitted prior to the meeting by e-mailing Mindy Fogg at mindyf@carpinteriaca.gov.

TELECONFERENCE PARTICIPATION VIA ZOOM:

- Join the meeting using the link below.
- You must have audio and microphone capabilities on the device you are using to participate in the meeting.
- When you join the meeting make sure that you join the meeting with audio and follow the prompts to test your speakers and microphone prior to joining the meeting.

TO SPEAK ON THE ITEM USING ZOOM:

- Staff will first give a presentation.
- Click on the Raise Hand icon if you would like to speak.
- Staff will call your name when it's your turn to speak.
- When your name is called, you will be prompted to unmute yourself.
- When your time is up, you will be muted.

JOIN THE ZOOM TELECONFERENCE AT:

URL:	https://us02web.zoom.us/j/86196112984
Webinar ID:	861 9611 2984
Passcode:	523812
Join via audio:	+16694449171,,86196112984#,,,,*523812#

In compliance with the Americans with Disabilities Act, if you need assistance to participate in this meeting, please contact the Community Development Department by email at lorenae@carpinteriaca.gov or by phone at (805) 755-4410 or the California Relay Service at (866) 735-2929. Notification two business days prior to the meeting will enable the City to make reasonable arrangements for accessibility to this meeting.

ADDITIONAL PUBLIC PARTICIPATION ALTERNATIVES: Submit your comment via email at least 24 hours prior to the meeting. Please submit your comments to Mindy Fogg at: mindyf@carpinteriaca.gov. Your comments will be placed into the record and reviewed by staff.

NOTICE OF PREPARATION PUBLIC COMMENT PERIOD: The public comment period begins on May 29, 2025, and ends on June 27, 2025 (30 days). Please submit written public comments **by 5:00 p.m. on June 27, 2025**. All letters should be addressed to Mindy Fogg, Principal Planner, City of Carpinteria, 5775 Carpinteria Avenue, CA 93013 or mindyf@carpinteriaca.gov. Please limit comments to environmental issues. When possible, please use email to submit public comments.

PROJECT WEBSITE: A copy of the Notice of Preparation and Notice of Completion, as well as the full Project description and Project history, are available at the City of Carpinteria, Community Development Department at 5775 Carpinteria Avenue, Carpinteria, California 93103, or online at:
https://carpinteriaca.gov/city-hall/community-development/linden-inn-project/.

Date: 5/29/2025 Signature: _____

Nick Bobroff, Director
Community Development Department
(805) 755-4407 / nickb@carpinteriaca.gov

Published: *Coastal View News*, May 29, 2025

A-2 Scoping Meeting Materials

CEQA SCOPING MEETING

MONDAY, JUNE 16, 2025

Surfliner Inn

Project No. 23-2254-DP/CUP/CDP/ARB

499 Linden Avenue

Accessor Parcel Numbers 004-105-011 & 004-105-026

WELCOME / INTRODUCTION

Who We Are

- Mindy Fogg, City Planner
- Nick Bobroff, City Director, Community Development
- Brian Allee, City Environmental Consultant

What We Do

- Process applications for development/land use entitlements
- Prepare environmental analysis
- Ensure public input
- Present projects and recommendations to decision makers

HOUSEKEEPING NOTES

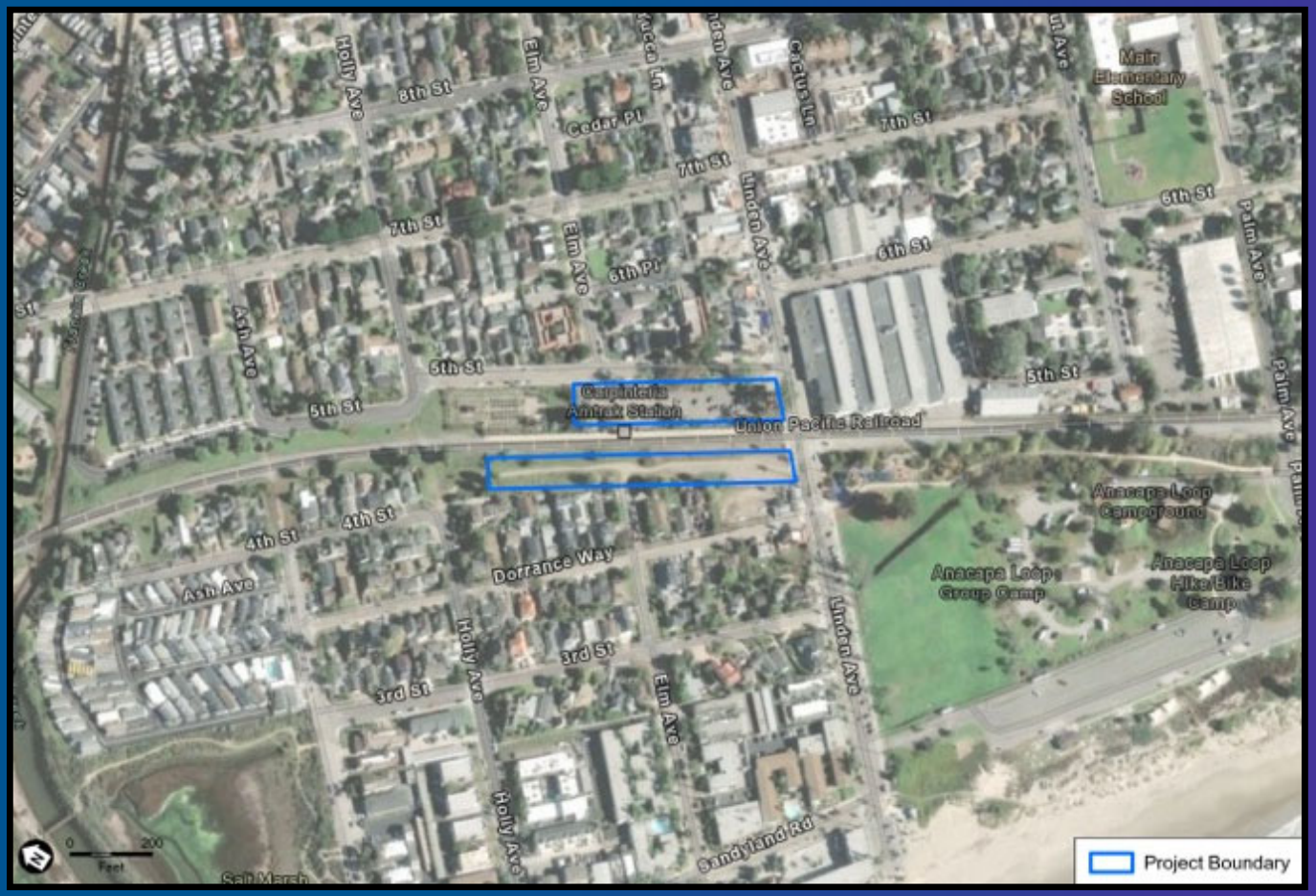
- After brief staff presentation, we want to hear from you
- Your input will help with the environmental analysis
- No speaker slips necessary
- Please be respectful and courteous throughout
- This meeting is being broadcast and recorded and will be on the City's YouTube and the Surfliner Hot Topics Webpage

https://carpinteriaca.gov/city-hall/community-development/linden-inn-project/

AGENDA

1. Introduce the Project
2. CEQA Process
3. How to Submit Comments
4. Questions

PROJECT SITE

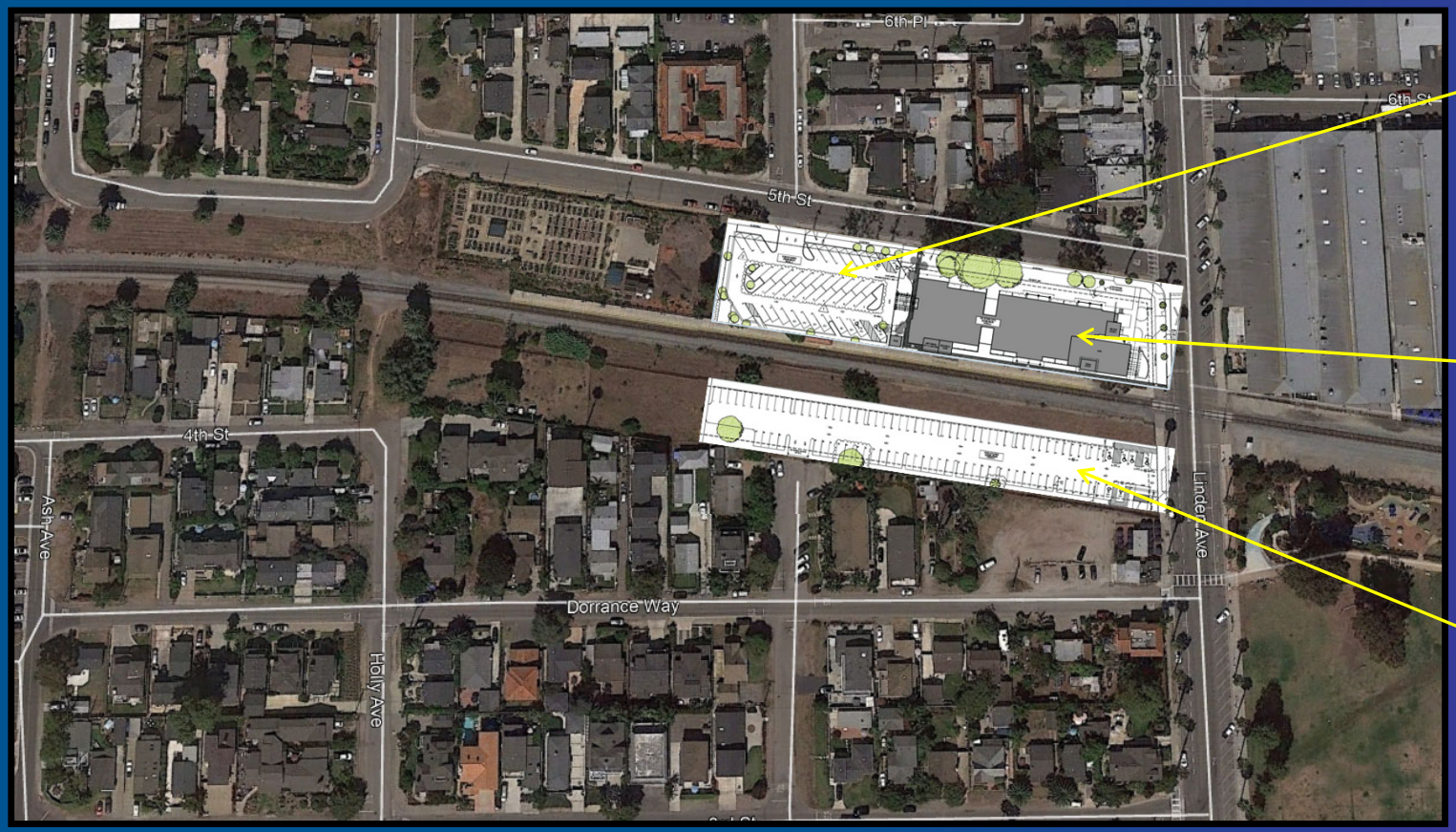


499 Linden Avenue

BRIEF PROJECT DESCRIPTION

- 36-room hotel building; ~15,500 sf footprint, ~28,290 sf interior area
- Manager's unit
- Visitor Center
- Café/restaurant, back of house, office and break room areas
- Rooftop lounge(s), bar, event space, pool, and spa
- Bicycle storage
- Reconfigured Parking Lot 3 - 46 space public parking lot
- New Parking Lot 4 - 93-space public surface parking lot with public restrooms and coastal trail improvements
- New landscaping

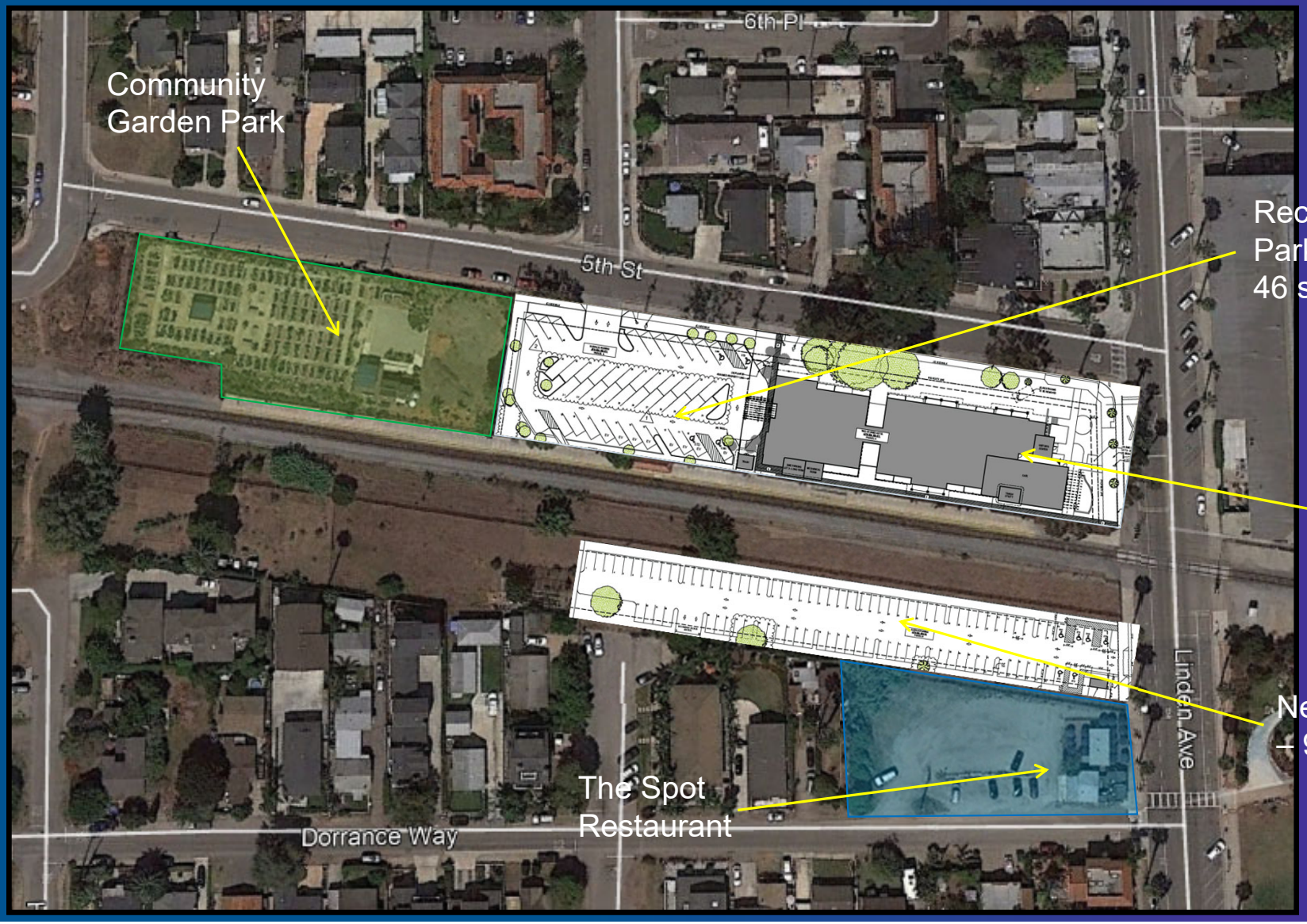
PROJECT SETTING



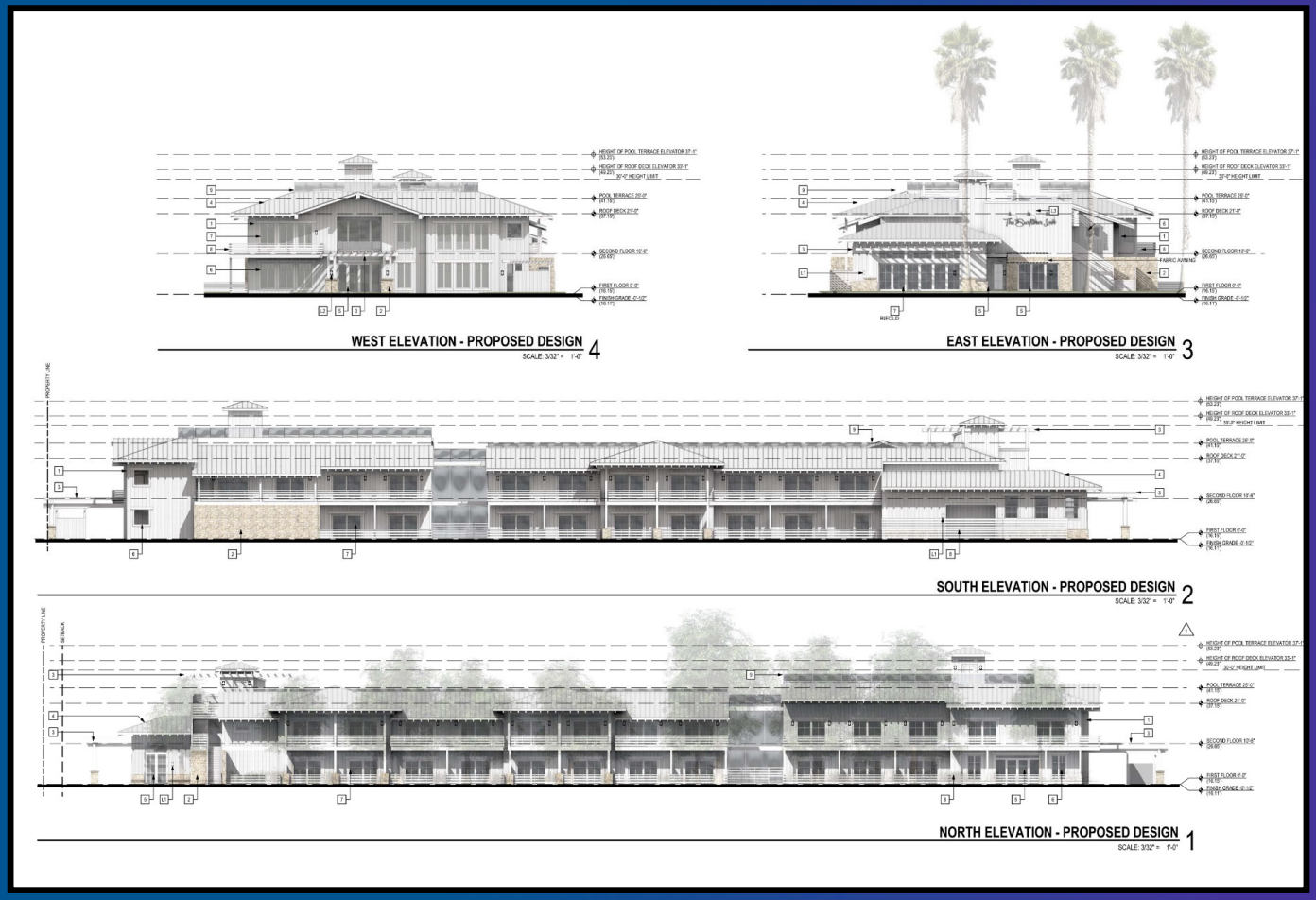
Reconfigured Parking Lot 3 – 46 spaces

Hotel Building

New Parking Lot 4 – 93 spaces


Community
Garden Park
6th Pl
5th St
Reconfigured
Parking Lot 3 –
46 spaces
Hotel
Building
New Parking Lot 4
– 93 spaces
The Spot
Restaurant
Dorrance Way
Linden Ave

ELEVATIONS


WEST ELEVATION - PROPOSED DESIGN 4
SCALE: 3/32" = 1'-0"
EAST ELEVATION - PROPOSED DESIGN 3
SCALE: 3/32" = 1'-0"
SOUTH ELEVATION - PROPOSED DESIGN 2
SCALE: 3/32" = 1'-0"
NORTH ELEVATION - PROPOSED DESIGN 1
SCALE: 3/32" = 1'-0"

SURFLINER INN



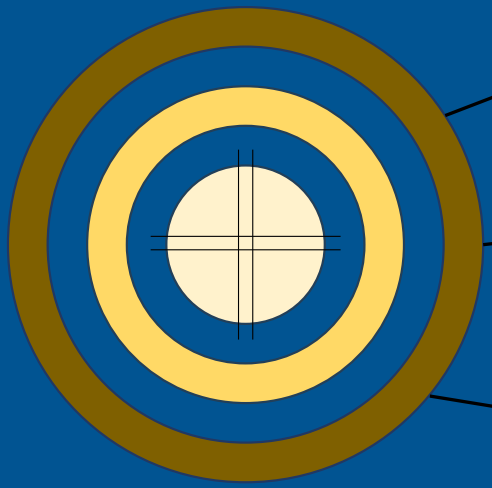
SURFLINER INN



PURPOSE OF CEQA

INFORM	UNDERSTAND	DISCLOSE	IDENTIFY
Inform decision-makers and the public of a project's potential environmental effects	Increase the understanding of and participation in environmental review process	Disclose any potential impacts on the environment	Identify ways to avoid or reduce potential environmental impacts through mitigation measures or alternatives

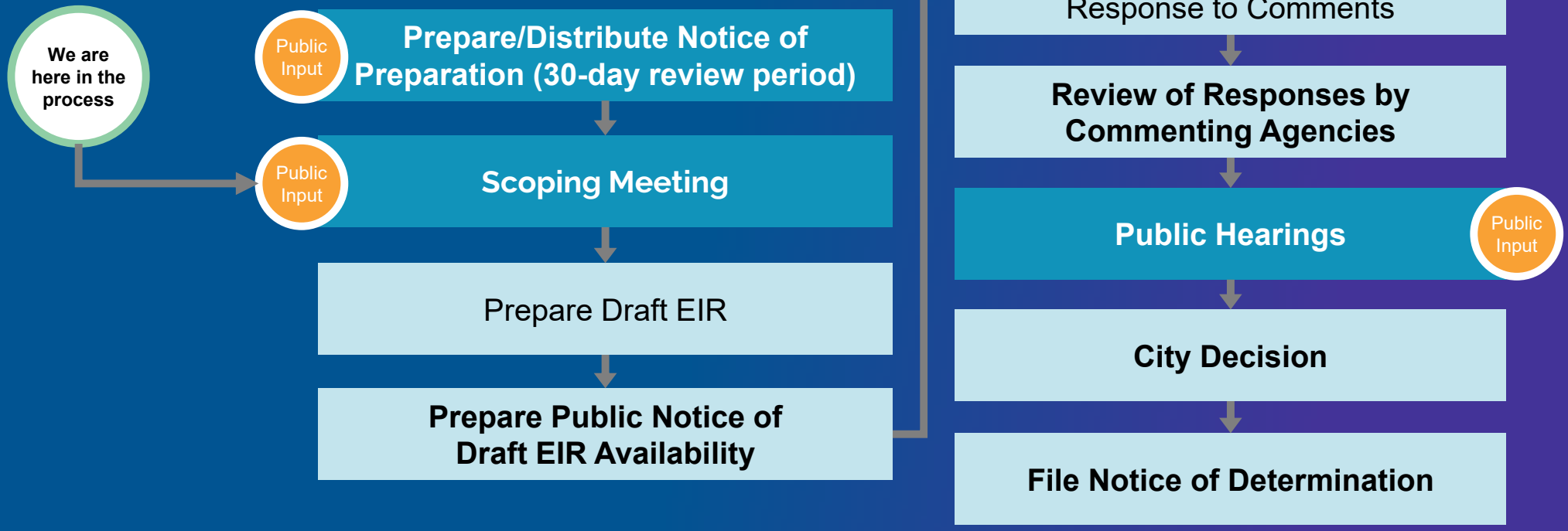
OBJECTIVE FOR CEQA



1. Provide information on Environmental Impact Report (EIR) process
2. Identify environmental issues for analysis in the EIR
3. Solicit community input on environmental issues or alternatives to be studied in the EIR

The **EIR Scoping Meeting** is for community input on what should be studied in the EIR – City is at the beginning of the environmental review process.

CEQA EIR PROCESS



EIR SCOPE AND CONTENT

EIR TOPICS EVALUATED

Less Than Significant | Full Evaluation Needed

- Agriculture and Forestry Resources
- Mineral Resources
- Population and Housing
- Wildfire

EIR SCOPE AND CONTENT

EIR TOPICS EVALUATED

Less Than Significant

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality

Full Evaluation Needed

- Land Use and Planning
- Noise
- Public Services
  (Fire, Police, Schools, Parks, Libraries)
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

HOW TO SUBMIT COMMENTS

Tonight: Verbally in person or virtually through the Zoom teleconference.

Email: mindyf@carpinteriaca.gov

Mail: City of Carpinteria, Community Development
Attn: Mindy Fogg, Principal Planner
5775 Carpinteria Avenue
Carpinteria, CA 93013

Comments accepted through 5:00 p.m. on **Friday, June 27, 2025**

A-3 NOP and Scoping Meeting Comments

OVERVIEW OF NOP AND SCOPING MEETING COMMENTS

Notice of Preparation

Pursuant to the provision of State CEQA Guidelines Section 15082, the City circulated a NOP of an EIR to State, regional, and local agencies, and members of the public for a 30-day review period commencing May 29th, 2025, and ending June 27th, 2025. The purpose of the NOP was to formally notice that the City was preparing an EIR for the Project, and to solicit input regarding the scope and content of the environmental information to be included in this EIR. This Appendix A-3 includes a copy of the written comments submitted on the NOP. **Table A-3-1**, *Commenters on the Notice of Preparation*, provides the commenters, format of the comment, date the comment was received, summary of the comments, and the chapter/section of the EIR that addresses the comments.

EIR Scoping Meeting

The NOP included notification that an in-person EIR scoping meeting for the public with a virtual option through Zoom teleconference would be held. In accordance with the State CEQA Guidelines, the purpose of the EIR scoping meeting was for the City to solicit input and written comments from agencies and the public on environmental issues or alternatives they believe should be addressed in the EIR. The EIR scoping meeting was held on Monday, June 16th, 2025, at 5:30 PM at the Carpinteria City Hall – Council Chambers, 5775 Carpinteria Avenue, Carpinteria, CA 93013. The EIR scoping meeting provided the general public and interested public agencies the opportunity to view materials and ask questions regarding the scope and focus of the EIR, as described in the NOP. **Table A-3-2**, *Scoping Meeting Verbal Commenters*, provides the speaker number, summary of the comments, and the chapter/section of the EIR that addresses the comments.

TABLE A-3-1
COMMENTERS ON THE NOTICE OF PREPARATION

Individual/Agency	Format of Comment	Date Comment Received	Summary of Comments	Chapter/Section
John Jackson	Email	June 1, 2025	• Opposed to the Project • Traffic	Section 3.14, Transportation
Matthew Roberts	Email	June 4, 2025	• Support of Project and transit-oriented development	Comment noted. Not applicable to the EIR
Alan and Carol Koch	Email	June 10, 2025	• Cumulative Impacts • Parking, Traffic	Sections 3.1 through 3.16 for cumulative impacts; Section 3.14, Transportation
Nancy Beebe	Email	June 11, 2025	• Opposed to the Project • Parking, Traffic	Section 3.14, Transportation
Michelle Oyler	Email	June 12, 2025	• Parking, Traffic	Section 3.14, Transportation
Clarke Bowdle	Email	June 12, 2025	• Parking, Traffic	Section 3.14, Transportation
Sandy Nargi	Email	June 12, 2025	• Support of the Project	Comment noted. Not applicable to the content in the EIR
Mario Nargi	Email	June 12, 2025	• Support of the Project	Comment noted. Not applicable to the content in the EIR
Tia Greenfield & Dennis Engler	Email	June 13, 2025	• Opposed to the Project • Parking, Traffic • Water Use • Noise • Pollution	Section 3.2, Air Quality; Section 3.11 Noise; Section 3.14, Transportation; Section 3.16 Utilities and Service Systems;
Mary Oeffling	Email	June 13, 2025	• Opposed to the Project • Parking, Traffic • Noise • GHG Emissions	Section 3.7 Greenhouse Gas Emissions; Section 3.11 Noise; Section 3.14, Transportation
Chris Forney	Email	June 13, 2025	• Parking, Traffic • Aesthetics • Walking path, Recreation	Section 3.1, Aesthetics; Section 3.13, Recreation; Section 3.14, Transportation
Rita Alaya	Email	June 13, 2025	• Opposed to project • Parking • Blocking ocean views, Aesthetics • Overtourism, Traffic • Water use, drought • Maintaining parking lot for local use	Section 3.1, Aesthetics; Section 3.14, Transportation; Section 3.16, Utilities and Service Systems;

Individual/Agency	Format of Comment	Date Comment Received	Summary of Comments	Chapter/Section
Mitchell M. Tsai, Law Firm on behalf of the Western States Regional Council of Carpenters (WSRCC)	Email	June 13, 2025	• Requests the City to use a local workforce to benefit the community's economic development and environment. • City should impose training requirements for Project's construction activities to prevent community spread of COVID-19 and other infectious diseases. • Local hire requirements and considerations for greenhouse gas modeling.	Section 3.2, Air Quality; Section 3.7, Greenhouse Gas Emissions; Chapter 5.0, Other CEQA Consequences.
Michael Sipiora	Email	June 13, 2025	• Request for additional traffic study	Section 3.14, Transportation
Rosa Markolf	Email	June 13, 2025	• Traffic, parking • Parking lot entrance • Opposed to the Project	Section 3.14, Transportation
Ann Sly	Email	June 14, 2025	• Cumulative impacts • Aesthetics • Land Use and Planning • Noise • Reduce size of hotel	Sections 3.1 through 3.16 for cumulative impacts; Section 3.1, Aesthetics; Section 3.10, Land Use and Planning; Section 3.11, Noise; Chapter 4.0, Alternatives
Lori Greenburg	Email	June 14, 2025	• City property should not be used for a private business • Size of hotel • Increased noise/vibration • Parking lot, safety	Section 3.11, Noise; Section 3.14, Transportation; Chapter 4.0, Alternatives
Alan and Carol Koch	Email	June 14, 2025	• Cumulative Impacts • Parcel location • Traffic flow, safety • Alternatives for Parking Lot #4 • Request for additional traffic study	Sections 3.1 through 3.16 for cumulative impacts; Section 3.10, Land Use and Planning; Section 3.14, Transportation; Chapter 4.0, Alternatives

Individual/Agency	Format of Comment	Date Comment Received	Summary of Comments	Chapter/Section
Laura Anderson	Email	June 14, 2025	• Opposed to the Project • Parking, Traffic, congestion • Noise • Aesthetics	Section 3.1, Aesthetics; Section 3.11, Noise; Section 3.14, Transportation
Carl Burton	Email	June 14, 2025	• Light pollution, Aesthetics • Air pollution • Noise pollution	Section 3.1, Aesthetics; Section 3.2 Air Quality; Section 3.11, Noise
Susan Lea	Email	June 15, 2025	• Opposed to the Project • Opposed to loss of train station and parking lot • Opposed to loss of ocean views, Aesthetics	Section 3.1, Aesthetics; Section 3.14, Transportation
Susan Dale	Email	June 15, 2025	• Opposed to the Project • Parking, traffic • Noise	Section 3.11, Noise; Section 3.14, Transportation
Catherine Overman	Email	June 16, 2025	• Parking, safety	Section 3.14, Transportation
Jean-Luc Bourdon	Email	June 16, 2025	• Opposed to the Project • Parking, safety • Land use • Reduce VMT	Section 3.10, Land Use and Planning; Section 3.14, Transportation
Mary Kate McGeehan	Email	June 16, 2025	• Opposed to the Project location • Traffic, Safety • Parking	Section 3.14, Transportation; Chapter 4.0, Alternatives
Ruth Gull	Email	June 16, 2025	• Opposed to the Project • Block views, Aesthetics • Congestion/parking • Noise	Section 3.1, Aesthetics; Section 3.11, Noise; Section 3.14, Transportation
Susan Williams	Email	June 16, 2025	• Recreation • Transportation • Hazards • Public Services	Section 3.8, Hazards and Hazardous Materials; Section 3.12, Public Services; Section 3.13, Recreation; Section 3.14, Transportation

Individual/Agency	Format of Comment	Date Comment Received	Summary of Comments	Chapter/Section
Sally A Graham	Email	June 16, 2025	• Opposed to the Project • Opposed to the location • Traffic, safety • Opposed to size of building	Section 3.1, Aesthetics; Section 3.14, Transportation; Chapter 4.0, Alternatives
Lisa Piltz	Email	June 17, 2025	• Opposed to the Project • Measure T2022 appears to have been intentionally confusing, misleading, and obviously manipulative	Comment noted. Not applicable to the content in the EIR
Zoe Iverson	Email	June 16, 2025	• Opposed to the Project • Opposed to the building height • Noise concerns • Parking, safety	Section 3.1, Aesthetics; Section 3.11, Noise; Section 3.14, Transportation; Chapter 4.0, Alternatives
Jo Dean Johnson	Email	June 17. 2025	• Congestion, Traffic, safety • Opposed to location	Section 3.14, Transportation; Chapter 4.0, Alternatives
Patricia Cloud	Email	June 18, 2025	• Blocking views, aesthetics • Traffic • Noise	Section 3.1, Aesthetics; Section 3.11, Noise; Section 3.14, Transportation
Gregory Palermo	Email	June 19, 2025	• Support of the Project	Comment noted. Not applicable to the content in the EIR
Beth Beals	Email	June 19, 2025	• Leasing public land to a private entity • Congestion, safety • Noise • Size of hotel • Truck routes, noise, pollution • Air pollution • Water use • Tree removal	Section 3.1, Aesthetics; Section 3.2 Air Quality; Section 3.3, Biological Resources; Section 3.11, Noise; Section 3.14, Transportation; Section 3.16, Utilities and Service Systems; Chapter 4, Alternatives;
Jaclyn Eaton	Email	June 19, 2025	• Congestion, traffic • Block views, Aesthetics • Noise	Section 3.1, Aesthetics; Section 3.11, Noise; Section 3.14, Transportation
Anne Fraser and Robert Lehmann	Email	June 19, 2025	• Size of hotel • Block views, Aesthetics • Water use • Traffic, safety	Section 3.1, Aesthetics; Section 3.14, Transportation Section 3.16 Utilities and Service Systems; Chapter 4, Alternatives

Individual/Agency	Format of Comment	Date Comment Received	Summary of Comments	Chapter/Section
Victor Garza	Email	June 20, 2025	• Transportation • Parking, safety • Aesthetics • Hydrology and water quality	Section 3.1, Aesthetics; Section 3.9, Hydrology and Water Quality; Section 3.14, Transportation
Danny Chesler	Email	June 21, 2025	• Opposed to the Project	Comment noted. Not applicable to the content in the EIR
Suzanne DeFriez	Email	June 22, 2025	• Loss of open vistas • Reduction in parking • Sea level rise	Section 3.1, Aesthetics; Section 3.13, Recreation; Section 3.14, Transportation
Richard and Debbie Bitterolf	Email	June 24, 2025	• Opposed to the Project • Opposed to location • Congestion, traffic, safety	Section 3.14, Transportation; Chapter 4.0, Alternatives
Amrita Salm	Email	June 16, 2025	• Aesthetics • Congestion, traffic • Removal of trees • Noise • Pollution	Section 3.1, Aesthetics; Section 3.2 Air Quality; Section 3.3, Biological Resources; Section 3.11, Noise; Section 3.14, Transportation
Carole and Clifton Magness	Email	June 23, 2025	• Opposed to the Project	Comment noted. Not applicable to the content in the EIR
Patty Oshea	Email	June 23, 2025	• Opposed to the Project • Congestion, traffic • Aesthetics	Section 3.1, Aesthetics; Section 3.14, Transportation
Davis Mersereau	Email	June 23, 2025	• Recommendations to aim for 5–6 percent annually over the term, with periodic CPI escalations and FMV resets to reflect changing market conditions • Recommendation to negotiate thresholds for revenue share to offer upside for the City without overburdening the hotel operator • Recommendation to include labor-related mandates in a lease for this public land, including requiring the developer to pay employees above market rate • Recommendation to ensure the new trail is 10-foot wide to match the existing trail width	Section 3.13, Recreation
Anne and Jack Wilcock	Email	June 24, 2025	• Support of the Project	Comment noted. Not applicable to the content in the EIR

Individual/Agency	Format of Comment	Date Comment Received	Summary of Comments	Chapter/Section
Albert Medel, Jr.	Email	June 24, 2025	• Opposed to project location • Traffic, safety • Water use	Section 3.14, Transportation; Section 3.16, Utilities and Service Systems; Chapter 4.0, Alternatives
Gary and Geri Campopiano	Email	June 25, 2025	• Recommendation to charge for parking • Aesthetics • Air Quality • Utilities and Service Systems • Hazards • Noise	Section 3.1, Aesthetics; Section 3.2 Air Quality; Section 3.8, Hazards and Hazardous Materials; Section 3.11, Noise; Section 3.14, Transportation; Section 3.16, Utilities and Service Systems
Myfa Cirinna	Email	June 25, 2025	• Opposed to losing current parking lot • Congestion, traffic	Section 3.14, Transportation
Julia Predmore	Email	June 25, 2025	• Opposed to project location • Parking • Noise • Congestion, traffic • Zoning	Section 3.10, Land Use and Planning; Section 3.11, Noise; Section 3.14, Transportation; Chapter 4.0, Alternatives
Tom and Judy Nielsen	Email	June 24, 2025	• Opposed to project building and notes that parking lot is needed	Section 3.14, Transportation
C Kathleen Lord	Email	June 25, 2025	• Impact on open space • Parking • Removal of trees • Affect views, Aesthetics • Water table • Neighborhood public use, recreation • Emergency safety plans • Opposed to size of building	Section 3.1, Aesthetics; Section 3.3, Biological Resources; Section 3.8, Hazards and Hazardous Materials; Section 3.9, Hydrology and Water Quality; Section 3.13, Recreation; Section 3.14, Transportation; Chapter 4.0, Alternatives
Christine Culver	Email	June 25, 2025	• Congest, traffic, safety • Pollution • Impact views • Water use	Section 3.1, Aesthetics; Section 3.2 Air Quality; Section 3.14, Transportation; Section 3.16, Utilities and Service Systems

Individual/Agency	Format of Comment	Date Comment Received	Summary of Comments	Chapter/Section
Betty Songer	Email	June 25, 2025	• Public use zoning • Tree removal • Traffic, safety • Noise • Excessive lighting • Parking • Water use • Work force	Section 3.1, Aesthetics; Section 3.3, Biological Resources; Section 3.10, Land Use and Planning; Section 3.11, Noise; Section 3.14, Transportation; Chapter 5.0, Other CEQA Consequences
Leslie Gascoigne	Email	June 27, 2025	• Diminish views, aesthetics • Impact access to parking • Water use • Sea level rise • Congestion, traffic, safety • Cumulative impacts	Sections 3.1 through 3.16 for cumulative impacts; Section 3.1, Aesthetics; Section 3.14, Transportation; Section 3.16 Utilities and Service Systems
Oliver Circosta	Email	June 25, 2025	• Congestion, parking • Traffic, safety • Aesthetics • Noise • Sensitive habitat • Seasonal flooding • Water use, stormwater runoff and pollution • Tree removal • Community character	Section 3.1, Aesthetics; Section 3.3, Biological Resources; Section 3.9, Hydrology and Water Quality; Section 3.11, Noise; Section 3.14, Transportation
Kameron Dayka	Email	June 25, 2025	• Loss of parking	Section 3.14, Transportation
Ian McCurry	Email	June 25, 2025	• Opposed to the Project • Congestion, traffic, safety • Loss of open space • Impact to ocean view	Section 3.1, Aesthetics; Section 3.13, Recreation; Section 3.14, Transportation

Individual/Agency	Format of Comment	Date Comment Received	Summary of Comments	Chapter/Section
Andres Gebhart	Email	June 26, 2025	• Parking, traffic, safety • Impact to views • Water quality and use • Noise • Pollution • Removal of open space	Section 3.1, Aesthetics; Section 3.2 Air Quality; Section 3.9, Hydrology and Water Quality; Section 3.11, Noise; Section 3.13, Recreation; Section 3.14, Transportation;
David Ledig	Email	June 26, 2025	• Opposed to the Project • Opposed to project location • Concerned about selling public lands to a private company	Chapter 4.0, Alternatives
Kristin Larson	Email	June 26, 2025	• Concerned about new parking lot • Concerned about loss of wild-land corridor and open space • Notes that alternatives should include No Action Alternative, one alternative with subterranean parking, and one alternative with elimination or reduction of Parking Lot 4	Section 3.3, Biological Resources; Section 3.13, Recreation; Section 3.14, Transportation; Chapter 4.0, Alternatives
Amy Marie Orozco	Email	June 26, 2025	• Safety, opposed to project location • Tsunami Hazard zone, safety • Water use, hydrology and water quality • Noise, notes that specific noise insulation standards to ensure interior noise levels in habitable rooms do not exceed 45 dB CNEL (Community Noise Equivalent Level) • Aesthetics • Concerned about paving over open land • Population and housing • Congestion, traffic, parking	Section 3.1, Aesthetics; Section 3.3, Biological Resources; Section 3.6, Geology and Soils; Section 3.9, Hydrology and Water Quality; Section 3.11, Noise; Section 3.13, Recreation; Section 3.14, Transportation; Chapter 4.0, Alternatives; Chapter 5.0, Other CEQA Considerations
Vicki Stevenson	Email	June 26, 2025	• Opposed to the Project • Noise and vibration	Section 3.11, Noise

Individual/Agency	Format of Comment	Date Comment Received	Summary of Comments	Chapter/Section
Alison M. Johnson	Email	June 26, 2025	• Legal liability for the City • Sea level rise • Congestion, parking • Emergency evacuation routes, safety • Concerned about project location, tsunami evacuation zone • Noise • Loss of parking, open space • Loss of mountain views • Water use • Concerns of where employees will live	Section 3.1, Aesthetics; Section 3.6, Geology and Soils; Section 3.11, Noise; Section 3.13, Recreation; Section 3.14, Transportation; Section 3.16, Utilities and Service Systems; Chapter 5.0, Other CEQA Consequences
Derva Brewer	Email	June 26, 2025	• Opposed to the Project • Light pollution • Noise pollution • Congestion, traffic • Tree loss	Section 3.1, Aesthetics; Section 3.3, Biological Resources; Section 3.11, Noise; Section 3.14, Transportation
Danielle Andrea	Email	June 27, 2025	• Opposed to the Project	Comment noted. Not applicable to the content in the EIR
Pamela Enticknap	Email	June 27, 2025	• Concerns of proposed egress • Traffic, safety, emergency exit	Section 3.14, Transportation
Alonzo Orozco	Email	June 27, 2025	• Water use • Lack of water flow and poor water quality • Concerns with rooftop pool and water conservation • Tsunami hazard zone concerns, seawater intrusion • Opposed to project location	Section 3.6, Geology and Soils, Section 3.9, Hydrology and Water Quality; Section 3.16, Utilities and Service Systems; Chapter 4.0, Alternatives
Ariana Katovich, Tellus Law Group	Email	June 27, 2025	• Stormwater run-off, flooding, and hydrology • Congesting, parking, safety • Noise and air pollution, greenhouse gas emissions • Emergency access • Impacts of lighting on neighborhoods and migratory bird species • Noise and vibration • Loss of privacy • Loss of natural spaces	Sections 3.1 through 3.16 for cumulative impacts; Section 3.1, Aesthetics; Section 3.2 Air Quality; Section 3.3, Biological Resources; Section 3.6, Geology and Soils; Section 3.8, Hazards and Hazardous Materials; Section 3.9, Hydrology and Water Quality; Section 3.10, Land Use and Planning; Section 3.11, Noise; Section 3.13, Recreation; Section 3.14, Transportation; Section 3.16, Utilities and Service Systems; Chapter 4.0, Alternatives; Chapter 5.0, Other CEQA Consequences

Individual/Agency	Format of Comment	Date Comment Received	Summary of Comments	Chapter/Section
			• Construction impacts including noise, dust, vibration, increased traffic, truck trips, and parking • Impacts on wildlife, habitat and nests, nesting birds, wildlife movement corridors, vegetation • Request for species-specific surveys • Cumulative impacts • Tree removal • Parking, transportation and circulation impacts • Coastal zone and local coastal plan compatibility • Tsunami zone and sea level rise • Air quality and greenhouse gas emissions • Water resources • Scenic resources • Recreation and recreational designation • Request for range of project alternatives • Mitigation measures should be clearly described • Consistency and compatibility with applicable planning regulations • Contamination, hazards and hazardous materials	
Elizabeth Patsch	Email	June 27, 2025	• Congestion, traffic • Parking, emergency exits, safety • Air quality • Noise and vibration • Concerns with proposed bike path • Concerns with wildlife corridor, excess light • Air quality and greenhouse gas emissions	Section 3.2 Air Quality; Section 3.3, Biological Resources; Section 3.7 Greenhouse Gas Emissions; Section 3.11, Noise; Section 3.14, Transportation
Patricia Escalera	Email	June 27, 2025	• Opposed to the Project • Congestion, traffic, safety • Noise and vibration • Concerns with tree removal	Section 3.3, Biological Resources; Section 3.11, Noise; Section 3.14, Transportation

Individual/Agency	Format of Comment	Date Comment Received	Summary of Comments	Chapter/Section
Eileen Marcussen	Email	June 27, 2025	• Concerns with Project location • Parking, safety, ingress and egress • Traffic • Noise • Air pollution • Ecological impacts	Section 3.2 Air Quality; Section 3.3, Biological Resouces; Section 3.11, Noise; Section 3.14, Transportation; Chapter 4.0, Alternatives
Stephen Marcussen	Email	June 27, 2025	• Exhaust fumes, air quality • Noise • Parking • Impacts on wildlife • Light pollution • Ingress and egress, safety • Flooding potential • Emergency exits • Congestion, traffic	Section 3.1, Aesthetics; Section 3.2, Air Quality; Section 3.3, Biological Resources; Section 3.11, Noise; Section 3.14, Transportation
Linda Short	Email	June 27, 2025	• Parking, traffic, safety • Emergency exits • Tsunami hazards • Loss of natural space • Impact on views	Section 3.1, Aesthetics; Section 3.3, Biological Resources; Section 3.6, Geology and Soils; Section 3.13, Recreation; Section 3.14, Transportation
Cynthia Naughon	Email	June 27, 2025	• Land use and planning • Opposed to Project location • Congestion, parking, safety • Hazardous materials • Noise pollution • Water use • Energy use • Utilities and public services • Concerns of increased demand on workforce and housing	Section 3.5, Energy; Section 3.8, Hazards and Hazardous Materials; Section 3.10, Land Use and Planning; Section 3.11, Noise; Section 3.12, Public Services; Section 3.14, Transportation; Section 3.16, Utilities and Service Systems; Chapter 4.0, Alternatives; Chapter 5.0, Other CEQA Consequences

Individual/Agency	Format of Comment	Date Comment Received	Summary of Comments	Chapter/Section
Kenneth Gluck	Email	June 27, 2025	• Parking • Opposed to project size • Congestion, traffic • Water use	Section 3.14, Transportation; Section 3.16, Utilities and Service Systems; Chapter 4.0, Alternatives
Dede Borchard	Email	June 27, 2025	• Opposed to the Project • Loss of parking	Section 3.14, Transportation
Shawn C. White	Email	June 27, 2025	• Opposed to project • Cumulative impacts	Sections 3.1 through 3.16 for cumulative impacts;
John Ramsey	Email	June 27, 2025	• Opposed to the Project • Loss of parking • Ingress/egress, safety, emergency routes	Section 3.14, Transportation
Sunny Brucker	Email	June 27, 2025	• Loss of parking	Section 3.14, Transportation
Dianne Milani Johnson	Email	June 27, 2025	• Opposed to the Project • Loss of open natural views • Congestion, safety	Section 3.1, Aesthetics; Section 3.14, Transportation
Judy Nielsen	Email	June 27, 2025	• Opposed to the Project • Loss of parking	Section 3.14, Transportation
Mathew Lin, Native American Heritage Commission	Email	June 3, 2025	• Recommends compliance with AB 52 and SB 18 and consultation with California Native American Tribes • Recommendations for conducting cultural resource assessments	Section 3.4, Cultural Resources; Section 3.15, Tribal Cultural Resources
Anh Truong, California Public Utilities Commission	Email	June 18, 2025	• Recommends installing fencing between the new parking lot and the railroad right-of-way • Recommends investigating the impact of increased vehicular and pedestrian traffic on the Linden Avenue crossing and any necessary supplemental measures to mitigate this increase • Notes that any proposed crossing improvement project will require authorization from the CPUC through General Order 88-B	Section 3.14, Transportation

Individual/Agency	Format of Comment	Date Comment Received	Summary of Comments	Chapter/Section
Victoria Tang, California Department of Fish and Wildlife	Email	June 24, 2025	• Recommends the DEIR to provide detailed disclosure about effects on the environment • Recommends including a complete project description and range of alternatives • Recommends a biological resources assessment that includes emphasis on identifying endangered, threatened, rare, and sensitive species; regionally and locally unique species; and sensitive habitats • Recommends the DEIR to provide a thorough discussion of direct and indirect impacts expected to affect biological resources with specific measures to offset such impacts • Recommends discussion of cumulative biological impacts • Recommends avoiding impacts to nesting birds and clearing to occur outside of peak avian breeding season • Recommends the DEIR to include specific and detailed mitigation measures • Recommends the DEIR to include compensatory mitigation measures for the Project's significant impacts (direct and/or through habitat modification) to sensitive and special status plants, animals, and habitats • Recommends the DEIR to include measures to protect the targeted habitat values in perpetuity for proposed mitigation lands • Recommends that the Project proponent seek appropriate take authorization under CESA prior to implementing the Project • Notes that CDFW generally does not support the use of translocation or transplantation • Notes that a Scientific Collecting Permit would be necessary if there is a plan to capture and relocate wildlife • CDFW recommends assessing whether a Lake and Streambed Alteration Agreement (LSAA) with the applicant is required prior to conducting the proposed activities	Section 3.3, Biological Resources

Individual/Agency	Format of Comment	Date Comment Received	Summary of Comments	Chapter/Section
			• Strongly discourage development in or conversion of wetlands • CDFW recommends the City require the Project Applicant to provide a native plant palette for the Project	
Sam Fearer, California Coastal Commission	Email	June 26, 2025	• Recommends the DEIR should include a discussion regarding lower cost overnight accommodations, as well as an analysis as to whether the proposed project meets the definition of luxury overnight accommodations and if so, what measures may be proposed or required to provide for a component of lower cost accommodations in order to evaluate the subject project's consistency with both the Coastal Act and LCP • Concerns of loss of parking • Request an addition parking study for peak season (spring/summer)	Section 3.10, Land Use and Planning; Section 3.14, Transportation
Amanda Dobrov, Santa Ynez Band of Chumash Indians	Email	June 27, 2025	• Requests to have tribal cultural monitors on site during all ground disturbing activities • Requests that an archaeologist, meeting the Secretary of the Interior's standards, be on site during ground disturbing activities to support our tribal cultural monitors • Notes that the Phase I Archaeological Resources Report fails to mention that excavations at CA-SBA-007 led to the discovery of at least 540 ancestral Chumash burials • Notes that the second site, CA-SBA-006, located 0.82 miles away from the project area has had at least four ancestral Chumash burials excavated and should be included into consideration a site that has known burials, even if it is 0.3 miles outside of the arbitrary buffer	Section 3.4, Cultural Resources; Section 3.15, Tribal Cultural Resources

TABLE A-3-2
SCOPING MEETING VERBAL COMMENTERS

Speaker	Summary of Comments	Chapter/Section
Speaker 1	Parking concerns; ingress/egress 10 feet from the railroad.	Section 3.14, Transportation
Speaker 2	Modernization all over the world is ruining the world. Why destroy a beautiful thing which will happen if this building comes through? The SPOT hamburger place is already paved. Property is beautiful.	Section 3.1, Aesthetics
Speaker 3	Worried about water. Where will you get water for the rooms, pool, and laundry?	Section 3.16 Utilities and Service Systems
Speaker 4	Mandatory findings of significance. Does the Project have individual impacts or cumulatively considerable impacts. Hotel and parking lot 4 will cause impacts. Loss of scenic vistas, noise, tree removal, congestion. Linden square is major project. Palms, Nugget. Chevron. Cumulative projects are considerable.	Sections 3.1 through 3.16 for cumulative impacts; Chapter 1.0, Introduction; Section 3.1, Aesthetics; Section 3.3, Biological Resources; Section 3.11 Noise; Section 3.14, Transportation
Speaker 5	Rigged vote, no meant yes. Building is too high. Nobody wants it. City council folks aren't here as they must have been paid off.	Section 3.1, Aesthetics
Speaker 6	Crosses the intersection daily. Stopped by the intersection at 1:30pm, to look at track, train, and trees. Red Farrin flew by. Defer the Project. Send it somewhere else.	Section 3.3, Biological Resources; Section 3.14, Transportation
Speaker 7	Parking is getting worse since the new project on Linden Street. Not a good fit for the neighborhood. There isn't enough parking.	Section 3.14, Transportation
Speaker 8	Impacts to schools.	Section 3.12, Public Services
Speaker 9	Every time I hear the term Surfliner Inn I cringe. Wildlife, beauty, ocean, mountains view in Carpinteria. A City with a boutique hotel will have guests that don't want to see nature. Worried about change to Carpinteria.	Section 3.1, Aesthetics; Section 3.3, Biological Resources
Speaker 10	Worried about density. Don't need 36 more rooms. Lack of safe access. Parking lot goes from the Spot to the railroad tracks. Lack of flow in the parking lot. It's the only City lot with one way in and one way out. What happens when RV comes in, or ADA vans. Only 10 combined parking spots. Car exhaust concerns when we add additional 93 spots. Light pollution. Active salt marsh is a migratory bird path. I have alternatives. Wrong proposal. Wrong location. Where is the report about cumulative impacts. Where is the no project alternative.	Sections 3.1 through 3.16 for cumulative impacts; Section 3.1, Aesthetics; Section 3.2, Air Quality; Section 3.3, Biological Resources; Section 3.12, Public Services; Section 3.14 Transportation; Chapter 4, Alternatives
Speaker 11	No ordinary project. City owned property turned into a money making project. Project description concerns. Hotel has one use. Traffic and noise concerns. Reduced quality of life. Staff coming/going. Delivery trucks. Service vehicles. Guests. It's a pipe dream that guests will be coming off the Amtrak. Need to protect these neighborhoods. Creates low paying job which makes a need for low income housing. Provide housing affordability. Does the City need another hotel. If City wants partnerships, it should be with housing.	Chapter 2.0 Project Description; Section 3.11 Noise; Section 3.14, Transportation; Chapter 5.0, Other CEQA Consequences
Speaker 12	The City will approve the project no matter what the public says and the findings of the EIR. Tourist dollars are more important for the City. Are City decision makers aware we don't want to become other commercial cities? Destroys the feeling of downtown. Destroy mountain views. Use of scarce water supply. Noise. Environmental impacts. Proposed new parking lot is a disaster waiting to happen. Hopefully all alternatives will be considered including a no project alternative.	Section 3.1, Aesthetics; Section 3.11 Noise; Section 3.16 Utilities and Service Systems; Section 3.14, Transportation; Chapter 4.0, Alternatives

Speaker	Summary of Comments	Chapter/Section
Speaker 13	Traffic impact of parking lot 4. Alternatives should include parking lot 4 to be a strolling park with benches. Possible alternative is property between Ash and Holly west of community garden north of railroad tracks for parking lot 4. Parking in beach area during summer is crazy.	Section 3.14, Transportation; Chapter 4.0, Alternatives
Speaker 14	Purpose of the Project is to build a hotel. City proactively investigated ways for more City revenue. Must include revenue in EIR. Project revenue has been studied and needs to be updated. The NOP states 10-11 employees. Hotel salary is low, only 5 percent over minimum wage. Effect of Project is increase deficiency of housing. Need 21 subsidized units, approximately $14 million to build. Project description must be updated to reflect real purpose which is to build revenue for the City.	Chapter 2.0 Project Description; Chapter 5.0, Other CEQA Consequences
Speaker 15	Echoes most of the comments made here. I want the noise and water to be evaluated in the EIR. Freight train in the middle of the night with echo bouncing off the hotel. How the building will heighten the noise. Sampling of residents affected by soundwalls which makes an amphitheater in backyard. How much water will be used? How often is laundry done?	Section 3.11 Noise; Section 3.16 Utilities and Service Systems
Speaker 16	My rental property will be the exit for the parking lot. There will be an emergency gate open only for emergency. Avocado festival will make the gate open. Affects the entire downtown neighborhood. Hotels built at ground level. Lots of drainage comes out at Elm. Once ground becomes saturated and water comes from parking lot, my house will become flooded. I like the property as it is. Wildlife, blue herons, skunks, possums. Nice 10-foot wide gravel walkway will be replaced with a parking lot and a 5-foot wide pathway.	Section 3.3, Biological Resources; Section 3.9, Hydrology and Water Quality; Section 3.14, Transportation
Speaker 17	We need Judge Judy. I live against a wildlife corridor. Parking lot 4 is a wildlife corridor that transitions from the slew to the State park. Coyotes, blue herons. Important to support our wildlife. No parking lot that touches a private home right now in the City. Subjecting us to a horror of all horrors to quality of life. Don't do the parking lot that touches private homes. Rooftop swimming pool, rooftop bar, noise will carry 75 feet to our bedrooms. Don't want to hear drunks, marriages, pool splashes. You should have a 3-ring binder with signatures of over 1,000 people to not allow this development to proceed.	Section 3.3, Biological Resources; Section 3.11 Noise; Section 3.14, Transportation
Speaker 18	Restaurant for a 32-room hotel is unusual for such a small property. Restaurants make a mess, air quality, smoke, smell, grease, high water usage, issues with plumbing, grease trap. Smells bad. Delivery trucks just for the restaurant including a guy who cleans said grease trap. Laundry, produce guy, meat guy. Noise of the restaurant patio. Restaurants low for profit margin.	Section 3.11 Noise; Section 3.14, Transportation Section 3.16 Utilities and Service Systems
Speaker 19	I've handled dozens of CEQA reviews. If done right, development can be done right. CEQA allows you to hold your public officials responsible. Identify the following for EIR: (1) Nonexistence of subterranean parking. Why is that? Surface parking not usually permitted in coastal areas. Not impervious parking. Don't say the cost of two levels of subterranean parking is too high or affects the water table. (2) parking lot emergency access onto Elm Street, big concern. If built, it will be used regularly. Ramp will result in stormwater runoff. Noise and lighting also severe. Impact to wildlife in the open space. None will exist if subterranean parking. (3) Potential existence of underground contamination of this site. History of spills of hazardous materials, probably never cleaned up, and can add dangerous odors in the hotel. If contamination in this area, the developer would have to clean up when building subterranean parking lot.	Section 3.1, Aesthetics; Section 3.3, Biological Resources; Section 3.8, Hazards and Hazardous Materials; Section 3.9, Hydrology and Water Quality; Section 3.11 Noise; Section 3.14, Transportation; Chapter 4, Alternatives

Speaker	Summary of Comments	Chapter/Section
Speaker 20	Zoning map shows as recreation district. How does parking lot 4 become a feature in a recreation district. There is no public parking that abuts residential properties. Conjunctive parking, EV charging, and public restrooms are not part of beach neighborhood. Public restrooms require constant service. Will push the shoppers and drinkers outside of DT and into the residential area. Constant movement on the lots. Noise only in the daytime. Cars coming/going in the day and evening, exhaust and noise. Car lights shining into abutting residences. Parking lots must be greatly lit. Proposed parking lot will attract visitors visiting the bars. Existing parking lot 3 has commercial vehicles for overnight parking. Commercial parking will spill into parking lot 4 as the hotel will push them away. The City will lose the walking path which is an extension of the bluffs. Reduced to 5-foot width isn't acceptable. New trail shares the same space with handicap. People using the trail will be subject to exhaust fumes. Subterranean parking is a wise choice.	Chapter 2, Project Description; Section 3.1, Aesthetics; Section 3.10, Land Use and Planning; Section 3.11 Noise; Section 3.12, Public Services; Section 3.13, Recreation; Section 3.14, Transportation
Speaker 21	I support the Project. The City hired consultant will do a great job.	Comment noted. Not applicable to the content in the EIR
Speaker 22	1) utilities concern, power poles, urge to remove all poles; 2) hazards and transportation: southeast corner of Amtrak where crossing arm is, some changes coming from Amtrak. 3) land use and relationship to Amtrak platform – have coordination with setback design. Hotel is a 0-foot setback due to commercial uses. 4) Process. Lot 4 to be constructed first before hotel construction begins. Is this a separate project? Part of hotel? Capital improvement project? Is it illegal? 5) Alternative: flip Garden to lot 4.	Section 3.8, Hazards and Hazardous Materials; Section 3.10, Land Use and Planning; Section 3.14, Transportation; Section 3.16 Utilities and Service Systems; Chapter 4.0, Alternatives
Speaker 23	Don't build out Carp. Instead of approving another hotel. The City should charge for parking to create income for the City. Following are problems: aesthetics, out of scale for neighborhood and block mountain views. Removal of trees will change the feel and shaded parking. Front of hotel sticks out on Linden sidewalk creating a safety hazard. If building was moved west on the lot could be helpful. Support no project alternative. Employees most likely coming 30-40 miles from a more affordable community from the north or south. Air pollution will add to issue. Utility and service systems. Not enough water. Groundwater basins are over drafted. More droughts coming. Project Site is within the City's tsunami zone. Emergency access to cause injuries. Move hotel from this crowded intersection. Underground tanks below lot 4 are leaking. Noise, railroad trains, horns, don't seem to mix with hotel guests. Rooftop noise bother residents. Automobile noise and uses of lot will disturb residents.	Section 3.1, Aesthetics; Section 3.2, Air Quality; Section 3.3, Biological Resources; Section 3.6, Geology and Soils; Section 3.8, Hazards and Hazardous Materials; Section 3.9, Hydrology and Water Quality; Section 3.11 Noise; Section 3.12, Public Services; Section 3.14, Transportation; Section 3.16 Utilities and Service Systems; Chapter 4.0, Alternatives
Speaker 24	Parking and traffic studies should be done in high peak times. Understand post pandemic. Parking lot on ocean side of tracks will make it desirable to park there versus at the beach. What constitutes an emergency for emergency access? How emergency access will be regular permit access, regulatory taking? Direct and indirect cumulative impacts on light, noise, greenhouse gases. Cumulative impacts on pool use, parking, EV charging, need of staff. Construction impacts, noise and dust on ecological resources. Include wildlife studies. Migratory wildlife corridors. Wetlands and flood areas. Aesthetics impacts. Need a traffic study to identify mitigation measures. The EIR needs to address impacts to County/City roadways. Access points. Alternative impacts evaluated – evaluate full range of alternatives. Evaluate project consistency with General Plan, land use zoning. Map those areas affected.	Section 3.1, Aesthetics; Section 3.3, Biological Resources; Section 3.7, Greenhouse Gas Emissions; Section 3.9, Hydrology and Water Quality; Section 3.10, Land Use and Planning; Section 3.11, Noise; Section 3.14, Transportation; Section 3.16 Utilities and Service Systems; Chapter 4.0, Alternatives

Speaker	Summary of Comments	Chapter/Section
Speaker 25	Government Code…not to be used for anything besides City purpose.. Conjunctive parking and building hotel on a public parking lot will have impacts to the downtown, beach visitors and businesses on Linden. Major adverse impact on the environment with shared parking spaces. One space for every guest room. One space for each employee. We need 53-55 parking spaces. The traffic study has peak parking demand of 55 weekday and 56 weekends. 26 more spaces not a benefit to the Project due to hotel demand. 139 – 55 demand of hotel = reduction of 29 spaces from what we currently have in parking lot 3. Parking lot 3 doesn't have EV space, and will now build 25 EV spaces. Now 54 reduced spaces due to EV. Walker study was latest study done in 2020. Study does seasonable demands during summer. Factor in demand of hotel for conjunctive parking. Revisit the Walker Study.	Section 3.14, Transportation
Speaker 26	I have parking concerns. Boutique hotel visitors expect to have parking. The 46 spaces will not be for the general parking; it will be for hotel guests. Shortage is even more.	Section 3.14, Transportation
Speaker 27	Sea level rise concerns. Proposed hotel and parking lot 4 is in the tsunami zone.	Section 3.6, Geology and Soils; Section 3.9, Hydrology and Water Quality
Speaker 28	What about the garden parking? Those garden visitors park on the street.	Section 3.14, Transportation
Speaker 29	I am worried about parking. Put a large City parking lot and a dog park there and a shuttle.	Section 3.14, Transportation
Speaker 30	I have concerns about planned access from southside of track to the new double track.	Section 3.14, Transportation
Speaker 31	Has Metrolink been reviewed as Metrolink will create more parking needs?	Section 3.14, Transportation

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Scoping Meeting Comments

From: john jackson
To: Mindy Fogg
Subject: Surfliner comments
Date: Sunday, June 1, 2025 12:50:17 PM

****EXTERNAL EMAIL****

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We are STRONGLY opposed to the Surfliner project. I am a "newcomer" to town, marrying into a 3rd generation Carpinteria family and moving here in the 1980's. I grew up in Redondo Beach, another "small, charming" beach town at the time. Then the developers discovered how to change the vibe, and that was build, build, build. I fear the same is coming here.

In no way do we believe this project benefits all citizens of Carpinteria. Local business appears to wholeheartedly support having a bougie "Inn" to further bring in more tourists. Jobs created (nearly always at minimum wage or close to it) would marginally help those of us who don't own a business. All it will do is bring in more traffic, people and more to spoil what we all treasure.

Public space should stay public, not auctioned off to the highest bidder. Current downtown development is done on private property as it should be. I feel that the parking lot and train stop belongs to ALL of us as public property. We pay taxes to maintain the property,and to lease it to developers to make a buck is against all we believe in

Like I said, I've seen this before. These are changes that will not be good for Carpinteria if one enjoys what we have now. Please reject this project in the name of the "last small, great beach town" in our part of California.

John Jackson
Becky (Franco) Jackson
1290 Byrnes Lane

FROM THE DESK OF

Matthew Roberts

June 4, 2025

Ms. Mindy Fogg
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013
RE: Notice of Preparation (NOP) for a Draft Environmental Impact Report, Surfliner Inn

Dear Ms. Fogg,

Please consider my response to the City's request for comments pertaining to the Surfliner Inn Project.

For much of California's early history, rail travel was the preferred way to traverse its scenic coastline. Trains connected communities, allowing residents and visitors to experience the state's natural beauty without the burden of personal vehicles. The rhythm of rail travel shaped coastal towns, placing train stations at the heart of urban centre and fostering pedestrian-friendly environments. However, as the automobile rose to dominance in the mid-20th century, urban planning shifted dramatically. Highways replaced rail lines as primary arteries of movement, and businesses, hotels, and services relocated along these roads to cater to motorists. Car-centric development transformed the landscape, prioritizing sprawling parking lots, multi-lane roads, and auto-dependent access over walkable, interconnected spaces. This shift caused many communities to change character to reflect more on the highway than the community's character. Carpinteria is a perfect example.

The Surfliner Inn is remarkable precisely because it resists this automobile-driven urban design formula. Located next to the Amtrak Carpinteria Station, the Inn embraces a transit-oriented approach, allowing visitors to arrive via rail and experience the coastline without reliance on cars. This refreshing return to rail-friendly lodging provides benefits beyond convenience—it promotes sustainable travel, reduces vehicle emissions, and fosters a deeper engagement with Carpinteria's natural beauty. By prioritizing pedestrian and bicycle access, the Inn encourages a slower, more immersive connection with the coastal environment, reflecting a renewed appreciation for accessibility, conservation, and thoughtful urban design and by including lot of electrical vehicle charging stations, the project helps rethink what fuel cars should use.

How does the Inn conform to our local policies? The Carpinteria General Plan and Coastal Land Use Plan outlines policies designed to maintain the city's small beach-town character while fostering economic vitality and recreational opportunities. Carpinteria's General Plan and Coastal Land Use Plan emphasizes maintaining the city's small beach-town character while fostering economic vibrancy, including support for visitor-serving businesses in the downtown area. The plan recognizes the importance of tourism-related businesses, particularly those that enhance public access to coastal resources and contribute to the local economy.

Additionally, the plan integrates alternative transportation policies and sustainability initiatives, which align with efforts to make downtown more accessible to visitors without relying solely on automobiles. This approach supports businesses that benefit from pedestrian-friendly tourism such as our Linden Avenue shops and restaurants, reinforcing Carpinteria's commitment to balancing economic growth with environmental stewardship

The Surfliner Inn project aligns with several of these objectives, particularly in land use, community development, and sustainability.

Consistency with City Planning Goals

- **Land Use & Economic Development:** Zoned under *General Commercial and Open Space/Recreation*, the Inn supports tourism-related businesses like hotels, contributing to local economic growth.
- **Community Character:** The plan prioritizes Carpinteria's coastal identity while enhancing cultural and economic opportunities. The Surfliner Inn's *contemporary cottage-style design* and *visitor center* complement this vision.
- **Sustainability & Accessibility:** The project integrates *electric vehicle charging stations, bicycle storage, and permeable parking surfaces*, while offering proximity to *public transportation*, aligning with environmental and mobility policies.
- **Public Amenities:** Encouraging *public access to coastal resources*, the Inn enhances visitor and local experiences with its *rooftop deck, café, and event spaces.*

Environmental Benefits & CEQA Compliance

The Surfliner Inn incorporates several environmentally friendly features that align with the *California Environmental Quality Act (CEQA)*:

- **Sustainable Infrastructure:** *Permeable parking surfaces* help reduce stormwater runoff, improve groundwater recharge, and mitigate saltwater intrusion.

- **Electric Vehicle Charging:** *25 EV charging stations* support California's transition to cleaner air transportation.
- **Bicycle-Friendly Design:** *Dedicated bicycle storage and parking* encourage alternative transportation, minimizing vehicle emissions.
- **Coastal Trail Expansion:** The project extends the *Coastal Vista Trail*, enhancing pedestrian and bicycle access to coastal resources.
- **Energy Efficiency & Water Conservation:** *Modern energy-efficient systems* and *water-saving landscaping* reduce the Inn's environmental footprint.

Transit-Oriented Development & Sustainable Urban Planning

The Inn's location next to *Amtrak Carpinteria Station* provides environmental benefits aligned with CEQA and urban planning principles:

- **Reduced Vehicle Emissions:** With direct access to *Amtrak's Pacific Surfliner*, guests can travel to and from the Inn without relying on personal vehicles, lowering traffic congestion and greenhouse gas emissions.
- **Encouraging Public Transit Use:** Its proximity to the train station makes rail travel more convenient, supporting California's push for *low-carbon transportation.*
- **Walkability & Alternative Transportation:** Unlike other local hotels, the Inn's location encourages *pedestrian-friendly tourism* and eco-friendly mobility via *bicycle storage and rental options reducing demand for downtown parking*.
- **Optimized Land Use:** By repurposing an *underutilized city parking lot*, the project optimises urban space and downtown vitality without expanding into undeveloped land.
- **Noise & Air Quality Considerations:** The *Environmental Impact Report (EIR)* will assess train-related noise and air quality impacts, ensuring mitigation measures maintain a comfortable environment for guests and the community.

Coastal Access & Environmental Consciousness

Carpinteria has a responsibility to promote coastal access for all visitors, ensuring its shoreline remains open for exploration, enjoyment, and education. The Surfliner Inn reinforces this mission by providing accommodations that encourage longer stays and deeper engagement with the coastal environment. By offering visitors a comfortable base just steps from the ocean, the Inn fosters an appreciation for the area's natural beauty and ecological significance. This direct

exposure cultivates environmental consciousness, inspiring stewardship and a collective desire to protect and preserve these coastal spaces.

Eco-tourism plays a vital role in promoting sustainable travel practices, benefiting both the environment and local economies. The Surfliner Inn supports this movement by prioritizing *car-free travel*, integrating *sustainable design*, and reinforcing Carpinteria's small-town charm while modernizing its lodging options. Additionally, the project contributes to the community through *hotel bed taxes and revenue-sharing*, directly supporting the needs of locals.

By emphasizing *sustainable development*, the Surfliner Inn strengthens Carpinteria's reputation as an eco-tourism destination, allowing visitors to experience its coastal beauty while minimizing their environmental footprint.

The project aligns with *Resolution 5500*, reinforcing the city's commitment to economic vitality and environmental stewardship.

Sincerely yours,

Matthew Roberts

Matthew Roberts

Avomatt@gmail.com

From:	Coachakoch
To:	Mindy Fogg
Cc:	Carol Koch; Michael Ramirez; Nick Bobroff; John Ilasin; Natalia Alarcon; Monica Solorzano; Julia Mayer; Al Clark; Wade Nomura; Jena Acos
Subject:	NOP Public Comment: Hotel Sharing Public Parking Lots: Adverse Impacts
Date:	Tuesday, June 10, 2025 1:08:45 PM

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NOP Public Comment Period: Surfliner Inn Project

Comment Title: Hotel Sharing Public Parking Lots: Adverse Impacts for Day Visitors
CEQA Appendix G Issues: XVIII. Transportation: a), c), d).

Cumulative Impacts: This project proposal has two phases where the applicant is building the hotel on Parking Lot #3 (Lot #3) and the City is building a new Parking Lot #4 (Lot#4) across the tracks in the Beach Neighborhood. The parking lot part of the project has identifiable benefits to the City: increase in the number of overall parking spaces for downtown & beach usage and the addition of 25 EV parking spaces. The proposed benefits need to be analyzed in the 'context' of any individual adverse impacts to the environment: adverse impacts as to the nature of hotel parking needs versus daily visitor needs; the addition of EV spaces vs impacted number of non- EV spaces; and, the sharing a single entrance into the hotel and the remaining spaces in Lot #3. **Combining the following adverse environmental impacts shows the severity on a cumulative basis at the level of Potentially Significant Impact for the number of available parking spaces for non-EV vehicles daily downtown & beach visitors will be drastically reduced.**

Background: Downtown & Beach parking lot (Lot #3) has a total of 113 spaces. The City's new parking lot (Lot#4) will have a capacity of 93 spaces. The hotel will be built on Lot #3 leaving 46 spaces for a total of 139 spaces. An increase of 29 spaces from what exists today. The City will also add 25 EV spaces: note no EV spaces exists in Lot #3 today.

There are the following individual adverse environmental impacts when a hotel does not have its own private parking lot and uses public parking lots:

- The City uses the concept of conjunctive parking (shared daily spaces) to determine parking supply: daily shared parking spaces to shop during the day and then at night the same parking space for dinner. All technical parking studies done to date assumes the proposed hotel would operate under the City's conjunctive parking concept. The underlying assumption is that a hotel's user of a shared parking space on a daily basis is the same as daily may not be a correct assumption. A hotel user of public parking spaces is for up to a 24 hour period and hotel guests can occupy a space for multiple days (daily/weekends/weekly). Even if the hotel guests use their vehicles for daily sightseeing,

they return the same day which creates a greater daily demand from hotel users on available spaces. More like a heavy daily user throughout a day increasing the frequency of looking for a space versus the short timeframe daily visitor. The hotel has 36 guest rooms with 10-11 hotel employees per shift (3 shifts) and 7-8 restaurant/bar employees per shift (2 shifts). The applicant's own traffic study had peak (7 pm) shared total hotel parking demand of 56 on weekdays and 54 on weekends (ATE study Table 2, page 3, excludes employees).
- Technical Studies: The two major parking studies (Walker and ATE) have a number of parking demand assumptions that needs to be reviewed by the City: 1) Hotel employee parking demand hourly from 6 am to 12 pm of 3 to 10 spaces vs each shift having 10 to 11 employees. May need to review that the vast majority of employees will be driven or take a bike. 2) The existing demand counts of daily users in Lot #3 was collected on 10/14/2019 through 10/27/2019 with total occupied counts of 36 or 31.8% of capacity. Not exactly a high demand period. 3) The hotel demand from guests shows overnight usage of 20 spaces. May be more appropriate to illustrate a scenarios of low occupancy (10); middle occupancy (20); high occupancy (30). Note: the referenced ATE Table 2 shows 19 or 22 spaces as peak (7 pm) hotel guest demand which reflects only 50% or 61% occupancy rates. Is that the occupancy rate that was used in the annual financial benefits to the City?
- The other adverse impact is the street entry to the remaining Lot #3 will be a shared entry to the hotel and the remaining 46 spaces in Lot #3 (directly in front of the hotel's entrance). Time will tell whether those parking spaces will tend to be predominately used for the hotel.
- Lastly, the proposed addition of 25 EV spaces is certainly the correct public benefit. But, the adverse impact is the reduction of available spaces for non-EV spaces during high usage periods. Adverse impacts are mitigated when the spaces are incremental to the total inventory. So for instance, adding EV spaces in Lot #1 took away non-EV spaces since the footprint of Lot #3 stayed the same (reason that the businesses around Lot #1 complain about parking).

The cumulative adverse impact is the available supply for daily downtown and beach visitors with non-EV vehicles will be significantly reduced to what exists today (119 spaces Lot #3): potentially having only 58 to 68 available spaces of the project's planned number of 139 spaces for daily users who do not drive EV cars which is a drastic reduction from the current 119 spaces in Lot #3 (calculation: total project planned of 139 spaces less 25 new EV spaces less hotels peak demand 56 to 54). During high usage times of the year, the daily non-EV visitor to the downtown or beach will have significant adverse impact to number of parking spaces available as a result of a hotel use of public parking and the installation of 25 EV spaces.

The contextual impact of the above adverse impacts will mean a potentially significant lose of parking spaces for the daily downtown & beach visitors who drive non-EV vehicles. The City will need to perform their own traffic studies during peak summer periods; factor in the hotel usage which has very different demand on daily usage from daily visitors; and, provide a low/medium/high hotel occupancy rates to analyze high summer usage. Both the City's Walker and applicant's ATE studies are incomplete and inadequate in that regard.

Additionally, the City needs to identify enforceable mitigation measures for Lot #3 to remain a public parking lot and not evolve into a predominantly hotel lot.

As the lead agency, the City is obligated not to rely on incomplete/unverified assumptions which may result in arbitrary and capricious assessment of potential impacts. The City's proposed actions related to the public parking aspect of the project needs to be analyzed as to 'context' of the actions to determine whether the actions will significantly affect the environment for a portion of parking lot users.

Thank you for the opportunity to provide public comment,
Alan and Carol Koch

From: nab1031
To: Mindy Fogg
Subject: Fw: Surfliner Inn
Date: Wednesday, June 11, 2025 5:06:56 PM

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Re: Surfliner Inn

This project should not go forward in this location. The idea of moving the well placed City Parking Lot is not a good idea. It is currently well placed for the public who may want to be near the beach and the stores and restaurants. It is wrong to put the public parking lot behind the homes on Dorrance. It could attract undesirable people and noise right behind their homes. The entrance to the new lot could be dangerous as cars bunch up over the railroad tracks. I am also appalled at the idea of having a roof top swimming pool and a bar overlooking people's apartments or homes on 5 th Street. That is so wrong! I see no reason for the trees to be taken out and the mountain view obscured ruining the beauty of the area as well.

This project will negatively affect so many people. There is no positive for the beach community residents. I am one of them and I am disgusted by the very idea that the City would consider allowing a developer to build something on our public parking lot. I also think the wording on the ballot when people voted for this project was deliberately worded in such a way to confuse people. I know there were people who didn't want the project but misread the ballot wording and voted for it accidentally. To me this was done purposely and seems corrupt. The City should not allow this project to go forward and negatively affect residents, shoppers, beach goers and the environment.

Nancy Beebe
Carpinteria

From: Michelle Oyler
To: Mindy Fogg
Subject: Surfliner Development
Date: Thursday, June 12, 2025 8:00:42 AM

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Dear Ms. Fogg,
I would like to take this opportunity to express my concerns and issues with the proposed Surfliner Hotel project.

I do have concerns about the overall development of the 5th street property. I don't believe the City of Carpinteria will benefit financially to the degree necessary to outweigh the negative consequences of what the City and residents will lose. My greatest concern is the plan to relocate the public parking to the lot on Dorrance, behind The Spot.

I live on Ash Avenue, near Dorrance. I'm sure you are aware of the madness of the intersection at Linden and Dorrance when The Spot is open for business. As a local resident I drive through that intersection multiple times a day. It is the route taken by most of the residents of my neighborhood.
It isn't even summer yet and the near misses with pedestrians at that intersection is frightening. I am keenly aware that people gather at that corner to order and wait for food, cross both streets without consideration for traffic, ride bicycles and scooters carelessly, etc. I proceed cautiously when I make the turn. If that property becomes the default visitor parking lot the traffic, congestion and chaos will be out of control. Visitors will not have the experience to be aware of the issues with that intersection. The backup when the train arms are down will also add to the dangerous situation. This plan for parking is a serious accident waiting to happen.
Also, that property is not large enough to handle the parking needs of Carpinteria's busy tourist season as well as customers of The Spot.

I deplore the City to take this issue seriously and reconsider Surfliner's overall proposal and especially this ill conceived parking solution to mitigate the loss of the current public parking lot.

Thank you for your consideration.
Michelle Oyler

Reply Forward

From: Clark Bowdle
To: Mindy Fogg
Subject: Surfliner project
Date: Thursday, June 12, 2025 9:43:08 AM

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Hi Mindy,

I mover out of Santa Barbara to Carpinteria to enjoy the small quiet town of Carpinteria.
We have enjoyed the walking path next to the spot and hope it stays that way.
The missed managed parking responsibilities on this project is only going to lead us to a shortage nightmare like most beach towns throughout the USA now experience (shortage with paid parking).
Hotel expansions should be done out on Carpinteria Ave by the other hotels.

Back when this was on the ballet it was majorly confusing and make it a CLEAR choice that the homeowners of Carpinteria could vote on.

Thank you,
Clark Bowdle

From: Sandy Nargi
To: Mindy Fogg
Subject: Surfliner Hotel
Date: Thursday, June 12, 2025 10:36:30 AM

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Thank you for your careful consideration of adding the Surfliner Hotel to our beautiful town. In my opinion, it will be an excellent addition to the city. Having another hotel closer to the ocean will be a big boost to tourists and visiting guests. Building a new parking lot to replace the current one is an excellent solution to those who are concerned about losing the train depot lot. Your new proposed parking lot is literally just steps away.

As we have seen, the new Linden Square has added a whole new entertainment center to Carpinteria. The Surfliner Hotel will do just the same.

I vote YES on the Surfliner Hotel. Sorry we cannot be present for the meeting on June 16, but I wanted to be sure to share my feelings.

Take care. Sincerely, Sandy Nargi
Carpinteria Resident 805.220.8367 sandynargi@mac.com

From: Mario Nargi
To: Mindy Fogg
Subject: EIR Comments
Date: Thursday, June 12, 2025 10:39:39 AM

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Dear EIR Consultant: As a longterm Carpinteria resident who lives on the beach side of the railroad tracks, we fully welcome the addition of the Surfliner Hotel. It is a much needed hotel space in the beach area of Carp, provides accommodations at the train depot, enhances that portion of Linden Ave., and will be an excellent extension of the new Linden Square improvements which have become a major draw to downtown. All with no impact on parking. Carpinterians should be overjoyed to be the recipients of such a complex when most other cities' downtowns are becoming ghost towns.

As a side note, when will the Spot Burger outside eating area and parking lots be paved? A tremendous landmark but a terrible statement of what Carpinteria is.

Thank You For Your Consideration,
Mario Nargi
805.220.8366

From: Tia Greenfield
To: Mindy Fogg
Subject: Surfliner Inn
Date: Friday, June 13, 2025 8:35:38 AM

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We are firmly opposed to the development of the Surfliner Inn. This is a development that is not needed in Carpinteria. There are plenty of other hotels in Carp. We do not need the problems this development will cause, including parking, traffic, congestion, water use, noise, pollution, and a significant change to the heretofore small town feel. As if Linden Square development is not enough. Had the referendum on this development been more clear, we are sure it would have been defeated, and it is clear that nearly half of all voters opposed this development.

Let's keep Carp Carp!

Sincerely,

Tia Greenfield & Dennis Engler
6180 Via Real #45
Carpinteria, CA 93013

From: Mary Oeffling
To: Mindy Fogg
Subject: Proposed Surfliner Hotel Development | Traffic and Parking Concerns for EIR Consideration
Date: Friday, June 13, 2025 11:31:52 AM

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Mary Oeffling
4791 7th Street
Carpinteria, CA 93013

Date: June 12, 2025

City Council
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013

Regarding Proposed Surfliner Hotel Development | Traffic and Parking Concerns for EIR Consideration

Dear Members of the City Council,

I am writing as a concerned resident of Carpinteria to express strong opposition to the proposed hotel development currently under consideration. While economic development and tourism are important to our community, this project poses a number of serious environmental and public safety risks that cannot be overlooked. I am not opposed to the project per se - but to the proposed location.

First and foremost, the increased traffic that will result from this development will severely impact the flow of vehicles in our already narrow and congested beach access streets. The surge in daily vehicle volume—both from guests and service operations—will lead to elevated noise pollution, increased greenhouse gas emissions, and greater risks for pedestrians and cyclists. This is especially concerning given Carpinteria's reputation as a walkable, bike-friendly beach town.

Moreover, the proposed hotel, along with other proposed and new developments in the area, collectively do not provide adequate parking. This deficiency will inevitably push overflow parking into nearby residential neighborhoods (of which I am a resident), creating additional congestion, obstructing driveways, and heightening tensions between visitors and long-term residents. This already occurs on holiday weekends during the summer months, during Avofest, etc. In some locations, the parking plan introduces dangerous traffic patterns, including proximity to train crossing and a narrow ingress/egress that pose a serious threat to both drivers and pedestrians. While I am lucky enough to live by the beach, community garden and train station, those residents who don't will also feel the impact of challenging parking while trying to enjoy the beach, tend their garden spot, or take the train.

This project appears to prioritize commercial interests over the wellbeing and character of our community. I urge the City to conduct a thorough environmental review, including an updated traffic and parking study (post the opening of Linden Square), and to solicit deeper input from residents before moving forward with any approvals. The long-term impacts of this development demand careful, transparent consideration.

Carpinteria is a rare coastal gem—small in scale, rich in natural beauty, and guided by a deep sense of community. Let's work together to ensure that any new development enhances, rather than harms, the qualities that make our city so special.

Thank you for your time and consideration.

Mary Oeffling

From: Charis Forney
To: Mindy Fogg
Subject: SURFLINER Carpinteria impact
Date: Friday, June 13, 2025 11:45:35 AM

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Hello, I wish to speak my piece here:

First of all, my husband and I are part-time residents here in Carpinteria, paying property taxes on our property, and hoping to make it a permanent residence.

Yesterday I walked into town, Thursday afternoon Farmers' Market, and found parking to be at a minimum: the street spots along and around Linden all full and the lot across the street from the hardware store was overflowing with cars parked along the curbs. Imagine that image on a Friday/Saturday night with music events at the Arts Center or any of the multiple drinking establishments, or the Avocado Festival, or most summer evenings with the campers flowing into town. If not for the parking at the Amtrak Station, all neighborhood streets on either side of Linden will become congested and contentious issues for the residents. Soon there will be a need for a multilevel paid parking structure, adding to the sad evolution from small town beach community to another overbuilt congested city.

That leads me to discuss the lost ambiance and visual esthetics of this wonderful town. I grew up near NYC, and I've sadly watched the skyline there cause the disappearance of treasured views of Empire State Bldg. and Chrysler Bldg. to name a few charms of that city. I see the same occurring here on a much smaller scale, and yet to see buildings (houses, cottages, hotels, multiplex enclaves, etc.) growing laterally due to limited land is demoralizing to all who treasure the views of beloved trees, mountains, even trains cruising by, and of course, the shores/ocean views…which is why the homes around ours are building upwards to catch an ocean peek.

The convenient walking path between Linden and 4th/Holly Streets will surely get demolished by this proposed new parking lot next to The Spot; this also concerns me and many who live close enough to downtown to enjoy that safe walking route. Dorrance has no sidewalks for such a busy road!!

Thank you for allowing this space to give my opinion.

Sincerely,

Charis Forney

From: RITA ALAYA
To: Mindy Fogg
Subject: Surfliner Inn
Date: Friday, June 13, 2025 2:15:32 PM

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Hello,
I am a home owner and longtime resident of Carpinteria. I wish the proposed hotel/new parking lot would not be approved.

We have enough hotels! We have the campground full every summer and holidays, as well as beachfront accommodation apartments and condos all along Carpinteria beach. In town there are numerous motels. During the summer it is impossible already for locals to find parking by the beach. I don't believe adding a new parking lot will benefit locals at all.

The proposed hotel is way too big and would be an eyesore blocking ocean views. Carpinteria has a history as a small town community. Overtourism is a threat to that that cannot easily be undone. You can already see it happening; yes, it's great that people want to hang out and have drinks and shop and enjoy the beach…but let me know when they've gone home so I can enjoy my time in Carpinteria!

Also, water use is an issue, considering how much a luxury hotel consumes. All those showers, and linens to wash. We are still in a drought!

Whenever there is an event on Linden we have our farmer's market in the parking lot where the proposed hotel would be. I appreciate keeping the space for local use.

Rita Alaya
4526 El Carro ln.

Sent from Yahoo Mail for iPad

P: (626) 314-3821
F: (626) 389-5414
E: info@mitchtsailaw.com

Mitchell M. Tsai
Law Firm

139 South Hudson Avenue
Suite 200
Pasadena, California 91101

VIA E-MAIL

June 13, 2025

Mindy Fogg, Principal Planner
City of Carpinteria, Community Development
5775 Carpinteria Avenue
Carpinteria, CA 93013
Em: mindyf@carpinteriaca.gov

RE: City of Carpinteria's Surfliner Inn Project (SCH #: 2025051396) Notice of Preparation of a Draft EIR and Scoping Meeting Scheduled for June 16, 2025

Dear Mindy Fogg,

On behalf of the Western States Regional Council of Carpenters ("**Western Carpenters**" or "**WSRCC**"), my Office is submitting these comments City of Carpinteria's Surfliner Inn Project (SCH #: 2025051396) Notice of Preparation of a Draft EIR ("**NOP**") and Scoping Meeting ("**Scoping Meeting**") scheduled on June 16, 2025, for the Surfliner Inn Project ("**Project**").

The Western States Regional Council of Carpenters is a labor union representing almost 90,000 union carpenters in 12 states, including California, and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects.

The proposed hotel would be a two-story contemporary cottage-style hotel with rooftop deck and would have a building footprint of approximately 15,500 square feet, not including patios, walkways, terraces, and landscaping. The interior floor space is proposed to be 28,290 square feet in size and contain 36 guest rooms, a manager's unit, café, visitor center, and a roof-top bar/lounge/event and swimming pool areas. A total of 139 parking spaces would be provided for the project. The proposed project would operate under a conjunctive parking arrangement which would accommodate parking for hotel guests, hotel employees, and the general public within the reconfigured City Parking Lot #3 and the proposed City Parking Lot #4. A total of 25 electric vehicle car charging stations are proposed. The parking lots

would feature both permeable and impermeable surfaces. The project also includes a total of eighteen bicycle storage and bicycle parking spaces.

Individual members of the Western Carpenters live, work, and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

The Western Carpenters expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

The Western Carpenters incorporates by reference all comments raising issues regarding the Environmental Impact Report (EIR) submitted prior to certification of the EIR for the Project. See *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties).

Moreover, the Western Carpenters requests that the City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**) (Pub. Res. Code, § 21000 *et seq.*), and the California Planning and Zoning Law ("**Planning and Zoning Law**") (Gov. Code, §§ 65000–65010). California Public Resources Code Sections 21092.2, and 21167(f) and California Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL WORKFORCE TO BENEFIT THE COMMUNITY'S ECONOMIC DEVELOPMENT AND ENVIRONMENT

The City should require the Project to be built using a local workers who have graduated from a Joint Labor-Management Apprenticeship Program approved by the State of California, have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a state-approved apprenticeship training program, or who are registered apprentices in a state-approved apprenticeship training program.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

Furthermore, workforce policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (GHG) emissions. In fact, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program" can result in air pollutant reductions.[2]

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[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[3]

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.[4] Some municipalities have even tied local hire and other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022,

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Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10.

[3] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

[4] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

otherwise known as Assembly Bill No. 2011 ("**AB2011**"). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements.

The City should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, improve air quality, and reduce transportation impacts.

II. THE CITY SHOULD IMPOSE TRAINING REQUIREMENTS FOR THE PROJECT'S CONSTRUCTION ACTIVITIES TO PREVENT COMMUNITY SPREAD OF COVID-19 AND OTHER INFECTIOUS DISEASES

Construction work has been defined as a Lower to High-risk activity for COVID-19 spread by the Occupations Safety and Health Administration. Recently, several construction sites have been identified as sources of community spread of COVID-19.[5]

Western Carpenters recommend that the Lead Agency adopt additional requirements to mitigate public health risks from the Project's construction activities. Western Carpenters requests that the Lead Agency require safe on-site construction work practices as well as training and certification for any construction workers on the Project Site.

In particular, based upon Western Carpenters' experience with safe construction site work practices, Western Carpenters recommends that the Lead Agency require that while construction activities are being conducted at the Project Site:

Construction Site Design:

- The Project Site will be limited to two controlled entry points.
- Entry points will have temperature screening technicians taking temperature readings when the entry point is open.

[5] Santa Clara County Public Health (June 12, 2020) COVID-19 CASES AT CONSTRUCTION SITES HIGHLIGHT NEED FOR CONTINUED VIGILANCE IN SECTORS THAT HAVE REOPENED, *available at* https://www.sccgov.org/sites/covid19/Pages/press-release-06-12-2020-cases-at-construction-sites.aspx.

- The Temperature Screening Site Plan shows details regarding access to the Project Site and Project Site logistics for conducting temperature screening.
- A 48-hour advance notice will be provided to all trades prior to the first day of temperature screening.
- The perimeter fence directly adjacent to the entry points will be clearly marked indicating the appropriate 6-foot social distancing position for when you approach the screening area. Please reference the Apex temperature screening site map for additional details.
- There will be clear signage posted at the project site directing you through temperature screening.
- Provide hand washing stations throughout the construction site.

Testing Procedures:

- The temperature screening being used are non-contact devices.
- Temperature readings will not be recorded.
- Personnel will be screened upon entering the testing center and should only take 1-2 seconds per individual.
- Hard hats, head coverings, sweat, dirt, sunscreen or any other cosmetics must be removed on the forehead before temperature screening.
- Anyone who refuses to submit to a temperature screening or does not answer the health screening questions will be refused access to the Project Site.
- Screening will be performed at both entrances from 5:30 am to 7:30 am.; main gate [ZONE 1] and personnel gate [ZONE 2]
- After 7:30 am only the main gate entrance [ZONE 1] will continue to be used for temperature testing for anybody

gaining entry to the project site such as returning personnel, deliveries, and visitors.

- If the digital thermometer displays a temperature reading above 100.0 degrees Fahrenheit, a second reading will be taken to verify an accurate reading.
- If the second reading confirms an elevated temperature, DHS will instruct the individual that he/she will not be allowed to enter the Project Site. DHS will also instruct the individual to promptly notify his/her supervisor and his/her human resources (HR) representative and provide them with a copy of Annex A.

Planning

- Require the development of an Infectious Disease Preparedness and Response Plan that will include basic infection prevention measures (requiring the use of personal protection equipment), policies and procedures for prompt identification and isolation of sick individuals, social distancing (prohibiting gatherings of no more than 10 people including all-hands meetings and all-hands lunches) communication and training and workplace controls that meet standards that may be promulgated by the Center for Disease Control, Occupational Safety and Health Administration, Cal/OSHA, California Department of Public Health or applicable local public health agencies.[6]

The United Brotherhood of Carpenters and Carpenters International Training Fund has developed COVID-19 Training and Certification to ensure that Carpenter union members and apprentices conduct safe work practices. The Agency should require that

[6] *See also* The Center for Construction Research and Training, North America's Building Trades Unions (April 27 2020) NABTU and CPWR COVIC-19 Standards for U.S Constructions Sites, *available at* https://www.cpwr.com/sites/default/files/NABTU_CPWR_Standards_COVID-19.pdf; Los Angeles County Department of Public Works (2020) Guidelines for Construction Sites During COVID-19 Pandemic, *available at* https://dpw.lacounty.gov/building-and-safety/docs/pw_guidelines-construction-sites.pdf.

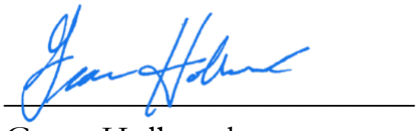
all construction workers undergo COVID-19 Training and Certification before being allowed to conduct construction activities at the Project Site.

Western Carpenters has also developed a rigorous Infection Control Risk Assessment ("**ICRA**") training program to ensure it delivers a workforce that understands how to identify and control infection risks by implementing protocols to protect themselves and all others during renovation and construction projects in healthcare environments.[7]

ICRA protocols are intended to contain pathogens, control airflow, and protect patients during the construction, maintenance and renovation of healthcare facilities. ICRA protocols prevent cross contamination, minimizing the risk of secondary infections in patients at hospital facilities.

The City should require the Project to be built using a workforce trained in ICRA protocols.

Sincerely,



Grace Holbrook
Attorneys for Western States Regional Council of Carpenters

Attached:

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B); and

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C).

[7] For details concerning Western Carpenters's ICRA training program, *see* https://www.swmsctf.org/courses/icra-best-practices-in-health-care-construction/

EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. 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.[8] The default number of construction-related worker trips is calculated by multiplying the

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. 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.

Location Type	Location Name	Rural H-W (miles)	Urban H-W (miles)
Air Basin	Great Basin	16.8	10.8
Air Basin	Lake County	16.8	10.8
Air Basin	Lake Tahoe	16.8	10.8
Air Basin	Mojave Desert	16.8	10.8
Air Basin	Mountain	16.8	10.8
Air Basin	North Central	17.1	12.3
Air Basin	North Coast	16.8	10.8
Air Basin	Northeast	16.8	10.8
Air Basin	Sacramento	16.8	10.8
Air Basin	Salton Sea	14.6	11
Air Basin	San Diego	16.8	10.8
Air Basin	San Francisco	10.8	10.8
Air Basin	San Joaquin	16.8	10.8
Air Basin	South Central	16.8	10.8
Air Basin	South Coast	19.8	14.7
Air District	Amador County	16.8	10.8
Air District	Antelope Valley	16.8	10.8
Air District	Bay Area AQMD	10.8	10.8
Air District	Butte County	12.54	12.54
Air District	Calaveras	16.8	10.8
Air District	Colusa County	16.8	10.8
Air District	El Dorado	16.8	10.8
Air District	Feather River	16.8	10.8
Air District	Glenn County	16.8	10.8
Air District	Great Basin	16.8	10.8
Air District	Imperial County	10.2	7.3
Air District	Kern County	16.8	10.8
Air District	Lake County	16.8	10.8
Air District	Lassen County	16.8	10.8
Air District	Mariposa	16.8	10.8
Air District	Mendocino	16.8	10.8
Air District	Modoc County	16.8	10.8
Air District	Mojave Desert	16.8	10.8
Air District	Monterey Bay	16.8	10.8
Air District	North Coast	16.8	10.8
Air District	Northern Sierra	16.8	10.8
Air District	Northern	16.8	10.8
Air District	Placer County	16.8	10.8
Air District	Sacramento	15	10

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Mininum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187
2023	0.6148	3.3649	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5295	1,627.5295	0.1185	0.0000	1,630.4925
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9078	52.9078	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6826**	**1,721.6826**	**0.1294**	**0.0000**	**1,724.9187**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183
2023	0.6148	3.3648	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5291	1,627.5291	0.1185	0.0000	1,630.4921
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6823**	**1,721.6823**	**0.1294**	**0.0000**	**1,724.9183**

	ROG	NOx	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	9-1-2021	11-30-2021	1.4103	1.4103
2	12-1-2021	2-28-2022	1.3613	1.3613
3	3-1-2022	5-31-2022	1.1985	1.1985
4	6-1-2022	8-31-2022	1.1921	1.1921
5	9-1-2022	11-30-2022	1.1918	1.1918
6	12-1-2022	2-28-2023	1.0774	1.0774
7	3-1-2023	5-31-2023	1.0320	1.0320
8	6-1-2023	8-31-2023	1.0260	1.0260

9	**9-1-2023**	**11-30-2023**	1.0265	1.0265
10	**12-1-2023**	**2-29-2024**	2.8857	2.8857
11	**3-1-2024**	**5-31-2024**	1.6207	1.6207
		Highest	2.8857	2.8857

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	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

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	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	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

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

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					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

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	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
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	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

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					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

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	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
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	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

3.3 Site Preparation - 2021

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					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

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					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

3.4 Grading - 2021

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					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

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	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

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					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

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	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

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					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

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	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

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					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

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	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

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	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

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	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

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	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

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	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

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	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

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	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

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	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

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	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

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	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

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	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

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	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

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	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

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	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

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	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

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	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

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	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

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	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

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

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1521
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1520
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

	ROG	NOx	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**

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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	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	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

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					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

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	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
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
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

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					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

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	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
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
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

3.3 Site Preparation - 2021

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

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
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
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

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
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
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

3.4 Grading - 2021

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

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
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
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

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
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
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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	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
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
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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	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
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
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	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
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	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
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	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
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	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
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	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
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
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	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
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
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

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	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

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	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

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	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

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	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

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

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

	ROG	NOx	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**

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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	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	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

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					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

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	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
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
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

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					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

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	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
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
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

3.3 Site Preparation - 2021

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

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
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
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

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
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
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

3.4 Grading - 2021

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

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
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
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

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
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
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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	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
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
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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	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
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
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	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
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	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
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	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
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	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
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	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
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
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	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
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
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

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	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

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	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

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	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

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	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

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

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2661
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4412	1,342.4412	0.1115	0.0000	1,345.2291
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6355	44.6355	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6554**	**1,418.6554**	**0.1215**	**0.0000**	**1,421.6925**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4409	1,342.4409	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6354	44.6354	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6550**	**1,418.6550**	**0.1215**	**0.0000**	**1,421.6921**

	ROG	NOx	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	9-1-2021	11-30-2021	1.4091	1.4091
2	12-1-2021	2-28-2022	1.3329	1.3329
3	3-1-2022	5-31-2022	1.1499	1.1499
4	6-1-2022	8-31-2022	1.1457	1.1457
5	9-1-2022	11-30-2022	1.1415	1.1415
6	12-1-2022	2-28-2023	1.0278	1.0278
7	3-1-2023	5-31-2023	0.9868	0.9868
8	6-1-2023	8-31-2023	0.9831	0.9831

9	**9-1-2023**	**11-30-2023**	0.9798	0.9798
10	**12-1-2023**	**2-29-2024**	2.8757	2.8757
11	**3-1-2024**	**5-31-2024**	1.6188	1.6188
		Highest	2.8757	2.8757

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	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

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	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	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

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

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					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

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	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

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					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

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	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

3.3 Site Preparation - 2021

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					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

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					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

3.4 Grading - 2021

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					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

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	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

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					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

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	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

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					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

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	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

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					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

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	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

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	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

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	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

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	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

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	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

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	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

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	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

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	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

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	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

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	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

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	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

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	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

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	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

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	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

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	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

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	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

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	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

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	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

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

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0956
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0955
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

	ROG	NOx	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**

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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	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	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

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					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

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	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
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
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

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					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

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	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
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
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

3.3 Site Preparation - 2021

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

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
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
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

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
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
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

3.4 Grading - 2021

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

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
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
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

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
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
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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	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
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
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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	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
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
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	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
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	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
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	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
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	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
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	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
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
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	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
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
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

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	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

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	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

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	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

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	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

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

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

	ROG	NOx	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**

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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	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	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

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					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

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	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
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
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

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					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

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	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
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
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

3.3 Site Preparation - 2021

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

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
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
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

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
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
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

3.4 Grading - 2021

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

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
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
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

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
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
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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	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
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
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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	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
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
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	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
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	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
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	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
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	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
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	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
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
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	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
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
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

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	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

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	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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
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
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

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	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

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	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

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

Attachment C

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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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 unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. 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 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, 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 dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial 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:

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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.

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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.

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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.

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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.

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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 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 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 Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
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 Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 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 United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 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 of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

1640 5th St.., Suite 204 Santa
Santa Monica, California 90401
Tel: (949) 887-9013
Email: mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
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 25 years of experience in environmental policy, assessment and remediation. 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) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- 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 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, 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 industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- 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.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

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 taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

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 examination, 2009-2011.

From: Michael Sipiora
To: Mindy Fogg
Subject: comment on the Surfliner EIR
Date: Friday, June 13, 2025 8:32:33 PM

****EXTERNAL EMAIL****

CAUTION: This email originated from outside the City of Carpinteria. DO NOT OPEN attachments or CLICK on links unless you are sure they are safe. Remember, reputable vendors, banks, etc. will not ask you to disclose passwords or other sensitive information.

There needs to be a new traffic study done regarding proposed parking lot 4.

The 2024 “Updated Traffic and Parking Study for the Surfliner Inn Project” generated by Associated Transportation Engineers relies on the “Waker Study” published in 2020. The “Walker Study” monitored traffic in October of 2019 then “adjusted” its findings to project parking lot usage in “peak mo. July” to determine lot usage by the Inn (alone). Resolution No. 4082, Carpinteria City Council…Regarding Environmental Review Regulations (1994) states "A previous traffic study for the development under review will only be acceptable if it is less than two years old." This is mentioned under the section **Contents of Traffic Study** on page 46.

In addition, numerous of the finding contained in section “Traffic Operations” (p. 5) of the 2024 study are questionable. These include the assertion that “the Lot 4 driveway would operate in the level of service (LOS) A range with very little delay and queuing for vehicles entering and exiting the parking lot driveway” (p. 5). LOS A, the best of 5 possible ratings, has the freest possible movement of traffic providing motorists with a “high level of physical and psychological comfort” and “generally occurs late at night in urban areas and frequently in rural areas.” Common sense indicates that such an assertion is ill-founded given the projected use of the lot by the Inn, beach goers, and customers of numerous establishments on Linden Avenue

Michael Sipiora
1475 Namouna St
Carpinteria, CA 93013

From: Rosa Markolf
To: Mindy Fogg
Subject: Re: SURFLINER INN - Project #23-2254-DP/CUP/CDP/ARB
Date: Friday, June 13, 2025 10:30:17 PM

EXTERNAL EMAIL

CAUTION: This email originated from outside the City of Carpinteria. DO NOT OPEN attachments or CLICK on links unless you are sure they are safe. Remember, reputable vendors, banks, etc. will not ask you to disclose passwords or other sensitive information.

Attn: Mindy Fogg

Rosa Markolf
Carpinteria, CA 93013
805-453-5048

> On Jun 13, 2025, at 10:11 PM, Rosa Markolf <rfmarkolf@aol.com> wrote:
>
> APNS 004-105-011 & 004-105-026
>
> Mindy Fogg;
>
> Comments re: SURFLINER Inn in my area:
>
> SIZE & SCOPE OF HOTEL
> First of all, I live in the beach area on Third Street. The traffic and parking - especially in the summer months - is above normal. The addition of a hotel with 36 guest rooms, service rooms and areas, cafe, visitors center, rooftop bar, lounge and event center with a pool is proposperous. One reaching 37 ft 1 inch is ridiculous, it would block all our Mountain Views. I also would hate to see 18 trees removed for this project. We do not need this hotel in this area. It overcrowds the area visually and is not in keeping with our small beach town reputation.
>
> PARKING LOT PROBLEMS
> The parking lot entrance on Linden is very problematic. Traffic backs up when trains enter and exit, when beachgoers are arriving and leaving the beach area , when people are crossing from the park and others ordering food from a line in front of the Spot. Can you imagine a more impacted area, one waiting for an accident to happen? In addition, the “locked” gate on Elm is to provide an “emergency” access to/from the parking lot. This is an established neighborhood, already crowded, and a gate should ABSOLUTELY BE PROHIBITED. It is unfair to burden homeowners and families who have invested their life savings into their homes with more traffic at their front and back doors. Also, Who is to determine what an “emergency” is? How often would the gate be used? In addition to a gate into the neighborhood, the scheme for the dozens of lights for the parking lot shining into properties on Dorrance is unspeakable. I’m sure no one would like a hotel with all the amenities, say nothing of the noise, dropped into their neighborhood.
>
> The city of Carpinteria should not be using public owned land for a risky business venture with no history of success. I have lived here for over 30 years and I love Carpinteria. I’ve been very community minded and very proud of many things that have been done here, but this one is a disaster in the making. When you look at one problem it might be overlooked, but when you put them all together it says NO HOTEL.
>
>
> Rosa Markolf
> Carpinteria, CA 93013
> 805-453-5048

From: Ann Sly
To: Mindy Fogg
Subject: addendum to previous NOP Public Comments
Date: Saturday, June 14, 2025 3:57:51 PM

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My comments regarding environmental factors related to the Surfliner Inn project and the construction of Parking Lot #4 were sent yesterday. These are additional comments that I would like to add.

The obvious environmental impact conclusion is that this project should be denied. The only way to reduce the adverse impacts is to significantly reduce the size of the hotel.

The size of this building will profoundly transform the gateway to the beach, shrinking it from a sweeping vista to a keyhole, from a 160-degree panoramic view to a much narrower, 60-degree opening. The mitigation to be considered is to significantly reduce the size of the hotel. This was discussed previously at the conceptual review in 2020 and in recent comments from ARB board members. If the hotel is built, it should not be bigger or bulkier than the original depot building.

From:	Ann Sly
To:	Mindy Fogg
Cc:	Michael Ramirez; Nick Bobroff; John Ilasin; Natalia Alarcon; Monica Solorzano; Julia Mayer; aclark@carpinteriaca.gov; Wade Nomura; Jena Acos
Date:	Saturday, June 14, 2025 12:18:02 AM

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Notice of Preparation, the 30 days for Public Comment on the Environmental Impact of the Surfliner Inn Project
Public Comments: Phase 2 of the Surfliner Inn Project: Developer's Proposal to Build the
Surfliner Inn on Parking Lot #3

The project has multiple environmental impacts that could be viewed as having individually limited significant impacts, but are cumulatively considerable when viewed in totality:
Adding up the cumulative environmental impacts of the construction of the Surfliner Inn on Parking Lot #3, shows there are sizeable environmental impacts to the parcel's current use as a viable parking lot.
-The cumulative environmental impacts of the size and scale of the hotel on the surrounding neighborhood.
-The loss of unique views and ambience that attract thousands of visitors every year, and are the backbone of the local economy.
-The conjunctive parking impact caused by the remaining spaces of Parking Lot #3, which would be viewed as the hotel's lot.
-The noise of revelers on the roof at night, adversely affecting the surrounding neighborhood.
-The hotel will create a parking nightmare caused by an ill-conceived Parking Lot #4.

The obvious environmental impact conclusion is that this project should be denied.

Draft Environmental Impact Report Scope of Analysis Key Issues in CEQA Guidelines Appendix G Checklist:

I. AESTHETICS

Several questions regarding the project's visibility and effect on the surrounding view corridors should be considered. The aesthetics assessment should include compatibility of the proposed project with the surrounding natural and built

environment, including development size, location, landscaping, etc.

a.

Would the project have a substantial adverse effect on a scenic vista?

The exterior of the proposed Surfliner Inn presents a semi-traditional Southern California look with tile roofing, areas of stone work, balcony railings, wood siding, and stucco. The aesthetic issue is not the architectural design, but its size, scale, location, and what will be lost.

The scenic vista at the railroad crossing is the gateway to the beach and the southern entrance to the Downtown T district. It is an urban open space with the trail acoss the tracks that is a unique part of the small town charm enjoyed by residents and visitors: pedestrians walking up and down Linden; cyclist's biking up and down Linden; Amtrak passengers departing/arriving; using the open space walking trail south of the rain tracks. This will be gone.

The size of this building at this location will profoundly transform the gateway to our beloved State Park and beach, shrinking it from a sweeping vista to a keyhole, from a broad 160-degree panorama at 5th and Linden to a much narrower, 60-degree opening.

The transformation will not only be visual. So will our physical perceptions of this special place on our main street. The feeling of expansiveness, exuberance, and freedom it conveys to every visitor and resident - another signature of our beach town will be greatly diminished.

This building will drastically alter a second prized Carpinteria vista - the unbroken panorama of the Santa Ynez Mountains, as one heads up Linden, away from the beach. Approaching Dorrance Ave, a large part of the mountain view will be missing, where the hotel will stand.

Great views, a sense of freedom, and ease of movement that puts a smile on your face, these things were once common to small beach towns up and down the California coast. Now, we are the only one left. And it is our economic lifeline, our Golden Goose that brings thousands of visitors to Carpinteria annually and accounts for about 70% of our local economy.

How does the Surfliner Inn cause such a negative impact? Its bulk. It is substantially a large and very long box - 240 feet by 80 feet and 30 feet in height that stretches ⅘ of a football field down 5th Street, from the yellow fire hydrant near Linden to the ridge line of the house at 4950 5th Street, not far from the intersection of 5th and Elm. Story poles were erected to show the outlines of the Surfliner Inn, but poles connected with rope and flags cannot convey the true bulk of this very long building and how it will change its surroundings and our town.

Another piece of our city landscape will also be lost if the Surfliner Inn is built. Approximately two thirds of Parking Lot #3, an astonishing example of urban design at its best. Though most surface parking lots are urban eyesores, this one was so successfully landscaped with large shade trees and hedges that most passersby on

foot, on bikes, and in cars don't even know it's there.
The proposed replacement for Parking Lot #3, the 93-space Parking Lot #4, will be an urban eyesore. A single aisle, with far less shade, provided by far fewer trees and minimal planting along its edges. In the hottest months, the pavement and parked cars will radiate heat right into the surrounding area, including one of Carp's most famous eateries, The Spot.

PLEASE NOTE: The dimensions for the hotel were scaled off the architects' drawings in City Hall. No overall hotel dimensions were given on these drawings, nor was the hotel located in relation to existing buildings across 5th St, which would help anyone studying these drawings better understand what is being proposed.

b.

Would the project substantially damage scenic resources, including but not limited to trees…?

Regarding tree removal, it should be investigated as to whether existing trees are historic specimens or otherwise protected. Many mature trees are slated for removal. As to development, grading should be designed to avoid native tree removal.

XI. LAND USE AND PLANNING

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

This project is not in conformance with City Code Ordinances, specifically, Policy 4-2: "New development or redevelopment, in the downtown section of the city shall be in conformance with the scale and character of the existing community and consistent with the city's theme of a small beach-oriented community."

"The proposed development will not be detrimental to the peace, health, safety, comfort, convenience, property values, or general welfare of the neighborhood." This project abuts and impacts 2 different types of neighborhoods. The hotel abuts both residential and commercial. Proposed Parking Lot #4, across the RR tracks, abuts residential. As to the hotel, it is not compatible in size and scale with the residential and commercial structures with which it abuts. As for the large parking lot, it is incompatible in size and function with the residential neighborhood, and it is unprecedented. No other city parking lot is in a residential neighborhood.

This project is not compatible with the surrounding neighborhood, the beach neighborhood, which is residential. In scale and size, it is unlike anything in the downtown area. In addition, proposed Parking Lot #4 would be the first

parking lot built in a residential neighborhood. The project essentially impacts 2 different types of neighborhoods. The hotel abuts both residential and commercial. Proposed Parking Lot #4, across the RR tracks, abuts an entirely residential neighborhood, except for The Spot Burger. The size and scale of the hotel building is not in conformance with the character of the residential neighborhood it abuts.

The proposed hotel will affect noise levels, safety, convenience, and property values of the nearby beach neighborhood.

Regarding safety, the entrance and exit of the parking lot onto a major thoroughfare, Linden Ave, is unprecedented and poses a serious safety issue as this area of Linden Ave is one of the most congested with pedestrians and cars plus the RR crossing is right there.

The hotel will take up to ⅔ of Parking Lot #3, leaving 46 parking spaces right out the front door of the Surfliner Inn. The project would operate under a conjunctive planning arrangement to accommodate 36 guest rooms, 11 employees for 3 shifts, and the general public, for the downtown and beach. Conjunctive parking theory is based on a parking space being utilized several times a day for different needs. The hotel's usage of those remaining 46 spaces will skew towards being occupied all day by hotel guests and employees. So, during high hotel usage periods, that could mean anywhere from 25 to 35 spaces being used by the hotel for 24-hour periods. Making Parking Lot #3 predominantly a hotel parking lot will result in the downtown and beach parking general public only having the 93 spaces proposed for the new Parking Lot #4 and maybe 20 spaces in Parking Lot #3 for peak times.

XIII. NOISE

a.

Would the project result in 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?

A project will have a significant effect on the environment if it will increase substantially the ambient noise levels for adjoining areas. The noise level emanating from any commercial use or operation shall not exceed 5 decibels above the ambient level of the area.

The potential noise from the rooftop bar must not exceed 5 decibels above the ambient level of the area. It must be noted that the ambient noise level is lower at night than during the day when people, cars, etc. are out and about.

Quotes from the minutes of the ARB meeting, Dec 12, 2024. Boardmembers commented on size, scale, safety, tree removal, rooftop amenities, and parking lot problems

“Boardmember Little agreed with most of the previous comments, but commented that the project is still a little too large for the area and could use some reductions.”

“Boardmember O’Connor had major safety concerns with the design of the southeast portion of the hotel site.” “He concluded his comments by stating that the Firewheel trees in Lot 3 should be saved.”

“While Boardmember Little liked the architectural style and materials, he indicated that he would like to see the hotel downsized a bit and was not sure about the proposed rooftop amenities so close to a residential neighborhood.”

“Boardmember Johnson commented that the more trees provided, the better, and that appropriate trees should be selected for the parking lots. He further commented that Lot 4 could use more landscaping and that it needs a dedicated turnaround area at the end.”

“Vice Chair Blakemore expressed concerns with the design of parking lot 4.” “She further commented that she doesn’t like dead-end parking lots but doesn’t think access to Elm Ave is good either.”

From: Lori Greenburg
To: Mindy Fogg
Subject: Surfliner Inn Project
Date: Saturday, June 14, 2025 8:26:35 AM

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This email is sent to voice my continued disapproval of the proposed Surfliner Inn, and is specifically submitted for the Environmental Impact Report, for the following reasons:

1. City property should not be used for a private business endeavor even if it will provide funds to city.

2. Although the footprint of the proposed hotel may be smaller than most hotels, the size and bulk of the building is far from small.

3. The planned rooftop bar will increase the noise in the area, especially if amplified music is allowed. People with homes in that area already have to deal with the amplified music coming from Island Brewing and should not have to be subjected to competing musical sounds.

4. Returning guests will be few since the hotel is going to be built very close to the railroad tracks that will mean that hotel guests will loudly hear every train and the vibration of passing trains, both of which make conversing and sleeping hard to do, especially for people not used to living near train tracks. The warning horn of the train as it comes to the Linden crossing will surely wake many guests and make them decide that one stay at the hotel is more than enough.

5. The proposed parking lot planned to be built on the other side of the railroad tracks will cause many issues, especially considering that the only entrance/exit to the parking lot will be very close to the railroad tracks and will be very hard to exit safely. Most people leaving the lot will need to turn left, which will be very dangerous and hard to do, especially during the busy summer season. If left turns are not allowed, there will be increased traffic in the adjacent beach neighborhood as people look for a way to turn around to exit the area.

6. Although I understand the new parking lot is considered a separate project, it must be considered as part of the Surfliner project because it is only being built due to the proposed Surfliner Inn being built on the existing parking lot, removing vital parking for the community. There are many restaurants and stores on Linden which rely on street parking and the limited public parking lots. Now that Linden Square is open, many are using the Smart & Final parking lot due to limited parking.

Lori Greenburg
4545 Chapparal Drive
Carpinteria, CA 93013

From:	Coachakoch
To:	Mindy Fogg
Cc:	Carol Koch; Michael Ramirez; Nick Bobroff; John Ilasin; Natalia Alarcon; Monica Solorzano; Julia Mayer; Al Clark; Wade Nomura; Jena Acos
Subject:	NOP Public Comment: City"s Proposed Parking Lot #4: Adverse Environmental Impacts
Date:	Saturday, June 14, 2025 1:20:26 PM

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NOP Public Comment Period: Surfliner Inn Project

Comment Title: City's Proposed Parking Lot #4: Adverse Impacts Due to Location/ Site Shape/ Design

CEQA Appendix G Issues Adverse Impacts: XVIII. Transportation: a), c), d); XL. Land Use and Planning: b); XXI. Mandatory Findings of Significance: b), c).

Background: Downtown & Beach Parking Lot #3 (Lot #3) has a total of 113 parking spaces (no EV spaces). The City's proposed new Parking Lot #4 (Lot #4) will have a capacity of 93 parking spaces. Lot #3 will have 46 parking spaces after the building of the hotel. An increase of 26 parking spaces from what exists currently. The City will also add 25 EV parking spaces. Note: no EV parking spaces currently exist in Lot #3.

Cumulative Impacts: The Surfliner Inn project proposal has two phases where the applicant is building the hotel on Parking Lot #3 (Lot #3) and the City is building a new Parking Lot #4 (Lot #4) across the tracks in the Beach Neighborhood. The proposed parking lot is a critical component of the overall project since the 67 lost spaces in Lot #3 need to be replaced to maintain the necessary number of spaces for the new hotel guests/ employees, Amtrak usage and for the downtown & beach daily visitors. The proposed parking lot is required to be built first before the the start of any construction of the Surfliner Inn on Lot #3 so that the downtown & beach parking capacity is not impacted. The proposed project benefit of a downtown hotel needs to be analyzed in the 'context' of any individual adverse impacts to the environment: location of the proposed new parking lot; the parcel's shape which has the impact on design elements of traffic flow and the aisle/individual spaces. **Combining the following adverse Environmental shows the severity on a cumulative basis to be at the level of Potentially Significant Impact with limited mitigation means to move to a Less Than Significant with Mitigation Incorporated overall rating due to the lack of alternative downtown sites for public parking.**

These are the following individual adverse environmental impacts in trying to find a viable alternative downtown parking site than what exists in the current Downtown & Beach Lot #3:

Location: There are many adverse impacts in the City's selection of parcel's location to build an equally viable new downtown and beach public parking to replace the existing viable Lot #3. The proposed location parcel is a long and narrow shape that inhibits a design layout for efficient and safe traffic flow entering/exiting and in circulation within the lot. **The City has the authority, under Government Code Section 37395, to build on Parking Lot #3 'subject to the finding that the underlying property is not required for other City purposes' like the current purpose of the downtown and beach parking lot.**

Current Downtown T Parking Lots #1/#2/ #3: All have locations and interior design layouts that reflects an efficient and safe traffic flow for such high usage public parking lots. The combination of the design elements is a selection of best practices:

1. Multiple entrances/exits to access and depart the parking lot.
2. Interior one way aisle patterns: directs interior traffic flow one way: to park at angle spaces on the right or left & right sides.
3. Interior two way aisle patterns: directs interior traffic flow both ways with the preference of angle parking space to the right (i.e. similar to street patterns).

For all the Downtown T parking lots built over the years, the City has demonstrated the ability to build traffic efficient and safe parking lots. Which sets a historical precedence for the higher usage demand in the Downtown T parking lots. These public parking lots' design elements is required given the lack of adequate number and shape of available public owned parcels in the Downtown T. Note: the current two biggest downtown parking lots had large enough parcels to accommodate these best practices design elements.

Proposed conceptual plan for Lot #4:

1. Only one entrance/exit with dead end.
2. Interior two way aisle: ability to park left or right into perpendicular 90 degree spaces.

Note: an emergency exit is available onto Elm into the Beach Neighborhood.

GP Objectives/ Policies and CMC Standards14.54.070 - Size, location, and design of parking spaces: only speaks to size of parking spaces and the width of the aisle for traffic to flow on various traffic flow aisle options. There are illustrations of the layout of parking lots which provides examples of the types of aisle (one way directional/ two way) and the preferred positioning of the spaces to the aisle. No specific code in the section mentions the above historical best practices of how to layout the interior aisles and spaces. The code seems to be written only for residential, commercial and industrial developments. Public lots not mentioned in this section of the code. Maybe CMC Code of Ordinance Title 12 - Streets, Sidewalks and Public Places have ordinances that the proposed new #4 conceptual plan adheres to?

There is a 3.e. code in the CMC that seems to talk to interior design elements for efficient and safe traffic flow within a parking lot: **'The design of parking areas shall not require the moving of any car to gain access to a required parking space.'**

The proposed conceptual plan Lot# 4 interior layout on high usage days will make for an uncomfortable and unsafe user experience:
- Contested nature that vehicles can cross over the aisle to take a space from someone coming down the aisle the other way.
- Gridlock if users stop when they see someone walking to their vehicle.
- Adding to gridlock inside Lot #4, will be cars queuing up to exit when exiting out to Linden Ave is backed up.

The referenced CMC ordinances, Figure 14.54.070(1), has the minimum width of the aisle for shared two way traffic of 24.5': appropriate for parking lots that do not have a dead end. With a dead end in the conceptual plans for Lot #4, on high usage days will add to gridlock and safety concerns as the vehicles will be required to make a U-turn in the aisle when they come to the dead end when the lot is full. The result of the narrow nature of the #4 parcel shape. The other two large rectangular parking lots with dead ends outside of the Downtown T were designed with larger aisle widths: Viola Field 32' and Rincon 26'8". Safer and more efficient design requirements when there is a dead end and to manage U-turns.

Access to a Public Parking Lot on a Major Thoroughfare: The proposed Lot #4 would be first Downtown T parking lot that has the only entrance/exit on a major downtown thoroughfare, Linden Ave. In addition, the proposed location of the entrance/exit for Lot #4 is between the Spot Burger and the railroad crossing gates. One of the most congested blocks during the high usage summer months with folks walking up/down Linden and queuing up at the Spot. The block from Dorrance to the railroad crossing is the smallest block in the entire Downtown T.

Another traffic study needs to be performed to substantial conclusions in the applicant's Traffic and Parking Study by ATE:
- Level of Service (LOS) study to fully understand the environmental impact to the vehicle-carrying capacity and performance of Linden Avenue on high usage days. The applicant study by Associate Transportation (page 5) gave the highest level of LOS A : free flow, high speeds, minimal delays and good maneuverability (approximately 300 peak hour trips). The tables provided in the study details the assumptions/ statistics of parking space supply and demand for the number of spaces by hour. But, the 300 peak hour trips on Linden was not supported by any tables of how that number was determined.
- The study did reference the rail crossing gate with a 'conclusion' that there is sufficient space for two vehicles queuing on Linden between the new parking lot exit on Linden and a crossing arm when it is in the down stop position. Given the level of traffic generated that would be generated by Lot #4. Again, no detailed tables were provided to support that statement. Perfect time of the year coming up to see summer time higher usage counts of Lot #3.

As the Lead Agency in the EIR process, the City is obligated not to rely on incomplete/unverified technical study assumptions which may result in inaccurate assessments of potential adverse impacts.

Mitigation: To mitigate the above adverse impacts to lessen the environmental impacts, the City would need to look at making the proposed parking lot one way with an entrance on Linden and exiting into the Beach Neighborhood which is not a realistic mitigation tactic since the streets like Elm and Dorrance cannot accommodate that level of vehicle carrying capacity (and, no sidewalks for the residents); and, would be the first Downtown T parking in a residential neighborhood. The proposed parcel is too narrow to accommodate any other configuration of required parking spaces to offset number of spaces lost in Lot #3.

The City's proposed action to approve the building of a new public parking lot on that particular parcel, to accommodate the lost parking spaces as a result of building a hotel on Lot #3, needs to be analyzed as to the 'context' of that action to determine whether the action will significantly impact the environment due to the cumulative adverse impacts above. The particular parcel of public land, APN 004-105-026, for a new Downtown & Beach parking lot has a number of major cumulative impacts that makes this entire phase of the overall project Potentially Significant Impacts according to CEQA's Appendix G XXI. Mandatory Findings of Significance:

- The building of Lot #4 has the potential to have environmental effects which will cause substantial adverse effects (i.e. degrade the quality of the environment) for beach and downtown visitors. Compared to the current very viable Lot #3, the City's proposed #4 location and shape of the parcel makes it not a viable Downtown T parking option. The City's priority is to ensure there are user friendly (well designed) and safe public parking lots. A requirement on those busy summer days where the world's safest beach and quaint downtown becomes the attractive tourist destination.
- The City's proposal have adverse impacts that are individually limited, but cumulatively considerable (i.e. see above).

Thank you for the opportunity to provide public comment,
Alan and Carol Koch

From: Laura Anderson
To: Mindy Fogg
Subject: Comments on the Surfliner Project
Date: Saturday, June 14, 2025 2:40:13 PM

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Hello Mindy,

I am opposed to the Surfliner Hotel project for these reasons:
- Parking, Traffic, Congestion ~ Approximately one block away, Linden Square just opened. That has resulted in a substantial increase in parking needs, traffic and congestion to the street at certain times of the day. There is another retail/dining project in the works on Linden where the Palms used to be, as well as The Nugget, that will both bring more parking, congestion and traffic. Approval/implementation of the Surfliner project will exacerbate the existing parking, traffic, and congestion issues already in place.
- Noise ~ Residents already endure the noise from the train several times a day/night. The Surfliner project will create noise pollution for the nearby residents and reduce the quiet enjoyment of their homes.
- Aesthetics ~ while the City of Carpinteria does need another hotel, why would the City approve a hotel in such a prime location near the beach and park? It detracts from the natural beauty in that area, and commercializes it.

I'd like to propose that the Surfliner project be relocated to where Eye of the Day was, on Carpinteria Avenue. That would relocate traffic, congestion and parking concerns to an area that is better suited for it. Plus it is freeway close for tourists/visitors. Plus it won't block others' view of the beach and park. Plus noise will be a non issue being away from a residential neighborhood. The City is beautifying Carpinteria Avenue and a new hotel would be a nice addition to the street, near the Theatre, restaurants and shops.

Thank you for your time and consideration.

Laura Anderson

From: Carl
To: Mindy Fogg
Subject: Surfliner hotel and parking lot
Date: Saturday, June 14, 2025 3:57:38 PM

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I believe the hotel and parking lot will have a lot of light, air and noise pollution and the hotel will block views of the ocean and sunset from fifth street and the view of the mountains from Linden and Dorrance Ave. The parking lot will be in a horrible spot because the noise from cars car radioes and people talking loudly and light pollution will be horrible for people living next to or near it.
Carl Burton

From: Carl
To: Mindy Fogg
Subject: Parking lot
Date: Tuesday, June 17, 2025 4:03:05 PM

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I live in the beach neighborhood near where the proposed parking lot wood be. I would hate to have to hear car alarms going off. I know it would happen and no sound wall would stop that
noise
Carl Burton

From: Susan Lea
To: Mindy Fogg
Subject: Fw: PLEASE DON"T ALLOW THAT HORRIBLE OVERSIZED PROJECT ON LINDEN
Date: Sunday, June 15, 2025 4:17:54 PM

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Hi, Mindy,

Carpinteria is small. The train station is an important resource, and its parking lot next to the community gardens is a joy. You remove that, you will lose any room to turn around or breathe. Say goodbye to safety. Don't do it. Don't give in to shoving more construction into Carpinteria than it can accommodate. The plans are not a good fit or suitable in any way. Don't lose what is best and works for Carpinteria, its residents and visitors. Don't lose all views of the ocean and the connection to the ocean from, on and near Linden.

Thanks,
Susan Lea

From: SUSAN DALE
To: Mindy Fogg
Subject: Fwd: Surfliner
Date: Sunday, June 15, 2025 5:07:34 PM

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Sent from my iPhone

Begin forwarded message:

From: SUSAN DALE <sschmid2@cox.net>
Date: June 15, 2025 at 5:05:57 PM PDT
To: mindyf@carpinteria.gov
Subject: Surfliner

I am writing to express my opposition to the Surfliner hotel project. As a resident living near 7th and Ash I can tell you that street parking is already problematic. There are many residents who do not have off street parking, and have multiple cars parked on the streets. I suspect that the increased traffic from this hotel and bar (you can be sure the bar will also attract non hotel guests who will be driving there) on top of traffic
from Linden Square and the re-opening of the Palms (neither which have parking)will most certainly exacerbate this problem. Residents who work late at night may have to park blocks away from their home, which is a potential safety issue. I do not feel the proposed new parking lots will be sufficient for all the expected extra guests these various venues attract so that they won't affect residential parking. Additionally, do we really need 3 roof top bars in such a small area? What are we- Miami Beach?? Out of towners (as well as residents) appreciate our quiet, small town feel. Let's not change that. Susan Dale
Sent from my iPhone

From: Catherine Overman
To: Mindy Fogg
Subject: Surfliner Hotel
Date: Monday, June 16, 2025 1:25:04 PM

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Hi Mindy,
The parking here in Carpinteria is really at risk for visitors. Something about the new parking plan seems wonky, Unfortunately the proposed citizen owned lot targeted for trade, depends on entrance and egress that are clumsy and have not been addressed completely enough given the residential and train track obstacles.
I do not support the Surfliner Inn, I believe it was concocted and ushered through by developers getting a great deal and well meaning officials who championed the project with undo influence to staff.
The business plan is another miss on the target. I for one can not envision this becoming a successful hospitality center, Considering the misdirected text of the ballot measure I hope you do not believe there is a mandate from the citizens. There is not.

Respectfully yet skeptically,
Catherine Overman
5750 via real
carpinteria ca

From: Jean-Luc Bourdon
To: Mindy Fogg
Subject: Opposition to the Surfliner Hotel Project – Impacts on Parking, Access, and Community Priorities
Date: Monday, June 16, 2025 3:04:21 PM

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I am writing to express strong opposition to the proposed Surfliner Hotel project due to its clear inconsistency with the City's planning priorities and the severe parking shortage already affecting downtown Carpinteria.

The Surfliner proposal continues a trend of approving high-intensity visitor-serving developments without providing sufficient on-site parking. As the City's draft Coastal Land Use Plan and General Plan (June 2025) notes, downtown is already facing significant parking and access challenges. These challenges include beachgoers, Amtrak riders, patrons of local businesses, and users of community facilities like the Carpinteria Arts Center. The recent opening of Linden Square has only intensified this shortage, leading to overflow into nearby private lots such as Smart & Final's, making weekend parking for residents and longtime customers virtually impossible.

This situation will worsen significantly with the opening of the event space and rooftop bar at the former Palms site, which were approved without additional parking. Adding the Surfliner's event venue and guest parking will create a cumulative burden that far exceeds what downtown Carpinteria's infrastructure can handle.

The CLUP (p. 43–45) identifies the Downtown and Old Town District as a critical subarea designed to balance mixed-use vitality, coastal access, and preservation of local character. However, approving another large hotel project without sufficient parking risks undermining this goal. Instead of reinforcing "a viable local commercial district" that serves both residents and tourists, the Surfliner project threatens to transform the area into an exclusive zone for out-of-town visitors, rendering it inaccessible for local residents' everyday needs.

Particularly concerning is the impact on existing community spaces like the public garden adjacent to the proposed hotel. The hotel's footprint and overflow parking needs will encroach upon essential parking space used by local gardeners and residents.

The City's draft 2025 CLUP also notes the need for development proposals to demonstrate “orderly, well-planned development while protecting coastal resources” and to consider cumulative impacts (CLUP, p. 20–21, 28). The Surfliner fails this test. While the city applies a conjunctive use model for parking—assuming that the same spaces can serve different users at different times—hotel parking is, by definition, 24-hour usage. This directly conflicts with the “shared use” model on which the City bases parking capacity estimates, effectively reducing daytime parking availability for beachgoers, downtown shoppers, and workers.

Moreover, the General Plan (pp. 84–85) encourages project-specific parking strategies, such as employee parking plans and shuttle systems, to reduce vehicle miles traveled (VMT). The Surfliner’s proposal does not appear to incorporate such measures meaningfully.

Carpinteria is already served by existing event facilities, such as the Lions Club Park, which are located outside the congested downtown core and aligned with the City’s stated planning principles. The addition of another major event venue downtown is excessive and unnecessary.

Approving the Surfliner Hotel would violate both the spirit and substance of the City’s General Plan. It would undermine downtown’s local use and transform it into a party destination filled with events, drinking spots, and tourist-oriented facilities. It would worsen existing parking shortages, restrict access to public spaces, weaken local businesses, and risk eroding the very character that makes Carpinteria a livable and vibrant community.

I urge you to reject the Surfliner Hotel project to align with the City’s adopted planning framework and to prioritize the needs of Carpinteria’s residents, businesses, and neighborhoods.

Thank you for your thoughtful consideration.

Sincerely,

Jean-Luc Bourdon
1006 Palmetto Way
Carpinteria, CA
805-684-3005

From: Mary Kate McGeehan
To: Mindy Fogg
Subject: Surfliner Hotel Concerns
Date: Monday, June 16, 2025 4:46:34 PM

****EXTERNAL EMAIL****

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Dear Mindy Fogg,

My name is Mary Kate McGeehan, a concerned citizen and resident of Carpinteria, and I would like to respectfully express my views regarding the proposed Surfliner Inn to be built on Linden.

As most everyone who lives here and visits would agree, Carpinteria has been and continues to be a sparkling jewel of a place, with a unique beachy charm and vibe. It is not Montecito, or Summerland, or Santa Barbara. It is quaint, laid back, and has a very cool vibe all its own. So then, why even think of cramming an oversized 36 room,m fancy boutique hotel with a rooftop bar and a large parking lot, ACROSS the tracks, on Linden? I am against this idea and here's why: no matter how lovely or forward thinking this design concept is, it would appear that the developers who dreamt this up did so with zero regard to the reality of the actual location…or to the residents who live nearby. Sure it's a romantic idea to have a Surfliner Hotel on the tracks with a groovy rooftop bar near the beach? Sounds lovely, right? But in reality, nope. Not a good idea. Especially at this particular location. Linden is a busy cross section leading into and out of the beach area. The only access. This proposed hotel is simply way too big, plus I believe it is inviting disaster to have the hotel parking lot across the tracks. Did anyone think this through? This will definitely cause major congestion, pollution, not to mention the potential for life-threatening accidents. Not. Safe. Again, not a good idea, plus this project means the loss of a beautiful open space and the decimation of 18 trees! We need more trees, not less. Look, I am all for progress and I am not opposed to building new enterprises in Carpinteria. In fact I welcome it and I support it wholeheartedly. Linden Square has been a beautiful new, apparently thriving and popular addition, except for the parking - more on that later. Everyone knows Carpinteria desperately needs revenue. I just don't believe that this Surfliner project, at this proposed location, is the solution, or the answer. I think it's a nightmare waiting to happen on many levels, both environmentally and socially.

Now having said that, I have a hunch that my concerns, as well as those of so many others/residents, will probably fall on deaf ears and this proposed project will unfortunately move forward, sadly proving that money talks once again. So then, if this is the case, then I humbly beg and beseech the developers to at the very least, RETHINK the size of this hotel. A compromise. Does it really HAVE to be 36 rooms? Why? Why 36? Is this some kind of magic number? Why not 10 rooms? Could someone please explain why 36? If this project was downsized a lot, thus creating a much smaller footprint, it could utilize the parking lot already there and incorporate a new two story parking structure into the hotel's architecture and leave the open space. I just don't understand the need for 36 rooms at this very tiny, very controversial location. It feels like forcing a round peg in a square hole. And what about noise? We already have ongoing issues with neighbors complaining about music coming from Island. How exactly will noise pollution be handled? Just wondering how these developers can justify building such a huge building on such a tiny, inappropriate location.

Also, with regard to parking…has anyone ever done a serious study of where new parking lots might be built to alleviate the parking dilemma we have in town? How about adding a second story at Albertsons, which is already being used by patrons frequenting Linden Square. Or the parking lot across from the Garden center - why not investigate the possibility of making that a two story structure? If not, why not? There's also a vacant lot on Carpinteria and Holly, and at the end of Linden where the campground is, couldn't something be worked out between the county and the city? Parking is a huge issue in this town and I would think this would be an issue as important as discussing this proposed hotel.

I hope this wasn't too long and I thank you for letting me express my views.

Sincerely yours,
Mary Kate McGeehan

From: RUTH GULL
To: Mindy Fogg
Subject: Fwd: Surfliner Environmental Review meeting
Date: Monday, June 16, 2025 5:23:35 PM

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Please see below
Sent from my iPad

Begin forwarded message:

> **From:** RUTH GULL <RUTHGL@verizon.net>
> **Date:** June 16, 2025 at 10:12:39 AM PDT
> **To:** mindyf@carpinteria.gov
> **Subject: Surfliner Environmental Review meeting**
>
> Hello Mindy,
> I'm unable to attend the public meeting regarding the Surfliner Environmental Review, but I wanted to document my opposition to the Surfliner hotel.
> The hotel will block views, cause congestion/parking problems. Trees will have to be removed and noise level will increase where there are already noise issues.
> I like to go to the beach to relax and this hotel will prevent that from happening on Linden Avenue.
>
> Thank you
> Ruth Gull
> Sent from my iPad

From:	Susan Williams
To:	Mindy Fogg
Subject:	Surfliner resend
Date:	Monday, June 16, 2025 8:32:43 PM

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My original mail bounced back into Junk Mail.

Mindy Fogg, Principal Planner

City of Carpinteria

Mindy@carpinteria.gov

Surfliner Inn

Project No. 23-2254-DP/CUP/CDP/ARB

My concerns are listed below:

Recreation -how is changing an open space into a parking lot supporting the designation of recreation zoning? The trail is an asset, the open space is an asset for any number of recreational purposes. The Inn provides no recreational usage for residents of the city. The addition of decomposed granite to the trail does not balance the loss of the open space.

Transportation- I assume that Transportation includes the parking lot and other transit issues. The schematic for lot # 3 shows 4 handicap slots and one electric charging slot. The schematic for lot #4 shows 6 handicap slots, but no charging stations are indicated.

Lot 3 does not appear to have sufficient space for delivery trucks in a parking lot that is in use. A wider area near the Inn entrance is needed.

In the July 2024 Project Review there was an indication that part of Lot 4 would be for dedicated use of employees of the Inn. From the current document I understand that this continues. My concern is that 17 to 19 employees (regular hotel staff plus café and visitor center) will impact lot 4 availability for the vehicles/people who use the current lot 3.

There is no local public transportation available nearby. The closest bus line is on Carpinteria Avenue.

Hazards-Lot 4 represents a difficult, potentially dangerous situation for local residents and travelers taking the train. The platform is a walk from the lot over the tracks. For a healthy, agile person that's fine. For people with young children, heavy luggage, mobility issues not reaching the level of a handicap placard this is an obstacle which needs to be addressed. A second platform on the Lot 4 side would solve this problem.

Public Services- Lot 3 has provided an area for Farmers' Market (AvoFest, paving Linden), Library relocation (post Fire), and for business and locals during the numerous events held on Linden. The loss of an area for these sort of occurrences will be felt.

Susan Williams

7391 Gobernador Canyon Road

Carpinteria, California 93013

Sent from my iPad

From: Sally Graham
To: Mindy Fogg
Subject: Surfliner
Date: Monday, June 16, 2025 9:30:49 PM

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Hello Mindy,

I am writing in opposition to the proposed Surfliner Hotel.

I think the location is entirely inappropriate, between The Spot and a liquor store, and across the street from a brewery.

I'm also very concerned about the traffic in that area, particularly cars leaving the parking lot, turning left from Elm onto Dorrance and then immediately onto Linden. That corner is already congested, with two busy crosswalks, not to mention the railroad crossing just a few feet away.

The apartment building on Elm has families with small children living there, very unsafe for them to have cars exiting right in front of them.

Let's keep the Beach Area beachy and safe. If Carpinteria really needs a boutique hotel put it closer to where the upscale shops and restaurants are located.

We already have a Visitor Information Center, staffed by volunteers who all live here and enthusiastically share their knowledge and love for Carpinteria with locals and tourists who pass by on Linden Avenue.

I am also opposed to the size of the building, (rooftop pool?) removal of trees and landscaping, and the lovely trail that the City put in just a few years ago, what a waste of money!

Please reconsider this development, I for one think it is a very bad idea.

Respectfully,

Sally A Graham

349 Ash Avenue, Space 21
Carpinteria CA 93013

From: zerkle50
To: Mindy Fogg; Monica Solorzano
Subject: In reference to the proposed Surfliner Inn project
Date: Tuesday, June 17, 2025 10:21:37 AM

****EXTERNAL EMAIL****

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The proud residents of Carpinteria have chosen to call this uniquely special, seaside beach town home for a plethora of reasons. It's quiet and peaceful ... where we work and play. We feel a connection and are committed to its gentle way of life. Therefore, it should come as no surprise that there continues to be negative and controversial community feedback regarding the proposed Surfliner Inn project. Yes, we voted. However the ambiguous wording of Measure T2022 appears to have been intentionally confusing, misleading, and obviously manipulative. Voting "No" meant a "Yes" and a "Yes" meant a "No" for the proposed Surfliner Inn. It was unconscionable. I feel that the citizens of our community deserve the opportunity to re-vote on this important issue, this time with the measure clearly asking the question: Do you want a Surliner Inn in Carpinteria? "Yes" or "No." Please be honorable and fair! Let's keep our small town intimacy and vibe and protect the land for future generations yet to come.

Submitted by:

Lisa Piltz

1473 Azalea Drive

Carpinteria, CA 93013

(805) 684-4220

Note:
Received on
June 16, 2025

Hello Mindy, July 11, '25

I am writing to you because I have many concerns about the Surfliner Hotel project.

- overall, I do not want the project approved.
- I believe the height is too high, noise concerns about the roof top use.
- Parking - Even though the owners claim to add parking on the other side of the tracks. We will be loosing spaces, as the hotel will be taking space from the current public parking lot.
- I think it is unsafe to have a parking area so close to the train crossing.

(Please see inside above)

Let's grow a world that is more kind, connected and vibrant.
This paper is made with recycled cotton and contains basil seeds.
Place it under a thin layer of soil somewhere warm and sunny.
Water well and often, and watch it sprout within 1-2 weeks.
MATR BOOMIE
www.matrboomie.com

zoeartworks@gmail.com.

cont. from back,

I urge your department to stop this project or have major changes to the plan.

- no roof top use
- lower the height profile
- increase parking (people from LA will not be taking the train!)
- require increased plantings & trees.

Thank you Zoe Iverson

From: Jo Dean Johnson
To: Mindy Fogg
Subject: SURFLINER CALL TO ACTION
Date: Tuesday, June 17, 2025 6:50:43 PM

EXTERNAL EMAIL

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Dear Mindy F.,

Thank you for letting us comment on this really weird idea for a hotel.
I want to let you know I am blessed and thank God everyday for living here in Carpinteria since 1986. My husband & I bought property on 4th St and built our beautiful duplex. We raised our son here and he met and made wonderful friends. He went through the JG's program and became a great swimmer and surfer. He is very thankful as we are to have these blessings from God. We enjoy the beauty and quietness of this place.
With the in mind and being the case point we have seen (since we have lived here on the beach side of the tracks) how busy Linden can get in the Summer and holiday months. It has grown and we have enjoyed watching others enjoy. The problem we see is there is to many people flocking here and only one Exit - Linden. During an emergancies where are the fireman, ambulances and first responders going to go? Through the State Park Campground when Linden gets blocked by something? Come on think! Why are we only looking at the money end of this? I realize people need the attendance of new people to make money on there small business but putting peoples lives in jeopardy is wrong. Someone will be very sorry for this mistake if it's not fixed with new exits through Holy or Elm Street.

The hotel is a bad idea sounds great but not here. Somewhere else up by Ballard or Rincon where they can easy on easy off the freeway and walk to downtown for dinner.

Keep Carp a small community it is your Jobe!!
Thank you the Johnson's

From: Patricia Cloud
To: Mindy Fogg
Subject: EiR(hotel, restaurant, rooftop bar and , parking lot
Date: Wednesday, June 18, 2025 8:02:01 AM

****EXTERNAL EMAIL****

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My , name is Patricia, I'm , a resident , of , Carpinteria, I was , not born , here , in Carpinteria, but , I feel , more , I'm , a , Carp, local , in , my opinion , the whole , town, will be , so , impacting, the last , of southern , California, small , charming, beach towns, with , blocking , beautiful , Ocean, mountains, wild life, traffic, problems, we already , have, noise , the money for the , city , of Carpinteria , look s , tempting, but , the , impact, that , we , residents , would , suffer , it's , irreversible, so , please , consider this , also , for your , children s , future etc, etc.
Patricia

From: grp000@gmail.com
To: Mindy Fogg
Subject: Support for the Surfliner Inn Project in Carpinteria
Date: Thursday, June 19, 2025 1:24:57 PM

****EXTERNAL EMAIL****

CAUTION: This email originated from outside the City of Carpinteria. DO NOT OPEN attachments or CLICK on links unless you are sure they are safe. Remember, reputable vendors, banks, etc. will not ask you to disclose passwords or other sensitive information.

Dear Ms. Fogg,

I am writing to express my strong support for the proposed Surfliner Inn development in Carpinteria. I believe this thoughtfully designed project will offer meaningful economic, cultural, and community benefits while preserving the charm and character that makes Carpinteria so special. Much like the recent opening of Linden Square the Surfliner Inn will breathe new life into downtown Carpinteria.

The Surfliner Inn presents several key advantages:

1. Sustainable Economic Development: The inn will generate long-term revenue for the city through transient occupancy taxes and increased visitor spending, helping fund essential local services and public works.

2. Downtown Revitalization: Thoughtfully located adjacent to the train station, the inn supports walkability and public transportation, bringing vitality to downtown businesses and encouraging eco-conscious tourism.

3. Architectural Compatibility: The design respects Carpinteria's scale and aesthetic, blending seamlessly with the surrounding environment. The inn will enhance the area visually without overwhelming its coastal village feel.

4. Environmental Stewardship: The project's commitment to low-impact development, native landscaping, and LEED certification demonstrates a sincere effort to tread lightly and support sustainability.

5. Community Collaboration: The planning process has involved extensive community input. I appreciate the developers' willingness to adapt to public concerns and work transparently with residents and city staff.

As someone who cares deeply about responsible growth and the long-term health of our community. We can't stop change, but we can work together to help shape it. I am confident the Surfliner Inn represents a forward-looking investment in Carpinteria's future. I encourage the city to move ahead with this project, and I thank you for your careful attention to community voices throughout the process.

Sincerely,

Gregory Palermo

4914 Sawyer Ave
Carpinteria, CA 93013

From: Beth Beals
To: Mindy Fogg
Subject: RE: Surfliner Comments
Date: Thursday, June 19, 2025 1:45:04 PM

****EXTERNAL EMAIL****

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Thank you for taking email comments. So much appreciation coming your way.

I will do my best to articulate my concerns.

1. Leasing public land to a private or corporate entity without a very specific term of use, duration of stay and specific financial responsibilities by each party entering the contract seems reckless in our current economic environment. The city does not have money to lose if a legal battle were to ensue.

2. Is the hotel liable if the train platform is over crowded at any point due to guests, visitors or train riders and safety becomes an issue? What is the mission statement of the hotel for interfacing with train riders on a daily basis whether it be a guest or not? Do they view it as an opportunity to be the "face" of the city of Carpinteria when the riders disembark and may have questions and their lobby will be the natural place to inquire about things? or will they be locked out? Will riders be allowed to wait for their train as they always have without being asked to move to a different area so as to not interfere with hotel guests? Will it be considered loitering at some point? That platform may be someone's first encounter with our charming little city or the end to their long work day. Will parking a car for the train eventually be charged because the hotel wants more open spaces for their guests? How will crowd control be handled if the rooftop bar is full and patrons just decide to gather on the platform? Do guests take precedence over locals/visitors for seating and enjoyment of the bar? What about children on the platform? Who is liable if they are injured because they are just goofing around too close to the tracks? Is the city liable? Will a new crossing gate that can deter pedestrians from crossing in front the train have to be installed for safety reasons? Is that on the city and therefore the residents to pay for?

3. Is the hotel accountable if guests complain about the noise of the train or just eventually don't come and stay because they don't enjoy that type of experience? The cost per room for this hotel stands to be a significant amount and would normally attract guests with that kind of disposable income. I'm not sure they are looking for the full train experience, so if the hotel is only occupied with minimal reservations what is their plan to pay the rent owed to the city?

4. The scale of the hotel seems disproportionate to the space available. It will block views for many current and long standing residents. Why are others rights to the view being infringed upon for the sake of one hotel with a rooftop bar that isn't really even necessary or appropriate for that specific space?

5. How will large trucks delivering goods and services be routed around that area of the city? Will those neighbors nearby now have to see large scale trucks regularly dropping linens, food and collecting trash? The noise level, wear and tear on our local roads (that already need a little love), delivery times and pollution all stand to impact the human residents as well as the wildlife that nest in that area.

6. Rooftop bar just seems excessive. We already have residents in that area that feel the noise level is cumbersome from a local establishment. The sound of dishes clanging, people talking, music playing and light pollution will have a negative impact on the human residents as well as the wildlife. One rooftop bar is complete in Linden Square and a second is proposed (I believe) at the site of the Palms. Those will also have negative impacts.

7. The use of the lot behind the spot seems thoughtless. The increased traffic at that exact sight is just inviting congestion and accidents. It's truly a safety hazard. The folks in that neighborhood will be negatively impacted by more cars through their less traveled streets, light pollution, air pollution and disruption again to the wildlife in the area. More noise from cars and people means less wildlife to enjoy.

8. Water usage is of great concern. We just added at least three new restaurants to Linden Square and a public restroom. That seems like an additional "burden" to our usage as a city. I don't have hard evidence at the moment of the actual impact adding a hotel of this size and the impact it would have on our city usage, yet I am able to imagine it will be significant and the rest of the local residents will be the ones with more stringent restrictions placed on us and higher prices being paid for our minimal usage, as well as the ones who will care the most to steward the use of that resource.

9. Tree removal for a hotel that isn't really necessary seems counterintuitive to preserving our natural resources and small town charm.

10. I have a tremendous amount of concern for any entity entering our city that wants to build something that doesn't really improve the lives of the local residents. It improves their wallets. I don't think realistically it offers more jobs to Carpinterians. Stating that as a mother of an adult child who applied at many local establishments for work and others were hired from outside of Carpinteria over them (in respect to hospitrestality/restaurant work). I am also on high alert when an entity stands to make more from the deal than the city and has more financial power.

I appreciate you reading, sorting and collecting emails. Thank you.

Best Regards,
Beth Beals

From: Jaclyn Eaton
To: Mindy Fogg
Subject: Surfliner call to action
Date: Thursday, June 19, 2025 2:42:54 PM

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To whom it may concern:

Hello, my name is Jaclyn Eaton. I am a Carpinteria resident and my address is 4934 Fifth Street, right across from the proposed hotel. As a resident on Fifth Street, parking is already an issue. There are consistent issues with RV overnight camping, abandoned commercial vehicles for 72 hours or more at a time, not to mention, the commuter lot is a public lot for beach goers and visiting patrons. The proposed hotel will cause so much congestion and will completely block our views of the dunes and ocean. I am concerned about the impact of noise and volume of noise, especially with the proposed rooftop bar. I do not want to hear drunken patrons, unwanted guests, etc. There are many other locations that a hotel can be placed, NOT HERE! The hotel will be a negative impact on our neighborhood and I am outraged by this proposal.

Regards,
Jaclyn Eaton
Sent from my iPhone

From: A. Fraser
To: Mindy Fogg
Subject: Comments for EIR for proposed Surfliner Inn
Date: Thursday, June 19, 2025 5:02:53 PM

EXTERNAL EMAIL

CAUTION: This email originated from outside the City of Carpinteria. DO NOT OPEN attachments or CLICK on links unless you are sure they are safe. Remember, reputable vendors, banks, etc. will not ask you to disclose passwords or other sensitive information.

Please consider and incorporate our comments:

The hotel is too massive for the key location next to the train stop and only 3 blocks to the beach. Based on the flags, viewed from the Oceanside, the hotel would completely obstruct views of the Mountains from Linden to a block and a half west of Linden. The unique situation of Carpinteria being between the mountains and the ocean, so valued by residents annd visitors alike, will be blocked by the Surfliner Inn.

Where is the water coming from for the pool? Will residents of Carpinteria have to forego showers, baths and washing dishes so that luxury guests of the Surfliner can float in a pool?

Thirdly and, in my opinion, most importantly is the increased congestion of intersections which are already overburdened with car and pedestrian traffic. Living in the Beach Neighborhood, we know full well that that there is only one way out of the beach neighborhood in the event of emergency or natural disaster. Having both the parking lot and pedestrians from the Surfliner empty out onto Linden by the railroad tracks will create unworkable congestion. Residents will not be able to get out safely in the event of tsunami, earthquake, fires, etc. The "bottleneck" will become impassable due to the increased traffic from the new parking lot. How will we get out when an emergency or natural disaster happens? Today, Thursday June 19th, going from the vicinity of Holly and 4th to Linden & Carp Avenues took 15 minutes due to increased pedestrian traffic since Linden Square opened and an unprecedented number of summer visitors began. The EIR needs to seriously consider the effect that the new increase in pedestrian traffic and the proposed increase in vehicle traffic will have on the intersection of Linden and Dorrance in an emergency in order to avoid unnecessary loss of lives, pets and possessions in the case of a mandatory evacuation. Thank you for your attention to these issues.

Sincerely,
Anne Fraser and Robert Lehmann, 333A Holly Ave., Carpinteria Ca 93013

Sent from my iPad

From: victor garza
To: Mindy Fogg; Michael Ramirez; Nick Bobroff
Cc: Natalia Alarcon; Monica Solorzano; Al Clark; Wade Nomura; Julia Mayer
Subject: Surfliner Hotel - EIR Public Comments
Date: Friday, June 20, 2025 4:46:31 PM
Attachments: Surfliner EIR Public Comments 6-20-25.docx

EXTERNAL EMAIL

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Hello Mindy et al,
Attached please find a document with Surfliner Hotel Project EIR Public comments.
Please let me know asap if you're able to open the document and if it's legible,

Thank you,
Victor Garza

NOP Public Comments for the Environmental Impact Report on the Surfliner Inn Project.

Comments Scope: Planning, Design and Construction of Parking Lot #4 south of the tracks, and the future operation of the existing Parking Lot 3.

Summary: Construction and Operation of Parking Lot #4 as proposed by the Developer will negatively impact the Beach Neighborhood.

The main concerns are; public safety, the insufficient number of parking spaces provided by the project, and, the design of the parking lot itself. The design will be so hard to navigate, residents, customers, employees, and visitors will look for alternatives on the streets of the adjacent beachside neighborhood.

Equally concerning is the location of the parking lot and its sole access point. Both raise safety issues for both pedestrians and vehicles. The entry/exit is a) close of an at-grade railroad crossing and b) close to one of Carpinteria's busiest intersections during the summer and on weekends.

The developer proposes to provide 139 parking spaces, 93 in the proposed Lot #4 and 46 in Lot #3. This number is inadequate.

Although temporary, the construction of the new parking lot and the hotel will be extremely disruptive with many negative impacts to the businesses, residents and visitors who use Lot #3 and surrounding street parking and to the residents who live nearby. The construction will also impact residents of the beach neighborhood and impact traffic on Linden Avenue, the only street access to the entire beach neighborhood.

Adverse Impacts for the following CEQA Appendix G Issues:
XVIII. Transportation; I. Aesthetics; X. Hydrology and Water Quality; IX. Hazards and Hazardous Materials.

XVIII. Transportation

Parking Studies: The 2024 "Updated Traffic and Parking Study for the Surfliner Inn Project" generated by Associated Transportation Engineers relies on the "Walker Study" published in 2020. The "Walker Study" monitored traffic in October of 2019 then "adjusted" its findings to project parking lot usage in "peak mo. July" to determine lot usage by the Inn (alone). Resolution No. 4082, Carpinteria City Council...Regarding Environmental Review Regulations (1994) states "A previous traffic study for the development under review will only be acceptable if it is less than two years old." This is mentioned under the section **Contents of Traffic Study** on page 46.

Level of Service (LOS): In addition, the findings contained in section "Traffic Operations" (p. 5) of the ATE 2024 study are questionable. These include the assertion that "the Lot 4 driveway would operate in the level of service (LOS) A range with very little delay and queuing for vehicles entering and exiting the parking lot driveway" (p. 5). LOS A, the best of 5 possible ratings, has the freest possible movement of traffic providing motorists with a "high level of physical and psychological comfort" and "generally occurs late at night in urban areas and frequently in rural areas".

There is no supporting data in the report to come to that conclusion. The 300 peak hour trips on Linden were not supported by any tables of how that number was determined (for example, was seasonality part of the study?). The City as the Lead Agency is obligated **not** to rely on incomplete/unverified assumptions because these often lead to inaccurate conclusions. The City needs to perform another parking study, during or close to peak usage, in order to obtain accurate LOS service levels and not rely on an incomplete applicant's study.

Parking Access: Unlike City Parking Lots #1, #2, #3, which are accessed from side streets, proposed Parking Lot #4 can only be accessed off a major thoroughfare, Linden Avenue. Linden is both a) the only street that connects Carpinteria's downtown to the beach and b) the only street connection between the beach neighborhood and the rest of the town.

The location of the sole entry/exit for Parking Lot #4 on Linden Avenue presents a significant safety issue for residents and visitors. On weekends and during summer months, Parking Lot #4's single access point is close to a) one of the most congested intersections in Carpinteria (Dorrance and Linden), and close to b) an at-grade railroad crossing. During these busy periods, the area is filled with vehicles, cyclists and pedestrians, including young children headed to the nearby playground or beach.

Design of Parking Lot #4: The design of Parking Lot #4 is more problematic still. It is very long (225-feet, running from Linden to Holly) with only a single, narrow driving aisle, and a dead-end **with no dedicated turn-around area.**

A significant consequence of this long (1.75 football fields) and narrow configuration: Parking Lot #4 will be underutilized. From the single entry point at one end, drivers will perceive the lot to be full well before it reaches 85% capacity and look elsewhere. The 85% capacity rule is an accepted number by parking lot experts and refers to the point at which drivers are too discouraged to enter a lot and look for a space. These discouraged drivers will look for parking in the beachside community, directly and negatively affecting beach residents.

The current project Parking Lot #4 plans submitted by the Developer are 'conceptual' per the City and these lack many important details. Some parking lot's construction details are shown, but on different plan sheets under different titles. For anyone to fully understand and check the form and function of the lot, the plans for Lot #4 must be centralized on one place in the plan set, and these plans should be drawn and stamped by an engineer that specializes in municipal parking lot design and construction. All

dimensions (including overall parking lot size) and grades and elevations must be clearly shown on the plans; **they are not given now**.

Aisle Width: Given site constraints, the area designated for the proposed parking lot #4 can only accommodate a long narrow rectangular shape with a double loaded single aisle. It must accommodate both drivers trying to enter and exit the lot and drivers trying to enter and exit parking stalls. On high usage days, this will likely produce potential gridlock, especially given the narrow CMC 24-foot aisle width. The City has two other similarly shaped, single-aisle municipal parking lots located outside of the Downtown T. Both have larger aisle widths making it easier to enter and back out of the parking spaces: Viola Field's is 32' and Rincon's 26' 8".

Parking Stall Layout: The 90-degree parking stall layout maximizes the lot capacity, but most drivers find entering and exiting 90-degree stalls problematic. It is best suited for those needing long term parking, including employees and residents who use it every day for long periods, not short term users such as tourists and patrons of local businesses.

The 90-degree parking stall layout also creates conflicts with the traffic flow in the lot. Drivers trying to access a stall directly to their right will be forced to make more than one turning movement to get their vehicle into it, while stopping all cars going both directions. Drivers attempting to access a stall to their left will also stop traffic behind them as they wait for ongoing cars to pass.

City Parking Lots #1, #2, and #3 have angled parking and through traffic circulation. For most drivers, these lots are much more user-friendly.

Stall Size: Although the proposed parking lot #4 stall size meets the current City Code, it is too small for most of today's passenger vehicles and does not allow for future vehicles which are likely to be even larger. The stall size in Proposed City Parking Lot #4 is 9-feet wide by 18-feet long. But, since 2020, more than 50% of new car sales in the US have been SUVs, and these have trended to be larger. In 2025 their average width is **6 to 7 feet** (not including larger doors and side mirrors which can add 8-10-inches). SUV length can range from **16 to 20-feet**.

Pickup trucks are also increasingly popular as passenger vehicles. Their width in 2025 ranges from **6-feet, 8-inches to more than 7-feet**. Their length from **19-feet to 20-feet-8-inches.**

When entering a parking stall, many drivers do not move to the far end of the stall. Given today's longer SUVs and pick-up trucks, the tail of the vehicle may likely be sticking out in the 24-foot wide aisle of proposed Parking Lot #4 and will slow traffic even more, as other cars have to maneuver around these vehicles.

Turn around: Because of the single entry/exit, dead-end design, drivers unable to find parking must turn around in order to exit the lot. **But, there is no dedicated turn-around.** in the parking lot and the narrow 24-foot wide drive aisle cannot serve this function. Drivers who enter and do not find a space will be forced to use the Elm Street emergency

exit as the turn-around, disrupting traffic flow. Even worse, drivers going the full length of Parking Lot #4 searching for a space and finding nothing **will have to back up to the emergency exit at Elm** before they can turn around. This backing up movement will also disrupt traffic flow, conflicting with those attempting to enter the lot, and creating gridlock within the lot as well as a potential for collisions.

Insufficient Number of Parking Spaces: The number of parking spaces proposed for this project is insufficient for the needs of the hotel and the city.

As per the parking space calculations detailed in the City's Municipal Code for the hotel, restaurant and bar, the Surfliner project **by itself** would be required to provide between 121-178 parking spaces. The developer has proposed instead to provide a new public parking lot with 93 spaces south of the RR tracks and to retain 46 public parking spaces in the existing parking lot #3 for a total of 139 spaces for **both the hotel and public parking.** This will be woefully inadequate.

As City staff December 12, 2024 report for the Architectural Review Board regarding the Surfliner project states, "If the City were to require the hotel's required parking to be provided independent and separate from the 113 public parking spaces currently provide in Lot 3, the overall proposal would then require a total of 234-291 parking spaces: 121-178 for the hotel and 113 public parking spaces to match the existing number of spaces Lot 3. Therefore, the proposed project would fall 95-184 parking spaces below the amount needed to achieve this stand-alone parking scenario per the CMC specific parking requirements."

Rather than applying the formula, calculations and requirements from the Municipal Code, the City is proposing instead to reduce the number of parking spaces required for the Surfliner by employing the concept of Conjunctive Parking. This concept suggests that the total number of spaces in a public parking lot can be reduced when use is scattered throughout the day – ie the same space is occupied by one driver in the morning, one in the early afternoon and one at night.

It is unclear whether the Conjunctive Parking model is applicable in this case, especially because beach users, a very large user group, tend to stay all day. It should also be noted that two other restaurants (Palms and Linden Square) in downtown Carpinteria have already been allowed to reduce their on-site parking requirements by the City's applying the Conjunctive Parking model to Parking Lot #3. How many business establishments can be accommodated in the same public parking lot, using the Conjuctive Parking model?(Even if some patrons of the other two restaurants use Lots #1 and #2, many will be using #3)

It should also be noted that hotel guests will be occupy the parking by the hotel 24 hours a day. At peak occupancy during the summer and weekends, the guests would use at least 36 of the 43 spaces there, and the other ten will likely be occupied by employees or delivery trucks. Realistically, only 93 of the 139 spaces will be available for public parking of any kind, only 66% of what the developer has promised.

In sum, as noted in the staff report of December 12, 2024, by the City's own standards, the Surfliner project has a parking deficiency of 95 to 184 spaces. This is significant and will negatively impact the on-street parking supply in the beachside community, displacing its residents, and making it increasingly difficult for the general public to access the local beaches.

Railroad Crossing: The proximity of the parking lot #4 entrance/exit to the at-grade railroad crossing poses potential public safety issues for both vehicles (including bicycles) and pedestrians.

There is only 80 feet between the tracks and the lot's single entry/exit driveway. The 2024 "Updated Traffic and Parking Study for the Surfliner Inn Project" asserts "There is sufficient storage space for two vehicles between the stop bar at the rail crossing arm and the driveway for Lot 4. (p. 5)". While this is true, it does not take into account all the traffic in this area on Linden on busy summer days and weekends throughout the year. At these times, traffic on Linden is already lined up bumper to bumper from the STOP sign at the Dorrance/Linden intersection. Southbound cars waiting to get into Parking Lot #4 will cause traffic to back up even more on Linden, potentially straddling the railroad crossing.

When the railroad crossing bars start to come down, many drivers dart into traffic to avoid it coming down on their vehicle. Drivers waiting to enter Parking Lot #4 will add even more to this chaos.

The City of Carpinteria should require the developer's design team to certify to both the City, and Union Pacific, that locating the parking lot entrance 80ft from the railroad crossing will never create public safety issues for pedestrian and vehicle traffic.

Paving. Permeable paving, which absorbs stormwater runoff, is proposed for the parking stalls of Lot #4 to satisfy stormwater requirements. The City does not use this type of material on any city lot and has no prior experience with it. Its use here raises two questions: First, will this surface be strong enough to support vehicles once the subgrade is saturated? Second, compared to conventional asphalt, this material requires specialized and more costly maintenance to ensure adequate rainfall percolation into the subgrade. Has the city budgeted for this?

Fender bender potential. The inadequate stall size combined with the 90-degree parking stalls and the narrow driving aisle is a setup for fender benders, and a liability for the owner of the Parking Lot #4, which will be the City.

Surrounding neighborhoods will continue to be impacted by beach visitors, locals and visitors to restaurants and retail shops. Because the number of parking spaces the Developer has proposed is insufficient, and because the difficulty of using City Parking Lot #4 as designed will discourage many drivers from using it, drivers will instead park in the surrounding neighborhoods, much to the irritation of the residents.

I. Aesthetics

Parking Lot Lighting: The proposed lighting plans for the hotel and Parking Lot #4 will create a new and substantial source of light and glare. The lighting will also adversely affect day and nighttime views in the area. In addition, the current plan shows foot candle amounts that are below the standards set for public parking lots. Bringing the parking lot lighting levels to the minimum required will increase both light intensity and glare, and increase this project's impact on nearby residents.

X. Hydrology and Water Quality

Drainage Parking Lot #4: The construction design for stormwater run-off from the proposed parking lot will substantially alter the existing drainage pattern and exacerbate existing flooding conditions on both Elm Ave and adjacent residential properties.

The parking stalls, which occupy 60% of the paved area, will have permeable paving which will absorb the rainwater that falls on them. But, it is not clear how much additional runoff from the adjacent impermeable asphalt paving in the aisle can also be absorbed by this special paving. The asphalt occupies 40% of the site. The project's grading plan shows stormwater from the entire parking lot being directed to Elm Ave and the adjacent properties, clearly implying that the runoff will not be completely contained within Lot #4 itself. This runoff will worsen the flooding problems already impacting residents. It is a major safety issue.

Groundwater Parking Lot 3: Anecdotal evidence indicates a high-water table under existing Parking Lot 3. This means that the project's plan for mitigating stormwater runoff for this area by installing a subsurface stormwater retention and percolation system may be infeasible, and an alternative must be proposed. To verify what the groundwater level actually is, the developer must test it.

IX. Hazards and Hazardous Materials

Parking Lot 4: Due to the previous uses of the area proposed for Parking Lot #4, soils testing must be performed to rule out the possibility of unearthing soils containing hazardous materials.

Construction Impacts:

Construction of the proposed Parking Lot 4 and the Hotel will impact the adjacent beachside neighborhood in the following ways:

- Noise – Heavy equipment and trucks will disrupt this quiet neighborhood
- Parking – During the construction period, the existing parking area in Lot #3 and the adjacent on-street parking will be filled with construction equipment, workers, and materials. For the people who would have ordinarily used these spaces in the past, no alternative has been proposed. The developer must propose a temporary parking option; otherwise, all these drivers will park in the beach neighborhood and in the neighborhood around the hotel, severely impacting both. Businesses at this end of

Linden will complain that they are losing business because their customers can't find a place to park.

Operation of Parking Lot #3

At this time, there have been no provisions or conditions stated or proposed to ensure that **ALL** of the remaining parking spaces in Lot #3 remain available to the general public at all times. Failure to acknowledge this and to specify how the lot will be managed to ensure this will result in those spaces being "reserved" for hotel employees and customers and the public being deprived of those parking spaces, forcing them to park in Lot #4, or in the beachside neighborhood. Since the City and developer have included the remaining spaces in Lot #3 in the number of parking spaces that the project will provide, every effort must be taken to ensure that all of those parking spaces are always available to the general public.

From: Daniel Chesler
To: Mindy Fogg
Subject: Save Carp
Date: Saturday, June 21, 2025 10:44:00 AM

****EXTERNAL EMAIL****

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I am against this plan to build this crazy Hotel restaurant rooftop bar. This is a terrible idea! Carpinteria is a small City with big hearts and this will NOT improve our COMMUNITY, it will only congest it and dilute its charm.

Strong "no" for this building!

Danny Chesler
43 year resident.

From: Suzanne DeFriez
To: Mindy Fogg
Subject: Surfliner - written comment
Date: Sunday, June 22, 2025 3:32:49 PM

****EXTERNAL EMAIL****

CAUTION: This email originated from outside the City of Carpinteria. DO NOT OPEN attachments or CLICK on links unless you are sure they are safe. Remember, reputable vendors, banks, etc. will not ask you to disclose passwords or other sensitive information.

The Surfliner represents a faulty choice of profit over preserving Carpinteria's character. The loss of open vistas, reduction in parking spaces for existing downtown businesses is all to capture profit that will likely prove short lived. If poor planning kills the character of the town, will the tourists continue to come? And has the City of Carpinteria considered climate change and the near-term (20 year) forecast for sea level rise? The site will be under water soon enough. It reminds me of the bad choices to concentrate cannabis growers in Carpinteria by Santa Barbara County. SB ignored the quality-of-life issues and the questionable profit forecast for cannabis. As it turns out, the cannabis farms are not nearly as profitable as promised. Yet, residents are still suffering the consequences of smelly air. Downtown Carpinteria is a gem that people from all over enjoy visiting and the residents love - but it is fragile. Growth for growth's sake is not worth the gamble.

Thank you for your consideration.
Suzanne DeFriez

I am writing this letter to express our opposition to the construction of the Surfliner Hotel. My concerns are listed below.

We believe it is inappropriate for the City of Carpinteria to use public land that was given to all the tax paying residents of Carpinteria to promote a private developers financial adventure. Although it maybe legal it is not the best use of the public land. Once this land is developed it is gone forever. The City (the lessor) will be financially responsible for this misadventure. This boutique hotel will be competing with other expensive hotels in the area, such as the Rosewood and many of the other fine hotels in the city of Santa Barbara. The Surfliner Hotel will be physically located next to a liquor store on one side and on the other side the local "Spot" hamburger shack and the proposed hotel parking lot. Across the street is an industrial building and the railroad tracks are twenty feet away. This is hardly a boutique location unless you're building on public land and you are using unrealistic income and tax projections. Before approving this development the City should make a realistic assessment of its financial exposure and the likely need to make future concessions to the owners of the hotel to make it viable.

My wife and I have resided at the Silver Sands mobile home park located at 349 Ash Avenue in Carpinteria for over twenty years The only safe exit from our beach neighborhood is via Linden Avenue over the railroad crossing. This route is directly in front of the proposed hotel and parking lot. This is our only way to safely evacuate during an emergency. Any evacuation will be compromised because there will be many hotel patrons and staff along with the local residents trying to leave the area in their cars. The ensuing bottleneck at the railroad crossing will be very dangerous if there is an urban fire, a train derailment, a pipeline rupture or a tsunami alert. The City Council should reject the proposed location of the Surfliner Hotel because it will prevent the safe evacuation of the local residents during an emergency. There are ample examples of botched evacuations that have occurred throughout California.

The existing R/R parking lot is open to all city visitors, beach goers and the locals. However, the new parking proposal will change that in a very negative way. Hotel management will designate many of the prime parking spaces near the hotel which are closest to the beach for guests only. The existing lack of beach parking in Carpinteria will be made worse and will impact the local residents and visitors.

We hope the City Council will reflect on the many negatives that will result from the Surfliner Hotel development. Many Carpinteria residents are concerned that this hotel and its location near the beach will detract from the small town feeling that everyone likes, including most of the visitors to this wonderful town. We have never encountered any one who has visited Carp who has said we need a hotel near the beach. However, everyone likes the small beach town atmosphere that the City fathers have so diligently protected. We urge you to protect Carp once again and reject the unpopular Surfliner development.

Sincerely,

Richard and Debbie Bitterolf



From: Mindy Fogg
To: Mindy Fogg
Subject: RE: FW: Scoping Meeting Comments
Date: Wednesday, June 25, 2025 10:51:16 AM

From: Amrita Salm <amritaincarp@gmail.com>
Sent: Monday, June 16, 2025 12:00 PM
To: Public Comment
Subject: Scoping Meeting Comments

COMMENTS for Scoping Mtg., June 16, 2025

I have been a Carpinteria resident & homeowner for the last 34 years. Last week, three well-informed Carp residents told me that the City of Carpinteria will approve the proposed Surfliner Inn and the new parking lot no matter what the public comments or analysis yields as far as environmental impacts. I want to believe that integrity, transparency and honesty exist at this time and in Carpinteria.

The City sends requests for our input about goals and priorities, as they did last week in the City's Newsletter. Will they ignore our comments or incorporate them into their goals? My comments from last year were not incorporated. Are potential tourist dollars more important to the City than what the residents and tax payers who live here need and want? Is the City mission statement still valid - to encourage public participation in the decision-making process?

Are the City's decision makers aware that we don't want to become like other commercialized beach communities in Southern California? Is anyone paying attention?

The proposed hotel's location and bulk destroys the gateway to our downtown beach area, going south and going north the panoramic mountain views, now available to all. Additionally, it also affects the feel of our downtown. No longer will there be a

feeling of expansiveness and openness. Do we need another hotel that will destroy the expansive mountain views, remove mature trees, cause congestion, noise, pollution, use our scare water supply, create safety issues and ruin the uniqueness and qualities of our small beach town? Why do tourist come here? Why do we live here? In addition, the proposed new parking lot is a disaster waiting to happen from the standpoint of safety issues, drainage issues, traffic, size, location, entrance & exit. I plan to send in more detailed comments before the deadline.

-Amrita M. Salm

PO BOX 684

Carpinteria, CA 93014-0684

~2nd letter provided below~

TO: Mindy Fong and the Consultants for Surfliner EIR

FROM: Amrita M. Salm, Ph.D.

Date: June 25, 2025

I have many concerns regarding the development of the proposed Surfliner Inn & Parking Lot #4. Carpinteria has been known for decades as a small beach town. Building this hotel and a new parking lot will change Carpinteria forever and have many environmental impacts.

Purpose of Project: The actual purpose of the project, on public land owned by the City, is to increase revenues for the City, not to build a hotel and new parking lot.

Surfliner Inn

1. **Bulk of Project/ Mountain Views/Aesthetics**
   The massive bulk of this project will transform the entryway of our Carpinteria State Park and beach, diminishing the view dramatically from a wide expansive, panoramic mountain and beach view to a small spot.

   It will change not only the physical impressions of our beloved entrance into the reason that people live and visit Carpinteria, but also the feeling of openness and expansiveness that it conveys to everyone.

   The bulk of the hotel structure will break the unbroken panorama of the San Ynez mountains. This was evident when the story poles were up, although not evident from the diagrams provided by the developer.

   No longer having that panoramic view of the mountains and the ocean will also affect our economy. Who will want to come here if Carpinteria loses its important distinction as the only small, old-fashioned, friendly beach town in California?

   The large shade trees that were planted and provided a parking lot that was gentle on the eyes and available at no cost to beachgoers, train travelers, local shoppers and workers will be destroyed if the hotel is built. Eighteen mature trees

will be removed. Are the trees scheduled for removal if the hotel is approved including historic tree specimens? Will they be protected?

How will parking at Parking Lot #3, the proposed site of the Surfliner, accommodate the increased car traffic from the hotel (their guests will not be going by train, as stated in the developer's description of the project), the increased traffic from the new Linden Square shopping mall, the Palms and other businesses as well as beach-goers? Linden Square opened less than a month ago and already people are complaining about congestion, lack of parking, traffic and safety issues.

2. Open Spaces

   The Coastal Land Use Plan & General Plan (CLUP/GP) focuses a lot on the benefits and value of Open Spaces.

   a. Building the proposed hotel will eliminate a major open space for both residents, tourists and members of disadvantaged communities, many of whom visit Carpinteria to enjoy the Open Space, mountain views and views of the ocean and the Channel Islands.
   b. How will this project affect Open Spaces in Carpinteria, easy access to public parking, the beach, hiking trails and outdoor eating?

3. Water Issues

   a.)How will the hotel justify the excessive use of water, esp. during a drought?
   b) How will drainage issues be defused so that homes in the beach neighborhood are not affected?
   c) There appears to be a high water table level under proposed parking lot # 4. How will that issue be addressed and by whom?
   d.) How much water will be required to operate a restaurant, a rooftop bar and pool? Where will the water come from?
   e.) Will there be drainage issues from the proposed hotel, parking lot #3 and/or parking lot #4? How will that be determined?

4. Sea Level Rise & Tsunami Zone

   a.) How will sea level rise affect the proposed hotel, parking lot #3 & proposed parking lot # 4?

b.) How will the location of the proposed project, located within the tsunami zone be addressed?
c.) What emergency plans and escape routes be incorporated into addressed both these issues? Will all hotel guests be informed of escape routes? Risks?
d.) If either disaster occurs who is the responsible party- the hotel project/parking lots or the City of Carpinteria, this being a joint venture?

5. Air Quality/Pollution and Noise Levels
   a.) How will these be assessed? How frequently and by whom (APCD, City Code Enforcement or whom?) and how will that information be shared with the City & the public?
   b.) With increased auto and pedestrian traffic there will be increase noise and pollution to the surrounding beach community and the entire city?
   c.) With the anticipated noise levels will sound walls be built? If so, where & by whom?

6. Wildlife Corridor
   a. The area close to the proposed hotel is a wildlife corridor.
   b. How will birds and other wildlife find alternative routes?

7. Construction Impacts will affect traffic congestion, neighborhoods, noise and pollution levels.

8. Land Use & Planning
   The use of public land for private profit, is inappropriate and without a vote of the people who own it, unethical.

9. Safety Issues
   a.) The amount of traffic, congestion, train arrivals & departures, foot traffic and children around the proposed locations for both the hotel and parking lot #4 will be a safety issue. How will it be addressed? What are the alternatives?
   b.) Dorrance & Linden are often full of people on the crosswalks, sidewalks, eating areas, near the railroad tracks. What safety measures will be implemented to avoid future accidents? Who will be responsible for controlling traffic flow of people and vehicles?

Parking Lot #4

A. Safety Issues

1.The **proposed location of the entrance/exit** of the proposed Parking Lot # 4, in addition the interior design, creates major issues to the beach community, most importantly safety concerns. It includes:

a.) Congestion and safety along Linden Ave. sidewalk and entrance/exit.
b.) Traffic flow inside the parking lot congestion and safety.
c.) Vehicles exiting onto Linden Ave traffic flow causing congestion and safety of pedestrians.
d.) When the Railroad Crossing is down the congestion will become much worse that it already is? It is already a safety issue.
3.) How will all these points be addressed?

2. Are there **alternative locations** for a another public parking lot?

B. Need for a New, Updated Parking Study

The parking study done in 2020 known as the Walker Study is outdated (done in 2020) and was not done during peak periods of use, i.e. summer months before Labor Day. It is necessary and required by law to do a new, current parking study to be done during the summer months & weekends that will account for the huge traffic and congestion caused by the opening of Linden Square and other new businesses (Palms restaurant, roof top bar, etc.) Many shoppers use Parking Lot #3 to go shopping, eat out, visit the beach, go for a beach walk, watch the sunset, etc. Summers are the busiest period for tourists and businesses.

C. Insufficient number of parking spaces for the hotel, other businesses, beachgoers and shoppers, as well as hotel employees.

D. Other related issues:

a. Design of proposed parking lot #4, has a dead-end and no dedicated turn-around area. It is a disaster waiting to happen and is also a safety issue.

b. Location of the lot from Linden Ave., one of only two major thoroughfares, that connects the beach to the downtown and other neighborhoods is a safety issue and is full of young children, cyclists, vehicles & pedestrians.
c. The layout of the lot : the parking stalls, the stall size, aisle width all will cause congestion, accidents, safety issues and parking problems in the beach neighborhood and along Linden Ave and streets going north of the beach.
d. Lighting in the parking lot and hotel needs to meet required City codes and will result in increased glare, intensity and will affect the neighborhood and wildlife.

CONCLUSIONS

The analysis for the EIR to be acceptable must include the cumulative and limited individual impacts of the proposed hotel and new parking lot. This project is not for this community, at this time, at the proposed location.

The ARB preliminary approval had additional comments that also need to be addressed as stated in the minutes of the Dec.12, 2024 ARB meeting including:

1. Further study is needed regarding safety at the southeast corner;
2. Further landscape plan development is needed;
3. Further detailing on site lighting is needed;
4. Further study of the 5th street massing is needed; and
5. Further study of parking lot # 4, including potential addition of sound wall at southern boundary and additional landscaping is needed.

It is my hope that the recognition of Class I & Class II impacts will be addressed in this EIR along with alternatives or no project.

From: Carole Magness
To: Mindy Fogg
Cc: clif magness
Subject: The SURFLINER proposal
Date: Monday, June 23, 2025 9:56:01 AM

EXTERNAL EMAIL

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Hello ~

I write today as a new Carpinteria resident.

My husband and I were long time Santa Barbara residents, and most recently (the past 2 years), have lived in Seattle near family.
We are very grateful to be here in Carpinteria.
Today we learned of the proposal noted above.
This is very bewildering, and seems also somewhat counter to the very identity of this special town. But also, regardless of the prospective revenue the city leaders seek to enjoy, there are casualties of the sort which are hard to quantify, and regain once lost.
In short, it will be stressful for Carpinteria residents, business owners, and regular visitors alike.
At a time when Corporate entities are already diminishing the quality of life in similar endeavors, we see this as extremely disappointing at the very least.

Sincerely,
Carole and Clifton Magness

From: Patty OShea
To: Mindy Fogg
Subject: NO!!!!
Date: Monday, June 23, 2025 2:33:31 PM

****EXTERNAL EMAIL****

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Hello
I am emailing you regarding the proposed project in Carpinteria Ca.
We are long time residents who are AGAINST what is being proposed.
There doesn't need to be anymore hotels, congestion, traffic, tearing down of any of our beautiful landscape plus numerous other problems that will come with this proposed project!
We DO NOT WANT THIS TO GO THROUGH!!!!!!



EVERYONE WHO LOVES CARP WILL BE AFFECTED BY THIS PROJECT

(Hotel, Restaurant, Rooftop Bar, New Paved Parking Lot next to The Spot)

SPEAK OUT because ALL comments must be addressed by the consultant in the final EIR (Environmental Impact Report) which will be used to determine the future of Carpinteria

- **WRITTEN COMMENT PERIOD: May 29 - June 27. Send comments to mindyf@carpinteriaca.gov**
- **ORAL COMMENTS at Scoping Meeting: Monday, June 16 @ 5:30 PM @ City Hall**
- **DISCUSSION POINTS may include: parking, traffic, congestion, safety, blocked views, water issues, noise, aesthetics, pollution, tree removal, etc.**

Paid for by people who love Carp! email: NotoSurflinerinCarp@gmail.com

From: DAVIS MERSEREAU
To: Mindy Fogg
Subject: Comments for Surfliner - NOP, DEIR - Davis M.
Date: Monday, June 23, 2025 3:22:37 PM

****EXTERNAL EMAIL****

CAUTION: This email originated from outside the City of Carpinteria. DO NOT OPEN attachments or CLICK on links unless you are sure they are safe. Remember, reputable vendors, banks, etc. will not ask you to disclose passwords or other sensitive information.

Dear Mindy,
Thanks for your efforts to coordinate public comment here.

I have several comments and recommendations:

1. Re: *Under a tentative agreement from 2021, the city would lease the land to the local developers for 55 years for 5.5% of the appraised fair market value in annual base rent. The city would also receive 4.5% of gross revenue generated by the inn.*

Recommendation #1: Aim for 5–6% annually over the term, with periodic CPI escalations and FMV resets (e.g. every 10–15 years) to reflect changing market conditions

Recommendation #2: Negotiate thresholds for revenue share to offer upside for the city without overburdening the hotel operator.—e.g., only after $X revenue is achieved, City receives 5.5% -An upside share when occupancy and revenue climb.

2. Re: *Carpinteria Valley Association President Mike Wondolowski said the most recent Carpinteria Valley Economic Profile ranked hotel and food services dead last in average salary among all 18 job sectors. With the hotel bringing in a minimum of 42 full-time employees, Wondolowski said the city currently does not have enough affordable housing for residents classified as low- to very-low income.*

I share this concern. It's CRITICAL.

Recommendation #3:
The city should include labor-related mandates in a lease for this public land, including requiring the developer to pay employees above market rate.

Because the land is publicly owned, cities have greater latitude to set "public benefit" conditions in lease agreements, including: Minimum wage floors above state/local law; Living wage ordinances; Local hire requirements.

The city can require higher-than-market wages under a "Community Benefits Agreement", ground lease, or development agreement.

3. In the NOP proposal, there is insufficient attention and thoughtful planning toward the re-design of the trail from Linden to Holly. *"A new 5-foot-wide decomposed granite public pathway is proposed along the northern boundary of the parking lot, terminating to the east at*

the sidewalk along Linden Avenue to replace the existing interim Linden to Holly Trail segment."

A 5 foot wide trail is simply too narrow. The current Linden-Holly trail is an amazingly unique, safe, and useful pedestrian (and none e-bike) trail.

Recommendation #4:
Ensure the new trail is 10 ft wide to match the existing trail width and provide sufficient budget for landscaping to install appropriate native flora and fauna so it's more hidden from the parking lot and provides a scenic alternative to folks walking around downtown, especially as the neighborhood in this zone does not have any pedestrian sidewalks and summer is full of cars and traffic.

Thank you for your time and attention.

Very best,
Davis Mersereau

5290 Ogan Rd, Carpinteria, CA 93013

From: Jack Wilcock
To: Mindy Fogg
Subject: Surfliner Beach hotel
Date: Tuesday, June 24, 2025 11:36:44 PM

****EXTERNAL EMAIL****

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There is a shortage of short term lodging in the beach neighborhood and sort term rental of homes disrupts the neighborhood. Vistors could arrive by train, wander through downtown businesses and enjoy the beach without bringing large RVs and blocking our driveways. Removed eucalyptus trees could be replaced with less dangerous varieties. Before beach erosion and loss of a beachside street we've heard a beach hotel attracted visitors. The closing of Prufrock B&B eliminated nearby lodging for our friends and extended family. We welcome The Surfliner as a sorely needed improvement to our community.

Anne and Jack Wilcock
4891 Third Street,
Carpinteria

c/o Mindy F@ carpinteriaca.gov

6-23-25

RECEIVED
JUN 24 2025
COMMUNITY DEVELOPMENT DEPARTMENT

Safety should always be the primary concern in determining any changes being approved by the developers and the city. The proposed hotel next to the train tracks is not the best location, anyone with common sense can see that. Danger exists in and around that area. Just the congestion alone is significant. Traffic will indeed increase right as the train crossing barrier drops, to keep all the people from crossing while the trains approach. Linden at the crossing will be holding back much more traffic. Frustration and impatience could cause an accidental fatality, either pedestrian or people trapped in their cars, just because of the sheer loads of trucks and travelers wanting to exit or enter the adjacent parking lots.

Our family lives on the beachside, and we already know the wait can be long as we await in line, sometimes all the way down to Linden square, or Main Beach as locals call it. We live here, and we've been living here full time since early 1900's.

I remember the first City Council of Ernie Ulbrandt, Olly Olivas, Allen Coates and Margaret Mills. I would bet that they would not agree to this development.

If there had been a fair vote in the first place, as Lisa Piltz noted,

in last weeks Coastal View, there would have been a different conversation right now. But, we all saw the confusing ballot as just another way our current Council is unfairly pushing for development in the danger zone.

Besides the other issue of our water shortage and just the seriousness of that alone, our council needed to show some courage in the beginning, before the project got to this stage.

Carpinteria is the most special place, known for its unique community involvement

We are not giving in to the developers. We will fight to keep Carpinteria special.

As David Russo stated in his opinion in last weeks paper, "most local jurisdictions, with the blessing of the Coastal Commission, have welcomed such public serving facilities."

Well this is not just any locality. We are Carpinteria strong. And we will continue to believe we are special.

Stand up Carpinteria!



Mr. Albert Medel, Jr.
349 Ash Ave Spc 66
Carpinteria, CA 93013-2249

City Hall
c/o Mindyf@carpca.gov
5775 Carpinteria Ave.
Carpinteria, CA. 93013

RECEIVED
JUN 24 2025
COMMUNITY DEVELOPMENT
DEPARTMENT

The surfliner hotel project was the pipe dream of one very influential, former city employee. When the city asked developers to submit ideas, none came forward with a proposal. Somebody then went begging and apparently found a developer who would submit an idea for a much larger project than the city was originally looking for.

The composition and the attitudes of council has changed since then. At that time the city was running out of money and thought taking public land and removing a tasteful parking lot, cutting down mature trees and paving over more public land was a way out. This path leads to a bad outcome. Oxnard, Ventura, Santa Maria are examples of cities that attempted to build their way out of debt.

Carpinteria hired more and more people that were needed to review proposals, answer questions write minutes calendars, staff reports, conduct inspections and all of the other jobs that you all do. They had to pay consultants and attorneys to write legal documents, review plans, etc. which created backlog and more expenses.

We would suggest that instead of approving a new hotel and another parking lot, the city should charge for parking. This would discourage many of Carpinteria's, multi-car individuals

and generate funds for the city. Professor Donald Shoup, UCLA, in his book, "The High Cost of Free Parking", stated, "Free parking makes parking and driving worse. The low cost creates a scarcity of spaces that leads people to spend time and fuel circling blocks in misery."

Following are just some of the problems created by the hotel and parking lot proposals. I will speak for myself and my wife, Geri.

Aesthetics

The size and scale of the hotel building is out of scale with the neighborhood and will block significant mountain views, one of Carpinteria's very important resources as protected in our General Plan.

Removal of the mature trees will change the small town, landscaped, shaded parking on this very important lot.

The front of the hotel sticks out into the Linden sidewalk, crowding an important view corridor and creating a safety hazard. People crossing the tracks, going to the park or the Spot, cars, strollers and trains increases the chances of an accident.

If the building was moved to the west of the lot, the feeling of an urban open space and gateway mountain vista leading to the downtown T could be helpful.

Air Quality Issue

The transportation study for the hotel, does not reference new car trips that would be generated. Employees and guests, front desk personnel,

housekeeping, dish washers, chefs, servers, maintenance, etc. may be driving walking, riding a bike or riding the train. Employees most likely, will be coming 20-40 miles, to and from, a more affordable community to the north or south.

With a parking crunch in Carpinteria during summer months and festival weekends, cars will be circling looking for open parking spaces adding to air pollution.

The County of Santa Barbara is already exceeding air quality standards. This much car traffic will add to the county's air pollution problem. We think that a professional should do this analysis, not the developer.

The developer might mitigate this some of this negative result by reducing the hotel size or by providing housing for some employees. The developer could provide annual Amtrak passes for employees.

Utilities/Services Systems

Carpinteria County Water District is a utility that doesn't have the resources to service the project. I know that they signed off on the project but that is simply the district rubber stamping every application submitted.

40 years ago, the district was going to solve Carpinteria's water shortage by purchasing water from the state aqueduct. Well, that didn't work in times of drought.

The latest solution for our water district's deficit is to build the toilet to tap (Capp) project without conducting an election to find the desires of the citizens. The only thing that the taxpayers can argue, is whether they pay annually or monthly.

Carpinteria's groundwater basins are over drafted. The state is beginning an attempt to monitor local wells that are pumping the water.

The World Meteorological Organization reported recently that Earth is highly likely to keep shattering temperature records in the next few years, driving fiercer droughts.

Hazards

The projects proposed are within Carpinteria's tsunami zone. That seems risky.

The design and location of Parking lot 4 creates a safety issue at a busy intersection and railroad crossing.

One way in and out of a dead-end parking lot will result in accidents and possibly injuries

A problem with the plan is the congestion of cars with people, bikes, strollers, e-bikes and trains at the point where Linden Avenue crosses the tracks. Move the hotel away from this crowded intersection.

There are underground tanks leaking where parking lot 4 is proposed. The public should know what is in these tanks and if this is something that may pollute our groundwater.

Noise

Duh! Railroad train horn honking will wake up the guests.

Rooftop music will bother neighbors.

The proposed parking lot will abut residences and the automobile noise and loud users of the lot will disturb home owners.

Thank you for your time in serving Carpinteria.

Gary and Geri Campopiano

5345 Eighth Street

805.453.4425

From: MYFA CIRINNA
To: Mindy Fogg
Subject: No To Surfliner in Carpinteria
Date: Wednesday, June 25, 2025 12:36:17 PM

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CAUTION: This email originated from outside the City of Carpinteria. DO NOT OPEN attachments or CLICK on links unless you are sure they are safe. Remember, reputable vendors, banks, etc. will not ask you to disclose passwords or other sensitive information.

Dear Mindy,

We live at 750 Olive Ave., and like everyone that I know in my neighborhood and in Carpinteria at large we DO NOT support the idea of losing the current parking lot at the Amtrack stop to any additional development.

Aside from the fact that we use that parking lot frequently, we also do not believe that Carpinteria needs more traffic and congestion downtown. With the state park so active we already have a large transient population racing their electric bikes up and down the streets and sidewalks. Adding more tourists will just compound the problem and make it even more challenging to cross the street on Carpinteria, Linden and Palm Avenues. Parking and street trash have also been increasing challenges for Carpinteria residence that will just be compounded with further downtown congestion..

We are also seeing an increase in commercial vacancies along Carpinteria and Linden Ave. I cannot see how we benefit from adding additional commercial development. I think it is a very bad idea for Carpinteria and I am putting in my voice to recommend AGAINST developing the Surfliner.

Respectfully,

Myfa Cirinna

From: Julia Predmore
To: Mindy Fogg
Subject: Surfliner Hotel Comment
Date: Wednesday, June 25, 2025 3:03:24 PM

EXTERNAL EMAIL

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To whom it may concern,

I would like to express my concern over the hotel being built on the amtrack parking lot. My biggest concern being over parking. I know they've expressed that they'll build extra parking over by the spot but I don't feel that's enough.

They could very easily privatize it or start charging for parking.

I live in the beach block and I already have to play musical cars with my neighbors during the summer months and I think that's going to compound the parking issue.

After linden square opened up it's created a nightmare for parking on linden, 7th, and 8th street. I also know a lot of local full time residents that live within a block of linden square and they've had difficulties finding street parking for their homes. Removing the amtrack parking lot will more than likely compound that.

It's also been very evident that people have been parking in the smart and final parking lot to go to linden square. How long until they start cracking down on parking and people will have to park at the amtrack parking lot?

As someone who lives in the beach block it is VERY evident that the people who approved this have NOT lived near the amtrack parking lot. That train can be VERY loud and I can't imagine any tourists wanting to spend hundreds to thousands of dollars to be right next to the train.

It's clear that tourism is about to take a downward turn in the USA and a possible recession. It's a huge financial risk to allow this being built. It could never be finished if the developers run out of money, or it can be abandoned if it's not as financially successful. That's a huge risk I don't think the city should make

Finally, this is land that is zoned as public land. What an absolutely disgusting decision to allow a for profit company to operate on land that is meant to be easily and readily available for FREE to tax payers.

My fear is the city will start charging for parking and I want this town to be as free and financially available to as many people as possible. I don't think we should gatekeep our beautiful town.

Overall, I find building this hotel to be detrimental to locals and tourists a like. I don't think it's going to benefit anyone.

Thank you for your time.

A Carpinteria local,

Julia Predmore

From: Tom and Judy Nilsen
To: Mindy Fogg
Subject: SAVE Beach Parking
Date: Tuesday, June 24, 2025 9:34:49 AM

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I have been going to Carpinteria since I was a child....I'm 84 now. A favorite camping place and a wonderful small town to explore.

I love Carpinteria as a beach town! I love the smell of the air, the stores, the beach, the charm.

I recently ate lunch at Linden Square and it is a class act. Love the succulents on the tables and at the entrance. It is very nice **BUT** I don't want all of Carpinteria to become like most other urban places in Southern California. No more big buildings.....parking lot is needed.

I WANT CHARMING FRIENDLY CARPINTERIA!

Sincerely, Judy Nilsen

To mindyf@carpinteriaca.gov
Comments on Surfliner Inn Project - June 25, 2025
Notice of Preparation (NOP) for a Draft Environmental Impact Report

Note: As I recall the project was originally referred to as a boutique hotel and later became an inn. I use the term hotel throughout my comments.

The loss of our public open space existing in Parking Lot #3 will dramatically impact the character of our unique Small Town. Our shared natural environment is primary to our community character.

The open space of Parking Lot #3 currently functions as an entry & an exit to our Small Town. This open space is an important foyer to Carpinteria. It is irreplaceable.

This open space is a central junction used by both residents & tourists of our community. State Park Campers pass by on their way to "town". Beach Neighborhood residents & tourists pass by on their way to "town". Town residents and tourists pass by on their way out of town, to the beaches. This central public open space area of convergence will be lost if the hotel is built.

The historic iconic eucalyptus trees rise above us… we are small…our town is small… These trees affirm our smallness. Through these trees we experience expansive views to the mountains, pink in winter sunsets. At dawn's first summer light we enjoy views to the opalescent sea. We see the perimeters of our Small Town in our exquisite environment.

The proposed hotel will reduce this area of convergence to a roadway with an industrial building on one side and a hotel on the other. The proposed hotel will demolish these irreplaceable trees, block the expansive views, and forever change the character of our Small Town.

Has a core sample of the site been taken as part of the EIR to verify the water table and how it might impact (raise) the necessary foundation footings, fill & finished grade from which the height of the hotel will rise? Rumor has it that the water table of Parking Lot #3 is very high. Given the results of such a study a new storey pole exhibit may need to be required.

Carpinteria's unique character as a small beach town has evolved over the years. Public parks have been included as important community land use elements as working class neighborhoods have been developed. However, areas to the West of Linden often referred to as "old town" predate this wisdom. Parking Lot #3 is the closest thing to a "neighborhood" park on this side of town. It currently functions as a place to sit & relax, a place to meet neighbors, chat and watch the trains go by. The hotel will displace & diminish this neighborhood public use.

Parking Lot #3 is also the only public open space on Linden Avenue (our primary center of town roadway) owned by the City of Carpinteria. It has served our small town well. Historically, it was funded by & used to provide parking for industrial businesses when employee numbers were high. What is the City's plan for parking should empoloyee numbers increase again? It has also been used as a prelimiary community trial site for the "farmers market" and for the "skate park". Where will the City provide public open space wherein other potential new community ideas such as these can be supported? We must always remember Linden Field is State property.

The train was the only way to get in and out of town during the Fire/Flood emergency. Parking Lot #3 as well as the side streets were filled to overflowing. Residents walked in mass down

Linden Avenue to the train. What is the City's plan to provide emergency safety plans and parking should major environmental events occur in the future?

Metro Link is expanding service. Parking demand for Metro Link useage will increase. Is this potential increase included in the parking study? Will a lack of available parking have a negative impact on Metro Link usage?

The hotel has from the beginning been too big of a dream for the size of the site. The size of the building footprint made providing the required parking on site impossible. That might have been a red flag to the City and the developer. But the City chose to expand the offering to include conjuctive use of public land across the tracks. This land, between the tracks and the back of the residentail parcels along Dorrance Way will be a new City owned & maintained parking lot. Parking Lot#4

The beach neighborhood is unique among California beach towns. Primarily a residential area it also offers tourists a variety of accommodations including short term rentals, cottages, condo & apartment rentals. To date it is a successful balance between residents and tourists. Tourists enjoy being part of a community. Winter tourists volunteer extensively with local service organizations. Residents enjoy meeting tourists. Ours is a "friendly" town.

Introducing a new linear design public Parking Lot #4 with 93 parking spaces behind the Dorrance Way residences severely impacts the existing community balance of residents & tourists favoring the tourists experience over the quality of life of the residential population, introducing foot and vehicle traffic to an exisiting quiet neighborhood. Cars starting up, coming and going, opening doors, shutting trunks at all hours day & nite. Introducing lighting for safety. Police patrols to insure safety. Drainage systems directing water runoff from pavement. Landscape plantings to reduce heat of pavement but potentially simultaneously reducing residents views to the mountains. Increased neighborhood traffic & congestion including entry from Dorrance to Linden Avenue and traffic crossing the train tracks. Parking Lot #4 will definitely highly impact this neighborhood. None of our other public parking lots have disreguarded Carpinteria design standards & disrespected neighborhood liveability to this degree. Are there any other solutions to the parking problems created by this hotel project? Off site (out of the neighborhoods) hotel parking & shuttle service? Is destroying a neighborhood to accommodate 39 hotel rooms really part of Carpinteria's small town character?

But we're back to the initial problem… It's like the hotel is a size 9 foot being squeezed into a size 5 shoe… The hotel just doesn't fit!

Our community comes together to solve problems .
We are unique in many ways.
With drought conditions we conserve water. Yet the hotel will demand increased water consumption.
We have a housing shortage. The hotel creates low paying jobs and will likely exacherbate the situation.
What are the economic risks when all the environmental nuisances are studied?

Carpinteria is Carpinteria. Relative to other California beach towns, perhaps the biggest difference is the lack of commericialization of our land close to the sea. We do have our historic Julia Child endorsed "SPOT" which continues to offer a friendly, very special, small town, down home special dining experience with gravel at our feet, umbrella overhead looking across Linden Field toward the sea or across the tracks toward the mountains right through Parking Lot #3! It's an iconic landmark even in its standstill, mid-remodel state for so many years.

Carpinteria is about community. Hotels are often about exculsivity.

The proposed Surfliner hotel is out of character for Carpinteria…. a small beach town in a rural setting… a community of families, working & retired people, campers, vacation rentals, tourists, ethnically & socio-economiclly diverse… people smiling at one another and appreciating Carpinteria's extraordinary environment.

I look back on the history of this dream hotel saga.
How many years did it take to find a developer willing to bite the bait?
That developer has moved on.
How long before this developer decides a "boutique hotel", a size 9 Surfliner Inn won't fit in Carpinteria's size 5 shoe?

With respect to project alternatives will the EIR research include an examination of other City owned properties as potential sites with less impacts? Will privately owned properties also be considered? For the record, I favor the no project alternative for both the Parking Lot #3 site and the associated Parking Lot #4 site.

I encourage the City to stay out of the real estate business. Private industry is doing fine without City gifts or favors.

Respectfully,
C Kathleen Lord

From: Tina Culver
To: Mindy Fogg
Subject: Surfliner-Christine Culver
Date: Wednesday, June 25, 2025 6:08:25 PM

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June 2025

To the Environmental Impact board and City Council Members:
RE: proposed Surfliner Inn project for our downtown area

My biggest concerns with this project are safety and traffic congestion. First off, the proposal for creating parking in the lot #4 across the tracks is ill conceived. There is only one way in and out of the neighborhood in that area. This is already a very busy area with the residents and vacationers trying to get in and out. The kind of congestion this parking lot will make will create more pollution. A friend of mine recently waited 15 minutes in a long line of cars to get across the train tracks (a train was stopped). The parking lot backs right up to private residences. There is only one way in and out of that 93 space lot. Now with Linden Square opening it is a a zoo downtown. In summer, it is particularly busy with the car, foot and bicycle traffic, going to and from the beach. NOT safe!! And what if there were an emergency that required evacuation?

The plans indicate that the building will be two stories with a rooftop bar on the second story . The rooftop bar will need some sort of wall to keep customers safe. To me that makes it a 3 story building which most definitely will impact the view of the beach or the mountains for the local residents living on either side of the project. Right now that area has the feeling of being expansive and open. The hotel will take that feeling away. Now, what about the noise? First it would be a couple of years (at least) of construction noise, dust, trucks. Then when it would be up and running, the noise from the rooftop bar/cafe will carry into the surrounding residential areas.

Another point to consider is the use of water. At this time we don't seem to be in a drought but there will be one before too long. It is a fact of life in this area. A hotel by its nature uses a lot of water. Even if there are conservation efforts and recycling it will still use a significant amount of this limited resource. I do not think the 'Toilet to Tap' option is one that any of us are happy about.

Does this project fit in with the scale and character of the existing community? I don't think so. If the city feels that it needs another hotel, find another place for it. Don't ruin our downtown area PLEASE!

Take you for your time.

Most Sincerely,
Christine Culver, 8th Street, 40 year resident

From: BETTY SONGER
To: Mindy Fogg
Subject: PROPOSED SURFLINER INN & PARKING LOT 4
Date: Wednesday, June 25, 2025 6:53:22 PM

EXTERNAL EMAIL

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The property where the proposed Inn and Parking lot are to be built is public land and was to be for public use. It is now proposed to be built for the wealthy non residents, the rates being asked are above what the average public can afford. In order to do this the environment will be harmed, trees will be cut down, traffic will increase, safety issues will increase and noise and excessive lighting problems will occur. How does this benefit the general public?

PARKING LOT 3
The Walker traffic study is out dated and must be redone. I checked out the parking lot on June 15 and every space was filled, as were all the spaces along Linden Avenue. Also many spaces required for the Palms Hotel and Linden Square will further complicate the parking. The people from the Community Garden also need parking.
The Inn will require a separate space for each room and will need spaces for its employees. Shared spacing is an unworkable idea.
Mature trees which house and shelter many birds will be cut down. How will they be replaced?

PARKING LOT 4
This proposed one way in and one way out parking structure has many problems. It will be built along a wild life corridor that leads to the Salt Marsh. Do we want to add to the already decreasing numbers of wildlife?
Parking lots need to be well lighted and this lighting is not healthy for wildlife and it is also unhealthy for the surrounding neighborhood.
Cars pulling out of the parking lot will add to the all ready congested traffic on Linden and will be a danger to the many people around the spot, in the crosswalk. That area is especially congested in the summer and on weekends.
This will be the only parking lot in Carpinteria that is built in a neighborhood.

ROOF TOP BARS
There are already two approved roof top bars on Linden and if the proposed plans go through there will be three, all of them will impact the neighboring homes. Is the money raised more important than the quality of life of Carpinteria residents.

NOISE
Noise of cars going in and of the parking lot all night. Noise of the train for the Inn sleepers. I live next to the tracks and I would not stay hotel next to the tracks. Noise from the folks frolicking in the pool. Noise from the music and happy drunks at the roof top bar. Increased traffic noise, people will not come by train. Trains are slow and inefficient and only one step above the greyhound bus.

WATER
We are asked to conserve water so why would we do it, if hotels can have swimming pools, laundries, restaurants and unlimited showers.

LOW INCOME
All the jobs provided by the Inn will be low paying jobs. Where will these people live? Many who cannot find housing will travel. long distances to get here.

I am hoping for a no project vote, because I believe that it is the only way to preserve our small town charm and that our citizens are more important than profit.
Thanks for reading my notes.

Betty Songer
5641 Calle Pacific
Carpinteria Ca 93013

Sent from my iPad

From: Mindy Fogg
To: Mindy Fogg
Subject: FW: EIR Comments: Surfliner Hotel Project and Parking Lot # 4 Project
Date: Friday, June 27, 2025 4:38:27 PM

To: Mindy Fogg and the consultants for Surfliner Hotel/Parking lot # 4 Project
From: Leslie Gascoigne at 729 Olive Ave.

Comments to be addressed in EIR:

1. All of the five actions from the ARB meeting on December 12, 2024 need to be addressed.

2. Bulk/aesthetics of project:
• Project will diminish Mountain View's in Gateway to the last small beach town .
• Removal of several large shade trees will negatively affect the environment.
• Hotel will cover much of parking lot number three with guests and employee parking dominating the lot.

3. Open space:
• Project will negatively affect easy access to public parking for the beach, local shops, parks and restaurants.

4. Water issues:
• A hotel with a pool are huge water users. Drought is a common problem. How will the city provide water to our residents as well as hotel guests?
• How will the city deal with drainage issues in nearby residential area that already exist without the proposed hotel and a proposed new parking lot?
• Will the developers conduct a water use projection study?

5. Sea level rise/tsunami zone:
• How will sea level rise in a potential emergency tsunami be addressed in relation to the proposed new projects?
• Will there be an emergency plan provided by the city?
• Will there be further study considering there is basically one exit from this beach neighborhood on Linden directly adjacent to the new projects?

6. Safety:
• Has the city considered the amount of automobile, traffic and congestion, traffic of adults and children, AND train, arrivals, and departures near the hotel, parking lot

number three and parking lot number four?
• What safety measures have been studied and planned for this area?
• Will there be an updated study on traffic and parking when there is a full opening of Linden Plaza, the new Palms, and all of the other new businesses that are popping up near our downtown T?

7. Parking lot #4:
• Has a professional parking lot architect been consulted on the design and efficiency of parking lot number four? I already commented on numerous problems at the ARB meeting on December 12 however, one entrance and exit on Linden is one of the major problems.
• Will there be an updated traffic and parking study during peak season on weekends? That includes all of the already approved new businesses nearby?
• Also, has the city considered that this will be the first public parking lot adjacent to a residential neighborhood?
• How will the city address problems like noise, pollution, congestion, etc. that will affect the residents living next to the parking lot?

The EIR analysis must include the cumulative and individual impacts of the proposed hotel and the new parking lot. This project is not compatible with the city of Carpinteria‘s mission to provide a high-quality of life for all residents by ensuring open, honest, and equitable government, encouraging public participation, and making judicious use of resources.

Thank you for including my comments in the EIR process.
Sincerely,
Leslie Gascoigne

From: Oliver Circosta
To: Mindy Fogg
Subject: Surfliner-Oliver Circosta
Date: Wednesday, June 25, 2025 7:29:55 PM

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Dear Mindy Fogg,

As a Carpinteria local who cares deeply about the integrity, beauty, and accessibility of our town, I am writing to express my strong opposition to the proposed Surfliner project. This development — including a hotel, restaurant, rooftop bar, and a new paved parking lot adjacent to The Spot — would fundamentally and irreversibly alter the character of downtown Carpinteria.

Carpinteria's charm lies in its simplicity, small-town spirit, and walkable beach-town layout. Projects like this may look appealing on paper, but they bring with them a cascade of negative impacts that I'd like to make light of:

Parking & Congestion: Downtown and beach parking is already limited. Altering the flow of our already-congested beach corridor would burden both residents and visitors. Locals depend on this parking to enjoy the beach and support nearby businesses.

Traffic & Safety: Increased traffic from hotel guests, rooftop bar patrons, and delivery vehicles will increase congestion and compromise pedestrian and bicycle safety — especially near the beach, which is heavily trafficked by families with children.

Aesthetics & Views: A hotel and rooftop bar will block cherished public ocean views and overshadow the low-rise, coastal architecture that defines Carpinteria. It risks replacing local charm with something that feels commercial and out of place.

Noise & Light Pollution: Rooftop bars and hotel activity bring noise and extended hours of disruption. The serenity of the beach and neighborhood ambiance would be lost under rooftop crowds and artificial lighting.

Environmental Concerns: The proximity to the ocean, sensitive habitat, and seasonal flooding makes this an irresponsible location for major development. Water usage, stormwater runoff, and pollution from a paved parking lot would damage an

already fragile ecosystem.

Tree Removal: The mature trees in the area provide shade, habitat, and beauty. Removing them for a paved lot would be a short-sighted sacrifice of long-term community value.

Community Character: Perhaps most importantly, this project undermines the soul of Carpinteria. We don't want to become another overbuilt tourist stop. Locals have invested generations into keeping this town grounded, beautiful, and livable — not just marketable.

The community's voice must be heard. I urge you to ensure this Environmental Impact Report genuinely reflects public input and to prioritize the long-term health and livability of Carpinteria over short-term economic gain.

Thank you for your time and for your responsibility to our town.

Sincerely,
Oliver Circosta
Carpinteria Resident
Downtown Area

From: Kameron Dayka
To: Mindy Fogg
Subject: Concern Regarding Proposed Hotel Development in Carpinteria
Date: Wednesday, June 25, 2025 8:24:07 PM

EXTERNAL EMAIL

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Dear Mindy,

As a lifelong resident of Carpinteria, I'm writing to express my deep concern about the proposed hotel development near the beach. I've grown up here, and like so many others in our community, I care deeply about preserving the character, beauty, and accessibility of our town.

This hotel project threatens to take away precious public parking for Linden as well as the beach and replace it with a massive structure that doesn't reflect the scale or spirit of Carpinteria. It would fundamentally change the landscape of our beach area, a place that belongs to all of us, not just tourists or developers.

Our small town has always been cherished for its simplicity, charm, and sense of community. Projects like this risk turning Carpinteria into something it was never meant to be. I urge you to consider the long-term impact on residents, local businesses, and future generations who deserve to enjoy our town and our beach the way we always have.

Please listen to the voices of locals who love this town, we don't want to see its soul traded away. People over profits.

Best,
Kameron Dayka

From: Ian McCurry
To: Mindy Fogg
Subject: Concerned Resident — Please Say No to the Surfliner Inn
Date: Wednesday, June 25, 2025 9:19:42 PM

****EXTERNAL EMAIL****

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Dear Mindy,

I'm writing as a concerned Carpinteria resident who strongly opposes the Surfliner Inn project. I urge you to vote against it and instead support efforts that truly reflect our community's values--to keep Carpinteria Carp.

While I understand the desire to attract visitors and generate revenue, this project poses serious risks to what makes our city special. As reported in multiple public hearings and news articles, the hotel's scale is out of step with our small beach town character. A 36-room hotel with a rooftop bar and event space right in the heart of downtown feels more like a commercial venture suited for Santa Barbara, not Carpinteria.

There are legitimate concerns about safety, especially with guests needing to cross active train tracks to reach the parking lot. Traffic congestion, loss of open space, privacy issues for nearby residents, and disruption of ocean breezes and sightlines all add to the growing frustration. Despite design tweaks, the core issue remains: this is a massive, permanent change to our public space for the benefit of private developers.

When over 1,100 residents signed the petition to bring this to a public vote--and Measure T made it to the ballot--that was a clear signal that this community wants a voice in what happens to our shared land. This is not just about architecture or landscaping; it's about the soul of our city.

Please listen to the people who live here. Carpinteria doesn't need to be reinvented to succeed. We need to protect what already makes it special--open space, slow growth, beach town charm, and thoughtful development that fits us, not outside investors.

Thank you for your time and service to our community.

Sincerely,

Ian McCurry

From: Andres
To: Mindy Fogg; notosurflinerincarp@gmail.com
Subject: No - Surfliner Hotel
Date: Thursday, June 26, 2025 3:19:35 AM

****EXTERNAL EMAIL****

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From a small-town residential perspective, a view on the effects of this project:
Larger proposals are based on growth, income, and dollar support for the city of Carpinteria. Not without benefits, this feeds one big ongoing conceptual issue, increased congestion. This result, a causal derivative of growth, manifests as negative impacts with parking, traffic, safety, blocked views, water quality + consumption issues, noise, aesthetics, pollution, removal of open space (that should already be made greener). These issues have already been stated by the no surfliner viewpoint.

What do we, city residents, get for these 'congestion' costs?

I'll pull excerpts retrieved from the cloud:
"The hotel will generate significant revenue for the city"
Dollar revenue is understandably a chief motivator, justification should be to support responsible city financing and (desirable) growth.
"One clear discussion point favoring the Surfliner Hotel project in Carpinteria is its anticipated economic benefits..."
Again, dollar revenue is understandably the chief commercial motivator which is, understandably, pro growth.

Good news from the General Fund Five Year Financial Plan 2022-27 updated for 2025:
"The General Fund is in good shape in funding operating costs. "
"However there are significant challenges ahead in funding ' Capital Improvement Program' projects ...."
I am grateful for what appears a current and responsible assessment. And it does mention we could or will deficit spend this year on the Capital Improvement Programs, but not on all other expenses. However, I look toward the smart people and stakeholders in the room to find alternatives to balance growth and financing for these future capital improvements. Lucrative hotel proceeds are probably not the optimal answer.

"Furthermore, proponents argue that the Surfliner Inn will modernize..., filling a gap in the market for boutique accommodations that reflect Carpinteria’s small-town, beach-side character."
We have, with effort and voices from all sides, kept much of our small-town character thru our history of past planning and growth.

Our residents have been watching commercial growth along Linden and Carp Avenues. And we have, understandably, watched our busy streets become busier. Traffic trends are easy to observe and this will reflect congestion costs as these large projects exacerbate congestion going forward.

Upgrading aesthetics and small beach-side character is happening now on Linden and Carp Avenues, so let's continue to upgrade without filling open area with more structure.

How do we do these things? incremental change? big change? it is for everyone to measure and to consent or dissent.

I am against the project that understandably will impose increased CONGESTION upon the lives, residential and visitor, within our small town of Carpinteria. Instead, let our visitors step off the train to a modestly revitalized area of landscaped greenery with added amenities rather than delivering travelers to a grand hotel.

Regards
Andres Gebhart

From: D and J Ledig
To: Mindy Fogg
Subject: Surfline's
Date: Thursday, June 26, 2025 9:27:39 AM

****EXTERNAL EMAIL****

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Hi Mindy,
Thank you for the opportunity to add my comments on the proposed surfliner hotel.

Please do not build a hotel in this location. It will ruin the feel of the residential community. I grew up in this area, it was my paper route, and I have lived in homes on Sandyland and Dorrance. It's a special area.

Please don't sell off our public lands to a private company.

Thanks,
David Ledig

Get Outlook for iOS

From: Kristin Larson
To: Mindy Fogg
Subject: Surfliner NOP Comments
Date: Thursday, June 26, 2025 12:13:51 PM
Attachments: Transparent_Tellus_FlyingPortrait_logo.pdf

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Hello Mindy-

I am submitting the following comment regarding the proposed Surfliner Inn in response to the CEQA Notice of Preparation:

> The current conceptual design for the proposed Surfliner Inn doesn't include dedicated parking. Instead the parking spaces for staff and patrons are expected to be accommodated in what will remain of City Lot 3, and in a proposed new parking lot (Lot 4) created by paving over the City's last true wild-land corridor, adjacent to the hotel site. We believe it is irresponsible to employ open space, natural resources and public lands as paved parking in order to accommodate a commercial enterprise that will profit private interests. This approach shifts impacts and costs to the public, especially homeowners adjacent to Lot 4, while all benefits inure to private interests.
>
> Alternatives evaluated in the CEQA analysis must include not only the No Action Alternative (e.g., maintenance of status quo), but at least one alternative should include a hotel plan with a subterranean parking structure containing at least 50 parking spaces. This alternative should also include the concomitant elimination or reduction in size of Parking Lot 4 such that the corridor connecting the southern open spaces (bluffs, State Park) with the Slough to the North, be maintained as wide and as undisturbed as possible.

Kristin Larson, Esq.
351 Paseo Nuevo, 2nd Floor
Santa Barbara, California 93101
Telephone (805) 258-7758

Email: klarson@telluslawgroup.com
www.telluslawgroup.com

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Surfliner Hotel Draft EIR

NOP Public Comments for the Environmental Impact Report on the Surfliner Inn Project

June 26, 2025
Amy Marie Orozco
orozcoamy@yahoo.com

The proposed Surfliner hotel and new parking lot has many negative impacts for the local neighborhood and the city at large. These include health & safety, hydrology & water quality, noise, aesthetics, and population & housing.

Please consider the following.

Health & Safety

With the location in a Tsunami Hazard Zone abutting a busy railroad crossing and across the street from a children's park in a densely populated and overly congested neighborhood, the proposed Surfliner hotel and new city parking lot present a grave danger.

Suggested mitigation: Relocate the projects.

Hydrology and Water Quality

Pssst! Water is a very limited and precious resource in Carpinteria. Hotels, particularly those with a swimming pool, use a lot of water. In the draft EIR, please provide the estimated water use by a 36-room hotel with an on-site swimming pool, restaurant, and bar and let us know what percentage of Carpinteria's state water allotment that is.

Please let us know what was in the underground closed leaking storage tank in Assessor's Parcel Number 004-105-026.

Suggested mitigation: Abort the projects.

Noise

By sound bouncing off the structure, the proposed Surfliner hotel will amplify the noise from the freight and passenger trains using the tracks into the Beach Neighborhood 24 hours a day every day.

In the draft EIR, please provide estimated decibel increase from the structure's bounce-back. Additionally, please get a sampling of local residents who have the same noise intrusion from the 101 soundwall and their suggested mitigation(s).

While the State of California mandates hotels located near transportation noise sources, including railroads, must meet specific noise insulation standards to ensure interior noise levels in habitable rooms do not exceed 45 dB CNEL (Community Noise Equivalent Level), will the developers of the Surfliner hotel provide mitigation to residents of the Beach Neighborhood?

Suggested mitigation: Abort the projects.

Aesthetics
The aesthetics of the proposed hotel and parking lot are not compatible with the surrounding neighborhood. The hotel resembles a super-sized McMansion. Paving over open land for a parking lot in a neighborhood with a dearth of space is not attractive. At all.

Suggested mitigation: Relocate the projects.

Population and Housing
Carpinteria suffers from a housing shortage. The proposed Surfliner hotel will exacerbate this issue and worsen traffic congestion and parking problems. Known for its low-wage scale, the hospitality industry does not provide the means necessary to live in Carpinteria, necessitating employees commuting from areas with a lower cost of living.

Suggested mitigation: Abort the projects.

Thank you for your consideration.

From: Vicki Stevenson
To: Mindy Fogg
Subject: HOTEL PROJECT
Date: Thursday, June 26, 2025 1:44:21 PM

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I oppose this project for all reasons noted in paper. Additionally, I keep wondering why supporters would believe people would enjoy spending the night sleeping by railroad tracks? Many trains go flying through Carpinteria all night. Those living by tracks know about the noise and buildings shaking. Suggest supporters learn about the number of trains going through, and go sleep in their car overnight at proposed site to have the experience of a visitor at hotel.

Hope Carpinteria will be saved from this totally incompatable project.

Vicki Stevenson

June 26, 2025

Dear Carpinteria Decision Makers for the Future,

THE SURFLINER PROJECT IS **WRONG** FOR SO MANY REASONS:

1. Is it a legal liability for the city? If a lawsuit of any kind is filed against the hotel etc. (as lawyers do "deep pocket" process where **everyone** involved in this property will be included in a lawsuit) the city will be sued as well. Sitting practically on a railroad track with alcoholic beverages served on the roof, children running around, the potential for a disaster is **real.** What impact could this have on "our city's" land? Will the city need liability insurance for this? At what cost? What if the lawsuit is successful?
2. It is absolutely impossible to guarantee this project's financial success. There exists **No Economic Crystal Ball in Reality**. If the project fails financially and the developers attempt to sell, what happens if this sale proves unsuccessful? Is there a Plan B? A Plan C for an empty hotel/restaurant/rooftop bar?
3. **Sea level rise is real**. What is the sea level of this project? Building here is not safe or forward-thinking. Where is the common sense?
4. Current large commercial spaces sit empty in town: Rite Aid, Matt Moore's Store, Giovanni's old building, The Palms—plans or not, it's empty. What does this signal economically?
5. **Parking!** Are you trying to make us like cramped Los Angeles's beaches — impossible to park? Are you trying to create an irretrievable mistake regarding this small town's generous parking reputation? Are you trying to lose our status as THE LAST SMALL CLASSIC BEACH TOWN? This is exactly what makes this city EXTRAORDINARY & POPULAR.
6. Irresponsibly ignoring the 700 citizens who live on the beach side of the RR tracks whose ability to safely evacuate in case of any emergency will be forever jeopardized…a dangerous life-threatening disservice to your citizens.
7. This is being built IN A TSUNAMI EVACUATION ZONE! Where is the common sense?
8. Can you guarantee a financially secure tourist would prefer to pay high fees to sleep directly next to a very *very* noisy RR track?
9. This loss of gracious Amtrak parking, open space, mountain views, trouble-free parking for businesses already built will do irreversible DAMAGE to our one-of-a-kind classic small beach town reputation; will create forever a drastic change to the personality of this sweet small city.
10. The hotel/restaurant/rooftop bar are redundant if (a) The Palms does become a boutique hotel intelligently located in a safe place, privately owned (b) 700

Linden already has a rooftop bar and desperately needs all the existing parking in Lot #3 to succeed.

11. Excessive water usage in hotels in a notorious fact. We are in a water crisis. Again, where is the common sense?
12. RE: The (close) Measure T Vote. It is a known fact the wording for the vote was confusing. Voting yes meant no, voting no meant yes. Or was it the other way around?
13. Rick Caruso, owner of Rosewood Miramar, a hotel on RR tracks but not as prominently close as this irresponsible project, realizes **this is a dangerous location**. This is why he has a RR guard posted 24/7 for just this purpose. Again, where is the common sense?
14. Where in the world will the employees who will be necessary to do the minimum-wage work at the project be able to afford to live?

I asked one of the owners of The Spot how she feels about this project.
Her answer, "Triste," she said. "Muy triste." "Sad," she said. "Very sad."

Please.

Use common sense.

Think of your tax-paying Carpinteria citizens' safety first.

Think of our severely challenged natural resources.

Think of the *everlasting* change and *forever* impact this will have on Sweet Carp.

Thank you sincerely for your time and wise consideration,

Alison M. Johnson
5377 Eighth Street
Carpinteria, Ca 93013

(805) 331-0289

runawayhorsepress@gmail.com

From: Devra Brewer
To: Mindy Fogg
Subject: No to the Surfliner
Date: Thursday, June 26, 2025 4:23:49 PM

****EXTERNAL EMAIL****

CAUTION: This email originated from outside the City of Carpinteria. DO NOT OPEN attachments or CLICK on links unless you are sure they are safe. Remember, reputable vendors, banks, etc. will not ask you to disclose passwords or other sensitive information.

Please do not allow the building of the hotel, restaurant, rooftop bar and new paved lot adjacent to The Spot.

My heart goes out to the beachside residents who been living in a state of anxiety over this proposed 40 room boutique hotel
project. They have their life investments laid out in property which was chosen because of its sleepy, beachy feel with
open space and rustic charm. This Surfliner Inn proposal was not in the picture when many of them
purchased their homes. It is absolutely unfair and unreasonable to force this project upon
the beachside neighborhood. The multi-year construction noise and mess alone would highly impact their
quality of life. Once built, the light pollution, noise pollution, and congestion from the hotel would
be a negative game changer of which the beachside residents would take the brunt of. And to think of all of those beautiful
trees surrounding the parking lot being cut down would be such a loss.

Carpinteria is one of the last great Southern California beach towns. Let's not turn it into a circus by building the Surfliner.

Thank you,

Devra Brewer

From: Danielle Andrea
To: Mindy Fogg
Subject: Do not allow Hotel, roof top bar and parking lot to go in next to the spot!
Date: Friday, June 27, 2025 12:01:00 PM

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Do not allow Hotel, roof top bar and parking lot to go in next to the spot!

Please don't all this construction to happen and ruin the peaceful charm of Carpinteria. There are far to many business closing down that have been apart of Carpinteria for many years, this is because of all the new construction and changes happing in Carpinteria.

Please don't change the beauty that is already here in Carpinteria.

Danielle Andrea

From: Pamela enticknap
To: Mindy Fogg
Subject: Surfliner Inn Parking Lot
Date: Friday, June 27, 2025 12:31:42 PM

EXTERNAL EMAIL

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June 27, 2025

Surfliner Inn Parking Lot

I am a frequent walker in the proposed Surfliner Inn area and the stretch of Linden on the beach side of the railroad tracks. Not only do I watch for children, dog walkers with leashes, bicycles, baby carriages, teenagers on Ebikes, skateboards, elders pushing walkers, lines of people waiting at The Spot, the train, but also for cars. This is a year round busy pedestrian area.

There are only two car lengths between the proposed egress and the railroad tracks to exit the beach area. That alone should give everyone pause, considering that there will be a future increase in train traffic and the necessity of any emergency exit from the beach area.

The city will see a backup of cars trying to turn into the lot backing up traffic on Linden over the train tracks, cars trying to get out of the parking lot maneuvering around pedestrians and bikes, and cars backed up waiting to get over the train tracks and let cars in and out of the lot.

The proposed location for the entrance and egress to a parking lot is dangerous. It does not benefit the citizens of the town or the visitors and is an ill-conceived proposal.

Pamela Enticknap
5190 7th Street
Carpinteria, CA

Surfliner Hotel Draft EIR

NOP Public Comments for the Environmental Impact Report on the Surfliner Inn Project

June 27, 2025
Alonzo Orozco
OrozcoAlonzo@outlook.com

Having served on the Board of Directors for the Carpinteria Valley Water District for eight years and worked in the property management field for over 15 years, I have some big concerns about the proposed Surfliner hotel and parking lot. First of all, hotels are known for having high water usage with the high turnover of laundry involving towels and linens. This particular hotel will also have a rooftop pool, another big outlay of water. The proposed location is only a few blocks away from where historically, the water district has had issues with circulation in an area where the water lays dormant inside the pipes. This lack of flow has helped create poor water quality in the vicinity.

Also, having worked at an apartment building with a rooftop pool, I witnessed leakage into the units below which is another waste of this scarce resource. In 2016 when I was on the water board, Cachuma Lake, the city's main source of water, was once at 7 percent capacity, the lowest in its history. So, I feel it's crucial to conserve our water, particularly, locally.

In conclusion, the fact that the projects are proposed to be built in a Tsunami Hazard Zone makes no sense to me whatsoever. Why build a new structure that threatens the health and safety of the community and will potentially be destroyed by seawater intrusion. In order to mitigate these impacts, I would suggest moving the location of these projects to another location and carefully monitor their potential water usage.

Thank you for listening,

www.telluslawgroup.com
351 Paseo Nuevo, 2nd Floor
Santa Barbara, California 93101

June 27, 2025

To: City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013

ATTN: Mindy Fogg

From: Ariana Katovich, Tellus Law Group

Re: Notice of Preparation, SURFLINER INN
PROJECT NO. 23-2254-DP/CUP/CDP/ARB
499 LINDEN AVENUE
APNS 004-105-011 & 004-105-026

Dear Ms Fogg:

Tellus Law Group reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) and associated documentation for the Surfliner Inn in Carpinteria on behalf of Marla Daily and Kirk Connally ("Client") who live adjacent to the project site. As long term residents of Carpinteria, and specifically as residents of their home at the corner of Dorrance and Elm Streets in the beach community, there are many impacts that will be imposed directly on them if the proposed project is allowed to proceed, including lighting, noise, emissions, stormwater run-off, loss of quiet enjoyment, and diminution of property values to list the obvious direct impacts. These clients are also strong advocates for the natural bounty and community values of Carpinteria, which is why they live here, run businesses and manage two important

non-profit organizations in the community. For these reasons, they have identified a broad range of indirect negative impacts that will be imposed on them and the community by the proposed Project. All of these resource impacts (direct and indirect) must be fully analyzed by the City in their EIR so that the City and its citizens fully understand the scope of potential negative effects of the proposed Project.

A. Location:

The Surfliner Inn is proposed at 499 LINDEN AVENUE (APNS 004-105-011 & 004-105-026) for current City Parking lot #3, with a proposed new parking lot for City lot #4, accommodated by a shared use parking arrangement (Collectively the "Project")

DIRECT IMPACTS THAT WILL REDUCE VALUE OF PROPERTY AND INTERFERE WITH QUIET ENJOYMENT OF PROPERTY INCLUDE:

1. **STORMWATER RUN-OFF, FLOODING, AND HYDROLOGY**

Runoff from the project has potential to cause flooding to nearby homes. Our Client has concerns that as planned the project will create increased water intrusion onto their property.

The EIR should analyze Stormwater runoff onto all nearby properties, including water quality impacts to sensitive coastal resources.

The EIR should analyze the effectiveness of permeable pavement, retention planters, bioswales and other methods of stormwater management.

2. **HIGH USE CLOSELY PACKED PARKING, EMERGENCY ACCESS, AND REROUTING OF TRAFFIC ONTO ELM STREET (NOISE, EMISSIONS, SAFETY, CONGESTION)**

The EIR should analyze and address the impact of the proposed emergency access plan that relies on exit onto Elm Street. The Emergency Access from proposed Parking Lot #4 has the potential to overwhelm the surrounding residential neighborhood creating impacts in regards to:

traffic, roads, public safety, noise, and air pollution Green House Gas Emissions. The EIR should address the emergency access criteria for the site, address the impacts of the access becoming a regular and permanent exit from Parking Lot #4. The type and stringency of criteria applied to the use of this emergency exist will have a direct bearing on the level of impacts. The less often it is used; the lower the impacts. The criteria must be clear and enforceable by the community impacted by the use of this contingency.

3. LIGHTING

The EIR should address impacts of lighting at night on surrounding neighborhoods, migratory bird species, wildlife in general, and "dark skies" goals. In 2024 The City of Carpinteria participated in International Dark Sky Week which "aims to raise awareness of light pollution, and provide free education, resources, and solutions to encourage the protection of and enjoyment of dark skies and to encourage responsible outdoor lighting…The City's General Plan/Local Coastal Land Use Plan ensures that lighting of new development minimizes light pollution." [1]

The impacts of lights from the project could directly impact our client's enjoyment of their property by shining into their windows throughout the night.

4. NOISE

Noise impacts will be created as a result of construction activities, live music from the rooftop bar, increased traffic, and parking. These impacts must be addressed and mitigated.

The EIR should also analyze the impacts of having a large building that can amplify noise. Hard surfaces like concrete walls reflect sound waves, causing them to bounce around and reverberate, making the space louder and potentially creating echoes. The project could create new bounceback noise for each passing train into the beach neighborhood that does not occur now in absence of large monolithic building right on edge of tracks.

[1] https://carpinteriaca.gov/embrace-international-dark-sky-week/

The EIR should include a comprehensive sound study to assess the potential noise and vibration impacts of the project on the surrounding environment to analyze existing noise levels, predict future noise levels from the project, and identify potential mitigation measures to minimize significant impacts. The study should also consider the sensitivity of nearby receptors, such as residences, wildlife, and parks, to noise and vibration.

5. LOSS OF PRIVACY

Our client's home is adjacent to the proposed Project and concerned that visitors to the hotel and rooftop will be able to see directly into their residence and yard, significantly and negatively impacting their privacy.

6. LOSS OF RURAL CHARACTER PROVIDED BY UNDEVELOPED CORRIDOR

Currently, the land comprising the proposed parking lot 4 provides open space to the community and neighborhood. Development on this parcel of a new parking lot will impact the character of the neighborhood and the entire community by reducing open space. This project represents a significant loss of natural spaces which not only impacts livability and walkability values, but will have impacts on wildlife and plant life, negative effects on the peaceful atmosphere of the neighborhood, visual impacts of constructed facilities, and noise impacts from project construction and operation .

7. CONSTRUCTION IMPACTS

Construction of the site will create ongoing and daily noise to adjacent residents of the project, negatively impacting their enjoyment of their property. Construction impacts include: noise, dust, vibration, increased traffic, truck trips, and parking of construction workers in neighborhoods.

The EIR should analyze the impact of construction on surrounding neighborhoods and propose mitigation measures that can be implemented and enforced.

INDIRECT IMPACTS THAT WILL DIMINISH KEY VALUES OF COMMUNITY AND THREATEN NATURAL RESOURCES INCLUDE:

1) WILDLIFE VALUES

Inventory

The EIR should include a general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present at the Project site and within adjacent areas that could be affected by the Project.

The EIR should include a complete and recent inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern and California Fully Protected Species (Fish & G. Code § § 3511, 4700, 5050, and 5515). Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species.

Surveys

The EIR should include the results of focused species-specific surveys, completed by a qualified biologist and conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable. This will likely require completion of surveys at two or three different periods throughout the year. Species-specific surveys should be conducted in order to ascertain the presence of species with the potential to be directly, indirectly, on or within a reasonable distance of the Project activities.

Proximity to the Carpinteria Salt Marsh

The Project site is 0.4 miles away from the Carpinteria Salt Marsh Nature Park which is well known for its diverse and important birdlife, including several rare and endangered species including the Light-footed Clapper Rail and Belding's Savannah Sparrow. There are identified fully protected species that have been observed at the Salt March such as the White-Tailed Kite, The park also hosts a variety of other birds, including the Snowy Egret and Great Blue Heron, and is a crucial stopover for migratory birds protected by the Migratory Bird Treaty Act (MBTA). According to the University of California Natural Reserve System "Carpinteria Salt Marsh Reserve protects a critically important Southern California estuary which supports many sensitive plant and animal species. The site includes extensive wetland and channel habitats along with some uplands. It lies adjacent to a sandy beach, subtidal rocky reef, and kelp beds. The reserve provides habitat for migratory waterfowl as well as endangered plants and animals such as the salt marsh bird's-beak, light-footed clapper rail, and Belding's savannah sparrow. The marsh serves as an important regional nursery for halibut and other marine and estuarine fish."[2]

Species Identification

eBird, an online citizen science project managed by the Cornell Lab of Ornithology, reports that 220 bird species have been reported at the Carpinteria Salt Marsh over all recorded years. According to eBird 122 species of bird were observed at the Carpinteria Salt Marsh in 2025 alone. In 2025 bird species include but are not limited to:

Mallard *Anas platyrhynchos*
Eurasian Collared-Dove *Streptopelia decaocto*
Allen's Hummingbird *Selasphorus sasin*
Killdeer *Charadrius vociferus*
Semipalmated Plover *Charadrius semipalmatus*
Western Gull *Larus occidentalis*
Double-crested Cormorant *Nannopterum auritum*
Snowy Egret *Egretta thula*

[2] https://ucnrs.org/reserves/carpinteria-salt-marsh-reserve/

Great Blue Heron *Ardea herodias*
Brown Pelican *Pelecanus occidentalis*
Turkey Vulture *Cathartes aura*
Osprey *Pandion haliaetus*
Cooper's Hawk *Astur cooperii*
Red-tailed Hawk *Buteo jamaicensis*
American Crow *Corvus brachyrhynchos*
Northern Rough-winged Swallow *Stelgidopteryx serripennis*
Barn Swallow *Hirundo rustica*
Cliff Swallow *Petrochelidon pyrrhonota*
Northern Mockingbird *Mimus polyglottos*
House Sparrow *Passer domesticus*
House Finch *Haemorhous mexicanus*
Savannah Sparrow *Passerculus sandwichensis*
Song Sparrow *Melospiza melodia*
California Towhee *Melozone crissalis*
Hooded Oriole *Icterus cucullatus*
Common Yellowthroat *Geothlypis trichas*
Mourning Dove *Zenaida macroura*
Anna's Hummingbird *Calypte anna*
Acorn Woodpecker *Melanerpes formicivorus*
Black Phoebe *Sayornis nigricans*
California Scrub-Jay *Aphelocoma californica*
Northern House Wren *Troglodytes aedon*
Yellow-breasted Chat *Icteria virens*
Canada Goose *Branta canadensis*
Western Grebe *Aechmophorus occidentalis*
Oak Titmouse *Baeolophus inornatus*
Bushtit *Psaltriparus minimus*
Wrentit *Chamaea fasciata*
Willet *Tringa semipalmata*
Cassin's Kingbird *Tyrannus vociferans*
Eastern Kingbird *Tyrannus tyrannus*
Bewick's Wren *Thryomanes bewickii*
Lesser Goldfinch *Spinus psaltria*
Spotted Towhee *Pipilo maculatus*
Yellow-crowned Night Heron *Nyctanassa violacea*
Great Egret *Ardea alba*

California Thrasher *Toxostoma redivivum*
Black-crowned Night Heron *Nycticorax nycticorax*
Tree Swallow *Tachycineta bicolor*
Spotted Sandpiper *Actitis macularius*
Royal Tern *Thalasseus maximus*
Orange-crowned Warbler *Leiothlypis celata*
American Coot *Fulica americana*
Bald Eagle *Haliaeetus leucocephalus*
Greater Yellowlegs *Tringa melanoleuca*
Pied-billed Grebe *Podilymbus podiceps*
Red-winged Blackbird *Agelaius phoeniceus*
Black-chinned Hummingbird *Archilochus alexandri*
Black-bellied Plover *Pluvialis squatarola*
Ring-billed Gull *Larus delawarensis*
Red-shouldered Hawk *Buteo lineatus*
American Kestrel *Falco sparverius*
Western Flycatcher *Empidonax difficilis*
Ash-throated Flycatcher *Myiarchus cinerascens*
American Robin *Turdus migratorius*
Dark-eyed Junco *Junco hyemalis*
Brewer's Blackbird *Euphagus cyanocephalus*
Wilson's Warbler *Cardellina pusilla*
Green Heron *Butorides virescens*
Western Kingbird *Tyrannus verticalis*
Common Raven *Corvus corax*
American Goldfinch *Spinus tristis*
Ruddy Duck *Oxyura jamaicensis*
Western Sandpiper *Calidris mauri*
California Gull *Larus californicus*
Warbling Vireo *Vireo gilvus*
Yellow Warbler *Setophaga petechia*
Black-headed Grosbeak *Pheucticus melanocephalus*
Lazuli Bunting *Passerina amoena*
Vaux's Swift *Chaetura vauxi*
Downy Woodpecker *Dryobates pubescens*
Northern Pintail *Anas acuta*
Blue-winged Teal *Spatula discors*
White-throated Swift *Aeronautes saxatalis*

Least Sandpiper *Calidris minutilla*
Clark's Grebe *Aechmophorus clarkii*
White-crowned Sparrow *Zonotrichia leucophrys*
Yellow-rumped Warbler *Setophaga coronata*
Great-tailed Grackle *Quiscalus mexicanus*
Merlin *Falco columbarius*
Golden-crowned Sparrow *Zonotrichia atricapilla*
Green-winged Teal *Anas crecca*
Bufflehead *Bucephala albeola*
Ruby-crowned Kinglet *Corthylio calendula*
Blue-gray Gnatcatcher *Polioptila caerulea*
Marsh Wren *Cistothorus palustris*
Western Meadowlark *Sturnella neglecta*
Cinnamon Teal *Spatula cyanoptera*
Gadwall *Mareca strepera*
Say's Phoebe *Sayornis saya*
Vesper Sparrow *Pooecetes gramineus*
Belted Kingfisher *Megaceryle alcyon*
Hooded Merganser *Lophodytes cucullatus*
Wilson's Snipe *Gallinago delicata*
Sanderling *Calidris alba*
Lincoln's Sparrow *Melospiza lincolnii*
Lesser Scaup *Aythya affinis*
Rufous Hummingbird *Selasphorus rufus*
White-tailed Kite *Elanus leucurus*
Long-billed Curlew *Numenius americanus*
Marbled Godwit *Limosa fedoa*
Long-billed Dowitcher *Limnodromus scolopaceus*
Townsend's Warbler *Setophaga townsendi*
Lawrence's Goldfinch *Spinus lawrencei*
Lark Sparrow *Chondestes grammacus*
Snowy Plover *Anarhynchus nivosus*
American Pipit *Anthus rubescens*
Horned Grebe *Podiceps auritus*[3]

[3] https://ebird.org/hotspot/L3051348/bird-list

Habitat and Nest Impacts

Direct impacts in the form of habitat loss and indirect impacts in the form of construction noise and ground vibrations may occur and remove potential foraging habitat for protected species. In addition, construction during the breeding season of nesting birds could negatively affect breeding success or otherwise lead to nest abandonment on site and around the Project vicinity, which may be considered take of a fully protected species. Species designated under Fish and Game code as Fully Protected may not be taken or possessed at any time and no licenses or permits may be issued for their take (Fish & G. Code §§ 3511, 4700, 5050, and 5515).

Construction Impacts on Wildlife

The City of Carpinteria should survey the entire Project site and at least a half mile surrounding the Project vicinity. This survey should determine the potential distribution of sensitive species and assure that take will be avoided during Project construction activities. Additionally, The survey should also determine if the Project will disturb habitat used by these species including usage of the Project area as transitory corridors, and hunting grounds for birds of prey.

The EIR should include measures to preclude take on the Project site during operations and from the increase in temporary traffic and human presence in relation to construction. Construction and operation activities should avoid all protected species by a distance of no less than the distance that the specific species are known or expected to travel within their home range, based on telemetry, mark-recapture, or other data.

Nesting Birds

Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal Migratory Bird Treaty Act[4]). Measures must be taken to fully avoid Project impacts to nesting birds. Proposed Project-related ground-disturbing activities (e.g., mobilizing, staging,

[4] The Migratory Bird Treaty Act (MBTA) prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (16 U.S.C. 703-712)

drilling, and excavating) and vegetation removal should occur outside of the avian breeding season, which generally runs from February 15 through September 15 (as early as January 1 for some raptors) to avoid take of birds, raptors, or their eggs.

Wildlife movement corridors

The EIR should evaluate current Parking lot #3 and #4 for current wildlife movement during all seasons and both day and night A discussion should be included of potential indirect Project impacts on biological resources, including resources in areas adjacent to the Project footprint, such as nearby
public lands (beaches, open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands)

The EIR should analyze habitat fragmentation and cumulative habitat loss. Lighting of both parking lots 3 and 4 and lights from other elements of the projects could impact wildlife movement and migration. Animals move through the area proposed for Lot 4 which provides a vital wildlife corridor connection with the State Park, Carpinteria Bluffs and other open areas to the South with the Slough to the North. Development should not be causing more habitat fragmentation but enhancing connections between vital open areas.

Cumulative Impacts

A cumulative effects analysis should be conducted to analyze CEQA Guidelines section 1513to determine if a "project's incremental effect is cumulatively considerable".[5] The EIR should discuss the Project's cumulative impacts to natural resources and determine if that contribution would result in a significant impact. The EIR should include a list of present, past, and probable future projects producing related impacts to biological resources or shall include a summary of the projections contained in an adopted local, regional, or statewide plan, that consider conditions contributing to a cumulative effect. The cumulative analysis shall include impact analysis of vegetation and habitat reductions within the area and their potential cumulative effects. Please include all potential direct and indirect Project-related impacts to riparian areas,

[5] Cal. Code Regs. Tit. 14, § 15130

wetlands, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and/or special-status species, open space, and adjacent natural habitats in the cumulative effects analysis.

2) VEGETATION

Tree Removal

Development of a hotel and additional parking on the Project site will require removal of trees and vegetation on site in the coastal zone which could support nesting birds. Project activities occurring during the bird breeding and nesting season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment.

Tree Disease Management Plan

Project activities may include tree removal and new trees as a part of landscaping activities. This may have the potential to spread tree pests and diseases throughout the Project site and into adjacent habitat not currently exposed to these stressors. This could result in expediting the loss of native trees and woodlands. The DEIR should include an infectious tree disease management plan or a list of preventative measures, developed in consultation with an arborist, to describe how it will be implemented to avoid or reduce the spread of tree insect pests and diseases.

Plant Species

The EIR should include an inventory of all special-status plant species that are present or potentially present at the Project site and within adjacent areas that could be affected by the Project. Resources such as the California Native Plant Society Rare Plant Inventory could be consulted, as well as any other reliable sources.

Loss of current dense noise buffering vegetation in area of proposed Lot 4

The EIR should include a sound study of the site and the impacts of the removal of vegetation in lot 4 in the buffering of noise at the site.

3) ANALYSIS OF DIRECT, INDIRECT, AND CUMULATIVE IMPACTS TO BIOLOGICAL RESOURCES

The EIR should provide a thorough discussion of the Project's potential direct, indirect, and cumulative impacts on biological resources. To ensure that Project impacts on biological resources are fully analyzed, the following information should be included in the EIR:

1. The EIR should define the threshold of significance for each impact and describe the criteria used to determine whether the impacts are significant (CEQA Guidelines, § 15064, subd. (f)). The EIR must demonstrate that the significant environmental impacts of the Project were adequately investigated and discussed and it must permit the significant effects of the Project to be considered in the full environmental context.

2. A discussion of potential impacts from lighting, noise, human activity, and wildlife-human interactions created by Project activities especially those adjacent to natural areas, exotic and/or invasive species occurrences, and drainages. The EIR should address Project-related changes to drainage patterns and water quality within, upstream, and downstream of the Project site, including: volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site.

3. A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the Project footprint, such as nearby public lands (e.g. State Parks, etc.), open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands (e.g., preserved lands associated with a Conservation or Recovery Plan, or other conserved lands).

4. The EIR should discuss the Project's cumulative impacts developed as described under CEQA Guidelines section 15130[6] to natural resources and determine if that contribution would result in a significant impact. The EIR should include a list of present, past, and probable future projects producing related impacts to biological resources or shall include a summary of the projections contained in an adopted local, regional, or statewide plan, that consider conditions contributing to a cumulative effect. The cumulative analysis shall include impact analysis of vegetation and habitat reductions within the area and their potential cumulative effects. Please include all potential direct and indirect Project-related impacts to riparian areas, wetlands, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and/or special- status species, open space, and adjacent natural habitats in the cumulative effects analysis.

4). Parking, Transportation, and Circulation

Impact to Roads

The EIR's Traffic Studies should identify mitigation measures for all traffic circulation impacts on City roads.

The EIR should address all impacts on county, regional, and city roadways.

The EIR cumulative scenarios should be consistent with regional traffic model projections.

The traffic reports should include access points and analyze the impacts on county, cities, and regional roadways.

The EIR should evaluate the needs and benefits to pedestrian and bicycle facilities

Parking and Transportation studies in the EIR should include future demand estimates that consider proposed development projects in the City of Carpinteria.

[6] Cal. Code Regs. Tit. 14, § 15130

Parking Alternatives

The conjunctive use parking scenarios are inadequate and not based on current redevelopment projects in the vicinity of the Project. The EIR should address alternatives to traditional parking lot and investigate underground/subterranean parking at the location of the hotel to ensure that enough parking spaces are created to serve coastal visitors, downtown visitors, hotel property guests, cafe and bar patrons, hotel event attendees, hotel staff, hotel vendors, Commuters on the train, future demand use and other anticipated users of the Parking uses identified within the Project Scope.

5. Coastal Zone and Local Coastal Plan Compatibility

The project site is located in the Coastal zone, subjecting it to the California Coastal Act and requiring a Coastal Development Permit (CDP) for development. The project site is adjacent to both park and recreation areas and sensitive wildlife resources (beach, tidal, wetland/marsh).

Environmentally Sensitive Habitat Areas are directly addressed in the Coastal Act which states ESHA "shall be protected against any disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas." (§ 30240(a).) In addition "Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas." (§ 30240(b).)[7]

The EIR should evaluate project consistency with the Carpinteria General Plan and the Carpinteria Local Coastal Program. According the the City of Carpinteria's Prior to issuance of a development permit, all projects shall be found to be in compliance with all applicable habitat protection policies of the General Plan/Local Coastal Plan and implementing policies and regulations of the Coastal Access and Recreation Program, Carpinteria Bluffs Access Recreation

[7] CA Pub Res Code § 30240 (2024)

Master Open Space Program, and any other implementing plan for these policies that has been certified as an amendment to the City's LCP." [8]

6. Tsunami Zone

The Project is located within the Tsunami Zone.[9] The City of Carpinteria provides public information regarding Tsunamis on its website.[10]

The EIR should evaluate adequate evacuation routes. The Project should be evaluated as to whether it is subject to flood hazards, tsunamis, and risk release of pollutants due to project inundation.

7. Sea Level Rise

The EIR should evaluate potential impacts related to sea level rise and compatibility with the City of Carpinteria's Sea Level Rise Vulnerability Assessment and Adaptation Project.[11]

In 2024 The California Ocean Protection Council (OPC) adopted the State of California Sea Level Rise Guidance: 2024 Science and Policy Update. The California Ocean Protection Council's report states that "seas will likely rise by nearly a foot by 2050 and potentially up to twelve feet by 2150, with coastal storms and high tides compounding flooding, erosion, and groundwater challenges." Further the OPC states that "Sea level rise will increase the frequency of coastal flooding events, which occur when sea level rise amplifies short-term elevated water levels associated with higher tides, large storms, El Niño events, or when large waves coincide with high tides. California communities need to be aware of and prepared for a likely rapid

[8] (City of Carpinteria General Plan and Local Coastal Plan Open Space, Recreation & Conservation Element, pp 98-99).
[9] https://www.conservation.ca.gov/cgs/tsunami/maps/santa-barbara
[10] https://carpinteriaca.gov/wp-content/uploads/2020/03/emergency-prep_Tsunami-fact-sheet.pdf
[11] https://carpinteriaca.gov/wp-content/uploads/2020/03/cd_General-Plan-Sea-Level-Rise-A_Cover-Table-of-Contents-Definitions.pdf

increase in the frequency of coastal flooding in the next decade, even beyond the increases in coastal flood frequency already occurring." [12]

The City of Carpinteria's Sea level Rise Vulnerability Assessment and Adaptation project report states that the City developed a series of planning principles which include the requirement that "new development to plan for coastal storm and sea level rise hazards"[13]

8. Air Quality and Greenhouse Gas (GHG) Emissions

The Project will increase GHG emissions in the county in several ways, including due to heating and cooling of hotel indoor spaces, heating a swimming pool, electricity and other utility demands, and most importantly as a result of employee trips to and from their homes. Economic modelling should be conducted to understand how many employees of the hotel are able to live in close proximity to the hotel based on the wages available at the hotel/wages earned and how many employees would need to commute to work from more affordable communities, such as Ventura County. Commuters can greatly increase traffic congestion and emissions in the county, all of which need to be included in cumulative impacts. The EIR should evaluate impacts to GHG levels. The evaluation should identify a threshold of significance, provide an estimate of GHGs that would be emitted as a result of project construction and operations, and determine the significance of those GHG emissions.

The EIR should address the energy needs related to increased visitors and the associated effects on carbon footprint.

9. Water Resources

The EIR should consider Water demand for this project and impacts related to to Aquifer/overdraft of drinking water resources.

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12 https://opc.ca.gov/2024/06/for-immediate-release-ocean-protection-council-adopts-updated-guidance-to-help-california-prepare-for-and-adapt-to-rising-seas/

13 City of Carpinteria, Sea Level Rise Vulnerability Assessment and Adaptation Project, March 2019, "Planning Principles", page 8-3)

The EIR should consider rainwater harvesting and greywater systems for demand management and supplemental sources of supply.

10. Scenic Resources

There are relevant scenic resources that the EIR should consider including views of Mountains, the beach, and parks.

11. Railroad

The EIR should analyze potential easements and safety hazards in relation to existing railroad facilities in the Project area.

12. Direct, Indirect, and Cumulative Impacts

The EIR should evaluate cumulative impact project scenarios as well as Direct and Indirect impacts.

13. Recreation and Recreational Designation

The EIR should discuss the potential for project implementation to affect land use and recreational resources. The Project is located in the Coastal Zone and has the potential to negatively affect the parking resources available to access Carpinteria State Beach and County beaches.

Parking Lot #4 is currently zoned as Recreational (REC). The EIR should analyze if parking for the Surfliner Inn project is consistent with the Recreational Land Use Designation in the Carpinteria Municipal Code ("CMC").

According to the CMC **14.38.010 "**The purpose of the REC district is to ensure the preservation, maintenance, and enhancement of recreation areas and open space of either a public or private nature. The intent is to provide for appropriate recreational use of public parks, beaches, and

other open space, and standards for development which will protect the natural beauty of these areas"

The CMC also articulates the uses permitted in the REC district subject to development plan approval to include:

" 4. Structures and facilities required to support recreational activities, e.g., parking areas, water and sanitary facilities, boat launching facilities, ranger station and limited concession activities for persons using the recreational facilities"[14]

The City asserts that the "The parking expansion area and the new parking lot would be located on properties zoned REC. Parking lots and public restrooms are permissible uses in the REC zone subject to approval of a Development Plan and Coastal Development Permit where required to support recreational activities. The proposed parking areas and public restroom relocation can be found consistent with the intentions of the REC zone district."[15]

According to the City's own Estimates the Surfliner Inn project, including hotel, staff, cafe, and rooftop event space would require 121-178 parking spaces.[16] Parking Lot 3, which will be the site of the Surfliner Inn hotel itself, currently has 113 parking spaces, 46 of which will remain on Parking lot 3 once the hotel construction is completed. The City relies on Parking Lot 4 to provide the rest of the parking required for the project.. The CMC says parking lots are acceptable uses in REC zoned properties if "those facilities are required to support recreational activities."[17]

Again, Here the City relies on conjunctive parking schemes, hoping that ideally hotel guests will be out exploring the area during the day (not parking in the lots during the day) and will return to the hotel in the evening. Conversely, they rely that recreational/beach visitors will be able to use those parking facilities during the day while hotel guests are away. However, to strictly serve the parking needs of the project

[14] (Carpinteria Municipal Code 14.38.040 - Uses permitted subject to development plan approval."
[15] Surfliner lnn & Public Parking Lot Concept Review November 30,2020, Page 8.
[16] Surfliner Inn; 23-2254-DP-/CUP/CDP/ARB Preliminary ARB Review, December 12, 2024, page 11
[17] (Carpinteria Municipal Code 14.38.040, Supra).

The City concludes at least 121 Parking spaces are needed, and as much as 178 are needed. If public parking needs are added on top of the hotel parking requirements the project would need between 234-291 total parking spaces and the project would fall below the needed parking requirements by 95 -185 spaces to achieve a "stand-alone parking scenario". [18]

However, strictly speaking, both lots (Parking lot #3 and Parking lot #4) will be needed to meet the requirements of the hotel alone. It is unclear whether the conjunctive use scheme will satisfy the recreational needs of the community, or satisfy Coastal Act requirements. It is unknown whether hotel guests will leave for the day, or decide to take advantage of the beaches and downtown district of Carpinteria by walking, or take the train to other destinations during the day (such as Santa Barbara).

According to the Surfliner Inn Agreement, The Surfliner hotel estimates it will generate $385,000 in Transit Occupancy Tax to the City of Carpinteria, a 15% tax on top of room rates.[19] The Agreement states that "these hypothetical revenue calculations are based upon the assumptions that the Surfliner Inn would have 40 rooms with an average daily room rental rate of $275 and an 80 percent occupancy."

The California Coastal Act Section 30213 states that "Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred."[20]. In past actions, the Commission has defined higher cost as rates at or above 125% of the annual average statewide Average Daily Rate (ADR) from VisitCalifornia.com and has defined lower cost as rates at or below 75% of the annual average statewide ADR.[21]

The current project ADR is $189.59 in California. To stay under 125% (higher cost rate threshold) the rooms at Surfliner Inn would have to be rented at $236.99 per night.[22]

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[18] (Surfliner Inn; 23-2254-DP-/CUP/CDP/ARB Preliminary ARB Review, December 12, 2024, page 11-12
[19] (https://carpinteriaca.gov/wp-content/uploads/2021/08/City-PP-Surfliner-Inn-1.pdf)
[20] (CA Pub Res Code § 30213 (2024)
[21] (https://documents.coastal.ca.gov/assets/lower-cost-coastal-lodging/LCOA-Doc3.pdf)
[22](https://assets.visitcalifornia.com/media/?mediaId=D0CF4716-DD37-4678-852AB388768DE451&viewType=grid, page 4)

Section 30213 includes an affirmative mandate to provide lower-cost facilities, where feasible, as well as a mandate to protect existing lower-cost facilities, such as by mitigating for the loss of such facilities.[23]

The EIR should analyze If the Surfliner Inn is deemed a "recreational use" and to what extent it serves the intent of low-cost recreational facilities in the California Coastal Act.

The EIR should analyze if parking facilities serving the Surfliner Inn Project are consistent with supporting recreational activities under the California Coastal Act.

14. Alternatives

The EIR should evaluate a full range of project alternatives including a No Action Alternative, and a Surfliner Inn with sufficient subterranean parking so as to greatly reduce or eliminate the need for parking on City Lot 4.

The EIR should evaluate project alternatives at the same level of detail as the proposed Project.

Project alternatives should be evaluated at a sufficient level of detail to accurately determine the relative environmental impacts associated with each alternative.

The alternatives analysis should provide a full comparative analysis of the effects of each alternative on protected species.

15. Mitigation

Mitigation measures should be clearly described, measurable, and achievable.

[23] (https://documents.coastal.ca.gov/assets/lower-cost-coastal-lodging/LCOA-Doc3.pdf)

16. Consistency and Compatibility with applicable planning regulations

The EIR should evaluate project consistency with land use zoning, the General Plan, Local Coastal Plan, and other policies developed at the City, County, State, and Federal level.

The EIR should map all areas that would be potentially affected by the proposed project.

17. Contamination

The EIR should address potential disturbance and mobilization of hazardous materials in subsurface due to historic spills in the area directly underlying the Project.

The State databases documenting current and historic spills of hazardous materials indicate that several spills have occurred both on the City Lots 3 and 4, as well as on adjacent parcels that may be impacting the aquifer with volatile organic compounds (VOCs), which may in turn impact indoor air of the hotel and/or be further mobilized as a result of construction activities. The EIR should analyze all known areas of hazardous materials spills found on or near the Project, and if required should be cleaned up by the developer. The EIR should identify any significant hazards to the public, environment, and patrons of the Project site.

Respectfully Submitted:

Ariana Katovich
Tellus Law Group

From: ELIZABETH PATSCH
To: Mindy Fogg
Subject: NOP comments regarding the proposed Surfliner Inn
Date: Friday, June 27, 2025 2:34:44 PM

****EXTERNAL EMAIL****
CAUTION: This email originated from outside the City of Carpinteria. DO NOT OPEN attachments or CLICK on links unless you are sure they are safe. Remember, reputable vendors, banks, etc. will not ask you to disclose passwords or other sensitive information.
Mindy Fogg - principal planner, City of Carpinteria

Hello,

I am writing my letter regarding environmental concerns with the proposed Surfliner project. For 33 years I lived in the beachside area at 130 Ash Avenue unit 3. I watched the development of the Salt Marsh park and lived through flooding, fires, hundreds of dump trucks dumping debris, and ocean surges that came down Ash all the way to Third Street.

My concerns or observations are as follows:

1. This project will affect an already dense beachside community. Currently there are 218 short term rental licenses issued by the city for beachside area dwellings, allowing from 2 - 15 visitors per license depending on the unit size. In addition, there are 216 campsites within steps of the proposed site with a maximum occupancy of 6 visitors per site. This gives 434 possible beachside accommodations between the two and a potential for over 2,000 daily visitors. This is already an issue of density that does not need an additional pressure.
2. In regards to the proposed parking lot 4, it is a safety hazard for those using it, as well as those going by the entrance/exit. First, there is only one combined entrance and exit on Linden Avenue. Second, Linden Avenue is one of our busiest streets as it is the ONLY free automobile access point to the beach. People can use the day use at the state park, but then they do need to pay a daily rate. Third, there is a lack of flow that is not found in city lots 1, 2, or 3. As presented, it has one way in and one way out, with no true turn around at the end of the lot. Fourth, what happens with oversized ADA accessible vehicles or RVs that try to park in the lot that would potentially get stuck? Fifth, the sidewalk between The Spot burgers and the railroad line is often filled with people waiting to order at the spot. Now they would also have to deal with a busy parking lot entrance/exit? Last, it would be the only city lot in an identified residential area bordering residential housing. Lots 1-3 border businesses or city streets, providing a buffer for residences nearby.
3. Accessibility to the beachside community is currently only available on Linden Avenue. A parking lot on the beachside presents a potential hazard to quickly and safely get out during an emergency.
4. Current plans show a total of 25 parking spots dedicated to electric vehicle charging

stations. At this point, I feel that number is too high for our current city usage. I went to city parking lot 1 at noon five days in a row June 19 - 23. Of all the charging spots available, there were never more than being 3 utilized during peak lot usage. Only 2 days were there any general parking spots left, 2 on 6/20 and 1 on 6/23. All other days the entire lot was full to capacity other than the charging spots. I recommend putting in the electricity connects for the 25 spots, but only put in the full charging for 10 e-cars at the beginning and add more as the need arises.

5. There are additional environmental impacts of this project. In regards to the proposed lot 4, this would bring additional car exhaust, negatively affecting the air quality for those living nearby. There would also be additional noise and light pollution for those directly adjacent to the lot. Drainage in that area is an ongoing problem, as this area is the lowest spot in town, just a few feet above sea level. The current dirt and decomposed granite walk/bike path allows water to percolate down into our aquifer. A paved parking lot could cause flooding and property damage to those along Elm and Holly, since the water would not have the large unpaved surface area to be absorbed.
6. In regards to the hotel, The wall parallel to the railroad tracks would amplify the sounds of the trains and cars. What sound dampening materials would be used on the 3-story wall to mitigate this increase in sound? Also, what sound mitigation would be used for the elevated rooftop bar and pool? Will there be restrictions in access during quiet hours? What will the quiet hours be and what are the consequences of a violation of those quiet hours? Directly across the tracks is an apartment building with 9 school age children (as of 6/5 when I checked. As a 40-year veteran teacher, I feel these children deserve quiet to perform and learn at optimal levels.
7. In regards to the proposed bike path. I do not feel that the proposed pathway is sufficient, nor is it safe due to its proximity to the parking lot cars. We have many people who bike around town and they enjoy the safety of our current pathway that is not car accessible, perfect for those beginning bike riders as well as experienced riders.
8. Lastly, this area is a wildlife corridor leading to and from our Carpinteria Salt Marsh Park. As a trained docent for the park, I am worried that the excess lights, exhaust fumes, and noise will negatively impact our migratory birds.

As far as options: have we considered the old Reality Church building for a future hotel? It is just as close to beach access and already has a large parking lot, as well as easy access on a side street. It is only being two blocks away from the train station and easily walkable along the nice trail leading from Linden to Palm. Also have we considered moving the community gardens to the beachside space? We can keep the nice meandering bike path with the gardens on either side of the pathway. That would allow for expansion of parking in the garden area that still meets our current city standards of access off main streets and a nice flow through the lot.

I appreciate your giving me the chance to submit my concerns regarding this proposed development.

Sincerely,
Elizabeth Patsch

From: PATRICIA ESCALERA
To: Mindy Fogg
Subject: Surfliner Hotel/Motel
Date: Friday, June 27, 2025 3:04:41 PM

****EXTERNAL EMAIL****

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Dear Mindy,

I am opposed to the Surfliner Motel.

I own a condo at 4880 Sandyland Rd #27, Carpinteria, Ca 93110 and stay their, quite often as I also own a home in Santa Barbara. I've lived in both Cities since 1979.

Santa Barbara has new development, everywhere. No empty space is protected from housing since the demand came down from our Sacramento Government and changed the zoning to housing. It all started with these same type of projects, as the Surfliner.

Please, stop the development of this larger than needed hotel. We don't want nor need this development, as it will be the beginning of the end to beautiful, Carpinteria, as we know it.

I'm sure the new structure on Linden is already generating more people, more cars and more congestion. By the way, I have lived off of Modoc since 1986. The train travels right behind my home. It took, my family and I, years and years to get used to the noise and shaking of my home, every time a passenger train , especially a cargo train, passed by my home. Guests of that hotel will most likely hate it.

I also dealt with an EIR on the Modoc Preserve. EIR's are not truthful. Mature trees, no matter the specie, native or non native should not be chain sawed down. They are the homes of wildlife and important to our environment.

Thank You , in advance, for thinking of Carpinteria locals and not allowing the Surfliner Hotel/Motel.

Sincerely,

Patricia Escalera
4132 Vista Clara Road
Santa Barbara, Ca 93110.
805) 451-9117

Sent from Yahoo Mail for iPhone

From:	Eileen and Stephen Marcussen
To:	Mindy Fogg
Cc:	esmarcussen@earthlink.net
Subject:	SURFLINER INN PROJECT NO. 23-2254-DP/CUP/CDP/ARB 499 LINDEN AVENUE APNS 004-105-011 & 004-105-026 - DEIR
Date:	Friday, June 27, 2025 3:05:50 PM

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To: Mindy Fogg

From: Eileen Marcussen, 4977 3rd Street, Carpinteria, CA. 93013

Re: SURFLINER INN

PROJECT NO. 23-2254-DP/CUP/CDP/ARB

499 LINDEN AVENUE

APNS 004-105-011 & 004-105-026

Notice of Preparation For a Draft Environmental Impact Report (DEIR)

NEW CITY PARKING LOT #4 – SURFLINER INN

The environmental and quality of life impacts that will accompany the creation of a ‘New City Parking Lot #4’ are, to me, the most urgent to examine/assess.

The Surfliner Inn project enters the neighborhood I live in – the Beach Neighborhood -- in the first stage of its development with the creation of a ‘New City Parking Lot #4.’ Its proposed location is easily described as inappropriate.

Let us begin at the Entrance (and Exit, unbelievably) of the proposed lot. The proposed lot's Entrance/Exit placement is sandwiched between the Spot Burger and the train tracks on Linden.

Entering the proposed Parking Lot #4, during the tourist 'high' season would be a fraught experience – especially for those persons new-to-Carpinteria, the out-of-towners, the tourists. Arriving automobiles would have to clear the train tracks and immediately make a hard right-hand turn into the proposed parking lot.

Once inside the lot, a driver could very well be greeted by the very real hazard of exiting automobile(s) – practically head-on. There is a single -- just one -- aisle dedicated to cars entering and exiting.

Lest we forget about the very popular Spot Burger's patrons and how they congregate at the intersection of Linden Avenue and Dorrance Way. Peak Summer weekends see crowds of hungry (and oftentimes distracted) customers queuing up to place their orders, waiting to pick-up orders, and/or waiting for an available outdoor table.

Some Spot Burger customers would, inevitably, find themselves queued up in front of the proposed parking lot entrance/exit-parking lot apron. I've personally seen this size crowd at this location, this summer (2025).

A crowd can build at the corner of Linden Avenue and Dorrance Way, swelling during the lunchtime hour(s), with human being spill over onto both streets. Families from the campground are often sighted making a beeline for the Spot's order window, crossing the Linden-Dorrance intersection's crosswalk haphazardly -- dare I say, recklessly.

The location of proposed New City Parking Lot #4 is already vaguely dangerous now; the addition of a new parking lot would exacerbate the danger already present.

Obviously, extra caution would be necessary for those cars entering and exiting proposed Parking Lot #4.

A legitimate traffic danger mitigation plan for that part of Linden Ave., between Dorrance Way and the Union Pacific train tracks, should be requisite for the creation of 'New City Parking Lot #4 and needs to be part of the EIR/CEQA.

On busy summer weekends and community special event days, traffic circulation would slow considerably at (and quite possibly, on) the train tracks as vehicle entrances and exits at the proposed Parking Lot #4 would (ideally) trigger slower, more calculated, and precise driver maneuvering. If proposed Parking Lot #4 were to become a reality, additional crosswalks and new stop signs along Linden Avenue should be contemplated to slow traffic into the Beach Neighborhood and curb congestion.

Slowing traffic along Linden Avenue seems imperative to public safety on the Beach-side of the Union Pacific railroad tracks, in the Beach Neighborhood.

With recently added commercial activity along the Linden corridor -- the new (and instantly popular) outdoor shopping and dining hub, Linden Square, and the anticipated new dining and shopping options coming to the City's Downtown "T" -- the City of Carpinteria can expect a significant uptick in vehicle and foot traffic. The congestion factor has already received a significant boost this summer (2025).

The Beach Neighborhood has very real physical borders that handicap circulation and promote congestion. The physical boundaries provided by Carpinteria's Saltmarsh-Mobile Home Park, the Union Pacific train tracks, the Linden Field/Park-Carpinteria State Park, and, obviously, the Pacific Ocean, frustrate visitors and residents' ability to move, to circulate, and, very importantly, to execute parking, currently.

And not all residents, tourists, and visitors will chose the proposed 'New City Parking Lot #4' option to park their cars, either – for many reasons – safety, security, theft, damage to cars, just to list a few.

Beach Neighborhood geography and layout complicates matters further.

The four street ends -- Linden, Elm, Holly and Ash – terminate at the sand and have poor turnaround areas. This is an unfortunate parking and circulation reality for many coastline neighborhoods that cater to a beach-going public. Pad the existing beach-visitor congestion with restaurant and bar patrons destined for the City's designated "downtown," the Downtown "T," and resident parking will inevitably be impacted.

Additional traffic and circulation controls in the form of traffic lights, traffic signs, and crosswalks should be contemplated for public safety as well as safeguarding the quality of life of all of the Beach Neighborhood residents.

Traffic/congestion mitigation plans should be crafted to prevent poor traffic circulation and congestion build-up on the Beach Neighborhood residential streets – Dorrance Way, Third Street, Sandyland, Elm, Holly, and Ash.

The City of Carpinteria should **consider implementing a program that issues residential parking identifications/passes for homeowners and renters in the Beach Neighborhood**.

The City of Carpinteria should **consider hiring "high"/summer season code enforcement officers** to monitor and protect the perimeter of proposed 'City Parking Lot #4;' Code Enforcement have enough staff to work on weekends and evenings.

The City of Carpinteria should c**onsider soliciting bids for a state-of-the-art paid parking service-program** to prevent vehicles from abusing stays in proposed 'City Parking Lot #4.'

The proposed 'New City Parking Lot #4's design can be easily described as substandard.

Public parking should not be substandard.

Especially if it is going to accommodate 93 spaces, 17 of which will be electric charging station spots, public restrooms, and abut residential properties.

Proposed ‘New City Parking Lot #4’’s design asks too much of its proposed space.

Requisite planning “compatibility” considerations would have to be (have already been?) abandoned to approve the proposed ‘New City Parking Lot #4’ for this location.

It needs be emphasized, that proposed ‘New City Parking Lot #4’ abuts residential properties and uses. Safety and security issues are inherent on public properties that are not monitored or regularly patrolled. These safety and security issues will be shared by any (residential) property that the proposed 'New City Parking Lot #4' abuts.

Additional security would be warranted for the proposed ‘New City Parking Lot #4’’s property. Guarantees should be made to those residents – renters and owners – who reside in homes that abut the proposed ‘New City Parking Lot #4’ and those residents that live on Elm, between the “locked secondary emergency access gate” and Dorrance Way.

.

Residential security vulnerabilities should be assessed and a mitigation plan crafted to protect residential uses from crime or crimes arising from parking abuses that may occur in (or near) the proposed ‘New City Parking Lot #4.’

With traffic circulation impaired by the proposed Surfliner Inn development, “stuck” and idling cars waiting for available parking inside the Beach Neighborhood will produce air pollution that would be concentrated along Carpinteria’s coastline.

Drink-fueled bar and restaurant patrons can be loud. Real loud at times. Car alarms will go off, cars will sound off when they are locked and

unlocked, car doors will be slammed, and car accidents will very likely happen in the proposed substandard ‘New City Parking Lot #4.’ Fortified bar and restaurant patrons returning to their cars will be heard by residents living on those properties abutting proposed ‘New City Parking Lot #4.’

Place these sounds in an amphitheater setting ('New City Parking Lot #4' proposed location), and add the not-so-small Surfliner Inn's sound-reflective surfaces that are part of its design and the Beach Neighborhood will be transformed into a noisy pocket on the California coastline.

We can ANTICIPATE that air and noise pollution would be present and pronounced in the Beach Neighborhood should the proposed Surfliner Inn and the ‘New City Parking Lot #4’ become new additions to the Carpinteria landscape.

Carpinteria’s coastline, its ecosystem should receive EXTRA PROTECTION from noise and air pollution.

A detailed noise assessment and proposed measures to minimize noise pollution should be part of the EIR, such as sound barriers or landscaping that absorbs sound should be part of the EIR.

Increased vehicle activity will result in elevated levels of air pollution on the coastline. The EIR should **evaluate the ecological impacts 'New City Parking Lot #4' would introduce to the coastline ecosystem and submit plans to offset them**.

Finally, since this EIR is happening while the City of Carpinteria is updating its General Plan, it must be stated that this project is so off-brand for Carpinteria.

Carpinteria’s ‘Small Beach Town’ brand.

The Beach Neighborhood is an area cherished by visitors and residents alike for its proximity to the sand, surf, and relaxed coastal lifestyle. Preserving the Beach Neighborhood is integral to the City's stated General Plan goal of maintaining Carpinteria as a "small beach town.".

Parking lots are essentially “urban elements” on a cityscape. ‘New City Parking Lot #4’ is proposed for a part of Carpinteria that features most critical elements to the City’s brand – the Pacific Ocean, the sand, and the coast. This slice of the California coast boasts, “The World’s Safest Beach,” after all. Installing a City parking lot -- a lot which would be one of the Carpinteria's largest public parking lots -- in this neighborhood would damage Carpinteria's brand.

As Barbie’s boyfriend Ken might put it, the primary activity here is “doing beach,” particularly during the bustling summer months from Memorial Day through Labor Day.

The Beach Neighborhood, nestled between the railroad tracks and the coast, becomes the epicenter of summertime activity, drawing tourists, families, and permanent residents who come to enjoy the beach environment, to "do beach."

Not to shop.

Not to dine at a restaurant.

Not to drink at a bar.

But there seems to be a desire on the City of Carpinteria to expand its brand, to make its brand more “vibrant.”

And impacts accompany this re-brand.

The true cumulative effect of the Surfliner Inn project to the Beach Neighborhood and the City of Carpinteria’s brand is best described as degrading.

I ANTICIPATE that the residential character of this neighborhood will be severely diminished, possibly transforming the area into one large resort property.

In the last ten years, the Beach Neighborhood has seen multifamily properties turn into short-term vacation rentals. I would speculate (confidently) that not all vacation rentals are licensed in the Beach Neighborhood and some units willingly accommodate outsized guest capacities. The neighborhood is being hollowed out; workforce housing stock seems to be quickly evaporating in the Beach Neighborhood.

The character of the neighborhood is changed.

It should feel like a small California beach town. It is beginning to feel like a very large resort property, a destination for a lost weekend, a get-away to break the rules. Visit, break things, leave damage, get out of town. The addition of Surfliner Inn and 'New City Parking Lot #4 may further this trend of the character/charm deterioration that is already taking place in the neighborhood.

I strongly recommend that the Environmental Impact Study include a **comprehensive and critical analysis of the proposed parking lot's impact on the Beach Neighborhood's quality of life and its affect on property values** and explore alternative locations that do not encroach upon residential zones or compromise the well-being of residents.

Thank you for your attention to my environmental concerns with the Surfliner Inn and its 'New City Parking Lot #4.'

Regards,

Eileen Marcussen

323-632-9884

From: Stephen Marcussen
To: Mindy Fogg
Subject: Surfliner Inn - DEIR topics
Date: Friday, June 27, 2025 3:19:00 PM

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Hi Mindy,

I would like to see the following questions and comments addressed in the EIR report for public consumption.

<!--[if !supportLists]-->1. <!--[endif]-->Exhaust fumes abutting residences. What is the plan to protect the residents from unwanted exhaust?
<!--[if !supportLists]-->2. <!--[endif]-->Exhaust fumes polluting the Linden to Holly Trail. Any way to mitigate this?
<!--[if !supportLists]-->3. <!--[endif]-->Conjunctive parking means there will be noise disturbing residences day and night. The nighttime disturbances are likely to be the biggest nuisance with patrons of the many bars and restaurants gathering for a final farewell before they set off on their journeys.
<!--[if !supportLists]-->4. <!--[endif]-->There is no turn around in parking lot which means there will be plenty of three-point turns. Think noise, tire dust and exhaust.
<!--[if !supportLists]-->5. <!--[endif]-->Heat effect from paving over the soil/ground. Global warming is here, and paving will contribute to raising the ambient temperature for both residents and trail users.
<!--[if !supportLists]-->6. <!--[endif]-->The wildlife is losing their natural habitat.
<!--[if !supportLists]-->7. <!--[endif]-->Public EV charging stations will find their way onto navigation apps, especially 17 charging stations within four blocks of the beach. Public EV charging stations in parking lot 4, which really are a business in themselves are guaranteed to be a nuisance and disruptive to residents.
<!--[if !supportLists]-->8. <!--[endif]-->How will the parking lot shield/block the unwanted car headlight pollution from going into residences?
<!--[if !supportLists]-->9. <!--[endif]-->How will the parking lot shield/block the unwanted parking lot light pollution from disturbing the residences and neighborhood?
<!--[if !supportLists]-->10. <!--[endif]-->The point of entry and exit will create congestion for cars and pedestrians and Spot patrons along Linden Avenue. This congestion creates a hazardous situation for pedestrians, visitors and residents trying to leave the Beach Neighborhood and is too much of a load for a zoned residential neighborhood.
<!--[if !supportLists]-->11. <!--[endif]-->Paved over land exaggerates the flooding potential on Elm Street. With global warming comes a change in rainfall. Rain falls in a more concentrated fashion dumping higher amounts of water quickly. Linden field floods regularly. During extreme conditions which seem to happen more frequently the water spills over onto Linden Avenue. Parking lot 4 becomes a catch basin for water. How can the water be controlled?

<!--[if !supportLists]-->12. <!--[endif]-->Emergency exit on Elm Street. What constitutes an emergency and who will regulate opening and closing of the emergency gate and how long will the gate be open?
<!--[if !supportLists]-->13. <!--[endif]-->The line at the Spot in the busy summer season snakes up Linden Avenue to the railway tracks, the line would cross the entry/exit for the parking lot. This is dangerous for pedestrians.
<!--[if !supportLists]-->14. <!--[endif]-->The plans show a loss of two parking spaces on Linden. Is that correct?
<!--[if !supportLists]-->15. <!--[endif]-->Safe Parking (overnight parking for the unhoused) is not wanted in the Beach Neighborhood. Assuming RVs are permitted there will be both noise and air pollution from RV generators. Who will move the Safe Parkers on in the morning?
<!--[if !supportLists]-->16. <!--[endif]-->Parking lot 4 will need to be cleaned on a regular basis. It's just about guaranteed users will leave their trash in the lot, not in the bins. This happens on Linden Avenue as well as the residential streets in the Beach Neighborhood. Who will monitor and clean up trash that is simply dumped in the lot?
<!--[if !supportLists]-->17. <!--[endif]-->There will be more vehicle traffic coming into the bottom of the Downtown T and crossing over into the Beach Neighborhood.
<!--[if !supportLists]-->18. <!--[endif]-->The flat vertical walls of the Surfliner Inn will reflect the sound from train horns towards sensitive receptors and residences in the Beach Neighborhood.
<!--[if !supportLists]-->19. <!--[endif]-->The flat vertical walls of the Surfliner Inn will reflect the sound from the station information public announcement towards sensitive receptors and residences in the Beach Neighborhood.
<!--[if !supportLists]-->20. <!--[endif]-->The Surfliner Inn's rooftop deck and bar will likely be lively and carry into in the Beach Neighborhood.
<!--[if !supportLists]-->21. <!--[endif]-->The Surfliner Inn's rooftop pool will transfer sound that carries into in the Beach Neighborhood. Think "exuberant" small children in the pool.

Thanks,

Stephen Marcussen

From: Linda Short
To: Mindy Fogg
Subject: Surfliner EIR
Date: Friday, June 27, 2025 4:36:43 PM

****EXTERNAL EMAIL****

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For 40 years I have ridden my bike down Linden to go for a swim. It is already risky with the angled parking on lower Linden.

The proposed Surfliner Inn will cause even more hazards. Drivers exiting the parking lot will attempt to dart out into the flow of traffic. It will be difficult for drivers to watch out for people walking and on bikes, some with toddlers riding behind on tiny bikes.

In the summer, locals and tourists will use this lot to go to the beach. At the end of the day there will be a line of cars backed up waiting to exit and make a dangerous left hand turn onto Linden.
The ingress/egress so near the railroad tracks will be dangerous in such a high traffic area.

In the event of an emergency the parking lot exit onto Linden and the emergency exit onto Dorrance could cause 50 to 100 cars trying to exit the beach neighborhood along with the residents.

Someday we may have an earthquake that could cause a tsunami. With only one road in and out of the beach community this would be a disaster.

The proposed parking lot would eliminate the natural surface of the open parcel we have now creating a "heat island". This would raise the temperature of the area. Concrete can be 20° hotter than a natural surface, asphalt 35° hotter. The more heat and carbon we produce the worse it will be for the future.

The rooftop bar and pool need to be eliminated. Views of the surrounding area will be destroyed. Noise emanating from the rooftop will impact those of us who live within blocks of this proposed development.

Linda Short

From: Cindy Lynn
To: Mindy Fogg
Subject: Surfliner EIR Input
Date: Friday, June 27, 2025 5:00:54 PM

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Dear Mindy

thank you for receiving my feedback regarding the proposed Surfliner project, the proposed public parking lot between railroad and the Spot and the Environmental Impact Review required before any further project approvals.

I would like to start with the central question about whether or not we are sticking to the vision of Carpinteria as defined by Mike W., thirty years wise in this process.

"What is often not mentioned is the *economic value of enforcing the regulations,* complying with the **General Plan** and preserving Carpinteria as **a small beach town**. Maintaining a height limit on buildings, pr@otecting mountain views, *preventing excessive traffic, avoiding air pollution* and noise pollution and *sticking to our vision has real economic value."*

Increased Risks/Hazards to Traffic/Transport Corridor :

Land use and planning : does overall density of project conflict with the intent of the city's General Plan to keep the safeguards in place to avoid over-development of a town designed to be "small beach town" in coastal California?

Does the plan as proposed eliminate the setbacks that act as safeguards against the hazards of overly dense commercial enterprise on parameter of residental neighborhood, intersection of major transportation corridor and sensitive coastal wetlands dunes and beaches?

Location of the proposed parking lot : How can the proposed parking lot be better designed to avoid hazards of increased auto, pedestrian traffic in the railroad transport corridor and major intersection with Linden Avenue?

What kind of negative impact with the project have on the safety and health of the community?

how can the design proposals for both the hotel and the newly proposed parking lot be adjusted to mitigate, minimize or eliminate additional hazards -- such as

increased density traffic congestion and potential dangers bring due to the intersection of railroad linden and parking lot proposed for outside parameter of residential and

Loss of Setback between hotel property sidewalk and linden street:

- How does the loss of setback INCREASE the hazards and impair the safety and health of pedestrian community and visitor traffic?

Can we measure and mitigate How potential traffic congestion INCREASEs the hazards and dangers posed when an industrial railway hub is so densely planned in this highly trafficked area?

- How can the hotel be designed to INCREASE the setback from the sidewalk running parallel with Linden Street and minimize the risks to crowding the safeguards or eliminating a pedestrian "safety zone" on Linden Street.

Location of the proposed parking lot : How can the proposed parking lot be better designed to avoid hazards of increased auto, pedestrian traffic in the railroad transport corridor and major intersection with Linden Avenue?

What kind of negative impact with the project have on the safety of the residential pedestrian and tourist traffic if densely packed with the loss of setbacks along sidewalks and Linden Street corridor.

how can the design proposals for both the hotel and the newly proposed parking lot be adjusted to mitigate, minimize or eliminate additional hazards?

Can the EIR specify what the developer can do to minimize risks along the intersection of a major transport hub on the parameter of a small beach residential community and a sensitive wetlands/dunes beach habitat?

Environmental Hazards : Hazardous materials : What hazardous materials are being used and how can their use be limited to mitigate potential harms done to people and planet? What kinds of hazardous waste will be generated and what are plans for wise disposal ?

Transport of Hazardous Materials on Railway Track : How does the hotel's proximity to a railway corridor that transports hazardous industrial chemicals, fossil fuels and other high risk material require numerous safeguards to the environment to eliminate or prevent risk ?

Does the elimination of setbacks increase danger to community and what kind of risk does the city assume for these hazards that would be at a huge economic cost to the city? How can these safeguards be INCREASED due to the density of this intersection of danger and death if and when overly congested?

NOISE POLLUTION : What kind of increase in noise will diminish the "peace and quiet" of a beach side community and at what cost to the standard of living designed to protect the quality of the sound barriers left to enhance our health and well being?

Wise use of Limited Resources/Increase in Costs to Local Residents : how is the Surfliner designed to minimize use of water, recycle recapture or reuse water and limit negative impact on existing water infrastructure systems? How does this project DECREASE demand on existing water resources due to their limited and finite nature? What about the demand on existing and aging underground water transmission systems?

- How will this increase in demand be a potential increase in cost of living for the local community due to the reality of our diminishing natural resource supplies and the increase in dangerous heat and weather events?

Costs to Increased Demand on Limited Water Resource and Aging Infrastructures :

How is this being measured and mitigated? This would include what is the cost benefit to the natural resources, the existing power/water infrastructure grids and our community desire to respect the Carpinteria General Plan and choose our partners wisely!

Demand Costs on Local Utility Services/Public Services : besides impact on water usage how do we address the issue of resourcing the aging infrastructure we have in a wise eco friendly manner?

- Can project be made even more eco-tech friendly -- recapture rain water tech, drip water systems, etc etc.

- Can project plan MORE plants or trees to increase the carbon capturing effects of trees and plants on the quality of the environment? Decreasing the stress on sensitive wetlands can also be considered an carbon mitigation measure if well planned by the designer.

Increased Demand and a Lack of Workforce Housing : Cost to Local Economy when Tourism is the primary driver of this special lease deal.

please evaluate the economic cost benefit of adding to a deficit in available housing for workforce populations who service all of our Santa Barbara tourist economies and real estate values.

How will the developer plan to accommodate for the workforce required to keep the hotel economically viable for the city?

Thank you for your kind attention to How this EIR can clearly define and specify these risks/losses/damages so the city our citizens and our Surfliner partner can wisely plan our future together. We appreciate all of the hard work you do to bring this vision forward without losing sight of the delicate balance between ecology and economy and our General Plan.

Cynthia Naughton
805 626 0068

From: Kenneth Gluck
To: Mindy Fogg
Subject: Proposed Surfliner Inn Public Comments
Date: Friday, June 27, 2025 5:13:50 PM

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Dear Mindy,

I am opposed to the subject project for the following reasons:

1. It would take up valuable public parking that is needed especially with the recent opening of Linden Square with very little parking.
2. The footprint is too large for the allocated space.
3. It would force more traffic congestion into an already congested area around The Spot restaurant.
4. It's water consumption would be a significant impact on an already strained resource.

Thank you for your consideration.

Sincerely,
Kenneth Gluck
4526 La Tierra Lane
Carpintería, CA. 93013

From: Dede Borchard
To: Mindy Fogg
Subject: Surfline
Date: Friday, June 27, 2025 5:41:00 PM

****EXTERNAL EMAIL****

CAUTION: This email originated from outside the City of Carpinteria. DO NOT OPEN attachments or CLICK on links unless you are sure they are safe. Remember, reputable vendors, banks, etc. will not ask you to disclose passwords or other sensitive information.

Dear Mindy: I have given this project much thought and have decided we should **not** go ahead with the Surfliner Hotel project. We have other projects a new Linden Center, empty shops, also building for low income —— This is too much too soon.

Of course the parking for the beach should be our first concern. I live here and have searched for a parking place close to the beach, a reasonable walk carrying just a towel and water, and have returned home after "Circling and Circling" many times, Parking is very important especially FOR OUR VISITORS . We do want them to come and enjoy our little town. We cannot give up on single space!

ALSO I AM CONCERNED, many residents of Carpinteria do not want this to happen. **I say no — Keep it open, Keep it ours, keep it CARPINTERIA.**

Long term Lease does not appeal to me.

Thank you — for your leadership regarding this matter. —— DEDE BORCHARD.
dedeborchard21@gmail.com.

From: Shawn C. White
To: Mindy Fogg
Subject: Re-formatted contents of e-mail I sent you earlier that you couldn"t open.
Date: Saturday, June 28, 2025 4:47:34 AM

****EXTERNAL EMAIL****

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June 28, 2025

Hi Mindy,

I JUST saw your e-mail. I didn't have access to my e-mail account after I sent you the earlier message until now, 4:30 AM! on Saturday the 28th…

Which is why I was hoping you might call me if you couldn't open the file I sent before… anyway, My apologies.

I may have missed the deadline. None the less, I will try to paste the contents of THAT attachment into THIS e-mail, and see what happens.

Thank you for your attention!

Sincerely,

Shawn C. White

***

June 27, 2025

To The City of Carpinteria:

Input for
TOPICS TO BE ADDRESSED
Within the DEIR
For
THE SURFLINER INN
PROJECT # 23-2254-DP/CUP/CDP/ARB
499 LINDEN AVEENUE
APNS 004-105-011 7004-105-026

I attended the June 16th "SCOPING" meeting at City Hall and heard the concerned and interested people of Carpinteria as they commented, criticized and questioned the wisdom of moving forward with the Surfliner Inn Project. I offered a brief comment of my own at the meeting.

I've lived in "the Beach Community" on the ocean side of the railroad tracks in Carpinteria since 2020 but I've been a frequent visitor to Carpinteria for a long time. I remember the day, October 30th, 1969, when my friend Hank drove us to Carpinteria. "I could live here!" I told him. It only took fifty years but I made it.

One term used multiple times at the June 16th SCOPE meeting was the phrase CUMULATIVE IMPACT. The more I thought about it, the more this term seemed to hold & represent an overarching essence of the evaluation: What are the long range "cumulative impacts" of a hotel/restaurant right there where the train tracks cross Linden Avenue, the main intersection to & from"First Beach" as well as the beach community and Carpinteria State Beach Campground? And very importantly how can these complex and interwoven impacts and their accumulations be compared to the alternative: the cumulative impact of NOT building a hotel/restaurant/parking lot?

I will leave that challenging task to scientific experts, but I want to offer a brief UNSCIENTIFIC narrative because sometimes a quick story encapsulates issues that statistics can't easily reveal.

In many conversations I have had over the past 55 years in and around Carpinteria one phrase has come back over and over: "Carpinteria is the town time forgot." Whether from first time visitors or from people who have lived here for decades, they will tell you there is a CHARM to Carpinteria which isn't mere quaintness:

The Ocean views, the mountain views, the salt marsh, the seal rookery, the tall palms and little cottages, the

storefronts that line Linden & Carpinteria Avenues, the inhabitants (human or wildlife) who come & go & live here; Carpinteria is unique, yet unpretentious and it is a treasure!

Last year, during the summer of 2024 I was in a shop on Linden Avenue, a couple blocks from the train tracks. There were three men standing in line waiting to make their purchases. They didn't seem to know one another.

And, I'm not making this up! This is exactly what happened:

The first guy in line said,"I've been camping at the campgrounds every summer since I was a little kid!"

The second guy said,"That's nothin'. My family has been coming to Carp every year since my parents were children!"

The third guy in line was a big man with a grizzly gray beard and a low voice,"Well," he said, "I hate to out-do you boys but our tribe has been regulars here ever since my grandparents was young. This year we rented a house for a month so we could have all the kids at one time!" The men all laughed happily. Me too. Several aphorisms come to mind:

"If it ain't broke, don't fix it."

"Don't kill the goose that lays the golden eggs."

And that catchy song:

"Don't it always seem to go,
you don't know what you got 'till it's gone?
They paved Paradise and put up a parking lot."
["Big Yellow Taxi" (c) by Joni Mitchell].

Thank you for your attention.

I respectfully hope you deny the development of this project for its many flaws, risks & long term consequences.

Sincerely,

Shawn C. White
<shawncwhite@gmail>
(805) 729-2483
4950 Sandyland Rd. #129
Carpinteria, CA 93013

From: John Ramsey
To: Mindy Fogg
Subject: Surfliner: Just what Carpinteria DOESN"T need
Date: Friday, June 27, 2025 7:35:03 PM

****EXTERNAL EMAIL****
CAUTION: This email originated from outside the City of Carpinteria. DO NOT OPEN attachments or CLICK on links unless you are sure they are safe. Remember, reputable vendors, banks, etc. will not ask you to disclose passwords or other sensitive information.

Objections to Proposed Surfliner Inn Hotel & Parking Lot on City Land Adjacent to Railroad and Beach Neighborhood

As a resident of the beach neighborhood for nearly 40 years, and a homeowner for the last 30, I would like to express my strong opposition to having this project go forth.

Reason #1: It is NOT NEEDED. Virtually no one who lives in Carp has had the idea pop into their head that we "need a motel at the train station". The developers (almost none of whom live here), see an opportunity to make money, and that is their motivation: make no mistake about it; that is why they are developers. They care about profit, not Carpinteria.

Reason #2: LACK OF AVAILABLE PARKING. It is no secret that parking is a problem in this area, especially during summer and/or special events and holidays. The addition of Linden Square and the proposed Palms remodel will no doubt add to the deficit of parking, since a paltry few new spaces will be created to ease the burden of serving those establishments.

The idea of creating a few new parking spaces next to The Spot, while welcome, will barely make a difference during peak need, and furthermore, if those spaces are designated only for hotel customers, what would be gained for those who are not? And if it's for the hotel and public, how would the difference in spaces be monitored? Then there is Reason #3.

Reason#3: ALREADY RESTRICTED INGRESS/EGRESS FOR THE BEACH NEIGHBORHOOD. There is only one access road to the whole area, and that is Linden Ave. which is only one lane in each direction. In the event of a large fire/earthquake/ tsunami, residents only have one way to drive out of danger, and that is crossing the railroad tracks at Linden. We do not need any increase in traffic congestion in this area, period. This single road serves as the ONLY emergency evacuation route. This limited access will be further strained by hotel guest traffic and public use of the proposed parking lot. This poses serious risks and irreversible impacts to public safety, emergency readiness, and residential quality of life. Placing a high-density commercial operation here is dangerously shortsighted. I respectfully urge the City Council and Planning Commission to reject the Surfliner Inn proposal in its current form. At a MINIMUM, the City should:

- Conduct a full independent emergency evacuation and public safety assessment.

- Require a comprehensive CEQA environmental review, including tsunami and wilfire vulnerability.

Furthermore, we wouldn't be in this situation if not for the MISLEADING LANGUAGE voters were subjected to in the ballot measure, intended to confuse voters, i.e. "Vote No to support the project"... This is Bush League misdirection, and it is why the project got approved.

Thank you for your attention and service to our city. I trust that you will act with caution, foresight, and respect for the safety and wishes of Carpinteria's residents.

John Ramsey
349 Ash Ave Spc 51
Carpinteria, CA 93013
blewheaven@hotmail.com
(805) 684-4756

From: Sunny Brucker
To: Mindy Fogg
Subject: Surfliner hotel
Date: Friday, June 27, 2025 9:25:04 PM

EXTERNAL EMAIL

CAUTION: This email originated from outside the City of Carpinteria. DO NOT OPEN attachments or CLICK on links unless you are sure they are safe. Remember, reputable vendors, banks, etc. will not ask you to disclose passwords or other sensitive information.

I am writing to express my concern over the proposed development of the Surfliner Hotel. Parking in Carpinteria is already so limited, that taking away one of the main parking lots for downtown is absolutely absurd. There is little to no street parking as is, and with the new Linden Square development people are resorting to parking at the Smart & Final parking lot. How long will it be before Smart & Final starts enforcing their privately owned parking lot and stop allowing people to park there? Where will those people park? What about all the summer tourists that visit Carpinteria's beaches? Where will they park? Where will the 80,000+ attendees of the avocado festival park? Residents in nearby neighborhoods already have a hard time finding parking, as many complexes and houses do not have parking and residents rely solely on street parking. If the parking lot is gone it will only become even harder on residents to park.

The parking lot is public space and should be kept that way. Not allow a pointless hotel to be built. There are so many more downsides than upsides to this hotel development. Count Linden Square as a win and stop while you're ahead.

Sunny
-a concerned local resident

From: Dianne Johnson
To: Mindy Fogg
Cc: Dianne Johnson; John Johnson
Subject: Surfliner Inn Project
Date: Thursday, June 26, 2025 2:59:42 PM

EXTERNAL EMAIL

CAUTION: This email originated from outside the City of Carpinteria. DO NOT OPEN attachments or CLICK on links unless you are sure they are safe. Remember, reputable vendors, banks, etc. will not ask you to disclose passwords or other sensitive information.

Dear Ms. Mindy,

My husband and I are strongly opposed to the proposed Surfliner Inn Project. We moved to Carpinteria in 1990, 35 years ago, as a matter of convenience. He was working in Camarillo and I in Goleta. We quickly found it to be lovely, quaint and extremely welcoming. Since that time, we've watched it grow, always advancing in amenities, always in scale, and always for the better. I, myself, walk regularly, down Linden, sometimes through the neighborhoods, and continue to be inspired and impressed by the care afforded by individuals and families to their "quintessentially beach town" properties; they do our town and our spirits proud.

The Surfliner Project stands in stark contrast to our hometown feel. It represents a loss of openness, natural views, and the personal care that only residences can afford. The plans show it as wildly out of proportion to adjacent structures, overbuilding on a very limited space, eliminating our well-used parking area, and adding to the congestion and safety issues that we locals confront and adapt to as we welcome tourists each summer— but, really, year round. All this, in addition to our continuing water challenges, spells unwelcome trouble for residents and tourists alike.

City Fathers, please do not allow this Surfliner Project to continue… because "Carpinteria, We Love It!"

Sincerely,
Dianne Milani Johnson,
Grateful Carpinterian

From: Mindy Fogg
To: "Judy Nilsen"
Subject: RE: SAVE Beach Parking
Date: Tuesday, June 24, 2025 11:22:00 AM

Okay, thank you. Your comments will be included in the Environmental Impact Report.

Mindy Fogg *(she/her)*
Community Development Department
City of Carpinteria
5775 Carpinteria Ave, Carpinteria, CA 93013
Direct Line: (805) 755-4408 | mindyf@carpinteriaca.gov
CarpinteriaCA.gov

From: Judy Nilsen <tjudyn@impulse.net>
Sent: Tuesday, June 24, 2025 10:40 AM
To: Mindy Fogg <mindyf@carpinteriaca.gov>
Subject: Re: SAVE Beach Parking

Yes
Sorry I rambled! JN

Sent from my iPhone

> On Jun 24, 2025, at 10:02 AM, Mindy Fogg <mindyf@carpinteriaca.gov> wrote:
>
> Hi Ms. Nilsen,
> I'm confused by your email and need more context. Is this a comment on the Surfliner Inn project? We are currently requesting input for the preparation of an Environmental Impact Report for this project. Is that the purpose of your email?
>
> **Mindy Fogg** *(she/her)*
> Community Development Department
> City of Carpinteria
> 5775 Carpinteria Ave, Carpinteria, CA 93013
> Direct Line: (805) 755-4408 | mindyf@carpinteriaca.gov
> CarpinteriaCA.gov
>
> ---
>
> **From:** Tom and Judy Nilsen <tjudyn@impulse.net>
> **Sent:** Tuesday, June 24, 2025 9:35 AM
> **To:** Mindy Fogg <mindyf@carpinteriaca.gov>
> **Subject:** SAVE Beach Parking

I have been going to Carpinteria since I was a child....I'm 84 now. A favorite camping place and a wonderful small town to explore.

I love Carpinteria as a beach town! I love the smell of the air, the stores, the beach, the charm.

I recently ate lunch at Linden Square and it is a class act. Love the succulents on the tables and at the entrance. It is very nice **BUT** I don't want all of Carpinteria to become like most other urban places in Southern California. No more big buildings.....parking lot is needed.

I WANT CHARMING FRIENDLY CARPINTERIA!

Sincerely, Judy Nilsen

From: Marilyn Wesley
To: Mindy Fogg
Subject: SCH Number 2025051396
Date: Friday, May 30, 2025 12:11:12 PM
Attachments: Outlook-Governor's.png

****EXTERNAL EMAIL****
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Thank you for using CEQA Submit.

Public Resources Code (PRC) Section 21091(c)(3) and Guidelines Section 15105(e) allows the State Clearinghouse (SCH) to distribute CEQA documents within three working days after the date of receipt if the submittal is determined by the State Clearinghouse to be complete. Additionally, the State agency review period does not begin until the SCH distributes the CEQA document to State agencies. (Pub. Resources Code, § 21093(c)(2).)

Your project is published and available for review. Please note the State and Local review 'start' and 'end' dates.

> **To view your project and any attachments via CEQAnet, from CEQA Submit**: Click "Navigation" and select "Published Document"
>
> **Additional information is on State Clearinghouse (SCH) website - FAQs:** https://lci.ca.gov/sch/faq.html
>
> **Notice of Closing Letters:** The SCH will not provide a close of review period acknowledgement on your CEQA environmental document. Comments submitted by State agencies are made available on CEQAnet by the SCH during and after the review period.

To view comments on your project via CEQAnet, please visit: https://ceqanet.opr.ca.gov/Search/Advanced

- Search for the SCH# using the Advanced Search in CEQAnet
- Select the correct document.
- Under "Attachments," view attachments labeled "State Comment Letters [Comments from State Reviewing Agency(ies)]"
- If there are no comments from a State agency about your project, it means none have been received.

To get more information on a specific project, contact the lead agency responsible for it directly.

> ****When Requesting Updates to Published/Posted Document(s)/Project(s):** Please note that the State Clearinghouse (SCH) does not remove attachments from published projects unless there is confidential information that cannot be displayed online.

To make changes to a published document, send requests and any attachments to

state.clearinghouse@opr.ca.gov. Please also provide a brief memo on lead agency letterhead explaining what changes/corrections have been made.

To view your submission, use the following link.
https://ceqasubmit.opr.ca.gov/Document/Index/317831/1

Please contact the SCH with any questions at state.clearinghouse@opr.ca.gov.

Thank you,

Marilyn Wesley
CEQA Program Analyst, State Clearinghouse
Governor's Office of Land Use and Climate Innovation
1400 10th Street | Sacramento, CA 95814
Email: Marilyn.Wesley@OPR.CA.GOV



***Note*: *No reply, response, or information provided constitutes legal advice.*

Confidentiality Notice: The information contained in this email and any attachments is for the exclusive use of the intended recipient(s) and may contain confidential and privileged information. It is the property of the California Governor's Office of Land Use and Climate Innovation. Unauthorized use, disclosure, or copying of this communication or any part thereof is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender immediately by return email and destroy all copies of the original message and any attachments.

NATIVE AMERICAN HERITAGE COMMISSION

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Steven Quinn

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

June 3, 2025

Mindy Fogg
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria CA 93013

Re: 2025051396 Surfliner Inn Project, Santa Barbara County

Dear Ms. Fogg:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

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AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Mathew.Lin@NAHC.ca.gov.

Sincerely,

Mathew Lin

Mathew Lin
Cultural Resources Analyst

cc: State Clearinghouse

STATE OF CALIFORNIA GAVIN NEWSOM, *Governor*

PUBLIC UTILITIES COMMISSION
320 WEST 4TH STREET, SUITE 500
LOS ANGELES, CA 90013

June 18, 2025 ENVR 20250600002

Mindy Fogg
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013

Re: Surfliner Inn Project SCH 2025051396 — *Notice of Preparation*

Dear Mindy Fogg,

The California Public Utilities Commission (Commission/CPUC) has regulatory jurisdiction over rail crossings (crossings) in California. CPUC ensures that crossings are safely designed, constructed, and maintained. The Commission's Rail Crossings Engineering Branch (RCEB) is in receipt of the *Notice of Preparation (NOP) of a Draft Environmental Impact Report* for the proposed Surfliner Inn Project. The City of Carpinteria (City) is the lead agency.

The City proposes development on both sides of Union Pacific Railroad (UPRR) tracks on the northwest side of Linden Avenue, consisting to the north, a two-story contemporary cottage-style hotel, and to the south, a new 93-space parking lot. The proposed hotel would have a building footprint of approximately 15,500 square feet; the interior floor space is proposed to be 28,290 square feet in size and contain 36 guest rooms. The project would be operated under a conjunctive parking arrangement which would accommodate parking for hotel guests, hotel employees, and the general public within the proposed parking lots. Adjacent to the southwestern side of the proposed hotel runs the UPRR Santa Barbara Subdivision tracks, and at the southern corner of the property is the Linden Avenue at-grade highway railroad crossing (CPUC # 001E-377.90, DOT # 745632S).

Given the addition of lodging and parking facilities at the properties, pedestrian and vehicular activity in the vicinity of this crossing and track can be expected to increase. RCEB recommends installing fencing between the new parking lot and the railroad right-of-way. The project team should also investigate the impact of increased vehicular and pedestrian traffic on the Linden Avenue crossing and any necessary supplemental measures to mitigate this increase; such as but not limited to lighting, detectable warning surfaces, vehicle-channelizing median curbs, off-quadrant railroad warning devices, and automatic pedestrian gates. In addition, the Amtrak station access should be realigned to allow the station access to be in front of the warning device. These improvements can be accomplished through a capital project funded by the City or a condition of approval for the development and should also bring the crossing up to current standards and in compliance with ADA requirements.

Any proposed crossing improvement project will require authorization from the CPUC through General Order 88-B and must also conform to the goals of the CPUC's Environmental and Social Justice Action Plan. This includes improving safety and access to transportation, improving local air quality and public health, and expanding outreach and public participation opportunities in disadvantaged communities. For more information, please visit https://www.cpuc.ca.gov/esjactionplan.

RCEB staff is available to discuss any potential safety impacts or concerns at the crossings and address any questions from the City.

If you have any questions, please contact Oliver Garcia at (213) 369-4674, or oliver.garcia@cpuc.ca.gov.

Sincerely,

Anh Truong, P.E.
Senior Utilities Engineer (Supervisor)
Rail Crossings Engineering Branch
Rail Safety Division

cc: State Clearinghouse, state.clearinghouse@opr.ca.gov
Kenneth Tom, Union Pacific Railroad, ktom@up.com

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
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GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

June 24, 2025

Mindy Fogg
Principal Planner
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013
mindyf@carpinteria.gov

SUBJECT: NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE SURFLINER INN PROJECT, SCH NO. 2025051396, SANTA BARBARA COUNTY, CA

Dear Mindy Fogg:

The California Department of Fish and Wildlife (CDFW) reviewed the Notice of Preparation for a Draft Environmental Impact Report (NOP) from City of Carpinteria (City) for the Surfliner Inn (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines[1].

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Fish & G. Code, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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CDFW may also act as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law[2] of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.) or the Native Plant Protection Act (NPPA; Fish & G. Code, §1900 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

Proponent: City of Carpinteria (City)

Objective: The objective of the Project is to construct a 15,500 square-foot hotel with a visitor center, 139 parking spaces, patios, walkways, terraces, and landscaping. The existing City Parking Lot #3 will be reconfigured to accommodate development of the Project. Parking for hotel guests, hotel employees, and the general public would occur within the reconfigured City Parking Lot #3 and a proposed City Parking Lot #4.

The proposed Lot #4 would be located on the south side of the Union Pacific Railroad (UPRR) tracks and provide 93 parking spaces, with vehicular access from Linden Avenue. The Lot #4 parcel was acquired from the UPRR in 2013 and currently includes an informal public trail from Holly Avenue to Linden Avenue. This proposed Lot #4 would be constructed prior to commencement of construction for the hotel and reconfigured Lot 3 to ensure no loss of public parking. A new 5-foot-wide decomposed granite public pathway is proposed along the northern boundary of the parking lot, to replace the existing interim Linden to Holly Trail segment.

A total of 25 electric vehicle car charging stations are proposed. The parking lots would feature both permeable and impermeable surfaces. The Project includes a "Tier 4" storm water plan (projects with 22,500 square feet or more of impervious surfaces), which includes the use of permeable surfaces for portions of the new and reconfigured parking areas and the installation of underground retention chambers to treat and limit storm water discharge from the site. The Project also includes a total of 18 bicycle storage and bicycle parking spaces.

Location: The Project site for the Surfliner Inn is located at 499 Linden Avenue (Assessor's Parcel Number 004-105-011). The Project site for Parking Lot #4 is located just southwest of the railroad tracks and northwest of 389 Linden Avenue (Assessor's Parcel Number 004-105-026) in Carpinteria, California.

[2] "Take" is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

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Biological Setting: The proposed hotel site consists of an existing parking lot and vegetated open space. The new Lot 4 site is designated Open Space/Recreation and currently contains a community garden and vegetated open space. Both locations contain mature trees.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the City in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

General Comments

1) Disclosure. The DEIR should provide an adequate, complete, and detailed disclosure about the effects which a proposed project is likely to have on the environment (Pub. Resources Code, § 20161; CEQA Guidelines, § 15151). Such disclosure is necessary so CDFW may provide comments on the adequacy of proposed avoidance, minimization, or mitigation measures, as well as assess the significance of the specific impact relative to plant and wildlife species impacted (e.g., current range, distribution, population trends, and connectivity).

2) Project Description and Alternatives. To enable adequate review and comment on the proposed Project from the standpoint of the protection of fish, wildlife, and plants, CDFW recommends the following information be included in the DEIR.

   a. A complete discussion of the purpose and need for, and description of the proposed Project.

   b. A range of feasible alternatives to the Project location to avoid or otherwise minimize direct and indirect impacts on sensitive biological resources and wildlife movement areas. CDFW recommends the City select Project designs and alternatives that would avoid or otherwise minimize direct and indirect impacts on biological resources. CDFW also recommends the City consider establishing appropriate setbacks from sensitive and special status biological resources. Setbacks should not be impacted by ground disturbance or hydrological changes from any future Project-related construction, activities, maintenance, and development. As a general rule, CDFW recommends reducing or clustering a development footprint to retain unobstructed spaces for vegetation and wildlife and provide connections for wildlife between properties and minimize obstacles to open space.

   c. Project alternatives should be thoroughly evaluated, even if an alternative would impede, to some degree, the attainment of the Project objectives or would be more costly (CEQA Guidelines, § 15126.6). The DEIR shall include sufficient information about each alternative to allow meaningful evaluation, public

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participation, analysis, and comparison with the proposed Project (CEQA Guidelines, § 15126.6).

d. Where the Project may impact aquatic and riparian resources, CDFW recommends the City select Project designs and alternatives that would fully avoid impacts to such resources. CDFW also recommends an alternative that would not impede, alter, or otherwise modify existing surface flow, watercourse and meander, and water-dependent ecosystems and natural communities. Project designs should consider elevated crossings to avoid channelizing or narrowing of watercourses. Any modifications to a river, creek, or stream may cause or magnify upstream bank erosion, channel incision, and drop in water level, which may cause the watercourse to alter its course of flow.

3) Biological Baseline Assessment. An adequate biological resources assessment should provide a complete assessment and impact analysis of the flora and fauna within and adjacent to the Project site and where the Project may result in ground disturbance. The assessment and analysis should place emphasis on identifying endangered, threatened, rare, and sensitive species; regionally and locally unique species; and sensitive habitats. An impact analysis will aid in determining the Project's potential direct, indirect, and cumulative biological impacts, as well as specific mitigation or avoidance measures necessary to offset those impacts. CDFW also considers impacts to Species of Special Concern (SSC) a significant direct and cumulative adverse effect without implementing appropriate avoidance and/or mitigation measures. The DEIR should include the following information.

a. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines, § 15125(c)). The DEIR should include measures to fully avoid and otherwise protect Sensitive Natural Communities. CDFW considers Sensitive Natural Communities as threatened habitats having both regional and local significance. Natural communities, alliances, and associations with a State-wide rarity ranking of S1, S2, and S3 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by visiting the Vegetation Classification and Mapping Program - Natural Communities webpage[3].

b. A thorough, recent, floristic-based assessment of special status plants and natural communities following CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities*[4]. Botanical field surveys should be comprehensive over the entire Project site, including areas that will be directly or indirectly impacted by the Project. Adjoining properties should also be surveyed where direct or indirect Project effects could occur, such as those from fuel modification, herbicide

[3] https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities
[4] https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline

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application, invasive species, and altered hydrology. Botanical field surveys should be conducted in the field at the times of year when plants will be both evident and identifiable. Usually, this is during flowering or fruiting. Botanical field survey visits should be spaced throughout the growing season to accurately determine what plants exist in the Project site. This usually involves multiple visits to the Project site (e.g., in early, mid, and late season) to capture the floristic diversity at a level necessary to determine if special status plants are present.

c. Floristic alliance- and/or association-based mapping and vegetation impact assessments conducted in the Project site and within adjacent areas. The Manual of California Vegetation[5], second edition, (Sawyer, Keeler-Wolf, & Evens, 2009) should also be used to inform this mapping and assessment. Adjoining habitat areas should be included in this assessment where the Project's construction and activities could lead to direct or indirect impacts offsite.

d. A complete and recent assessment of the biological resources associated with each habitat type in the Project site and within adjacent areas. A full literature review includes but is not limited to CDFW's California Natural Diversity Database[6] (CNDDB). The CNDDB should be accessed to obtain current information on any previously reported sensitive species and habitat. An assessment should include a minimum nine-quadrangle search of the CNDDB to determine a list of species potentially present in the Project site. A nine-quadrangle search should be provided in the Project's CEQA document for adequate disclosure of the Project's potential impact on biological resources.

e. A complete, recent, assessment of endangered, rare, or threatened species and other sensitive species within the Project site and adjacent areas, including SSC and California Fully Protected Species (Fish & G. Code, §§ 3511, 4700, 5050, and 5515). Species to be addressed should include all those which meet the CEQA definition of endangered, rare, or threatened species (CEQA Guidelines, § 15380). Seasonal variations in use of the Project site should also be addressed such as wintering, roosting, nesting, and foraging habitat. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, may be required if suitable habitat is present. See CDFW's Survey and Monitoring Protocols and Guidelines[7] for established survey protocol. Acceptable species-specific survey procedures may be developed in consultation with CDFW and U.S. Fish and Wildlife Service.

f. A recent wildlife and rare plant survey. A lack of records in the CNDDB does not mean that rare, threatened, or endangered plants and wildlife do not occur. Field

[5] https://vegetation.cnps.org/
[6] https://wildlife.ca.gov/Data/CNDDB
[7] https://wildlife.ca.gov/conservation/survey-protocols

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verification for the presence or absence of sensitive species is necessary to provide a complete biological assessment for adequate CEQA review (CEQA Guidelines, § 15003(i)). CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if Project implementation build out could occur over a protracted time frame or in phases.

4) Direct and Indirect Impacts on Biological Resources. The DEIR should provide a thorough discussion of direct and indirect impacts expected to affect biological resources with specific measures to offset such impacts. The DEIR should address the following.

   a. A discussion of potential impacts from lighting, noise, temporary and permanent human activity, and exotic species, and identification of any mitigation measures. A discussion regarding Project-related indirect impacts on biological resources. These include resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands (e.g., preserve lands associated with a Natural Community Conservation Plan (Fish & G. Code, § 2800 et. seq.)).

   b. A discussion of both the short-term and long-term effects of the Project on species population distribution and concentration, as well as alterations of the ecosystem supporting those species impacted (CEQA Guidelines, § 15126.2(a)).

   c. Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in areas adjacent to the Project, should be fully analyzed and discussed in the DEIR.

   d. A discussion of post-Project fate of drainage patterns, surface flows, and soil erosion and/or sedimentation in streams and water bodies. The discussion should also address the potential water extraction activities and the potential resulting impacts on habitat supported by the groundwater. Measures to mitigate such impacts should be included.

   e. An analysis of impacts from proposed changes to land use designations and zoning, and existing land use designation and zoning located nearby or adjacent to natural areas that may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the DEIR.

5) Cumulative Impact. Cumulative impacts on biological resources can result from collectively significant projects which are individually insignificant. The Project, when considered collectively with prior, concurrent, and probable future projects,

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may have a significant cumulative effect on biological resources. The Project may have the potential to substantially reduce the number or restrict the range of endangered, rare, or threatened species. Species that may be impacted by the Project include, but are not limited to, the biological resources described in this letter.

Accordingly, CDFW recommends the DEIR evaluate the Project's potential cumulative impacts on biological resources. The Project may have a "significant effect on the environment" if the possible effects of the Project are individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual 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 (Pub. Resources Code, § 21083(b)). The City's conclusions regarding the significance of the Project's cumulative impact should be justified and supported by evidence to make those conclusions. Specifically, if the City concludes that the Project would not result in cumulative impacts on biological resources, the City, "shall identify facts and analysis supporting the Lead Agency's conclusion that the cumulative impact is less than significant" (CEQA Guidelines section § 15130(a)(2)).

6) Nesting Birds. To avoid impacts to nesting birds, CDFW recommends that clearing of vegetation occur outside of the peak avian breeding season, which general runs from February 1 through September 1 (as early as January 1 for some raptors). If Project construction is necessary during the bird breeding season, a qualified biologist with experience in conducting breeding bird surveys should conduct a nesting bird survey within three days prior to work in the area. If an active nest is identified, a buffer shall be established between the construction activities and the nest so that nesting activities are not interrupted. For the given Project site, CDFW generally recommends a 100-foot buffer from common avian species, 300 feet for listed or highly sensitive, and 500 feet for raptors. The buffer should be delineated by temporary fencing and remain in effect as long as construction is occurring. No Project construction shall occur within the fenced nest zone until the young have fledged, are no longer being fed by the parents, have left the nest, and will no longer be impacted by the Project. Reductions in the nest buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors.

7) Mitigation Measures. Public agencies have a duty under CEQA to prevent significant, avoidable damage to the environment by requiring changes in a project through the use of feasible alternatives or mitigation measures (CEQA Guidelines, §§ 15002(a)(3), 15021). Pursuant to CEQA Guidelines section 15126.4, an environmental document shall describe feasible measures which could mitigate impacts below a significant level under CEQA. Mitigation measures must be feasible, effective, implementable, and fully enforceable/imposed by the lead

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agency through permit conditions, agreements, or other legally binding instruments (Pub. Resources Code, § 21081.6(b); CEQA Guidelines, § 15126.4).

a. The DEIR should provide mitigation measures that are specific and detailed (i.e., responsible party, timing, specific actions, location) in order for a mitigation measure to be fully enforceable and implemented successfully via a mitigation monitoring and/or reporting program (Pub. Resources Code, § 21081.6; CEQA Guidelines, § 15097).

b. If a proposed mitigation measure would cause one or more significant effects, in addition to impacts caused by the proposed Project, the DEIR should include a discussion of the effects of proposed mitigation measures (CEQA Guidelines, § 15126.4(a)(1)). In that regard, the DEIR should provide an adequate, complete, and detailed disclosure about the Project's proposed mitigation measure(s). Adequate disclosure is necessary so CDFW may assess the potential impacts of proposed mitigation measures.

8) Compensatory Mitigation. The DEIR should include compensatory mitigation measures for the Project's significant impacts (direct and/or through habitat modification) to sensitive and special status plants, animals, and habitats. Mitigation measures should emphasize avoidance and minimization of Project-related impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore inadequate to mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed. Areas proposed as mitigation lands should be protected in perpetuity with a conservation easement and financial assurance and dedicated to a qualified entity for long-term management and monitoring.

9) Long-term Management of Mitigation Lands. For proposed mitigation lands, the DEIR should include measures to protect the targeted habitat values in perpetuity. The mitigation should offset Project-induced qualitative and quantitative losses of biological resources. Issues that should be addressed include (but are not limited to) restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, and increased human intrusion. An appropriate endowment should be set aside to provide for long-term management of mitigation lands.

10) CESA. CDFW considers adverse impacts to a species protected by CESA to be significant. Take of any endangered, threatened, candidate species, or NPPA-listed plant species that results from the Project is prohibited, except as authorized by state law (Fish & G. Code §§ 2080, 2085; Cal. Code Regs., tit. 14, §786.9). Consequently, if the Project or any Project-related activity will result in take of a species designated as endangered or threatened, or a candidate for listing under

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CESA, CDFW recommends that the Project proponent seek appropriate take authorization under CESA prior to implementing the Project. Appropriate authorization from CDFW may include an Incidental Take Permit (ITP) or a consistency determination in certain circumstances, among other options (Fish & G. Code, §§ 2080.1, 2081, subds. (b) and (c)). Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required to obtain a CESA Permit.

To ensure CDFW will be able to use the City's CEQA document for the issuance of an ITP, the DEIR should address all Project impacts to CESA-listed species and specify a mitigation, monitoring, and reporting program that will meet the requirements of an ITP.

11) Translocation/Salvage of Plants and Animal Species. Translocation and transplantation is the process of removing plants and wildlife from one location and permanently moving it to a new location. CDFW generally does not support the use of translocation or transplantation as the primary mitigation strategy for unavoidable impacts to endangered, rare, or threatened plants and animals. These efforts are experimental, and the outcome is unreliable. CDFW has found that permanent preservation and management of habitat capable of supporting these species is often a more effective long-term strategy for conserving plants and animals and their habitats.

12) Scientific Collecting Permit and Voucher Collecting Permit. A Scientific Collecting Permit would be necessary if there is a plan to capture and relocate wildlife. Pursuant to the California Code of Regulations, title 14, section 650, qualified biologist(s) must obtain appropriate handling permits to capture, temporarily possess, and relocated wildlife to avoid harm or mortality in connection with Project-related activities. CDFW has the authority to issue permits for the take or possession of wildlife, including mammals; birds, nests, and eggs; reptiles, amphibians, fish, plants; and invertebrates (Fish & G. Code, §§ 1002, 1002.5, 1003). A Scientific Collecting Permit is required to monitor project impacts on wildlife resources, as required by environmental documents, permits, or other legal authorizations; and, to capture, temporarily possess, and relocate wildlife to avoid harm or mortality in connection with otherwise lawful activities (Cal. Code Regs., tit. 14, § 650). For more information, please see CDFW's Scientific Collecting Permit webpage[8].

A voucher collection permit is required to collect state-listed plant species for identification purposes during field surveys, or to collect voucher specimens to document a newly-discovered or previously unvouchered occurrence of a state-listed plant. There is no charge to apply for a voucher collection permit. Anyone who collects scientific plant specimens of state-listed species, or who may

[8] https://wildlife.ca.gov/Licensing/Scientific-Collecting

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encounter a state-listed species during field surveys should have a plant voucher collection permit. To apply for a Voucher Collecting Permit please see CDFW's Voucher Collecting Permit Page[9].

13) Lake and Streambed Alteration. CDFW has regulatory authority over activities in streams that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of any river, stream, or lake or use material from a river, stream, or lake. For any such activities, the Project applicant (or "entity") must provide written notification to CDFW pursuant to section 1600 et seq. of the Fish and Game Code. Based on this notification and other information, CDFW determines whether a Lake and Streambed Alteration Agreement (LSAA) with the applicant is required prior to conducting the proposed activities. CDFW's issuance of a LSAA for a project that is subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. CDFW recommends that [Lead Agency] assess whether notification is appropriate. A Notification package for a LSAA may be obtained by accessing CDFW's Lake and Streambed Alteration Program website[10].

14) Wetland Resources. CDFW, as described in Fish and Game Code section 703(a), is guided by the Fish and Game Commission's (Commission) policies[11]. Through its Wetlands Resources policy, the Commission "…seek[s] to provide for the protection, preservation, restoration, enhancement, and expansion of wetland habitat in California" (California Fish and Game Commission, 2005). It is the policy of the Commission to strongly discourage development in or conversion of wetlands. It opposes, consistent with its legal authority, any development or conversion that would result in a reduction of wetland acreage or wetland habitat values. To that end, the Commission opposes wetland development proposals unless, at a minimum, project mitigation assures there will be 'no net loss' of either wetland habitat values or acreage. The Commission strongly prefers mitigation which would achieve expansion of wetland acreage and enhancement of wetland habitat values."

    a. The Wetlands Resources policy provides a framework for maintaining wetland resources and establishes mitigation guidance. CDFW encourages avoidance of wetland resources as a primary mitigation measure and discourages the development or type conversion of wetlands to uplands. CDFW encourages activities that would avoid the reduction of wetland acreage, function, or habitat values. Once avoidance and minimization measures have been exhausted, a project should include mitigation measures to assure a "no net loss" of either wetland habitat values, or acreage, for unavoidable impacts to wetland resources. Conversions include, but are not limited to, conversion to subsurface

[9] https://wildlife.ca.gov/Conservation/Plants/Permits
[10] https://wildlife.ca.gov/Conservation/Environmental-Review/LSA
[11] https://fgc.ca.gov/About/Policies/Miscellaneous

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drains, placement of fill or building of structures within the wetland, and channelization or removal of materials from the streambed. All wetlands and watercourses, whether ephemeral, intermittent, or perennial, should be retained and provided with substantial setbacks, which preserve the riparian and aquatic values and functions benefiting local and transient wildlife populations. CDFW recommends mitigation measures to compensate for unavoidable impacts be included in the DEIR and these measures should compensate for the loss of function and value.

b. The Fish and Game Commission's Water policy guides CDFW on the quantity and quality of the waters of this State that should be apportioned and maintained respectively so as to produce and sustain maximum numbers of fish and wildlife; to provide maximum protection and enhancement of fish and wildlife and their habitat; encourage and support programs to maintain or restore a high quality of the waters of this State; prevent the degradation thereof caused by pollution and contamination; and, endeavor to keep as much water as possible open and accessible to the public for the use and enjoyment of fish and wildlife. CDFW recommends avoidance of water practices and structures that use excessive amounts of water, and minimization of impacts that negatively affect water quality, to the extent feasible (Fish & G. Code, § 5650).

15) Use of Native Plants and Trees. CDFW recommends the City require the Project Applicant to provide a native plant palette for the Project. The Project's landscaping plan should be disclosed and evaluated in the DEIR for potential impacts on biological resources such as natural communities adjacent to the Project site (e.g., introducing non-native, invasive species). CDFW supports the use of native plants for the Project especially considering the Project's location adjacent to protected open space and natural areas. CDFW strongly recommends avoiding non-native, invasive species for landscaping and restoration, particularly any species listed as 'Moderate', 'High', 'Limited', and 'Watch' by the California Invasive Plant Council[12] CDFW supports the use of native species found in naturally occurring plant communities within or adjacent to the Project site. In addition, CDFW supports planting native species of trees, such as oaks (Quercus genus), and understory vegetation (e.g., ground cover, vines, subshrubs, and shrubs) that create habitat and provide a food source for birds. CDFW recommends retaining any standing, dead, or dying tree (snags) where possible because snags provide perching and nesting habitat for birds and raptors. Finally, CDFW supports planting species of vegetation with high insect and pollinator value.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make

[12] https://www.cal-ipc.org/plants/inventory/

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subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNDDB website[13] provides direction regarding the types of information that should be reported and allows on-line submittal of field survey forms.

In addition, information on special status native plant populations and sensitive natural communities, should be submitted to CDFW's Vegetation Classification and Mapping Program using the Combined Rapid Assessment and Relevé Form[14].

The City should ensure data collected for the preparation of the DEIR is properly submitted.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

CDFW appreciates the opportunity to comment on the NOP to assist the City in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Kelly Schmoker, Senior Environmental Scientist (Specialist)[15].

Sincerely,

DocuSigned by:
5991E19EF8094C3...
Victoria Tang
Environmental Program Manager
South Coast Region

[13] https://wildlife.ca.gov/Data/CNDDB
[14] https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities/Submit
[15] Phone: (626) 848-8382; Email: Kelly.schmoker@wildlife.ca.gov

Docusign Envelope ID: F51A5785-F360-4D2C-8A0D-B7861AF3F972

ec: California Department of Fish and Wildlife
Victoria Tang, Environmental Program Manager
Frederic Rieman, Senior Environmental Scientist (Supervisor)
Kelly Schmoker, Senior Environmental Scientist (Specialist)

Office of Planning and Research
State.Clearinghouse@opr.ca.gov

REFERENCES

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CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
89 SOUTH CALIFORNIA ST., SUITE 200
VENTURA, CA 93001
(805) 585-1800

June 26, 2025

Nick Bobroff, Director
Community Development Department
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013-2603

RE: NOP for Surfliner Inn, Project No. 23-2254-DP/CUP/CDP/ARB, located at 499 Linden Avenue, APNs 004-105-011 & 004-105-026

Dear Mr. Bobroff,

Commission staff has received the Notice of Preparation (NOP) for an upcoming Draft Environmental Impact Report (DEIR) for the subject project, and has reviewed the December 12, 2024 Architecture Review Board (ARB) Preliminary Review staff report. We appreciate this opportunity to provide comments for your consideration.

The subject project includes a development plan, a conditional use permit, and a coastal development permit for the construction of a new 36-room hotel at 499 Linden Avenue. The proposed project would also include redevelopment and a reduced number of public parking spaces within an existing City parking lot, as well as the construction of a new City parking lot on an adjacent parcel.

Commission staff are in support of new visitor serving uses including overnight accommodations, particularly if they are lower cost. Amongst the most important goals and requirements of the Coastal Act and City of Carpinteria LCP is the mandate to protect, provide, enhance, and maximize public access, with an important component of public access being the availability of lower cost visitor serving facilities. Coastal Act Section 30213 states, in part, that: “Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided…”. In describing Neighborhood, District, and Corridor Planning, the City of Carpinteria LCP describes the downtown and Carpinteria Avenue street corridor as providing “opportunities for low cost visitor serving uses including motels and restaurants.”

In order to evaluate the subject project’s consistency with both the Coastal Act and LCP, the DEIR should include a discussion regarding lower cost overnight accommodations, as well as an analysis as to whether the proposed project meets the definition of luxury overnight accommodations and if so, what measures may be proposed or required to provide for a component of lower cost accommodations. The DEIR should therefore include information such as the proposed nightly room rate and the median cost of an overnight room in the City of Carpinteria. The following links are recent Commission staff reports that have example findings and special conditions of approval relating to lower cost overnight accommodations, including methodology for determining lower, moderate, and high cost (luxury) overnight accommodations:

Th16a-12-2022-report.pdf (ca.gov)
W12a-03-2022-report.pdf (ca.gov)
W12a-2-2021-report.pdf (ca.gov)

Additional resources and guidance related to the provision of lower cost overnight accommodations within the coastal zone can be found on the Commission website, using the following links:

Lower Cost Coastal Lodging
Lower Cost Coastal Lodging – Resources for Local Governments

We also have concerns about the proposed parking lot modifications and the potential impacts on public access that could result from the reduction of designated public parking spaces. If there is not sufficient off-street parking to serve the proposed development and also the public, public parking lot use by hotel visitors or employees may impact on-street or off-street parking at important public access locations nearby. Additionally, the parking study dated June 6, 2024 and incorporated into the December 12, 2024 Architecture Review Board (ARB) Preliminary Review staff report analyzed parking use data collected from the subject site in the winter of 2019. A current parking study analyzing parking use data from peak season (spring/summer) should be performed and should be incorporated into the DEIR.

Thank you for your consideration of our comments. Please feel free to contact me if you have any questions.

Sincerely,

Sam Fearer

Sam Fearer
Coastal Program Analyst

SANTA YNEZ CHUMASH
TRIBAL ELDER'S COUNCIL
TO PROTECT AND PRESERVE TRIBAL ANCESTRY, TRADITIONS AND CULTURE

Santa Ynez Band of Chumash Indians
Tribal Elders' Council
P.O. Box 517 ◆ Santa Ynez ◆ CA ◆ 93460
Phone: (805)688-7997 ◆ Fax: (805)688-9578

June 26, 2025

Community Development Department
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013

Att.: Mindy Fogg, Principal Planner

Re: Carpinteria Surfliner Inn Project

Dear Ms. Fogg:

Thank you for contacting the Tribal Elders' Council for the Santa Ynez Band of Chumash Indians. Thank you for speaking with us earlier this week regarding the proposed Surfliner Inn project.

As we mentioned on our call, the tribe would like to have tribal cultural monitors on site during all ground disturbing activities. We would also like to formally request that a qualified archaeologist, meeting the Secretary of the Interior's standards, be on site during ground disturbing activities to support our tribal cultural monitors.

We are aware that the Phase I Archaeological Resources Report concluded that there was a low probability of precontact archaeological resources. However, we have identified two sites of high concern to the tribe. The report mentions one of the sites, CA-SBA-007, but disregards the 2021 site boundary update which extends the site to Carpinteria Creek. The boundary update was accepted by the State Historic Preservation Officer's (SHPO) office and should be regarded as accurate. The report, additionally, fails to mention that excavations at CA-SBA-007 led to the discovery of at least 540 ancestral Chumash burials.

The second site, CA-SBA-006, located 0.82 miles away from the project area has had at least four ancestral Chumash burials excavated. I understand CA-SBA-006 falls outside of the arbitrary 0.5-mile buffer zone. However, both sites are very well known and there is an established archaeological site record for these sites going back to 1929 when they were initially excavated by David Banks Rogers. It is the tribe's perspective, that it is reasonable to include into consideration a site that has known burials, even if it is 0.3 miles outside of the arbitrary buffer.

As there are two documented Chumash cemeteries in the vicinity of the project area, the tribe disagrees with the report's finding of low potential.

For this reason, the tribe feels it is important to have an archaeologist on site along with our tribal cultural monitors during all ground disturbing activities.

Please let me know if you have any questions.

Thank you for your time and attention to this matter.

Regards,



Amanda Dobrov, M.A.
Cultural Resources Archaeologist | Elders' Council and Culture Department
Santa Ynez Band of Chumash Indians
Physical Address: Santa Ynez Chumash Cultural Resources Management Office| 3513 Numancia Unit 101, Santa Ynez, CA 93460
Mailing Address: P.O. Box 517, Santa Ynez, CA
Email: ADobrov@chumash.gov

Appendix B

AQ and GHG Technical Memorandum

DUDEK
3760 STATE STREET, SUITE 101
SANTA BARBARA, CALIFORNIA 93105
T 805.963.0651

MEMORANDUM

To:	Whitt Hollis, 499 Linden Managers, LLC
From:	Adam Poll
Subject:	Air Quality and Greenhouse Gas Emissions Technical Memorandum for the Surfliner Inn Project
Date:	June 12, 2025
cc:	Jonathan Leech, Dudek
Attachment:	A, CalEEMod Emissions Outputs B, Health Risk Assessment Outputs C, County of Santa Barbara 2030 Climate Action Plan Consistency Checklist

Dudek is pleased to submit this air quality and greenhouse gas (GHG) emissions assessment to assist 499 Linden Managers, LLC (applicant) with initial environmental planning requirements for the Surfliner Inn Project (project).

This memorandum estimates criteria air pollutant and GHG emissions and evaluates potential impacts from construction and operation of the project in accordance with the California Environmental Quality Act (CEQA) Guidelines.

The contents and organization of this memorandum are as follows:

- Section 1, Project Description
- Section 2, General Analysis and Methodology
- Section 3, Air Quality Assessment
- Section 4, Greenhouse Gas Emissions Assessment
- Section 5, Conclusions
- Section 6, References Cited

1 Project Description

The applicant proposes a 36-room hotel, managers suite, café/restaurant, and visitor center. Additionally, it includes landscaping, access improvements, and typical ancillary uses such as a pool/spa and back of house, conference room, office and break room, bike storage, a 139-space surface parking lot, and coastal trail improvement. The project will be developed on approximately 30,000 square feet (SF). The first level includes: 17 guest rooms and decks: lobby lounge and check in; café/restaurant, including back of house (open to the public); manager's unit; visitor center (open to the public); two storage rooms; back of house; bike storage; and mechanical room. The second level includes: 5 junior suites with decks; 14 guest rooms with decks; a mechanical attic for the

café and restrooms for the public and hotel guest only. The roof level includes bar area; hotel amenities and flex space; guest lounge; and pool, spa, and deck.

On City parking Lot #4, a new 93-space surface parking lot, will be constructed prior to commencement of construction of the hotel to eliminate any reduction of spaces within the proposed 30,000 SF hotel site. The 46 parking spaces currently located west of the proposed 30,000 SF hotel site shall remain.

The Project will include 30 bicycle storage and parking spaces. It will also provide 25 electric vehicle car charging stations. The surface of the parking lot is designed with permeable and impermeable surfaces. Vehicle access to the hotel site will continue to by the existing western access at Fifth Street and Elm Avenue. Parking Lot #3's eastern access will be removed. Parking Lot #4 will be accessed from Linden Avenue with emergency access only to Elm Avenue.

Existing Setting

The Project consists of portions of two existing City-owned parcels.

- 499 Linden Avenue (APN 004-105-011) is 1.15 acres (50,000 SF) in size and is City Parking Lot #3. The existing public restrooms, located in the northeast corner of the parcel, near the intersection of Fifth Street and Linden Avenue, shall be relocated to the southeast corner of the proposed Parking Lot #4.

- The adjacent properties are Fifth Street, Linden Avenue, and the Union Pacific Railroad tracks. On the north side of Fifth Street is a commercial business and parking lot, a two-story apartment building, and one-story apartments. On the east side of Linden are commercial warehouses.

- 399 Linden Avenue (APN 004-105-011) is a vacant 5.93-acre (84,071 SF) parcel. A temporary trail was recently constructed by the City.

- The northern adjacent property is the Union Pacific Railroad tracks and Linden Avenue is the eastern adjacent property. The properties to the south are (from east to west): a commercial restaurant and parking lot; single-story residences; a two-story apartment building; and Elm Street.

2 General Analysis and Methodology

2.1 Construction

Emissions from the construction phase of the proposed project were estimated using the California Emissions Estimator Model (CalEEMod), Version 2022.1.1.29 (CAPCOA 2025). For the purposes of modeling, it was assumed that construction of the proposed project would commence in June 2025[1] and would last approximately

[1] The analysis assumes a construction start date of June 2025, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

14 months, ending in July 2026. The analysis contained herein is based on the following subset area schedule assumptions (duration of phases is approximate):

- Demolition – 2 weeks (September 2, 2025 – September 12, 2025)
- Site Preparation – 1 week (June 2, 2025 – June 6, 2025)
- Grading – 1 week (June 9, 2025 – June 13, 2025)
- Parking Lot 4 Construction – 1 month (June 23, 2025 – July 18, 2025)
- Hotel Construction – 10 months (September 29, 2025 – July 31, 2026)
- Lot 4 Paving – 1 week (July 21, 2025 – July 25, 2025)
- Architectural Coating – 2 weeks (February 2, 2026 – February 13, 2026)

The estimated construction duration was provided by the applicant. Detailed construction equipment modeling assumptions are provided in Attachment A, CalEEMod Emissions Outputs.

The construction equipment mix used for estimating the construction emissions of the proposed project is based on information provided by the project applicant and is shown in Table 1.

Table 1. Construction Scenario Assumptions

	One-Way Vehicle Trips			Equipment		
Construction Phase	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Average Daily Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Demolition	10	4	26	Tractors/Loaders/ Backhoes	3	8
				Concrete/Industrial Saws	1	8
Site preparation	8	4	0	Rubber Tired Dozers	1	7
				Tractors/Loaders/ Backhoes	1	7
				Graders	1	8
Grading	10	4	20	Graders	1	8
				Rubber Tired Dozers	1	8
				Tractors/Loaders/ Backhoes	2	7
Parking Lot 4 Construction	16	6	0	Cranes	1	8
				Forklifts	2	7
				Generator Sets	1	8
				Tractors/Loaders/ Backhoes	1	6
				Welders	3	8
Hotel Construction	16	6	0	Cranes	1	8
				Forklifts	2	7
				Generator Sets	1	8
				Tractors/Loaders/ Backhoes	1	6
				Welders	3	8
Lot 4 Paving	16	4	0	Pavers	1	8
				Paving Equipment	1	8

Table 1. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Average Daily Haul Truck Trips	Equipment Type	Quantity	Usage Hours
				Rollers	2	8
				Tractors/Loaders/ Backhoes	1	8
				Cement and Mortar Mixers	1	8
Architectural coating	6	2	0	Air Compressors	1	6

Note: See Attachment A for details.

For the analysis, it was assumed that heavy construction equipment would be operating 5 days per week (22 days per month) during proposed project construction. Construction worker and vendor trips were based on CalEEMod default assumptions and rounded up to the nearest whole number to account for whole round trips.

During demolition, the project would remove the existing pavement onsite which is estimated to be 870 tons. During the grading phase, there would be 800 cubic yards of export. It is anticipated that earth movement would be primarily, if not completely, accomplished using off-road equipment (e.g., scrapers and excavators). The CalEEMod default equipment type, quantity, and daily usage was utilized during construction. The project applicant has committed to having all heavy-duty diesel-powered construction equipment greater than 50 horsepower being equipped with California Air Resources Board (CARB)-certified Tier 4 Final or better diesel engines. All equipment less than 50 horsepower shall be electric or use alternative fuels (non-diesel).

The project would be required to comply with Santa Barbara County Air Pollution Control District (SBCAPCD) Rule 345 to control dust emissions generated during any dust-generating activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active dust areas two times per day, with additional watering depending on weather conditions. The project would be required to comply with SBCAPCD Rule 323.1 for use of architectural coatings. The project has committed to the use of zero-VOC coatings during construction.

A detailed depiction of the construction schedule—including information regarding phases and equipment used during each phase—is included in Attachment A of this report. The information contained in Attachment A was used as CalEEMod model inputs.

Carbon Sequestration (Loss)

This GHG analysis estimates the loss of sequestered carbon that would result from removal of trees on site during construction. The calculation methodology and default values provided in i-Tree Planting were used to estimate the one-time carbon-stock change from planting new trees based on the trees provided in the landscaping plan for the Project (i-Tree 2022). Trees sequester CO_2 while they are actively growing and the amount of CO_2 sequestered depends on the type of tree. Thereafter, the accumulation of carbon in biomass slows with age, and is assumed to be offset by losses from clipping, pruning, and occasional death. Active growing periods are subject to, among other things, species, climate regime, and planting density; however, for modeling purposes, it was assumed an active growing period of 30 years consistent with the Project lifetime. The project is removing 16 trees (Spiewak 2023).

2.1.1 Health Risk Assessment

A construction health risk assessment (HRA) was performed to evaluate potential health risk associated with construction of the project. The following discussion summarizes the dispersion modeling and HRA methodology; supporting construction HRA documentation, including detailed assumptions, is presented in Attachment B.

For risk assessment purposes, PM_{10} in diesel exhaust is considered diesel particulate matter, originating mainly from off-road equipment operating at a defined location for a given length of time at a given distance from sensitive receptors. Less-intensive, more-dispersed emissions result from on-road vehicle exhaust (e.g., heavy-duty diesel trucks). For the construction HRA, the CalEEMod scenario for the project was adjusted to reduce diesel truck one-way trip distances to 0.25 miles to estimate emissions from truck pass-by at proximate receptors (SJVAPCD 2018).

The air dispersion modeling methodology was based on the generally accepted modeling practices of SBCAPCD (SBCAPCD 2025). Air dispersion modeling was performed using the U.S. Environmental Protection Agency's American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) Version 24142 modeling system (computer software) with the Lakes Environmental Software implementation/user interface, AERMOD View Version 13.0.0. The HRA followed the Office of Environmental Health Hazard Assessment 2015 guidelines (OEHHA 2015) to calculate the health risk impacts at all proximate receptors as further discussed below. The dispersion modeling Included the use of standard regulatory default options. AERMOD parameters were selected consistent with the SBCAPCD and U.S. Environmental Protection Agency guidance and identified as representative of the project site activities. Principal AERMOD parameters of this modeling are presented in Table 2.

Table 2. AERMOD Principal Parameters – Construction HRA

Parameter	Details
Meteorological Data	The latest 5-year meteorological data (2019–2023) for the Carpinteria Station from the SBCAPCD were downloaded and then input to AERMOD.
Urban versus Rural Option	Urban areas typically have more surface roughness, as well as structures and low-albedo surfaces that absorb more sunlight—and thus more heat—relative to rural areas. However, based on the Auer method specified in 40 CFR Part 51 Appendix W, the rural dispersion option was selected due to the predominant land use surrounding the project.
Terrain Characteristics	The terrain in the vicinity of the modeled project site is generally flat. The elevation of the modeled site is about 11 feet above sea level. Digital elevation model files were imported into AERMOD so that complex terrain features were evaluated as appropriate.
Elevation Data	Digital elevation data were imported into AERMOD, and elevations were assigned to the emission sources and receptors. Digital elevation data were obtained through AERMOD View in the U.S. Geological Survey's National Elevation Dataset format with a 30-meter resolution.
Emission Sources and Release Parameters	Air dispersion modeling of particulate matter from construction equipment was conducted using emissions estimated using the CalEEMod, assuming emissions would occur 8 hours per day, 5 days per week. The project area was modeled as a series of line-volume sources. On-site emissions of diesel vehicles were also included, assuming a 0.25-mile travel distance.
Source Release Characterizations	Based on U.S. Environmental Protection Agency methodology, the modeled line volume sources would result in a release height of 3.4 meters, a plume height of 6.8 meters, and a plume width of 8.6 meters for off-road equipment and diesel trucks (SBCAPCD 2025).

Table 2. AERMOD Principal Parameters – Construction HRA

Parameter	Details
Receptors	Discrete receptors were placed over residences and workers proximate to the project site. A uniform cartesian grid of 50 meter spacing was also placed over the site to identify the point of maximum impact.

Notes: AERMOD = American Meteorological Society/Environmental Protection Agency Regulatory Model; HRA = health risk assessment; CARB = California Air Resources Board; CFR = Code of Federal Regulations; CalEEMod = California Emissions Estimator Model.
See Attachment B.

AERMOD was run with all sources emitting unit emissions (1 gram per second) to obtain the necessary input values for HARP2. The line of volume sources was partitioned evenly based on the 1 gram per second emission rate. The ground-level concentration plot files were then used to estimate the long-term cancer health risk to an individual, and the noncancerous chronic health indices. There is no reference exposure level for acute health impacts from diesel particulate matter, and, thus, acute risk was not evaluated.

Cancer risk is defined as the increase in probability (chance) of an individual developing cancer due to exposure to a carcinogenic compound, typically expressed as the increased chances in one million. Maximum Individual Cancer Risk is the estimated probability of a maximally exposed individual potentially contracting cancer as a result of exposure to toxic air contaminants (TACs) over a period of 30 years for residential receptor locations. For the construction HRA, the TAC exposure period was assumed to be from third trimester of pregnancy for 14 months for all receptor locations (i.e., the assumed duration of project construction. The exposure pathway for diesel particulate matter is inhalation only.

SBCAPCD has also established noncarcinogenic risk parameters for use in HRAs since some TACs increase noncancerous health risk due to long-term (chronic) exposures and some TACs increase noncancerous health risk due to short-term (acute) exposures. Chronic exposure is evaluated in the construction HRA. Noncarcinogenic risks are quantified by calculating a hazard index, expressed as the ratio between the ambient pollutant concentration and its toxicity or reference exposure level, which is a concentration at or below which health effects are not likely to occur. The chronic hazard index is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system. A hazard index less of than 1.0 means that adverse health effects are not expected.

2.2 Operation

Emissions from the operational phase of the proposed project were estimated using CalEEMod. Operational year 2026 was assumed as it would be the first full year following completion of proposed construction

Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating are calculated in the building energy use module of CalEEMod, as described in the following text.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2025). Consumer

product volatile organic compound (VOC) emissions for the building is estimated in CalEEMod based on the floor area of building and on the default factor of pounds of VOC per building square foot per day. Consumer products associated with the parking lot and other asphalt surfaces include degreasers, which were estimated based on the square footage of the parking lot and the default factor of pounds of VOC per square foot per day. The CalEEMod default values for consumer products were assumed.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from the application of surface coatings based on the VOC emission factor, building square footage, assumed fraction of surface area, and reapplication rate. The VOC emissions factor is based on the VOC content of the surface coatings, and SBCAPCD's Rule 323.1 (Architectural Coatings) governs the VOC content for interior and exterior coatings. This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SBCAPCD 2014). The proposed project would use architectural coatings that would not exceed 50 grams per liter for interior applications and 100 grams per liter for exterior applications consistent with SBCAPCD Rule 323.1. The model default reapplication rate of 10% of area per year is assumed. Consistent with CalEEMod defaults, it is assumed that the surface area for painting equals 2.7 times the floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating (CAPCOA 2025).

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated with landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day), as well as number of summer days (when landscape maintenance would generally be performed, 180 days) and winter days. In accordance with the County 2030 Climate Action Plan (CAP) Measure TR-3, all landscaping equipment will be electric.

Energy Sources

As represented in CalEEMod, energy sources include GHG emissions associated with building electricity and natural gas usage (non-hearth). Electricity use would contribute indirectly to GHGs, since GHG emissions occur at the site of the power plant, which is typically off site. The project would not include natural gas service, only electricity will be used. Emissions were calculated by multiplying the energy use by the utility's carbon intensity (pounds of GHGs per megawatt-hour for electricity or 1,000 British thermal units for natural gas) for carbon dioxide (CO_2) and other GHGs. Annual electricity emissions were estimated in CalEEMod using the emissions factors for Central Coast Community Energy (3CE), which would be the energy source provider for the proposed project.

The proposed project would be subject to the 2022 Title 24 standards, at a minimum, which went into effect on January 1, 2023. However, the CalEEMod 2022.1.1.29 assumes compliance with the 2019 Title 24 standards. As such, the energy use calculations would be considered conservative. The electricity demand for the project was provided by the project applicant.

The proposed project would include 25 electric vehicle charging stations in accordance with the California Green Building Standards Code (CALGreen) and 2022 Title 24 standards. The project has included 93 kilowatts (kW) of solar photovoltaic electricity generation on the roof which will cover the projects demand. As a backup, power will be provided by Central Coast Community Energy's 100% carbon free option in accordance with the County 2030

CAP Measure CE-1. In accordance with the County 2030 CAP Measure CE-1, the project is all-electric and will not use natural gas.

Mobile Sources

Following the completion of construction activities, the proposed project would generate criteria pollutant emissions from mobile sources (vehicular traffic) as a result of the employees, residents, and visitors of the proposed project. CalEEMod default data, including trip characteristics, trip lengths, and emissions factors, were used for the model inputs. Trip rates for the project were based on the Transportation Impact Assessment (ATE 2024). Project-related traffic was assumed to include a mixture of vehicles in accordance with the associated use, as modeled within the CalEEMod. Emission factors representing the vehicle mix and emissions for 2026 were used to estimate emissions associated with vehicular sources.

Refrigerants

Refrigerants are substances used in equipment for air conditioning (A/C) and refrigeration. Most of the refrigerants used today are HFCs or blends thereof, which can have high GWP values. All equipment that uses refrigerants has a charge size (i.e., quantity of refrigerant the equipment contains), and an operational refrigerant leak rate, and each refrigerant has a GWP that is specific to that refrigerant. CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime, and then derives average annual emissions from the lifetime estimate.

Solid Waste

The proposed project would generate solid waste and would, therefore, result in CO_2 and methane (CH_4) emissions associated with landfill off-gassing. Solid waste generation was derived from the CalEEMod default rates for each residential land use type. Emission estimates associated with solid waste were estimated using CalEEMod.

Water Supply and Wastewater

Water supplied to the proposed project would require the use of electricity. Accordingly, the supply, conveyance, treatment, and distribution of water would indirectly result in GHG emissions through use of electricity. Annual water use for the proposed project and GHG emissions associated with the electricity used for water supply were calculated based upon default water use estimates for each land use type, as estimated by CalEEMod and 3CE factors. The proposed project would include low-flow fixtures in the building and water-efficient irrigation systems. The proposed project would be connected to municipal sewer. Default water use estimated from CalEEMod for indoor and outdoor water use were assumed.

Carbon Sequestration (Gain)

This GHG analysis estimates the gain of sequestered carbon that would result from planting and growth of trees on site. The calculation methodology and default values provided in i-Tree Planting were used to estimate the one-time carbon-stock change from planting new trees based on the trees provided in the landscaping plan for the Project (i-Tree 2022). Trees sequester CO_2 while they are actively growing, and the amount of CO_2 sequestered depends on the type of tree. Thereafter, the accumulation of carbon in biomass slows with age, and is assumed to be offset by losses from clipping, pruning, and occasional death. Active growing periods are subject to, among other things, species, climate regime, and planting density; however, for modeling purposes, it was assumed an active growing

period of 30 years consistent with the Project lifetime. The model also assumes a tree mortality of 70% over a project's lifetime. The project will plant a total of 55 trees (CJM:LA 2024).

The sequestered carbon from new trees modeling does not include CO_2 emissions estimates associated with planting, care, and maintenance activities (e.g., tree planting and care vehicle travel and maintenance equipment operation). Landscape maintenance equipment emissions were included in the area source emission estimates included in the operational GHG emissions calculations. In addition, operational GHG emissions associated with these maintenance activities are anticipated to be minimal.

3 Air Quality Assessment

The project is located within the South Central Coast Air Basin (SCCAB) and is within the jurisdictional boundaries of the SBCAPCD, which has jurisdiction over Santa Barbara County where the project is located. Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants that are evaluated include VOCs (also referred to as ROCs), oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (coarse particulate matter, or PM_{10}), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size (fine particulate matter, or $PM_{2.5}$). ROCs and NO_x are important because they are precursors to ozone (O_3).

3.1 Thresholds of Significance

The State of California has developed guidelines to address the significance of air quality impacts based on Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.), which provides guidance that a project would have a significant environmental impact if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.
3. Expose sensitive receptors to substantial pollutant concentrations.
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

In addition, Appendix G of the CEQA Guidelines indicates that where available, the significance criteria established by the applicable air district may be relied upon to determine whether the project would have a significant impact on air quality. The SBCAPCD has prepared criteria and thresholds for determining significance under CEQA. According to the SBCAPCD's *Scope and Content of Air Quality Sections in Environmental Documents* (SBCAPCD 2022a), a project would have a significant air quality effect on the environment if operation of the project would:

- Emit (from all project sources, both stationary and mobile) more than the daily trigger for offsets or air quality impact analysis set in the SBCAPCD New Source Review Rule[2], for any pollutant (i.e., 240 pounds per day for ROC or NO_x; and 80 pounds per day for PM_{10});

[2] The SBCAPCD New Source Review Rule as it existed at the time the SBCAPCD Environmental Review Guidelines were adopted in October 1995 (SBCAPCD 2022a).

- Emit 25 pounds per day or more of NO_X or ROC from motor vehicle trips only;
- Cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone);
- Exceed the SBCAPCD health risk public notification thresholds adopted by the SBCAPCD Board for non-cancer risk; and
- Be inconsistent with the latest adopted federal and state air quality plans for Santa Barbara County.

As stated in the SBCAPCD's *Scope and Content of Air Quality Sections in Environmental Documents*, the SBCAPCD does not currently have quantitative thresholds of significance in place for short-term or construction emissions; however, the SBCAPCD uses 25 tons per year for ROC or NO_X as a guideline for determining the significance of construction impacts (SBCAPCD 2022a).

Due to the relatively low background ambient CO levels in Santa Barbara County, localized CO impacts associated with congested intersections are not expected to exceed the CO health-related air quality standards (SBCAPCD 2022a). The most stringent ambient air quality standard for CO is the California Ambient Air Quality Standard (CAAQS) at 20 parts per million (ppm) for the 1-hour standard and 9.0 ppm for the 8-hour standard. The Las Flores Canyon monitoring station, located in Capitan, is the closest monitoring station to the project site where CO concentrations are measured. The Las Flores Canyon station reported 1-hour concentrations in ppm of 0.6, 0.9, and 4.5 and 8-hour concentrations of 0.5, 0.6, and 1.4 during the 2019–2021 monitoring period, which is the most recent CO data available for the Las Flores Canyon station (EPA 2024b). As such, CO "hot spots" analyses are not required anymore (SBCAPCD 2022a).

In addition, a significant citywide project-specific air quality impact may also constitute a considerable contribution to a cumulative impact to the regional air basin.

3.2 Impact Analysis

3.2.1 Would the project conflict with or obstruct implementation of the applicable air quality plan?

A project is non-conforming with an air quality plan if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable SBCAPCD rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Zoning changes, specific plans, general plan amendments, and similar land use plan changes that do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled are also deemed to comply with the applicable air quality plan (SBCAPCD 2022a).

Consistency with land use and population forecasts in local and regional plans, including the Clean Air Plan, is required under CEQA for all projects. SBCAPCD further describes consistency with the Clean Air Plan for projects subject to these guidelines, which means that direct and indirect emissions associated with the project are accounted for in the Clean Air Plan's emissions growth assumptions, and the project is consistent with policies adopted in the Clean Air Plan. The 2022 Ozone Plan was adopted by the District Board on December 15, 2022, and is the most recent applicable air quality plan. The 2022 Ozone Plan is the 3-year update required by the state to show how the SBCAPCD plans to meet the state 1-hour and 8-hour O_3 standard (SBCAPCD 2022b). In February 2021, the CARB designated Santa Barbara County as nonattainment for the state 8-hour O_3 standards. In February 2022, the California Air Resources Board took action at a public hearing to change Santa Barbara County's designation from "unclassified" to "attainment" for the State $PM_{2.5}$ standard, based on data measured in the County

for the 3-year period from 2018 to 2020. The designation change became effective on October 10, 2022 when the California Office of Administrative Law (OAL) reviewed and approved the CARB rulemaking action. The SCCAB remains nonattainment for the state annual and 24-hour PM_{10} standard.

The Ozone Plan relies primarily on the land use and population projections provided by the Santa Barbara County Association of Governments and CARB on-road emissions forecast as a basis for vehicle emission forecasting. As discussed in Section 1, the site consists of two parcels totaling 1.15 acres zoned Commercial Planned Development District (CPD) and general commercial in the City's General Plan. The project is considered a permitted use under the City's Municipal Code Section 14.20.030 and is subject to development plan approval. Therefore, the project is consistent with the underlying zoning for the project site.

The project would also be consistent with the applicable air quality policies within the general plan, including OSC-11b, OSC-11c, OSC-11d, and CDS6-f. Policies OSC-11b and OSC-11d aims to promote a reduction of mobile source emissions related to vehicular traffic. The projects location next to a major rail station along with providing bicycle and EV parking supports this policy. The project is also located near amenities encouraging the use of non-vehicular related travel. Policy OSC-11c aims to promote the use of solar heating and energy efficient building design. The project would be all-electric and include solar photovoltaic energy production onsite thereby supporting this policy. Policy CDS6-f aims to incorporate energy efficient measures into project designs. The project would include the use of drought tolerant landscaping, be all-electric, include solar photovoltaic panels, and use zero-carbon electricity when solar is not available. Therefore, the project would be consistent with this policy.

The project would not conflict with or propose to substantially change existing land use or applicable land use policies as designated in the City's General Plan; therefore, the project was included in the 2022 Ozone Plan. Similarly, the project does not have any growth inducing features. As such, the project would not conflict with the applicable air quality plan. Therefore, this impact would be **less than significant**.

3.2.2 Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and SBCAPCD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality.

Construction Emissions

Proposed construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and ROC off-gassing) and off-site sources (i.e., on-road haul trucks, vendor trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity; the specific type of operation; and, for particulate matter, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated.

The CalEEMod Version 2022.1.1.29 was used to estimate emissions from construction of the project. Internal combustion engines used by construction equipment, trucks, and worker vehicles would result in emissions of

ROCs, NO_x, CO, PM_{10}, and $PM_{2.5}$. PM_{10} and $PM_{2.5}$ emissions would also be generated by entrained dust, which results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil. The project would be required to comply with SBCAPCD Rule 345 to control dust emissions generated during any dust-generating activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active dust areas two times per day, with additional watering depending on weather conditions. Table 3 presents the estimated annual emissions generated during construction of the project. Details of the emission calculations are provided in Attachment A.

Table 3 Estimated Annual Construction Criteria Air Pollutant Emissions

Year	ROC	nOx	CO	SOx	PM_{10}	$PM_{2.5}$
	Tons per year					
2025	0.02	0.21	0.72	<0.01	0.03	0.01
2026	0.03	0.30	1.02	<0.01	0.01	0.01
Maximum	*0.03*	*0.30*	*1.02*	*<0.01*	*0.03*	*0.01*
SBCAPCD Threshold	*25*	*25*	*25*	*25*	*25*	*25*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: ROC = reactive organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter.
See Attachment A for complete results.

As shown in Table 3, the project construction would not exceed the SBCAPCD's thresholds. Therefore, construction impacts associated with criteria air pollutant emissions would be **less than significant**.

Operational Emissions

Table 4 presents the maximum daily emissions associated with the operation of the project after all phases of construction have been completed. Emissions were calculated in accordance with the methodology presented in Section 2.2, Operation. Complete details of the emissions calculations are provided in Attachment A of this document. Emissions represent maximum of summer and winter. "Summer" emissions are representative of the conditions that may occur during the O_3 season (May 1 to October 31), and "winter" emissions are representative of the conditions that may occur during the balance of the year (November 1 to April 30).

Table 4 Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

Emission Source	VOC	NOx	CO	SOx	PM10	PM2.5
	Pounds per Day					
Area	0.84	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	2.05	2.02	15.46	0.03	3.20	0.83
Total	**2.89**	**2.02**	**15.46**	**0.03**	**3.20**	**0.83**
Vehicle source emission threshold	*25*	*25*	—	—	—	—
Vehicle source emissions threshold exceeded?	**No**	**No**	—	—	—	—
Area + vehicle source emissions threshold	*240*	*240*	—	—	*80*	—

Table 4 Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

Emission Source	VOC	NOx	CO	SOx	PM10	PM2.5
	Pounds per Day					
Area + vehicle source emissions threshold exceeded?	No	No	—	—	No	—

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter.
See Attachment A for complete results.

As shown in Table 4, the project would not exceed any of the SBCAPCD operational criteria pollutant emissions thresholds. Therefore, the project would have a **less than significant** impact during operation.

Cumulative Analysis

In considering cumulative impacts from the project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SCCAB is designated as nonattainment for the CAAQS and National Ambient Air Quality Standard (NAAQS). If a project's emissions would exceed SBCAPCD's significance thresholds, it would be considered to have a cumulatively considerable contribution to nonattainment status in the SCCAB. If a project does not exceed thresholds and is determined to have less than significant project-specific impacts, it may still contribute to a significant cumulative impact on air quality. The basis for analyzing the project's cumulatively considerable contribution is if the project's contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact) and consistency with SBCAPCD's 2022 Ozone Plan, which addresses cumulative emissions in the SCCAB.

The SCCAB has been designated as a state nonattainment area for O_3 and PM_{10}. The nonattainment status is the result of CARBs review of monitoring station data from 2018 to 2020. Construction of the project would generate ROC and NO_x emissions (which are precursors to O_3). As indicated in Table 3, project-generated construction emissions would not exceed the City's emission-based significance thresholds for ROC, NO_x, CO, SO_2, PM_{10}, or $PM_{2.5}$. The project would also not exceed the SBCAPCD criteria air pollutant emissions during operations.

Cumulative localized impacts would potentially occur if a construction project were to occur concurrently with another off-site project. Construction schedules for potential future projects near the project site are currently unknown; therefore, potential construction impacts associated with two or more simultaneous projects would be speculative.[3] However, future projects would be subject to CEQA and would require an air quality analysis and, where necessary, mitigation if the project would exceed SBCAPCD's significance thresholds. Criteria air pollutant emissions associated with construction activity of future proposed projects would be reduced through implementation of control measures required by SBCAPCD. Cumulative PM_{10} and $PM_{2.5}$ emissions would be

[3] The CEQA Guidelines state that if a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact (14 CCR 15145). This discussion is nonetheless provided in an effort to show good-faith analysis and to comply with CEQA's information disclosure requirements.

reduced because all future projects would be subject to SBCAPCD Rule 345, which sets forth general and specific requirements for all construction sites in the SBCAPCD.

Based on the previous considerations, the project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants, and cumulative impacts would be **less than significant**.

3.2.3 Would the project expose sensitive receptors to substantial pollutant concentrations?

Health Impacts of Toxic Air Contaminants

A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute (immediate) and/or chronic (cumulative) non-cancer health effects. A toxic substance released into the air is considered a TAC. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as automobiles; and area sources such as landfills. Noncarcinogenic effects typically affect one or more target organ system and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

TACs are identified by federal and state agencies based on a review of available scientific evidence. In the State of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere.

As discussed in Section 2.1.1, Health Risk Assessment, a construction HRA was performed to estimate the Maximum Individual Cancer Risk and the Chronic Hazard Index for proximate sensitive receptors as a result of project construction. Results of the construction HRA are presented in Table 5.

Table 5. Construction Health Risk Assessment Results

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Maximum Individual Cancer Risk – PMI	Per Million	19.0	NA	NA
Chronic Hazard Index – PMI	Index Value	0.02	NA	NA
Maximum Individual Cancer Risk – Residential	Per Million	8.6	10	Less than Significant
Chronic Hazard Index – Residential	Index Value	0.01	1.0	Less than Significant
Maximum Individual Cancer Risk – Worker	Per Million	0.3	10	Less than Significant
Chronic Hazard Index – Worker	Index Value	0.01	1.0	Less than Significant

Source: SBCAPCD 2025.
Notes: PMI = point of maximum impact; NA = not applicable; CEQA = California Environmental Quality Act.
See Attachment B.

As shown in Table 5, project construction activities would result in a Residential Maximum Individual Cancer Risk of 9.2 in 1 million and worker cancer risk of 0.1 in 1 million, which is less than the significance threshold of 10 in 1 million. Project construction would result in a Residential Chronic Hazard Index and Worker Chronic Hazard Index of 0.01, which is below the 1.0 significance threshold. The project construction TAC health risk impacts would be **less than significant**.

During operation, the project would not emit TACs in substantial quantities as the operational emissions as it does not include stationary sources. Emissions would consist of area source emissions from consumer products and from employees/visitors commuting, and the majority of those emissions are off site. The project would include minimal delivery and/or maintenance truck trips. As such, impacts would be **less than significant**.

Health Impacts of Carbon Monoxide

Mobile-source impacts occur on two basic scales of motion. Regionally, project-related travel would add to regional trip generation and increase the VMT within the local airshed and the SCCAB. Locally, project-related traffic would be added to the City's roadway system. If such traffic occurs during periods of poor atmospheric ventilation, consists of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and operates on roadways already crowded with non-project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic. Because of continued improvement in mobile emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SCCAB is steadily decreasing.

Projects contributing to adverse traffic impacts may result in the formation of CO hotspots. Due to the relatively low background ambient CO levels in Santa Barbara County, localized CO impacts associated with project traffic alone are not expected to exceed the CO health-related air quality standards. Furthermore, the project does not include drive-through facilities where a large number of vehicles idle. Therefore, CO hotspot analyses are not required anymore (SBCAPCD 2022a). Therefore, a CO hotspot analysis is not needed and the proposed project would have a **less than significant** impact.

Health Impacts of Other Criteria Air Pollutants

Construction and operation of the proposed project would not result in emissions that exceed the SBCAPCD's emission thresholds for any criteria air pollutants. Regarding VOCs, some VOCs are associated with motor vehicles and construction equipment, while others are associated with architectural coatings, the emissions of which would not result in the exceedances of the SBCAPCD's thresholds. Generally, the VOCs in architectural coatings are of relatively low toxicity. Additionally, SBCAPCD Rule 323.1 restricts the VOC content of coatings for both construction and operational applications.

In addition, VOCs and NO_x are precursors to O_3, for which the SCCAB is designated as attainment with respect to the NAAQS and nonattainment for the CAAQS. The health effects associated with O_3 are generally associated with reduced lung function. The contribution of VOCs and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SCCAB due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur, because exceedances of the O_3 ambient air quality standards tend to occur between April and October when solar radiation is highest.

Regarding NO_2, according to the construction emissions analysis, construction of the proposed project would not contribute to exceedances of the NAAQS and CAAQS for NO_2. Health impacts from exposure to NO_2 and NO_x are

associated with respiratory irritation, which may be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. However, these operations would be relatively short term. Additionally, off-road construction equipment would operate at various portions of the site and would not be concentrated in one portion of the site at any one time. Construction of the proposed project would not require any stationary emission sources that would create substantial, localized NO_x impacts. Therefore, health impacts would be considered **less than significant**.

The VOC and NO_x emissions, as described previously, would minimally contribute to regional O_3 concentrations and its associated health effects. In addition to O_3, NO_x emissions would not contribute to potential exceedances of the NAAQS and CAAQS for NO_2. Thus, it is not expected that the proposed project's operational NO_x emissions would result in exceedances of the NO_2 standards or contribute to the associated health effects. CO tends to be a localized impact associated with congested intersections. The associated CO hotspots were discussed previously as a less than significant impact. Thus, the proposed project's CO emissions would not contribute to significant health effects associated with this pollutant. Likewise, PM_{10} and $PM_{2.5}$ would not contribute to potential exceedances of the NAAQS and CAAQS for particulate matter, would not obstruct the SCCAB from coming into attainment for these pollutants, and would not contribute to significant health effects associated with particulates.

Based on the preceding considerations, health impacts associated with criteria air pollutants would be **less than significant**.

3.2.4 Would the project create objectionable odors affecting a substantial number of people?

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and asphalt pavement application. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be **less than significant**.

Land uses and industrial operations associated with odor complaints include fast food restaurants, bakeries, coffee roasting facilities, agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities (SBCAPCD 2022a). The project would not include land uses associated with odors. Therefore, project operations would result in an odor impact that is **less than significant**.

4 Greenhouse Gas Emissions Assessment

GHGs are gases that absorb infrared radiation in the atmosphere. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature. Global climate change concerns are focused on whether human activities are leading to an enhancement of the greenhouse effect. Principal GHGs include CO_2, CH_4, nitrous oxide (N_2O), O_3, and water vapor. If the atmospheric concentrations of GHGs rise, the average temperature of the lower atmosphere will gradually increase. Globally, climate change has the potential to impact numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. Climate change is already affecting California.

Average temperatures have increased, leading to more extreme hot days and fewer cold nights; shifts in the water cycle have been observed, with less winter precipitation falling as snow, and both snowmelt and rainwater running off earlier in the year; sea levels have risen; and wildland fires are becoming more frequent and intense due to dry seasons that start earlier and end later (CAT 2010).

The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its global warming potential (GWP), which varies among GHGs. Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions are typically measured in terms of pounds or tons of CO_2 equivalent (CO_2e). The CO_2e for a gas is derived by multiplying the mass of the gas by the associated GWP, such that metric tons (MT) of CO_2e = (MT of a GHG) × (GWP of the GHG). CalEEMod assumes that the GWP for CH_4 is 25, which means that emissions of 1 MT of CH_4 are equivalent to emissions of 25 MT of CO_2, and the GWP for N_2O is 298, based on the Intergovernmental Panel on Climate Change's Fourth Assessment Report (IPCC 2007).

4.1 Thresholds of Significance

The significance criteria used to evaluate the project's GHG emissions impacts are based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this GHG emissions analysis, the project would have a significant environmental impact if it would (14 CCR 15000 et seq.):

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

As stated in CEQA Guidelines Section 15064.4(b)(1)-(3),

> a lead agency should consider the following factors, among others, when assessing the significance of impacts from GHG emissions on the environment: (1) the extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether project emissions exceed a threshold of significance that the lead agency determines applies to the project; and, (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

Section 15064(h)(3) of the CEQA Guidelines also states that

> [a] lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located.

The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, do not establish specific quantitative thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009).

The OPR Technical Advisory titled *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act Review* states that

> public agencies are encouraged but not required to adopt thresholds of significance for environmental impacts. Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact. (OPR 2008)

Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice."

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established quantitative thresholds for assessing whether the GHG emissions of a project, such as the project, would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change. In addition, while GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008), GHG emissions impacts must also be evaluated on a project-level under CEQA.

County of Santa Barbara

The County adopted the amendments to the *Environmental Thresholds and Guidelines Manual* in August 2024 (County Santa Barbara 2024a). The County Board of Supervisors also adopted the 2030 Climate Action Plan on August 27, 2024.

The County of Santa Barbara 2030 Climate Action Plan establishes 2030 and 2045 greenhouse gas (GHG) emissions targets and provides measures to establish a trajectory towards achieving those targets. The 2030 Climate Action Plan includes specific measures to achieve a GHG emissions target of 50 percent below 2018 levels by 2030. This is consistent with and exceeds California's goal of reducing GHG emissions to 40 percent below 1990 levels (per Senate Bill 32) by 2030 and provides substantial progress towards achieving the State GHG reduction goal of carbon neutrality (per Executive Order B-55-18) by 2045. The County Board of Supervisors, County staff, and community will continue to develop an approach to meet the State 2045 goal of carbon neutrality.

Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15183.5, a lead agency may determine that a project's or plan's incremental contribution to a cumulative effect is not cumulatively considerable if it complies with the requirements in a previously adopted plan or mitigation program under specified circumstances. In order for the 2030 Climate Action Plan to be considered a qualified GHG reduction strategy and provide for CEQA streamlining of GHG analysis for future development, the 2030 Climate Action Plan must identify those measures that are applicable to future development projects. The 2030 Climate Action Plan includes measures that are applicable to existing developments, municipal government operations, as well as mandatory measures to be applied to future development for public and private projects and plans. Mandatory GHG reduction measures that are applicable to future development are summarized in the following CEQA GHG Emissions Compliance Checklist. This CEQA GHG Checklist identifies applicable regulations, applicability, requirements, and monitoring and reporting required by those regulations. The purpose of the CEQA GHG Checklist is to assist with determining project or plan

consistency with the 2030 Climate Action Plan and provide a streamlined review process for proposed future development projects that are subject to discretionary review and trigger environmental review pursuant to CEQA.

The 2030 CAP utilizes a consistency checklist to determine whether development projects are consistent with the emission reduction goals within the 2030 CAP. Projects and plans that are identified as not consistent with the 2030 Climate Action Plan through the use of this CEQA GHG Checklist must prepare a project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions compared to the County GHG emissions thresholds outlined in the *CEQA GHG Emissions Thresholds and Guidance Document* (2024) and incorporation of the 2030 Climate Action Plan measures in this CEQA GHG Checklist to the extent feasible.

Santa Barbara County Air Pollution Control District

As mentioned previously, the SBCAPCD provides suggested guidance for criteria air pollutant quantitative thresholds for purposes of conducting air quality assessments. That guidance is contained in the SBCAPCD "Scope and Content for Air Quality Sections of Environmental Documents," but does not include quantitative thresholds for GHG impacts (SBCAPCD 2022a).

Recently, the SBCAPCD adopted a quantitative CEQA threshold of significance for GHG emissions from stationary source projects. The guidance states that a proposed stationary source project would not have a significant GHG impact, if operation of the project would:

- Emit less than the screening significance level of 10,000 MT CO_2e per year;
- Show compliance with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions (sources subject to the AB 32 Cap-and-Trade requirements pursuant to Title 17, Article 5 (California Cap on Greenhouse Gas Emissions and Market-based Compliance Mechanisms) would meet the criteria); or
- Show consistency with the AB 32 Scoping Plan GHG emission reduction goals by reducing project emissions 15.3% below Business As Usual (BAU).

City of Carpinteria

The City does not have an adopted GHG threshold or qualified GHG reduction plan for the project to tier off. Therefore, the County of Santa Barbara's 2030 CAP Checklist is utilized to determine significance with respect to GHG emissions.

4.2 Impact Analysis

4.2.1 Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

4.2.2 Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Construction Emissions

Construction of the project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road vendor and haul trucks, and worker vehicles. Additionally, the construction GHG

emissions are shown annualized over 30 years. Therefore, the total construction GHG emissions were calculated, amortized over 30 years and added to the operational emissions.

CalEEMod was used to estimate GHG emissions during construction. Construction of the project is anticipated to last up to 14 months. On-site sources of GHG emissions include off-road equipment and off-site sources include on-road vehicles (haul trucks, vendor trucks, and worker vehicles). Table 6 presents construction GHG emissions for the project from on-site and off-site emission sources.

Table 6 Estimated Annual Construction Greenhouse Gas Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons			
2025	94.32	<0.01	<0.01	95.41
2026	115.44	<0.01	<0.01	116.24
			Total	211.65
			Annualized emissions over 30 years (metric tons per year)	*7.06*

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.
Construction emissions were annualized over 30 years.
See Attachment A for complete results.

As shown in Table 6, the estimated total GHG emissions during construction of the project would be approximately 212 MT CO_2e. Estimated project-generated construction emissions amortized over 30 years would be approximately 7 MT CO_2e per year. As with project-generated construction air quality pollutant emissions, GHG emissions generated during construction of the project would be short term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions. Because there is no separate GHG threshold for construction, the evaluation of significance is determined by adding the amortized construction emissions to the operational emissions and comparing them to the operational threshold.

Operational Emissions

CalEEMod was used to estimate potential project-generated operational GHG emissions from energy sources (electricity). Operational year 2026 was assumed upon completion of construction. The estimation of operational energy emissions was based on the methodology presented in Section 2.2. Table 7 presents the GHG emissions of the project during operation. For disclosure purposes, the estimated operational GHG emissions in 2026 are provided in Table 7.

Table 7 Estimated Annual Operation Plus Amortized Construction Greenhouse Gas Emissions – 2026 Operational Year

Emissions Source	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
Area	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00
Mobile	448.77	0.03	0.02	457.12
Refrigerants	0.00	0.00	0.00	7.70
Solid Waste	5.84	0.58	0.00	20.45

Table 7 Estimated Annual Operation Plus Amortized Construction Greenhouse Gas Emissions – 2026 Operational Year

Emissions Source	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
Vegetation	-0.47	0.00	0.00	-0.47
Water and Wastewater	0.65	<0.01	<0.01	1.13
			Amortized construction emissions	7.06
			Total	**492.99**

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.
See Attachment A for complete results.

As shown in Table 7, the estimated total GHG emissions during operation of the project would be approximately 493 MT CO2e, including amortized construction emissions.

2030 CAP Checklist

As discussed in Section 4.1, the County's 2030 CAP Checklist can be used to evaluate a project's consistency with the GHG reduction measures within the 2030 CAP. The following discussion evaluates the project against the 2030 CAP Checklist.

Section 1: Comprehensive Plan and Ordinance Consistency

Under Section 1, the 2030 CAP Checklist asks if the Project/Plan include a Comprehensive Plan, Zoning Map, or Ordinance Amendment? If "No", proceed to Section 2 – CAP Strategies Consistency. If "Yes", proceed to question 1b.

Project Response: The project is consistent with the underlying zoning for the project site and does not require a zoning amendment. Therefore, the project would answer No to this checklist item and proceed to Section 2.

Section 2: 2030 CAP Measures Consistency

Requirement 2: All Project Types - Building Electrification. Will the Project/Plan (whether all new construction, remodel, or combination thereof) comply with 2030 Climate Action Plan Action CE-1.1 and be all-electric with no natural gas hookup?

Project Response: The project is all-electric and would not use natural gas. Therefore, the project would answer Yes to this checklist requirement.

Requirement 3: All Project Types - Carbon Free Electricity. *Will the Project/Plan (whether all new construction, remodel, or combination thereof) retain Central Coast Community Energy as the energy provider or otherwise utilize 100% carbon free electricity? Southern California Edison (SCE) and Pacific Gas and Electric (PG&E) both distribute\ power from Central Coast Community Energy.*

Project Response: The project includes 93 kW of onsite solar power which covers approximately 100% of the annual demand. The remaining electricity needed for the project will be procured from 3CE's 100% renewable option. Therefore, the project would answer Yes to this checklist requirement.

Requirement 4: All Project Types - EV Charging Infrastructure*. Will the Project/Plan (whether all new construction, remodel, or combination thereof) meet or exceed the requirements of the California Green Building Standards Code, Title 24, Part 11, (CALGreen) Tier II for EV charging infrastructure? New single-family or two-family dwellings are not required to include EV charging infrastructure. Multi-family dwellings (more than three dwellings) and non-residential project must include EV charging infrastructure based on the project size.*

Project Response: With 140 total parking spaces provided for the project, 15% must be EV chargers to meet this checklist requirement. The project would include 25 EV chargers onsite which would meet this requirement. Therefore, the project would answer Yes to this checklist requirement.

Requirement 5: All Project Types - Off-Road Equipment Electrification. *Will the Project/Plan (whether all new construction, remodel, or combination thereof) commit to the use of electrified off-road landscaping equipment (e.g., mowers, chippers, tractors) for ongoing operations and maintenance?*

Project Response: All landscaping equipment will be electric in accordance with this checklist requirement. Therefore, the project would answer Yes to this checklist requirement.

Requirement 6: All Project Types- Reduce VMT. *Will the Project/Plan demonstrate consistency with the County's Thresholds of Significance for Transportation Impacts in the County Environmental Thresholds and Guidelines Manual by either:*

a. meeting the screening criteria for Vehicle Miles Traveled (VMT) to not require further analysis; or

b. resulting in a reduction in VMT?

Project Response: The project site consists of two parcels totaling 1.15 acres zoned CPD and general commercial in the City's General Plan. The project is located less than ½ mile from a major transit stop and therefore would be screened out for vehicle miles travelled. Therefore, the project would answer Yes to this checklist requirement.

Requirement 7: Large Employers - Transportation Demand Management (TDM). *If the Project/Plan will have 50 or more employees, will the Project/Plan (whether all new construction, remodel, or combination thereof) provide a commuter benefit program for employees with measures (such as subsidies for employees that bike, walk, or carpool, telework policy, and/or provide free transit passes for all employees) and achieve a 50-80% telework participation rate by eligible employees able to work remotely consistent with Connected 2050 RTP/SCS?*

Project Response: The project will employ up to 21 persons. This measure does not apply to the project. Therefore, the project would answer N/A to this checklist requirement.

Requirement 8: All Project Types - Residential & Commercial Landfill Diversion Rate Goal. *Will the Project/Plan (whether all new construction, remodel, or combination thereof) meet current legislation and 2030 Climate Action Plan goals to properly sort and collect recyclables and organic waste, as applicable, to reduce communitywide landfilled organics 80% by 2030 and 100% by 2045 by providing dedicated space for organic waste and/or recycling receptacles? To find out your specific requirements based on project type and geographic area, please visit https://lessismore.org/organics/.*

Project Response: Consistent with the City's commercial landfill diversion program, the project would participate in recycling and organic waste diversion activities. Therefore, the project would answer Yes to this checklist requirement.

Requirement 9: All Project Types - Residential & Commercial Organics
Recycling Requirement. *Will the Project/Plan (whether all new construction, remodel, or combination thereof) meet SB 1383 legislation requirements by posting education signage, as applicable, and sorting and collecting organic waste, as applicable, to achieve 0.08 tons per capita compost procurement requirements for the unincorporated County? To find out your specific requirements based on project type and geographic area, please visit https://lessismore.org/organics/.*

Project Response: Consistent with the City's commercial landfill diversion program, the project would participate in organic waste diversion activities by posting signage and sorting organics, as applicable. Therefore, the project would answer Yes to this checklist requirement.

As discussed above, the project would be consistent with the applicable GHG reduction strategies found within the 2030 CAP Checklist. Therefore, the project would not conflict with the County's 2030 CAP. Therefore, because the project is consistent with the 2030 CAP, the project would have a **less than significant** impact.

5 Conclusions

The project would not conflict with the SBCAPCD 2022 Ozone Plan or existing zoning designations. Emissions generated during construction of the project would not exceed the SBCAPCD's significance thresholds. The project would not generate criteria air pollutants during long-term operations that would exceed the SBCAPCD's significance thresholds. The project would also not result in a cumulatively considerable impact or expose sensitive receptors to substantial pollutant concentrations. The project would also not be a significant source of odors. Therefore, the project would result in a less than significant impact in regards to air quality.

The project would not conflict with the County's 2030 CAP. Accordingly, potential cumulative GHG impacts would be less than significant.

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CalEEMod Emissions Outputs

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Surfliner Inn
Construction Start Date	6/2/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.40
Precipitation (days)	18.2
Location	34.3966692738274, -119.52284183201647
County	Santa Barbara
City	Carpinteria
Air District	Santa Barbara County APCD
Air Basin	South Central Coast
TAZ	3360
EDFZ	8
Electric Utility	Central Coast Community Energy
Gas Utility	Southern California Gas
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Hotel	37.0	Room	1.23	26,099	25,888	—	—	—

Parking Lot	139	Space	1.47	0.00	0.00	—	—	—
High Turnover (Sit Down Restaurant)	3.66	1000sqft	0.08	3,656	0.00	—	—	—
Strip Mall	0.24	1000sqft	0.01	245	0.00	—	—	—
Recreational Swimming Pool	0.26	1000sqft	0.01	260	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-1-A	Use Electric or Hybrid Powered Equipment
Construction	C-5	Use Advanced Engine Tiers
Transportation	T-14*	Provide Electric Vehicle Charging Infrastructure
Transportation	T-32*	Orient Project Toward Transit, Bicycle, or Pedestrian Facility
Transportation	T-34*	Provide Bike Parking
Energy	E-10-B	Establish Onsite Renewable Energy Systems: Solar Power
Energy	E-24*	Provide Battery Storage
Water	W-4	Require Low-Flow Water Fixtures
Area Sources	LL-1	Replace Gas Powered Landscape Equipment with Zero-Emission Landscape Equipment
Area Sources	LL-3*	Electric Yard Equipment Compatibility

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	1.97	1.59	16.3	15.7	0.04	0.67	3.21	3.88	0.61	1.46	2.07	—	4,062	4,062	0.19	0.31	3.89	4,149
Mit.	0.94	0.93	3.40	15.4	0.04	0.07	3.21	3.28	0.06	1.46	1.52	—	4,062	4,062	0.19	0.30	3.89	4,149
% Reduced	52%	41%	79%	2%	—	89%	—	15%	89%	—	26%	—	> -0.5%	> -0.5%	—	1%	—	> -0.5%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.45	3.18	11.3	13.8	0.03	0.41	0.17	0.56	0.37	0.04	0.40	—	2,607	2,607	0.11	0.05	0.02	2,623
Mit.	2.03	2.02	1.02	9.16	0.01	0.03	0.17	0.20	0.03	0.04	0.07	—	1,747	1,747	0.07	0.04	0.02	1,760
% Reduced	41%	36%	91%	34%	44%	93%	—	64%	92%	—	82%	—	33%	33%	31%	15%	—	33%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.67	0.57	4.31	5.17	0.01	0.15	0.16	0.28	0.14	0.05	0.16	—	1,002	1,002	0.04	0.02	0.14	1,008
Mit.	0.14	0.14	0.39	3.70	0.01	0.01	0.16	0.17	0.01	0.05	0.06	—	697	697	0.03	0.02	0.14	702
% Reduced	79%	76%	91%	29%	40%	92%	—	41%	91%	—	62%	—	30%	30%	30%	7%	—	30%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.12	0.10	0.79	0.94	< 0.005	0.03	0.03	0.05	0.03	0.01	0.03	—	166	166	0.01	< 0.005	0.02	167
Mit.	0.03	0.02	0.07	0.67	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	115	115	< 0.005	< 0.005	0.02	116
% Reduced	79%	76%	91%	29%	40%	92%	—	41%	91%	—	62%	—	30%	30%	30%	7%	—	30%

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.97	1.59	16.3	15.7	0.04	0.67	3.21	3.88	0.61	1.46	2.07	—	4,062	4,062	0.19	0.31	3.89	4,149

2026	1.50	1.25	10.3	12.4	0.02	0.36	0.13	0.49	0.33	0.03	0.36	—	2,404	2,404	0.10	0.04	0.66	2,418
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.57	1.31	10.8	12.5	0.02	0.41	0.13	0.53	0.37	0.03	0.40	—	2,406	2,406	0.10	0.04	0.02	2,420
2026	3.45	3.18	11.3	13.8	0.03	0.39	0.17	0.56	0.35	0.04	0.40	—	2,607	2,607	0.11	0.05	0.02	2,623
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.47	0.39	3.25	3.71	0.01	0.12	0.16	0.28	0.11	0.05	0.16	—	754	754	0.03	0.02	0.14	761
2026	0.67	0.57	4.31	5.17	0.01	0.15	0.05	0.20	0.14	0.01	0.15	—	1,002	1,002	0.04	0.02	0.12	1,008
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.09	0.07	0.59	0.68	< 0.005	0.02	0.03	0.05	0.02	0.01	0.03	—	125	125	0.01	< 0.005	0.02	126
2026	0.12	0.10	0.79	0.94	< 0.005	0.03	0.01	0.04	0.03	< 0.005	0.03	—	166	166	0.01	< 0.005	0.02	167

2.3. Construction Emissions by Year, Mitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.94	0.93	3.40	15.4	0.04	0.07	3.21	3.28	0.06	1.46	1.52	—	4,062	4,062	0.19	0.30	3.89	4,149
2026	0.22	0.21	0.93	8.90	0.01	0.03	0.13	0.16	0.03	0.03	0.06	—	1,678	1,678	0.07	0.03	0.66	1,690
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.23	0.21	0.96	8.97	0.01	0.03	0.13	0.16	0.03	0.03	0.06	—	1,680	1,680	0.07	0.03	0.02	1,692
2026	2.03	2.02	1.02	9.16	0.01	0.03	0.17	0.20	0.03	0.04	0.07	—	1,747	1,747	0.07	0.04	0.02	1,760
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.08	0.08	0.38	2.79	0.01	0.01	0.16	0.17	0.01	0.05	0.06	—	570	570	0.03	0.02	0.14	576
2026	0.14	0.14	0.39	3.70	0.01	0.01	0.05	0.07	0.01	0.01	0.03	—	697	697	0.03	0.01	0.12	702

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.02	0.01	0.07	0.51	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	94.3	94.3	< 0.005	< 0.005	0.02	95.4
2026	0.03	0.02	0.07	0.67	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	115	115	< 0.005	< 0.005	0.02	116

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.29	3.09	1.84	16.2	0.03	0.02	3.17	3.19	0.03	0.80	0.83	39.8	3,564	3,604	3.72	0.17	60.6	3,810
Mit.	3.05	2.87	1.83	14.9	0.03	0.02	3.17	3.19	0.02	0.80	0.83	39.2	3,559	3,598	3.72	0.17	60.6	3,803
% Reduced	7%	7%	1%	8%	—	10%	—	< 0.5%	7%	—	< 0.5%	1%	< 0.5%	< 0.5%	< 0.5%	1%	—	< 0.5%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.08	2.89	2.00	15.5	0.03	0.02	3.17	3.19	0.02	0.80	0.83	39.8	3,505	3,545	3.73	0.18	46.9	3,740
Mit.	3.08	2.89	2.00	15.5	0.03	0.02	3.17	3.19	0.02	0.80	0.83	39.2	3,505	3,544	3.73	0.18	46.9	3,739
% Reduced	—	—	—	—	—	—	—	—	—	—	—	1%	—	< 0.5%	< 0.5%	1%	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.02	2.86	1.62	13.1	0.02	0.02	2.40	2.41	0.02	0.61	0.63	39.8	2,710	2,750	3.70	0.15	51.2	2,939
Mit.	2.90	2.75	1.61	12.4	0.02	0.01	2.40	2.41	0.02	0.61	0.63	39.2	2,708	2,747	3.70	0.15	51.2	2,935
% Reduced	4%	4%	< 0.5%	5%	—	7%	—	< 0.5%	—	—	—	1%	< 0.5%	< 0.5%	< 0.5%	1%	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.55	0.52	0.29	2.38	< 0.005	< 0.005	0.44	0.44	< 0.005	0.11	0.11	6.58	449	455	0.61	0.02	8.47	487
Mit.	0.53	0.50	0.29	2.27	< 0.005	< 0.005	0.44	0.44	< 0.005	0.11	0.11	6.50	448	455	0.61	0.02	8.47	486

% Reduced	4%	4%	< 0.5%	5%	< 0.5%	7%	—	< 0.5%	5%	—	< 0.5%	1%	< 0.5%	< 0.5%	< 0.5%	1%	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.21	2.03	1.85	14.9	0.03	0.03	3.17	3.20	0.03	0.81	0.83	—	3,562	3,562	0.17	0.16	14.1	3,629
Area	1.07	1.06	0.01	1.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.38
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	4.45	0.00	4.45	0.02	0.01	—	7.73
Waste	—	—	—	—	—	—	—	—	—	—	—	35.3	0.00	35.3	3.53	0.00	—	124
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5
Vegetation	—	> -0.005	-0.02	—	> -0.005	-0.01	-0.01	-0.01	> -0.005	> -0.005	> -0.005	—	-2.84	-2.84	—	—	—	-2.84
Total	3.29	3.09	1.84	16.2	0.03	0.02	3.17	3.19	0.03	0.80	0.83	39.8	3,564	3,604	3.72	0.17	60.6	3,810
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.23	2.05	2.02	15.5	0.03	0.03	3.17	3.20	0.03	0.81	0.83	—	3,508	3,508	0.19	0.17	0.37	3,565
Area	0.84	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	4.45	0.00	4.45	0.02	0.01	—	7.73
Waste	—	—	—	—	—	—	—	—	—	—	—	35.3	0.00	35.3	3.53	0.00	—	124
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5
Vegetation	—	> -0.005	-0.02	—	> -0.005	-0.01	-0.01	-0.01	> -0.005	> -0.005	> -0.005	—	-2.84	-2.84	—	—	—	-2.84
Total	3.08	2.89	2.00	15.5	0.03	0.02	3.17	3.19	0.02	0.80	0.83	39.8	3,505	3,545	3.73	0.18	46.9	3,740

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.06	1.91	1.63	12.4	0.03	0.02	2.41	2.43	0.02	0.61	0.63	—	2,711	2,711	0.16	0.14	4.66	2,761
Area	0.96	0.95	0.01	0.64	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.65	2.65	< 0.005	< 0.005	—	2.66
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	4.45	0.00	4.45	0.02	0.01	—	7.73
Waste	—	—	—	—	—	—	—	—	—	—	—	35.3	0.00	35.3	3.53	0.00	—	124
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5
Vegetation	—	> -0.005	-0.02	—	> -0.005	-0.01	-0.01	-0.01	> -0.005	> -0.005	> -0.005	—	-2.84	-2.84	—	—	—	-2.84
Total	3.02	2.86	1.62	13.1	0.02	0.02	2.40	2.41	0.02	0.61	0.63	39.8	2,710	2,750	3.70	0.15	51.2	2,939
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.38	0.35	0.30	2.27	< 0.005	< 0.005	0.44	0.44	< 0.005	0.11	0.12	—	449	449	0.03	0.02	0.77	457
Area	0.17	0.17	< 0.005	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.44	0.44	< 0.005	< 0.005	—	0.44
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.74	0.00	0.74	< 0.005	< 0.005	—	1.28
Waste	—	—	—	—	—	—	—	—	—	—	—	5.84	0.00	5.84	0.58	0.00	—	20.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.70	7.70
Vegetation	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.47	-0.47	—	—	—	-0.47
Total	0.55	0.52	0.29	2.38	< 0.005	< 0.005	0.44	0.44	< 0.005	0.11	0.11	6.58	449	455	0.61	0.02	8.47	487

2.6. Operations Emissions by Sector, Mitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.21	2.03	1.85	14.9	0.03	0.03	3.17	3.20	0.03	0.81	0.83	—	3,562	3,562	0.17	0.16	14.1	3,629
Area	0.84	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	3.93	0.00	3.93	0.01	0.01	—	6.83
Waste	—	—	—	—	—	—	—	—	—	—	—	35.3	0.00	35.3	3.53	0.00	—	124
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5
Vegetation	—	> -0.005	-0.02	—	> -0.005	-0.01	-0.01	-0.01	> -0.005	> -0.005	> -0.005	—	-2.84	-2.84	—	—	—	-2.84
Total	3.05	2.87	1.83	14.9	0.03	0.02	3.17	3.19	0.02	0.80	0.83	39.2	3,559	3,598	3.72	0.17	60.6	3,803
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.23	2.05	2.02	15.5	0.03	0.03	3.17	3.20	0.03	0.81	0.83	—	3,508	3,508	0.19	0.17	0.37	3,565
Area	0.84	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	3.93	0.00	3.93	0.01	0.01	—	6.83
Waste	—	—	—	—	—	—	—	—	—	—	—	35.3	0.00	35.3	3.53	0.00	—	124
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5
Vegetation	—	> -0.005	-0.02	—	> -0.005	-0.01	-0.01	-0.01	> -0.005	> -0.005	> -0.005	—	-2.84	-2.84	—	—	—	-2.84
Total	3.08	2.89	2.00	15.5	0.03	0.02	3.17	3.19	0.02	0.80	0.83	39.2	3,505	3,544	3.73	0.18	46.9	3,739
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.06	1.91	1.63	12.4	0.03	0.02	2.41	2.43	0.02	0.61	0.63	—	2,711	2,711	0.16	0.14	4.66	2,761
Area	0.84	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	3.93	0.00	3.93	0.01	0.01	—	6.83
Waste	—	—	—	—	—	—	—	—	—	—	—	35.3	0.00	35.3	3.53	0.00	—	124
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5
Vegetation	—	> -0.005	-0.02	—	> -0.005	-0.01	-0.01	-0.01	> -0.005	> -0.005	> -0.005	—	-2.84	-2.84	—	—	—	-2.84
Total	2.90	2.75	1.61	12.4	0.02	0.01	2.40	2.41	0.02	0.61	0.63	39.2	2,708	2,747	3.70	0.15	51.2	2,935
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.38	0.35	0.30	2.27	< 0.005	< 0.005	0.44	0.44	< 0.005	0.11	0.12	—	449	449	0.03	0.02	0.77	457
Area	0.15	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.65	0.00	0.65	< 0.005	< 0.005	—	1.13
Waste	—	—	—	—	—	—	—	—	—	—	—	5.84	0.00	5.84	0.58	0.00	—	20.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.70	7.70
Vegetation	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.47	-0.47	—	—	—	-0.47
Total	0.53	0.50	0.29	2.27	< 0.005	< 0.005	0.44	0.44	< 0.005	0.11	0.11	6.50	448	455	0.61	0.02	8.47	486

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61	0.51	4.85	7.57	0.01	0.17	—	0.17	0.16	—	0.16	—	1,116	1,116	0.05	0.01	—	1,119
Demolition	—	—	—	—	—	—	1.33	1.33	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.02	0.01	0.12	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.5	27.5	< 0.005	< 0.005	—	27.6
Demoliti on	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.55	4.55	< 0.005	< 0.005	—	4.57
Demoliti on	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.37	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	62.9	62.9	< 0.005	< 0.005	0.28	64.1
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	71.0	71.0	< 0.005	0.01	0.18	74.3
Hauling	0.14	0.04	2.49	0.86	0.02	0.03	0.44	0.47	0.02	0.12	0.14	—	1,784	1,784	0.10	0.28	3.44	1,875
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.52	1.52	< 0.005	< 0.005	< 0.005	1.55
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.75	1.75	< 0.005	< 0.005	< 0.005	1.83
Hauling	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.0	44.0	< 0.005	0.01	0.04	46.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.25	0.25	< 0.005	< 0.005	< 0.005	0.26
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.29	0.29	< 0.005	< 0.005	< 0.005	0.30

Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.28	7.28	< 0.005	< 0.005	0.01	7.65

3.2. Demolition (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	0.43	6.08	0.01	0.02	—	0.02	0.02	—	0.02	—	871	871	0.04	0.01	—	874
Demolition	—	—	—	—	—	—	1.33	1.33	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.5	21.5	< 0.005	< 0.005	—	21.6
Demolition	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.56	3.56	< 0.005	< 0.005	—	3.57

Demoliti	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.37	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	62.9	62.9	< 0.005	< 0.005	0.28	64.1
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	71.0	71.0	< 0.005	0.01	0.18	74.3
Hauling	0.14	0.04	2.49	0.86	0.02	0.03	0.44	0.47	0.02	0.12	0.14	—	1,784	1,784	0.10	0.28	3.44	1,875
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.52	1.52	< 0.005	< 0.005	< 0.005	1.55
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.75	1.75	< 0.005	< 0.005	< 0.005	1.83
Hauling	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.0	44.0	< 0.005	0.01	0.04	46.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.25	0.25	< 0.005	< 0.005	< 0.005	0.26
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.29	0.29	< 0.005	< 0.005	< 0.005	0.30
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.28	7.28	< 0.005	< 0.005	0.01	7.65

3.3. Site Preparation (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.54	1.30	12.0	11.9	0.02	0.56	—	0.56	0.51	—	0.51	—	2,028	2,028	0.08	0.02	—	2,035
Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	27.8	27.8	< 0.005	< 0.005	—	27.9
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.60	4.60	< 0.005	< 0.005	—	4.62
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.30	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	50.3	50.3	< 0.005	< 0.005	0.22	51.3
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	71.0	71.0	< 0.005	0.01	0.18	74.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.68	0.68	< 0.005	< 0.005	< 0.005	0.69
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	< 0.005	1.02
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	0.11
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Site Preparation (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.19	0.99	11.6	0.02	0.04	—	0.04	0.04	—	0.04	—	2,028	2,028	0.08	0.02	—	2,035

Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.8	27.8	< 0.005	< 0.005	—	27.9
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.60	4.60	< 0.005	< 0.005	—	4.62
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.30	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	50.3	50.3	< 0.005	< 0.005	0.22	51.3

Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	71.0	71.0	< 0.005	0.01	0.18	74.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.68	0.68	< 0.005	< 0.005	< 0.005	0.69
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	< 0.005	1.02
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	0.11
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.80	1.51	14.1	14.5	0.02	0.64	—	0.64	0.59	—	0.59	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.19	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.6	33.6	< 0.005	< 0.005	—	33.7
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.57	5.57	< 0.005	< 0.005	—	5.59
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.37	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	62.9	62.9	< 0.005	< 0.005	0.28	64.1
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	71.0	71.0	< 0.005	0.01	0.18	74.3
Hauling	0.12	0.03	2.05	0.71	0.02	0.03	0.36	0.39	0.02	0.10	0.12	—	1,473	1,473	0.09	0.23	2.84	1,548
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.85	0.85	< 0.005	< 0.005	< 0.005	0.86
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	< 0.005	1.02
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	20.2	20.2	< 0.005	< 0.005	0.02	21.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.14
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.34	3.34	< 0.005	< 0.005	< 0.005	3.51

3.6. Grading (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	1.20	14.2	0.02	0.05	—	0.05	0.05	—	0.05	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	< 0.005	< 0.005	0.02	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	33.6	33.6	< 0.005	< 0.005	—	33.7
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.57	5.57	< 0.005	< 0.005	—	5.59
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.37	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	62.9	62.9	< 0.005	< 0.005	0.28	64.1
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	71.0	71.0	< 0.005	0.01	0.18	74.3
Hauling	0.12	0.03	2.05	0.71	0.02	0.03	0.36	0.39	0.02	0.10	0.12	—	1,473	1,473	0.09	0.23	2.84	1,548
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.85	0.85	< 0.005	< 0.005	< 0.005	0.86
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	< 0.005	1.02
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	20.2	20.2	< 0.005	< 0.005	0.02	21.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.14
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.34	3.34	< 0.005	< 0.005	< 0.005	3.51

3.7. Parking Lot 4 Construction (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.49	1.24	10.6	11.9	0.02	0.40	—	0.40	0.37	—	0.37	—	2,201	2,201	0.09	0.02	—	2,209
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.58	0.65	< 0.005	0.02	—	0.02	0.02	—	0.02	—	121	121	< 0.005	< 0.005	—	121
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.0	20.0	< 0.005	< 0.005	—	20.0

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.60	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	101	101	0.01	< 0.005	0.44	103
Vendor	0.01	0.01	0.17	0.08	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	< 0.005	0.01	0.27	111
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.41	5.41	< 0.005	< 0.005	0.01	5.50
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.84	5.84	< 0.005	< 0.005	0.01	6.10
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.90	0.90	< 0.005	< 0.005	< 0.005	0.91
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	< 0.005	1.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Parking Lot 4 Construction (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.14	0.14	0.73	8.27	0.01	0.03	—	0.03	0.03	—	0.03	—	1,475	1,475	0.06	0.01	—	1,480
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.45	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	80.8	80.8	< 0.005	< 0.005	—	81.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.60	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	101	101	0.01	< 0.005	0.44	103
Vendor	0.01	0.01	0.17	0.08	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	< 0.005	0.01	0.27	111
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.41	5.41	< 0.005	< 0.005	0.01	5.50
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.84	5.84	< 0.005	< 0.005	0.01	6.10
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.90	0.90	< 0.005	< 0.005	< 0.005	0.91
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	< 0.005	1.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Hotel Construction (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.49	1.24	10.6	11.9	0.02	0.40	—	0.40	0.37	—	0.37	—	2,201	2,201	0.09	0.02	—	2,209
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.49	1.24	10.6	11.9	0.02	0.40	—	0.40	0.37	—	0.37	—	2,201	2,201	0.09	0.02	—	2,209
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.27	0.23	1.95	2.18	< 0.005	0.07	—	0.07	0.07	—	0.07	—	405	405	0.02	< 0.005	—	406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.36	0.40	< 0.005	0.01	—	0.01	0.01	—	0.01	—	67.0	67.0	< 0.005	< 0.005	—	67.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.60	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	101	101	0.01	< 0.005	0.44	103
Vendor	0.01	0.01	0.17	0.08	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	< 0.005	0.01	0.27	111
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.61	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	98.6	98.6	0.01	< 0.005	0.01	100
Vendor	0.01	< 0.005	0.17	0.08	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	< 0.005	0.01	0.01	111
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.2	18.2	< 0.005	< 0.005	0.04	18.5
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	19.6	19.6	< 0.005	< 0.005	0.02	20.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.01	3.01	< 0.005	< 0.005	0.01	3.06
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.25	3.25	< 0.005	< 0.005	< 0.005	3.39

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Hotel Construction (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.14	0.73	8.27	0.01	0.03	—	0.03	0.03	—	0.03	—	1,475	1,475	0.06	0.01	—	1,480
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.14	0.73	8.27	0.01	0.03	—	0.03	0.03	—	0.03	—	1,475	1,475	0.06	0.01	—	1,480
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.13	1.52	< 0.005	0.01	—	0.01	0.01	—	0.01	—	271	271	0.01	< 0.005	—	272
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	< 0.005	< 0.005	0.02	0.28	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	44.9	44.9	< 0.005	< 0.005	—	45.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.60	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	101	101	0.01	< 0.005	0.44	103
Vendor	0.01	0.01	0.17	0.08	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	< 0.005	0.01	0.27	111
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.61	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	98.6	98.6	0.01	< 0.005	0.01	100
Vendor	0.01	< 0.005	0.17	0.08	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	< 0.005	0.01	0.01	111
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.2	18.2	< 0.005	< 0.005	0.04	18.5
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	19.6	19.6	< 0.005	< 0.005	0.02	20.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.01	3.01	< 0.005	< 0.005	0.01	3.06
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.25	3.25	< 0.005	< 0.005	< 0.005	3.39
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Hotel Construction (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41	1.18	10.1	11.8	0.02	0.36	—	0.36	0.33	—	0.33	—	2,201	2,201	0.09	0.02	—	2,208
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41	1.18	10.1	11.8	0.02	0.36	—	0.36	0.33	—	0.33	—	2,201	2,201	0.09	0.02	—	2,208
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59	0.49	4.19	4.88	0.01	0.15	—	0.15	0.14	—	0.14	—	913	913	0.04	0.01	—	916
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.77	0.89	< 0.005	0.03	—	0.03	0.03	—	0.03	—	151	151	0.01	< 0.005	—	152
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.05	0.55	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	98.6	98.6	0.01	< 0.005	0.41	100
Vendor	0.01	< 0.005	0.16	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	105	105	< 0.005	0.01	0.25	109
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.05	0.57	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	96.6	96.6	< 0.005	< 0.005	0.01	98.0
Vendor	0.01	< 0.005	0.17	0.08	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	105	105	< 0.005	0.01	0.01	109
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.23	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	40.1	40.1	< 0.005	< 0.005	0.07	40.8
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	43.4	43.4	< 0.005	0.01	0.05	45.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.64	6.64	< 0.005	< 0.005	0.01	6.76
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.19	7.19	< 0.005	< 0.005	0.01	7.51
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Hotel Construction (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.14	0.14	0.73	8.27	0.01	0.03	—	0.03	0.03	—	0.03	—	1,475	1,475	0.06	0.01	—	1,480
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.14	0.73	8.27	0.01	0.03	—	0.03	0.03	—	0.03	—	1,475	1,475	0.06	0.01	—	1,480
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.06	0.30	3.43	0.01	0.01	—	0.01	0.01	—	0.01	—	612	612	0.02	< 0.005	—	614
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.63	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	101	101	< 0.005	< 0.005	—	102
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.05	0.55	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	98.6	98.6	0.01	< 0.005	0.41	100
Vendor	0.01	< 0.005	0.16	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	105	105	< 0.005	0.01	0.25	109
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.05	0.57	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	96.6	96.6	< 0.005	< 0.005	0.01	98.0
Vendor	0.01	< 0.005	0.17	0.08	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	105	105	< 0.005	0.01	0.01	109
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.23	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	40.1	40.1	< 0.005	< 0.005	0.07	40.8
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	43.4	43.4	< 0.005	0.01	0.05	45.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.64	6.64	< 0.005	< 0.005	0.01	6.76
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.19	7.19	< 0.005	< 0.005	0.01	7.51
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Lot 4 Paving (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.83	0.70	6.13	8.21	0.01	0.27	—	0.27	0.25	—	0.25	—	1,244	1,244	0.05	0.01	—	1,248
Paving	0.77	0.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.0	17.0	< 0.005	< 0.005	—	17.1
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.82	2.82	< 0.005	< 0.005	—	2.83
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.60	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	101	101	0.01	< 0.005	0.44	103
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	71.0	71.0	< 0.005	0.01	0.18	74.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.35	1.35	< 0.005	< 0.005	< 0.005	1.38
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	< 0.005	1.02

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.23
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Lot 4 Paving (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.09	0.45	6.34	0.01	0.02	—	0.02	0.02	—	0.02	—	905	905	0.04	0.01	—	908
Paving	0.77	0.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.4	12.4	< 0.005	< 0.005	—	12.4
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.05	2.05	< 0.005	< 0.005	—	2.06
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.60	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	101	101	0.01	< 0.005	0.44	103
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	71.0	71.0	< 0.005	0.01	0.18	74.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.35	1.35	< 0.005	< 0.005	< 0.005	1.38
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	< 0.005	1.02
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.23
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Architectural Coating (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	1.78	1.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Architectural Coatings	0.05	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.21	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	36.2	36.2	< 0.005	< 0.005	< 0.005	36.8
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.9	34.9	< 0.005	< 0.005	< 0.005	36.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.99	0.99	< 0.005	< 0.005	< 0.005	1.01
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.96	0.96	< 0.005	< 0.005	< 0.005	1.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Architectural Coating (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Architectural Coatings	1.78	1.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Architectural Coatings	0.05	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.21	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	36.2	36.2	< 0.005	< 0.005	< 0.005	36.8
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.9	34.9	< 0.005	< 0.005	< 0.005	36.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.99	0.99	< 0.005	< 0.005	< 0.005	1.01
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.96	0.96	< 0.005	< 0.005	< 0.005	1.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	1.00	0.92	0.83	6.73	0.02	0.01	1.43	1.44	0.01	0.36	0.37	—	1,606	1,606	0.08	0.07	6.35	1,636
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

High Turnover (Sit Down Restaurant)	1.13	1.04	0.95	7.65	0.02	0.01	1.63	1.64	0.01	0.41	0.43	—	1,826	1,826	0.09	0.08	7.22	1,860
Strip Mall	0.04	0.04	0.04	0.30	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	72.5	72.5	< 0.005	< 0.005	0.29	73.8
Recreational Swimming Pool	0.04	0.03	0.03	0.24	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	58.1	58.1	< 0.005	< 0.005	0.23	59.2
Total	2.21	2.03	1.85	14.9	0.03	0.03	3.17	3.20	0.03	0.81	0.83	—	3,562	3,562	0.17	0.16	14.1	3,629
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	1.01	0.92	0.91	6.97	0.02	0.01	1.43	1.44	0.01	0.36	0.37	—	1,581	1,581	0.08	0.08	0.16	1,607
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
High Turnover (Sit Down Restaurant)	1.15	1.05	1.04	7.93	0.02	0.01	1.63	1.64	0.01	0.41	0.43	—	1,798	1,798	0.10	0.09	0.19	1,827
Strip Mall	0.05	0.04	0.04	0.31	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	71.3	71.3	< 0.005	< 0.005	0.01	72.5
Recreational Swimming Pool	0.04	0.03	0.03	0.25	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	57.3	57.3	< 0.005	< 0.005	0.01	58.2
Total	2.23	2.05	2.02	15.5	0.03	0.03	3.17	3.20	0.03	0.81	0.83	—	3,508	3,508	0.19	0.17	0.37	3,565
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.18	0.17	0.16	1.24	< 0.005	< 0.005	0.26	0.26	< 0.005	0.07	0.07	—	262	262	0.01	0.01	0.45	267
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

High Turnover (Sit Down Restaurant)	0.18	0.17	0.12	0.95	< 0.005	< 0.005	0.16	0.17	< 0.005	0.04	0.04	—	170	170	0.01	0.01	0.29	174
Strip Mall	0.01	0.01	0.01	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	8.56	8.56	< 0.005	< 0.005	0.01	8.72
Recreational Swimming Pool	0.01	< 0.005	< 0.005	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	7.84	7.84	< 0.005	< 0.005	0.01	7.98
Total	0.38	0.35	0.30	2.27	< 0.005	< 0.005	0.44	0.44	< 0.005	0.11	0.12	—	449	449	0.03	0.02	0.77	457

4.1.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	1.00	0.92	0.83	6.73	0.02	0.01	1.43	1.44	0.01	0.36	0.37	—	1,606	1,606	0.08	0.07	6.35	1,636
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
High Turnover (Sit Down Restaurant)	1.13	1.04	0.95	7.65	0.02	0.01	1.63	1.64	0.01	0.41	0.43	—	1,826	1,826	0.09	0.08	7.22	1,860
Strip Mall	0.04	0.04	0.04	0.30	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	72.5	72.5	< 0.005	< 0.005	0.29	73.8
Recreational Swimming Pool	0.04	0.03	0.03	0.24	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	58.1	58.1	< 0.005	< 0.005	0.23	59.2

Total	2.21	2.03	1.85	14.9	0.03	0.03	3.17	3.20	0.03	0.81	0.83	—	3,562	3,562	0.17	0.16	14.1	3,629
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	1.01	0.92	0.91	6.97	0.02	0.01	1.43	1.44	0.01	0.36	0.37	—	1,581	1,581	0.08	0.08	0.16	1,607
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
High Turnover (Sit Down Restaurant)	1.15	1.05	1.04	7.93	0.02	0.01	1.63	1.64	0.01	0.41	0.43	—	1,798	1,798	0.10	0.09	0.19	1,827
Strip Mall	0.05	0.04	0.04	0.31	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	71.3	71.3	< 0.005	< 0.005	0.01	72.5
Recreational Swimming Pool	0.04	0.03	0.03	0.25	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	57.3	57.3	< 0.005	< 0.005	0.01	58.2
Total	2.23	2.05	2.02	15.5	0.03	0.03	3.17	3.20	0.03	0.81	0.83	—	3,508	3,508	0.19	0.17	0.37	3,565
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.18	0.17	0.16	1.24	< 0.005	< 0.005	0.26	0.26	< 0.005	0.07	0.07	—	262	262	0.01	0.01	0.45	267
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
High Turnover (Sit Down Restaurant)	0.18	0.17	0.12	0.95	< 0.005	< 0.005	0.16	0.17	< 0.005	0.04	0.04	—	170	170	0.01	0.01	0.29	174
Strip Mall	0.01	0.01	0.01	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	8.56	8.56	< 0.005	< 0.005	0.01	8.72
Recreational Swimming Pool	0.01	< 0.005	< 0.005	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	7.84	7.84	< 0.005	< 0.005	0.01	7.98
Total	0.38	0.35	0.30	2.27	< 0.005	< 0.005	0.44	0.44	< 0.005	0.11	0.12	—	449	449	0.03	0.02	0.77	457

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Recreational Swimming	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Recreational Swimmi Pool	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

High Turnover (Sit Down Restaurant)	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.65	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.20	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.23	0.21	0.01	1.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.38
Total	1.07	1.06	0.01	1.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.37	5.37	< 0.005	< 0.005	—	5.38
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.65	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.20	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.84	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.12	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.04	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landsca Equipment	0.02	0.02	< 0.005	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.44	0.44	< 0.005	< 0.005	—	0.44
Total	0.17	0.17	< 0.005	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.44	0.44	< 0.005	< 0.005	—	0.44

4.3.2. Mitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.65	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.20	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.84	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.65	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.20	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.84	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.12	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	0.04	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.15	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	2.01	0.00	2.01	0.01	< 0.005	—	3.48
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	2.37	0.00	2.37	0.01	0.01	—	4.12
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.04	0.00	0.04	< 0.005	< 0.005	—	0.07
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.03	0.00	0.03	< 0.005	< 0.005	—	0.06
Total	—	—	—	—	—	—	—	—	—	—	—	4.45	0.00	4.45	0.02	0.01	—	7.73
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	2.01	0.00	2.01	0.01	< 0.005	—	3.48
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	2.37	0.00	2.37	0.01	0.01	—	4.12
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.04	0.00	0.04	< 0.005	< 0.005	—	0.07
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.03	0.00	0.03	< 0.005	< 0.005	—	0.06
Total	—	—	—	—	—	—	—	—	—	—	—	4.45	0.00	4.45	0.02	0.01	—	7.73
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.33	0.00	0.33	< 0.005	< 0.005	—	0.58
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	0.39	0.00	0.39	< 0.005	< 0.005	—	0.68
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.01	0.00	0.01	< 0.005	< 0.005	—	0.01
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.01	0.00	0.01	< 0.005	< 0.005	—	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	0.74	0.00	0.74	< 0.005	< 0.005	—	1.28

4.4.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	1.77	0.00	1.77	0.01	< 0.005	—	3.07
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	2.10	0.00	2.10	0.01	< 0.005	—	3.65
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.03	0.00	0.03	< 0.005	< 0.005	—	0.06
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.03	0.00	0.03	< 0.005	< 0.005	—	0.06
Total	—	—	—	—	—	—	—	—	—	—	—	3.93	0.00	3.93	0.01	0.01	—	6.83
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	1.77	0.00	1.77	0.01	< 0.005	—	3.07
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	2.10	0.00	2.10	0.01	< 0.005	—	3.65
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.03	0.00	0.03	< 0.005	< 0.005	—	0.06
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.03	0.00	0.03	< 0.005	< 0.005	—	0.06

Total	—	—	—	—	—	—	—	—	—	—	—	3.93	0.00	3.93	0.01	0.01	—	6.83
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.29	0.00	0.29	< 0.005	< 0.005	—	0.51
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	0.35	0.00	0.35	< 0.005	< 0.005	—	0.60
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.01	0.00	0.01	< 0.005	< 0.005	—	0.01
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.01	0.00	0.01	< 0.005	< 0.005	—	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	0.65	0.00	0.65	< 0.005	< 0.005	—	1.13

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	10.9	0.00	10.9	1.09	0.00	—	38.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	23.4	0.00	23.4	2.34	0.00	—	82.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.14	0.00	0.14	0.01	0.00	—	0.49
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.80	0.00	0.80	0.08	0.00	—	2.79
Total	—	—	—	—	—	—	—	—	—	—	—	35.3	0.00	35.3	3.53	0.00	—	124
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	10.9	0.00	10.9	1.09	0.00	—	38.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	23.4	0.00	23.4	2.34	0.00	—	82.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.14	0.00	0.14	0.01	0.00	—	0.49
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.80	0.00	0.80	0.08	0.00	—	2.79
Total	—	—	—	—	—	—	—	—	—	—	—	35.3	0.00	35.3	3.53	0.00	—	124
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	1.81	0.00	1.81	0.18	0.00	—	6.32
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	3.88	0.00	3.88	0.39	0.00	—	13.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.02	0.00	0.02	< 0.005	0.00	—	0.08
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.13	0.00	0.13	0.01	0.00	—	0.46
Total	—	—	—	—	—	—	—	—	—	—	—	5.84	0.00	5.84	0.58	0.00	—	20.4

4.5.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	10.9	0.00	10.9	1.09	0.00	—	38.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	23.4	0.00	23.4	2.34	0.00	—	82.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.14	0.00	0.14	0.01	0.00	—	0.49
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.80	0.00	0.80	0.08	0.00	—	2.79

Total	—	—	—	—	—	—	—	—	—	—	—	35.3	0.00	35.3	3.53	0.00	—	124
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	10.9	0.00	10.9	1.09	0.00	—	38.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	23.4	0.00	23.4	2.34	0.00	—	82.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.14	0.00	0.14	0.01	0.00	—	0.49
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.80	0.00	0.80	0.08	0.00	—	2.79
Total	—	—	—	—	—	—	—	—	—	—	—	35.3	0.00	35.3	3.53	0.00	—	124
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	1.81	0.00	1.81	0.18	0.00	—	6.32
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	3.88	0.00	3.88	0.39	0.00	—	13.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.02	0.00	0.02	< 0.005	0.00	—	0.08
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.13	0.00	0.13	0.01	0.00	—	0.46
Total	—	—	—	—	—	—	—	—	—	—	—	5.84	0.00	5.84	0.58	0.00	—	20.4

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	40.8	40.8
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.72	5.72
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	40.8	40.8
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.72	5.72
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

Recreational Swimmi Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.75	6.75
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.95	0.95
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.70	7.70

4.6.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	40.8	40.8
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.72	5.72
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

Recreati Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	40.8	40.8
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.72	5.72
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.75	6.75
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.95	0.95
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.70	7.70

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.22	1.22	—	—	—	1.22
Firewheel tree(Stenocarpus sinuatus)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.85	0.85	—	—	—	0.85
Coastal live oak(Quercus agrifolia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.35	0.35	—	—	—	0.35
King palm(Archontophoenix cunninghamiana)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-2.21	-2.21	—	—	—	-2.21
Redbud spp(Cercis)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.66	-1.66	—	—	—	-1.66

Monterey cypress(Cupressus macroca	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.71	-1.71	—	—	—	-1.71
California sycamore(Platanus racemosa)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-2.21	-2.21	—	—	—	-2.21
Subtotal	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	-5.37	-5.37	—	—	—	-5.37
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	—	—	—	—	—	—	—	—	—	—	7.63	7.63	—	—	—	7.63
Firewheel tree(Stenocarpus sinuatus)	—	—	—	—	—	—	—	—	—	—	—	—	2.25	2.25	—	—	—	2.25
Coastal live oak(Quercus agrifolia)	—	—	—	—	—	—	—	—	—	—	—	—	0.71	0.71	—	—	—	0.71
King palm(Archontophoenix cunninghamiana)	—	—	—	—	—	—	—	—	—	—	—	—	-7.23	-7.23	—	—	—	-7.23
Redbud spp(Cercis)	—	—	—	—	—	—	—	—	—	—	—	—	-0.38	-0.38	—	—	—	-0.38

Monterey cypress(Cupressus	—	—	—	—	—	—	—	—	—	—	—	—	-0.22	-0.22	—	—	—	-0.22
California sycamore(Platanus racemosa)	—	—	—	—	—	—	—	—	—	—	—	—	-0.24	-0.24	—	—	—	-0.24
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	2.52	2.52	—	—	—	2.52
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Firewheel tree(Stenocarpus sinuatus)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Coastal live oak(Quercus agrifolia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
King palm(Archontophoenix cunninghamiana)	—	—	-0.01	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Redbud spp(Cercis)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—

Monterey cypress(Cupressus macroca	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
California sycamore(Platanus racemosa)	—	—	-0.01	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Subtotal	—	—	-0.02	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	> -0.005	-0.02	—	> -0.005	-0.01	-0.01	-0.01	> -0.005	> -0.005	> -0.005	—	-2.84	-2.84	—	—	—	-2.84
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.22	1.22	—	—	—	1.22
Firewheel tree(Stenocarpus sinuatus)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.85	0.85	—	—	—	0.85
Coastal live oak(Quercus agrifolia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.35	0.35	—	—	—	0.35
King palm(Archontophoenix cunninghamiana)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-2.21	-2.21	—	—	—	-2.21

Redbud spp(Cercs)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.66	-1.66	—	—	—	-1.66
Monterey cypress(Cupressus macrocarpa)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.71	-1.71	—	—	—	-1.71
California sycamore(Platanus racemosa)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-2.21	-2.21	—	—	—	-2.21
Subtotal	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	-5.37	-5.37	—	—	—	-5.37
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	—	—	—	—	—	—	—	—	—	—	7.63	7.63	—	—	—	7.63
Firewheel tree(Stenocarpus sinuatus)	—	—	—	—	—	—	—	—	—	—	—	—	2.25	2.25	—	—	—	2.25
Coastal live oak(Quercus agrifolia)	—	—	—	—	—	—	—	—	—	—	—	—	0.71	0.71	—	—	—	0.71
King palm(Archontophoenix cunninghamiana)	—	—	—	—	—	—	—	—	—	—	—	—	-7.23	-7.23	—	—	—	-7.23
Redbud spp(Cercs)	—	—	—	—	—	—	—	—	—	—	—	—	-0.38	-0.38	—	—	—	-0.38

Montere cypress(Cupressus macrocarpa)	—	—	—	—	—	—	—	—	—	—	—	—	-0.22	-0.22	—	—	—	-0.22
California sycamore(Platanus racemosa)	—	—	—	—	—	—	—	—	—	—	—	—	-0.24	-0.24	—	—	—	-0.24
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	2.52	2.52	—	—	—	2.52
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Firewheel tree(Stenocarpus sinuatus)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Coastal live oak(Quercus agrifolia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
King palm(Archontophoenix cunninghamiana)	—	—	-0.01	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Redbud spp(Cercis)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Montere y cypress(Cupress us macroca rpa)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—

California sycamore(Platanus racemosa)	—	—	-0.01	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Subtotal	—	—	-0.02	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	> -0.005	-0.02	—	> -0.005	-0.01	-0.01	-0.01	> -0.005	> -0.005	> -0.005	—	-2.84	-2.84	—	—	—	-2.84
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.20	0.20	—	—	—	0.20
Firewheel tree(Stenocarpus sinuatus)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.14	0.14	—	—	—	0.14
Coastal live oak(Quercus agrifolia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.06	0.06	—	—	—	0.06
King palm(Archontophoenix cunninghamiana)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.37	-0.37	—	—	—	-0.37
Redbud spp(Cercis)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.27	-0.27	—	—	—	-0.27
Monterey cypress(Cupressus macrocarpa)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.28	-0.28	—	—	—	-0.28

California sycamore(Platan	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.37	-0.37	—	—	—	-0.37
Subtotal	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.89	-0.89	—	—	—	-0.89
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	—	—	—	—	—	—	—	—	—	—	1.26	1.26	—	—	—	1.26
Firewheel tree(Stenocarpus sinuatus)	—	—	—	—	—	—	—	—	—	—	—	—	0.37	0.37	—	—	—	0.37
Coastal live oak(Quercus agrifolia)	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12	—	—	—	0.12
King palm(Archontophoenix cunninghamiana)	—	—	—	—	—	—	—	—	—	—	—	—	-1.20	-1.20	—	—	—	-1.20
Redbud spp(Cercis)	—	—	—	—	—	—	—	—	—	—	—	—	-0.06	-0.06	—	—	—	-0.06
Monterey cypress(Cupressus macrocarpa)	—	—	—	—	—	—	—	—	—	—	—	—	-0.04	-0.04	—	—	—	-0.04

California sycamore(Platanus racemosa)	—	—	—	—	—	—	—	—	—	—	—	—	-0.04	-0.04	—	—	—	-0.04
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42	—	—	—	0.42
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Firewheel tree(Stenocarpus sinuatus)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Coastal live oak(Quercus agrifolia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
King palm(Archontophoenix cunninghamiana)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Redbud spp(Cercis)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Monterey cypress(Cupressus macrocarpa)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—

California sycamore(Platan	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Subtotal	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.47	-0.47	—	—	—	-0.47

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.22	1.22	—	—	—	1.22
Firewheel tree(Stenocarpus sinuatus)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.85	0.85	—	—	—	0.85
Coastal live oak(Quercus agrifolia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.35	0.35	—	—	—	0.35
King palm(Archontophoenix cunninghamiana)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-2.21	-2.21	—	—	—	-2.21
Redbud spp(Cercis)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.66	-1.66	—	—	—	-1.66

Monterey cypress(Hesperocyparis macrocarpa)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.71	-1.71	—	—	—	-1.71
California sycamore(Platanus racemosa)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-2.21	-2.21	—	—	—	-2.21
Subtotal	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	-5.37	-5.37	—	—	—	-5.37
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	—	—	—	—	—	—	—	—	—	—	7.63	7.63	—	—	—	7.63
Firewheel tree(Stenocarpus sinuatus)	—	—	—	—	—	—	—	—	—	—	—	—	2.25	2.25	—	—	—	2.25
Coastal live oak(Quercus agrifolia)	—	—	—	—	—	—	—	—	—	—	—	—	0.71	0.71	—	—	—	0.71
King palm(Archontophoenix cunninghamiana)	—	—	—	—	—	—	—	—	—	—	—	—	-7.23	-7.23	—	—	—	-7.23
Redbud spp(Cercis)	—	—	—	—	—	—	—	—	—	—	—	—	-0.38	-0.38	—	—	—	-0.38

Monterey cypress(Cupressus macrocarpa)	—	—	—	—	—	—	—	—	—	—	—	—	-0.22	-0.22	—	—	—	-0.22
California sycamore(Platanus racemosa)	—	—	—	—	—	—	—	—	—	—	—	—	-0.24	-0.24	—	—	—	-0.24
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	2.52	2.52	—	—	—	2.52
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Firewheel tree(Stenocarpus sinuatus)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Coastal live oak(Quercus agrifolia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
King palm(Archontophoenix cunninghamiana)	—	—	-0.01	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Redbud spp(Cercis)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—

Monterey cypress(Cupress	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
California sycamore(Platanus racemosa)	—	—	-0.01	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Subtotal	—	—	-0.02	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	> -0.005	-0.02	—	> -0.005	-0.01	-0.01	-0.01	> -0.005	> -0.005	> -0.005	—	-2.84	-2.84	—	—	—	-2.84
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.22	1.22	—	—	—	1.22
Firewheel tree(Stenocarpus sinuatus)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.85	0.85	—	—	—	0.85
Coastal live oak(Quercus agrifolia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.35	0.35	—	—	—	0.35
King palm(Archontophoenix cunninghamiana)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-2.21	-2.21	—	—	—	-2.21
Redbud spp(Cercis)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.66	-1.66	—	—	—	-1.66

Monterey cypress(Cupressus macrocarpa)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.71	-1.71	—	—	—	-1.71
California sycamore(Platanus racemosa)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-2.21	-2.21	—	—	—	-2.21
Subtotal	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	-5.37	-5.37	—	—	—	-5.37
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	—	—	—	—	—	—	—	—	—	—	7.63	7.63	—	—	—	7.63
Firewheel tree(Stenocarpus sinuatus)	—	—	—	—	—	—	—	—	—	—	—	—	2.25	2.25	—	—	—	2.25
Coastal live oak(Quercus agrifolia)	—	—	—	—	—	—	—	—	—	—	—	—	0.71	0.71	—	—	—	0.71
King palm(Archontophoenix cunninghamiana)	—	—	—	—	—	—	—	—	—	—	—	—	-7.23	-7.23	—	—	—	-7.23
Redbud spp(Cercis)	—	—	—	—	—	—	—	—	—	—	—	—	-0.38	-0.38	—	—	—	-0.38
Monterey cypress(Cupressus macrocarpa)	—	—	—	—	—	—	—	—	—	—	—	—	-0.22	-0.22	—	—	—	-0.22

California sycamore(Platanus racemosa)	—	—	—	—	—	—	—	—	—	—	—	—	-0.24	-0.24	—	—	—	-0.24
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	2.52	2.52	—	—	—	2.52
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Firewheel tree(Stenocarpus sinuatus)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Coastal live oak(Quercus agrifolia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
King palm(Archontophoenix cunninghamiana)	—	—	-0.01	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Redbud spp(Cercis)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Monterey cypress(Cupressus macrocarpa)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
California sycamore(Platanus racemosa)	—	—	-0.01	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—

Subtotal	—	—	-0.02	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	> -0.005	-0.02	—	> -0.005	-0.01	-0.01	-0.01	> -0.005	> -0.005	> -0.005	—	-2.84	-2.84	—	—	—	-2.84
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.20	0.20	—	—	—	0.20
Firewheel tree(Stenocarpus sinuatus)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.14	0.14	—	—	—	0.14
Coastal live oak(Quercus agrifolia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.06	0.06	—	—	—	0.06
King palm(Archontophoenix cunninghamiana)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.37	-0.37	—	—	—	-0.37
Redbud spp(Cercis)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.27	-0.27	—	—	—	-0.27
Monterey cypress(Cupressus macrocarpa)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.28	-0.28	—	—	—	-0.28

California sycamore(Platanus racemosa)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.37	-0.37	—	—	—	-0.37
Subtotal	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.89	-0.89	—	—	—	-0.89
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	—	—	—	—	—	—	—	—	—	—	1.26	1.26	—	—	—	1.26
Firewheel tree(Stenocarpus sinuatus)	—	—	—	—	—	—	—	—	—	—	—	—	0.37	0.37	—	—	—	0.37
Coastal live oak(Quercus agrifolia)	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12	—	—	—	0.12
King palm(Archontophoenix cunninghamiana)	—	—	—	—	—	—	—	—	—	—	—	—	-1.20	-1.20	—	—	—	-1.20
Redbud spp(Cercis)	—	—	—	—	—	—	—	—	—	—	—	—	-0.06	-0.06	—	—	—	-0.06
Monterey cypress(Cupressus macrocarpa)	—	—	—	—	—	—	—	—	—	—	—	—	-0.04	-0.04	—	—	—	-0.04

California sycamore(Platan	—	—	—	—	—	—	—	—	—	—	—	—	-0.04	-0.04	—	—	—	-0.04
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42	—	—	—	0.42
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Firewheel tree(Stenocarpus sinuatus)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Coastal live oak(Quercus agrifolia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
King palm(Archontophoenix cunninghamiana)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Redbud spp(Cercis)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Monterey cypress(Cupressus macrocarpa)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—

California sycamore(Platanus racemosa)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Subtotal	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.47	-0.47	—	—	—	-0.47

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	9/2/2025	9/12/2025	5.00	9.00	—
Site Preparation	Site Preparation	6/2/2025	6/6/2025	5.00	5.00	—
Grading	Grading	6/9/2025	6/13/2025	5.00	5.00	—
Parking Lot 4 Construction	Building Construction	6/23/2025	7/18/2025	5.00	20.0	—
Hotel Construction	Building Construction	9/29/2025	7/31/2026	5.00	220	—
Lot 4 Paving	Paving	7/21/2025	7/25/2025	5.00	5.00	—
Architectural Coating	Architectural Coating	2/2/2026	2/13/2026	5.00	10.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37

Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Parking Lot 4 Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Parking Lot 4 Construction	Forklifts	Diesel	Average	2.00	7.00	82.0	0.20
Parking Lot 4 Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Parking Lot 4 Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Parking Lot 4 Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Hotel Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Hotel Construction	Forklifts	Diesel	Average	2.00	7.00	82.0	0.20
Hotel Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Hotel Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Hotel Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Lot 4 Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Lot 4 Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Lot 4 Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Lot 4 Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38

Lot 4 Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	8.00	84.0	0.37
Demolition	Concrete/Industrial Saws	Electric	Average	1.00	8.00	33.0	0.73
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	7.00	84.0	0.37
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	7.00	367	0.40
Site Preparation	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	7.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Parking Lot 4 Construction	Cranes	Diesel	Tier 4 Final	1.00	8.00	367	0.29
Parking Lot 4 Construction	Forklifts	Diesel	Tier 4 Final	2.00	7.00	82.0	0.20
Parking Lot 4 Construction	Generator Sets	Electric	Average	1.00	8.00	14.0	0.74
Parking Lot 4 Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	6.00	84.0	0.37
Parking Lot 4 Construction	Welders	Electric	Average	3.00	8.00	46.0	0.45
Hotel Construction	Cranes	Diesel	Tier 4 Final	1.00	8.00	367	0.29
Hotel Construction	Forklifts	Diesel	Tier 4 Final	2.00	7.00	82.0	0.20
Hotel Construction	Generator Sets	Electric	Average	1.00	8.00	14.0	0.74

Hotel Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	6.00	84.0	0.37
Hotel Construction	Welders	Electric	Average	3.00	8.00	46.0	0.45
Lot 4 Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Lot 4 Paving	Pavers	Diesel	Tier 4 Final	1.00	8.00	81.0	0.42
Lot 4 Paving	Paving Equipment	Diesel	Tier 4 Final	1.00	8.00	89.0	0.36
Lot 4 Paving	Rollers	Electric	Average	2.00	8.00	36.0	0.38
Lot 4 Paving	Cement and Mortar Mixers	Electric	Average	1.00	8.00	10.0	0.56
Architectural Coating	Air Compressors	Electric	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	10.0	8.80	LDA,LDT1,LDT2
Demolition	Vendor	4.00	5.30	HHDT,MHDT
Demolition	Hauling	24.2	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	8.00	8.80	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	5.30	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	8.80	LDA,LDT1,LDT2
Grading	Vendor	4.00	5.30	HHDT,MHDT

Grading	Hauling	20.0	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Parking Lot 4 Construction	—	—	—	—
Parking Lot 4 Construction	Worker	16.0	8.80	LDA,LDT1,LDT2
Parking Lot 4 Construction	Vendor	6.00	5.30	HHDT,MHDT
Parking Lot 4 Construction	Hauling	0.00	20.0	HHDT
Parking Lot 4 Construction	Onsite truck	—	—	HHDT
Lot 4 Paving	—	—	—	—
Lot 4 Paving	Worker	16.0	8.80	LDA,LDT1,LDT2
Lot 4 Paving	Vendor	4.00	5.30	HHDT,MHDT
Lot 4 Paving	Hauling	0.00	20.0	HHDT
Lot 4 Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.00	8.80	LDA,LDT1,LDT2
Architectural Coating	Vendor	2.00	5.30	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Hotel Construction	—	—	—	—
Hotel Construction	Worker	16.0	8.80	LDA,LDT1,LDT2
Hotel Construction	Vendor	6.00	5.30	HHDT,MHDT
Hotel Construction	Hauling	0.00	20.0	HHDT
Hotel Construction	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	10.0	8.80	LDA,LDT1,LDT2
Demolition	Vendor	4.00	5.30	HHDT,MHDT

Demolition	Hauling	24.2	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	8.00	8.80	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	5.30	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	8.80	LDA,LDT1,LDT2
Grading	Vendor	4.00	5.30	HHDT,MHDT
Grading	Hauling	20.0	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Parking Lot 4 Construction	—	—	—	—
Parking Lot 4 Construction	Worker	16.0	8.80	LDA,LDT1,LDT2
Parking Lot 4 Construction	Vendor	6.00	5.30	HHDT,MHDT
Parking Lot 4 Construction	Hauling	0.00	20.0	HHDT
Parking Lot 4 Construction	Onsite truck	—	—	HHDT
Lot 4 Paving	—	—	—	—
Lot 4 Paving	Worker	16.0	8.80	LDA,LDT1,LDT2
Lot 4 Paving	Vendor	4.00	5.30	HHDT,MHDT
Lot 4 Paving	Hauling	0.00	20.0	HHDT
Lot 4 Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.00	8.80	LDA,LDT1,LDT2
Architectural Coating	Vendor	2.00	5.30	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Hotel Construction	—	—	—	—

Hotel Construction	Worker	16.0	8.80	LDA,LDT1,LDT2
Hotel Construction	Vendor	6.00	5.30	HHDT,MHDT
Hotel Construction	Hauling	0.00	20.0	HHDT
Hotel Construction	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	45,000	15,000	3,842

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	870	—
Site Preparation	—	—	4.69	0.00	—
Grading	—	800	4.00	0.00	—
Lot 4 Paving	0.00	0.00	0.00	0.00	1.47

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Hotel	0.00	0%
Parking Lot	1.47	100%
High Turnover (Sit Down Restaurant)	0.00	0%
Strip Mall	0.00	0%
Recreational Swimming Pool	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	9.99	0.03	< 0.005
2026	0.00	9.99	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Hotel	207	207	207	75,533	2,025	2,025	2,025	739,139
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
High Turnover (Sit Down Restaurant)	235	235	235	85,892	889	2,303	2,303	472,023
Strip Mall	9.34	9.34	9.34	3,408	55.2	91.4	91.4	23,921
Recreational Swimming Pool	7.49	2.37	3.54	2,261	73.3	23.2	34.6	22,128

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Hotel	207	207	207	75,533	2,025	2,025	2,025	739,139
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
High Turnover (Sit Down Restaurant)	235	235	235	85,892	889	2,303	2,303	472,023
Strip Mall	9.34	9.34	9.34	3,408	55.2	91.4	91.4	23,921
Recreational Swimming Pool	7.49	2.37	3.54	2,261	73.3	23.2	34.6	22,128

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	45,000	15,000	3,842

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Hotel	200,000	0.00	0.0000	0.0000	0.00
Parking Lot	0.00	0.00	0.0000	0.0000	0.00
High Turnover (Sit Down Restaurant)	0.00	0.00	0.0000	0.0000	0.00
Strip Mall	0.00	0.00	0.0000	0.0000	0.00
Recreational Swimming Pool	0.00	0.00	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Hotel	118,136	0.00	0.0000	0.0000	0.00
Parking Lot	0.00	0.00	0.0000	0.0000	0.00
High Turnover (Sit Down Restaurant)	0.00	0.00	0.0000	0.0000	0.00
Strip Mall	0.00	0.00	0.0000	0.0000	0.00
Recreational Swimming Pool	0.00	0.00	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Hotel	938,570	309,191

Parking Lot	0.00	0.00
High Turnover (Sit Down Restaurant)	1,109,719	0.00
Strip Mall	18,148	0.00
Recreational Swimming Pool	15,377	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Hotel	827,725	309,191
Parking Lot	0.00	0.00
High Turnover (Sit Down Restaurant)	982,102	0.00
Strip Mall	16,061	0.00
Recreational Swimming Pool	15,377	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Hotel	20.3	—
Parking Lot	0.00	—
High Turnover (Sit Down Restaurant)	43.5	—
Strip Mall	0.26	—
Recreational Swimming Pool	1.48	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Hotel	20.3	—
Parking Lot	0.00	—

High Turnover (Sit Down Restaurant)	43.5	—
Strip Mall	0.26	—
Recreational Swimming Pool	1.48	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Recreational Swimming Pool	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Recreational Swimming Pool	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Recreational Swimming Pool	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Recreational Swimming Pool	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
King palm(Archontophoenix cunninghamiana)	20.0	22,236	92.9
Redbud spp(Cercis)	12.0	18,524	59.9
Monterey cypress(Cupressus macrocarpa)	7.00	15,512	81.0
California sycamore(Platanus racemosa)	16.0	24,698	79.9
Corymbia spp(Corymbia)	-5.00	11,080	57.8
Firewheel tree(Stenocarpus sinuatus)	-9.00	8,653	35.5
Coastal live oak(Quercus agrifolia)	-2.00	3,346	16.1

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
King palm(Archontophoenix cunninghamiana)	20.0	22,236	92.9
Redbud spp(Cercis)	12.0	18,524	59.9
Monterey cypress(Cupressus macrocarpa)	7.00	15,512	81.0
California sycamore(Platanus racemosa)	16.0	24,698	79.9
Corymbia spp(Corymbia)	-5.00	11,080	57.8
Firewheel tree(Stenocarpus sinuatus)	-9.00	8,653	35.5
Coastal live oak(Quercus agrifolia)	-2.00	3,346	16.1

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	8.01	annual days of extreme heat
Extreme Precipitation	8.40	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	39.4	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	24.9

AQ-PM	31.0
AQ-DPM	41.5
Drinking Water	49.6
Lead Risk Housing	51.7
Pesticides	43.2
Toxic Releases	12.7
Traffic	46.2
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	74.8
Haz Waste Facilities/Generators	83.4
Impaired Water Bodies	77.3
Solid Waste	86.5
Sensitive Population	—
Asthma	29.2
Cardio-vascular	7.63
Low Birth Weights	18.6
Socioeconomic Factor Indicators	—
Education	58.3
Housing	77.2
Linguistic	59.4
Poverty	34.9
Unemployment	—

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—

Above Poverty	39.08635955
Employed	55.84498909
Median HI	37.91864494
Education	—
Bachelor's or higher	61.18311305
High school enrollment	100
Preschool enrollment	38.70139869
Transportation	—
Auto Access	25.92069806
Active commuting	83.36969075
Social	—
2-parent households	48.8387014
Voting	88.3485179
Neighborhood	—
Alcohol availability	23.21314
Park access	81.35506224
Retail density	74.57975106
Supermarket access	68.49736943
Tree canopy	27.55036571
Housing	—
Homeownership	18.2599769
Housing habitability	37.0075709
Low-inc homeowner severe housing cost burden	24.53483896
Low-inc renter severe housing cost burden	57.65430515
Uncrowded housing	61.41408957
Health Outcomes	—
Insured adults	40.74169126
Arthritis	0.0

Asthma ER Admissions	62.7
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	51.6
Cognitively Disabled	3.8
Physically Disabled	49.3
Heart Attack ER Admissions	83.9
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	82.5
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	27.8
Children	56.6
Elderly	30.9
English Speaking	61.9
Foreign-born	42.1

Outdoor Workers	17.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	56.8
Traffic Density	63.5
Traffic Access	0.0
Other Indices	—
Hardship	39.7
Other Decision Support	—
2016 Voting	88.6

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	43.0
Healthy Places Index Score for Project Location (b)	53.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	City is within the Central Coast Community Energy CCA.
Land Use	Based on applicant provided information.
Construction: Construction Phases	Based on applicant provided information.
Construction: Off-Road Equipment	Based on applicant provided information.
Construction: Dust From Material Movement	Based on grading plan.
Construction: Trips and VMT	Based on applicant provided information.
Construction: Architectural Coatings	Applicant has committed to zero-VOC coatings for interior and exterior finishes.
Operations: Energy Use	All-electric development. Electricity demand provided by project applicant.
Operations: Vehicle Data	Based on ATE trip rate memo.

This data was produced from the i-Tree Planting Calculator version 2.6.0 for Carpinteria; CA.
Location: Carpinteria; CA 93013
Electricity Emissions Factor: 252.4
Fuel Emissions Factor: 52
Lifetime: 30
Project Lifetime Tree Mortality: 70
Run Date: 2-2-2024

Group Identifier	Tree Gr	Species	DBH (inches)	Distance to Building (feet)	Direction	Building Vintage	TreeCondition	CrownLightExposure	CO2 Avoided (pounds)	CO2 Avoided ($)	CO2 Sequestered (pounds)	CO2 Sequestered ($)	Electricity Saved (kWh)	Electricity Saved ($)	Fuel Saved (MMBtu)	Fuel Saved ($)	Tree Biomass (short ton)	Rainfall Interception (gallons)	Avoided Runoff (gallons)	Avoided Runoff ($)	O3 Removed (pounds)	NO2 Avoided (pounds)	NO2 Removed (pounds)	SO2 Avoided (pounds)	SO2 Removed (pounds)	VOC Avoided (pounds)	PM2.5 Avoided (pounds)	PM2.5 Removed (pounds)	Avoided Value ($)	Removal Value ($)
1	(5.0) Cr	Corymbia spp(Corymbia)	15.2	0-19	north (0â°)	post-1980	excellent	full sun	13,395.40	$311.54	83,533.40	$1,942.73	11,079.90	$2,268.05	57.8	$748.34	13.6	88,366.40	18,342.00	$163.90	142.16	0.96	14.73	3.39	0.87	5.86	3.66	3.04	$21.93	$560.92
2	(9.0) Fi	Firewheel tree(Stenocarpus sinuatus)	6.5	0-19	north (0â°)	post-1980	excellent	full sun	9,354.80	$217.56	24,619.00	$572.56	8,653.40	$1,771.35	35.5	$459.49	3.7	74,540.00	15,472.10	$138.26	77.42	0.67	7.84	2.37	0.49	4.53	2.84	1.24	$16.74	$276.74
3	(2.0) Cr	Coastal live oak(Quercus agrifolia)	5.5	0-19	north (0â°)	post-1980	excellent	full sun	3,884.60	$90.34	7,795.90	$181.31	3,345.60	$684.84	16.1	$207.89	1.2	19,260.80	3,997.90	$35.73	24.14	0.28	2.47	0.98	0.15	1.76	1.1	0.44	$6.57	$89.91
Total									26,634.90	$619.44	115,948.40	$2,696.60	23,078.90	$4,724.24	109.4	$1,415.72	18.6	182,167.20	37,812.10	$337.89	243.72	1.92	25.04	6.74	1.51	12.15	7.6	4.71	$45.23	$927.57

This data was produced from the i-Tree Planting Calculator version 2.6.0 for Carpinteria; CA.
Location: Carpinteria; CA 93013
Electricity Emissions Factor: 252.4
Fuel Emissions Factor: 52
Lifetime: 30
Project Lifetime Tree Mortality: 70
Run Date: 2-2-2024

Group Identifier	Tree G Species	DBH (inches)	Distance to Building (feet)	Direction	Building Vintage	TreeCondition	CrownLightExposure	CO2 Avoided (pounds)	CO2 Avoided ($)	CO2 Sequestered (pounds)	CO2 Sequestered ($)	Electricity Saved (kWh)	Electricity Saved ($)	Fuel Saved (MMBtu)	Fuel Saved ($)	Tree Biomass (short ton)	Rainfall Interception (gallons)	Avoided Runoff (gallons)	Avoided Runoff ($)	O3 Removed (pounds)	NO2 Avoided (pounds)	NO2 Removed (pounds)	SO2 Avoided (pounds)	SO2 Removed (pounds)	VOC Avoided (pounds)	PM2.5 Avoided (pounds)	PM2.5 Removed (pounds)	Avoided Value ($)	Removal Value ($)
4	(20.0) · King palm(Archontophoenix cunninghamiana)	36	0-19	north (0Â°)	post-1980	excellent	full sun	24,224.50	$563.39	79,125.70	$1,840.22	22,236.30	$4,551.78	92.9	$1,201.72	17.5	997,390.40	207,026.20	$1,849.99	634.49	1.74	62.46	6.13	4.26	11.64	7.31	7.18	$43.08	$2,087.05
5	(12.0) · Redbud spp(Cercis)	30	0-19	north (0Â°)	post-1980	excellent	full sun	18,179.80	$422.81	4,187.10	$97.38	18,523.50	$3,791.76	59.9	$775.34	14.9	448,954.70	93,188.60	$832.73	343.79	1.31	31.74	4.6	2.11	9.6	6.07	3.81	$35.19	$826.83
6	(7.0) · Monterey cypress(Cupressus macrocarpa)	48	0-19	north (0Â°)	post-1980	excellent	full sun	18,753.60	$436.15	2,391.60	$55.62	15,511.80	$3,175.27	81	$1,047.67	16.8	334,370.90	69,404.70	$620.20	315.54	1.35	31.76	4.75	2.03	8.21	5.12	4.69	$30.70	$1,105.20
9	(16.0) · California sycamore(Platanus racemosa)	120	0-19	north (0Â°)	post-1980	excellent	full sun	24,239.70	$563.74	2,598.60	$60.44	24,698.00	$5,055.67	79.9	$1,033.78	79.7	2,659,254.00	551,975.80	$4,932.46	1,288.21	1.74	116.38	6.14	8.28	12.8	8.09	11.16	$46.92	$3,158.15
Total								85,397.60	$1,986.08	88,303.00	$2,053.66	80,969.60	$16,574.48	313.6	$4,058.51	129	4,439,969.90	921,595.30	$8,235.38	2,582.03	6.14	242.34	21.61	16.68	42.25	26.59	26.85	$155.89	$7,177.23

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Surfliner Inn HRA Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Surfliner Inn HRA
Construction Start Date	6/2/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.40
Precipitation (days)	18.2
Location	34.3966692738274, -119.52284183201647
County	Santa Barbara
City	Carpinteria
Air District	Santa Barbara County APCD
Air Basin	South Central Coast
TAZ	3360
EDFZ	8
Electric Utility	Central Coast Community Energy
Gas Utility	Southern California Gas
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Hotel	37.0	Room	1.23	26,099	25,888	—	—	—

Parking Lot	139	Space	1.47	0.00	0.00	—	—	—
High Turnover (Sit Down Restaurant)	3.66	1000sqft	0.08	3,656	0.00	—	—	—
Strip Mall	0.24	1000sqft	0.01	245	0.00	—	—	—
Recreational Swimming Pool	0.26	1000sqft	0.01	260	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-1-A	Use Electric or Hybrid Powered Equipment
Construction	C-5	Use Advanced Engine Tiers
Transportation	T-14*	Provide Electric Vehicle Charging Infrastructure
Transportation	T-32*	Orient Project Toward Transit, Bicycle, or Pedestrian Facility
Transportation	T-34*	Provide Bike Parking
Energy	E-10-B	Establish Onsite Renewable Energy Systems: Solar Power
Energy	E-24*	Provide Battery Storage
Water	W-4	Require Low-Flow Water Fixtures
Area Sources	LL-1	Replace Gas Powered Landscape Equipment with Zero-Emission Landscape Equipment
Area Sources	LL-3*	Electric Yard Equipment Compatibility

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mit.	0.86	0.86	1.56	14.5	0.02	0.05	2.77	2.82	0.05	1.34	1.38	—	2,511	2,511	0.11	0.03	0.05	2,522
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mit.	1.93	1.92	0.82	8.33	0.01	0.03	< 0.005	0.03	0.03	< 0.005	0.03	—	1,489	1,489	0.06	0.01	< 0.005	1,495
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mit.	0.11	0.11	0.33	3.45	0.01	0.01	0.10	0.11	0.01	0.04	0.05	—	616	616	0.03	0.01	< 0.005	619
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mit.	0.02	0.02	0.06	0.63	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	102	102	< 0.005	< 0.005	< 0.005	102
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.3. Construction Emissions by Year, Mitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.86	0.86	1.56	14.5	0.02	0.05	2.77	2.82	0.05	1.34	1.38	—	2,511	2,511	0.11	0.03	0.05	2,522
2026	0.14	0.14	0.79	8.32	0.01	0.03	< 0.005	0.03	0.03	< 0.005	0.03	—	1,485	1,485	0.06	0.01	0.01	1,491
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.14	0.14	0.80	8.32	0.01	0.03	< 0.005	0.03	0.03	< 0.005	0.03	—	1,486	1,486	0.06	0.01	< 0.005	1,491
2026	1.93	1.92	0.82	8.33	0.01	0.03	< 0.005	0.03	0.03	< 0.005	0.03	—	1,489	1,489	0.06	0.01	< 0.005	1,495
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.06	0.05	0.25	2.59	< 0.005	0.01	0.10	0.11	0.01	0.04	0.05	—	453	453	0.02	< 0.005	< 0.005	455
2026	0.11	0.11	0.33	3.45	0.01	0.01	< 0.005	0.01	0.01	< 0.005	0.01	—	616	616	0.03	0.01	< 0.005	619
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.01	0.01	0.05	0.47	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	75.0	75.0	< 0.005	< 0.005	< 0.005	75.3
2026	0.02	0.02	0.06	0.63	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	102	102	< 0.005	< 0.005	< 0.005	102

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mit.	3.05	2.87	1.83	14.9	0.03	0.02	3.17	3.19	0.02	0.80	0.83	39.2	3,559	3,598	3.72	0.17	60.6	3,803
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mit.	3.08	2.89	2.00	15.5	0.03	0.02	3.17	3.19	0.02	0.80	0.83	39.2	3,505	3,544	3.73	0.18	46.9	3,739
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mit.	2.90	2.75	1.61	12.4	0.02	0.01	2.40	2.41	0.02	0.61	0.63	39.2	2,708	2,747	3.70	0.15	51.2	2,935
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mit.	0.53	0.50	0.29	2.27	< 0.005	< 0.005	0.44	0.44	< 0.005	0.11	0.11	6.50	448	455	0.61	0.02	8.47	486
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.6. Operations Emissions by Sector, Mitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.21	2.03	1.85	14.9	0.03	0.03	3.17	3.20	0.03	0.81	0.83	—	3,562	3,562	0.17	0.16	14.1	3,629
Area	0.84	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	3.93	0.00	3.93	0.01	0.01	—	6.83
Waste	—	—	—	—	—	—	—	—	—	—	—	35.3	0.00	35.3	3.53	0.00	—	124
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5
Vegetation	—	> -0.005	-0.02	—	> -0.005	-0.01	-0.01	-0.01	> -0.005	> -0.005	> -0.005	—	-2.84	-2.84	—	—	—	-2.84
Total	3.05	2.87	1.83	14.9	0.03	0.02	3.17	3.19	0.02	0.80	0.83	39.2	3,559	3,598	3.72	0.17	60.6	3,803
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	2.23	2.05	2.02	15.5	0.03	0.03	3.17	3.20	0.03	0.81	0.83	—	3,508	3,508	0.19	0.17	0.37	3,565
Area	0.84	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	3.93	0.00	3.93	0.01	0.01	—	6.83
Waste	—	—	—	—	—	—	—	—	—	—	—	35.3	0.00	35.3	3.53	0.00	—	124
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5
Vegetation	—	> -0.005	-0.02	—	> -0.005	-0.01	-0.01	-0.01	> -0.005	> -0.005	> -0.005	—	-2.84	-2.84	—	—	—	-2.84
Total	3.08	2.89	2.00	15.5	0.03	0.02	3.17	3.19	0.02	0.80	0.83	39.2	3,505	3,544	3.73	0.18	46.9	3,739
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.06	1.91	1.63	12.4	0.03	0.02	2.41	2.43	0.02	0.61	0.63	—	2,711	2,711	0.16	0.14	4.66	2,761
Area	0.84	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	3.93	0.00	3.93	0.01	0.01	—	6.83
Waste	—	—	—	—	—	—	—	—	—	—	—	35.3	0.00	35.3	3.53	0.00	—	124
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5
Vegetation	—	> -0.005	-0.02	—	> -0.005	-0.01	-0.01	-0.01	> -0.005	> -0.005	> -0.005	—	-2.84	-2.84	—	—	—	-2.84
Total	2.90	2.75	1.61	12.4	0.02	0.01	2.40	2.41	0.02	0.61	0.63	39.2	2,708	2,747	3.70	0.15	51.2	2,935
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.38	0.35	0.30	2.27	< 0.005	< 0.005	0.44	0.44	< 0.005	0.11	0.12	—	449	449	0.03	0.02	0.77	457
Area	0.15	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.65	0.00	0.65	< 0.005	< 0.005	—	1.13
Waste	—	—	—	—	—	—	—	—	—	—	—	5.84	0.00	5.84	0.58	0.00	—	20.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.70	7.70
Vegetation	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.47	-0.47	—	—	—	-0.47
Total	0.53	0.50	0.29	2.27	< 0.005	< 0.005	0.44	0.44	< 0.005	0.11	0.11	6.50	448	455	0.61	0.02	8.47	486

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.2. Demolition (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	0.43	6.08	0.01	0.02	—	0.02	0.02	—	0.02	—	871	871	0.04	0.01	—	874
Demolition	—	—	—	—	—	—	1.33	1.33	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.5	21.5	< 0.005	< 0.005	—	21.6
Demolition	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.56	3.56	< 0.005	< 0.005	—	3.57
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.13	7.13	< 0.005	< 0.005	0.01	7.48
Hauling	0.03	0.02	0.41	0.25	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	63.4	63.4	0.01	0.01	0.05	66.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.18
Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.57	1.57	< 0.005	< 0.005	< 0.005	1.65
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.27

3.3. Site Preparation (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.4. Site Preparation (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.19	0.99	11.6	0.02	0.04	—	0.04	0.04	—	0.04	—	2,028	2,028	0.08	0.02	—	2,035
Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.01	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.8	27.8	< 0.005	< 0.005	—	27.9
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.60	4.60	< 0.005	< 0.005	—	4.62
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.13	7.13	< 0.005	< 0.005	0.01	7.48
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.10	0.10	< 0.005	< 0.005	< 0.005	0.10

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.6. Grading (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	1.20	14.2	0.02	0.05	—	0.05	0.05	—	0.05	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	33.6	33.6	< 0.005	< 0.005	—	33.7
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.57	5.57	< 0.005	< 0.005	—	5.59

Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.13	7.13	< 0.005	< 0.005	0.01	7.48
Hauling	0.02	0.01	0.32	0.19	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	48.8	48.8	0.01	0.01	0.04	51.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.10	0.10	< 0.005	< 0.005	< 0.005	0.10
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.67	0.67	< 0.005	< 0.005	< 0.005	0.70
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	0.12

3.7. Parking Lot 4 Construction (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.8. Parking Lot 4 Construction (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.14	0.73	8.27	0.01	0.03	—	0.03	0.03	—	0.03	—	1,475	1,475	0.06	0.01	—	1,480
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.45	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	80.8	80.8	< 0.005	< 0.005	—	81.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.07	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.7	10.7	< 0.005	< 0.005	0.01	11.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.59	0.59	< 0.005	< 0.005	< 0.005	0.62
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.10	0.10	< 0.005	< 0.005	< 0.005	0.10
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Hotel Construction (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.10. Hotel Construction (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.14	0.73	8.27	0.01	0.03	—	0.03	0.03	—	0.03	—	1,475	1,475	0.06	0.01	—	1,480
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.14	0.73	8.27	0.01	0.03	—	0.03	0.03	—	0.03	—	1,475	1,475	0.06	0.01	—	1,480
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.13	1.52	< 0.005	0.01	—	0.01	0.01	—	0.01	—	271	271	0.01	< 0.005	—	272
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.28	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	44.9	44.9	< 0.005	< 0.005	—	45.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.07	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.7	10.7	< 0.005	< 0.005	0.01	11.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.07	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.8	10.8	< 0.005	< 0.005	< 0.005	11.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.97	1.97	< 0.005	< 0.005	< 0.005	2.07
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.34
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Hotel Construction (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.12. Hotel Construction (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.14	0.73	8.27	0.01	0.03	—	0.03	0.03	—	0.03	—	1,475	1,475	0.06	0.01	—	1,480
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.14	0.14	0.73	8.27	0.01	0.03	—	0.03	0.03	—	0.03	—	1,475	1,475	0.06	0.01	—	1,480
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.06	0.30	3.43	0.01	0.01	—	0.01	0.01	—	0.01	—	612	612	0.02	< 0.005	—	614
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.63	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	101	101	< 0.005	< 0.005	—	102
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.07	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.5	10.5	< 0.005	< 0.005	0.01	11.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.07	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.6	10.6	< 0.005	< 0.005	< 0.005	11.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.38	4.38	< 0.005	< 0.005	< 0.005	4.59
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.76
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Lot 4 Paving (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.14. Lot 4 Paving (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.09	0.45	6.34	0.01	0.02	—	0.02	0.02	—	0.02	—	905	905	0.04	0.01	—	908
Paving	0.77	0.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.4	12.4	< 0.005	< 0.005	—	12.4
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.05	2.05	< 0.005	< 0.005	—	2.06
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.13	7.13	< 0.005	< 0.005	0.01	7.48
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.10	0.10	< 0.005	< 0.005	< 0.005	0.10
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Architectural Coating (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.16. Architectural Coating (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Architectural Coatings	1.78	1.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Architectural Coatings	0.05	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.53	3.53	< 0.005	< 0.005	< 0.005	3.70
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.10	0.10	< 0.005	< 0.005	< 0.005	0.10
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.1.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	1.00	0.92	0.83	6.73	0.02	0.01	1.43	1.44	0.01	0.36	0.37	—	1,606	1,606	0.08	0.07	6.35	1,636

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
High Turnover (Sit Down Restaurant)	1.13	1.04	0.95	7.65	0.02	0.01	1.63	1.64	0.01	0.41	0.43	—	1,826	1,826	0.09	0.08	7.22	1,860
Strip Mall	0.04	0.04	0.04	0.30	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	72.5	72.5	< 0.005	< 0.005	0.29	73.8
Recreational Swimming Pool	0.04	0.03	0.03	0.24	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	58.1	58.1	< 0.005	< 0.005	0.23	59.2
Total	2.21	2.03	1.85	14.9	0.03	0.03	3.17	3.20	0.03	0.81	0.83	—	3,562	3,562	0.17	0.16	14.1	3,629
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	1.01	0.92	0.91	6.97	0.02	0.01	1.43	1.44	0.01	0.36	0.37	—	1,581	1,581	0.08	0.08	0.16	1,607
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
High Turnover (Sit Down Restaurant)	1.15	1.05	1.04	7.93	0.02	0.01	1.63	1.64	0.01	0.41	0.43	—	1,798	1,798	0.10	0.09	0.19	1,827
Strip Mall	0.05	0.04	0.04	0.31	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	71.3	71.3	< 0.005	< 0.005	0.01	72.5
Recreational Swimming Pool	0.04	0.03	0.03	0.25	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	57.3	57.3	< 0.005	< 0.005	0.01	58.2
Total	2.23	2.05	2.02	15.5	0.03	0.03	3.17	3.20	0.03	0.81	0.83	—	3,508	3,508	0.19	0.17	0.37	3,565
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.18	0.17	0.16	1.24	< 0.005	< 0.005	0.26	0.26	< 0.005	0.07	0.07	—	262	262	0.01	0.01	0.45	267

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
High Turnover (Sit Down Restaurant)	0.18	0.17	0.12	0.95	< 0.005	< 0.005	0.16	0.17	< 0.005	0.04	0.04	—	170	170	0.01	0.01	0.29	174
Strip Mall	0.01	0.01	0.01	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	8.56	8.56	< 0.005	< 0.005	0.01	8.72
Recreational Swimming Pool	0.01	< 0.005	< 0.005	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	7.84	7.84	< 0.005	< 0.005	0.01	7.98
Total	0.38	0.35	0.30	2.27	< 0.005	< 0.005	0.44	0.44	< 0.005	0.11	0.12	—	449	449	0.03	0.02	0.77	457

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Recreational Swimmi Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

High Turnover (Sit Down Restaurant)	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.3.2. Mitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.65	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.20	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.84	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.65	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	0.20	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.84	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.12	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.04	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.15	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.4.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	1.77	0.00	1.77	0.01	< 0.005	—	3.07
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	2.10	0.00	2.10	0.01	< 0.005	—	3.65
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.03	0.00	0.03	< 0.005	< 0.005	—	0.06
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.03	0.00	0.03	< 0.005	< 0.005	—	0.06
Total	—	—	—	—	—	—	—	—	—	—	—	3.93	0.00	3.93	0.01	0.01	—	6.83
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	1.77	0.00	1.77	0.01	< 0.005	—	3.07
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	2.10	0.00	2.10	0.01	< 0.005	—	3.65
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.03	0.00	0.03	< 0.005	< 0.005	—	0.06

Recreational Swimming	—	—	—	—	—	—	—	—	—	—	—	0.03	0.00	0.03	< 0.005	< 0.005	—	0.06
Total	—	—	—	—	—	—	—	—	—	—	—	3.93	0.00	3.93	0.01	0.01	—	6.83
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.29	0.00	0.29	< 0.005	< 0.005	—	0.51
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	0.35	0.00	0.35	< 0.005	< 0.005	—	0.60
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.01	0.00	0.01	< 0.005	< 0.005	—	0.01
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.01	0.00	0.01	< 0.005	< 0.005	—	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	0.65	0.00	0.65	< 0.005	< 0.005	—	1.13

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.5.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	10.9	0.00	10.9	1.09	0.00	—	38.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	23.4	0.00	23.4	2.34	0.00	—	82.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.14	0.00	0.14	0.01	0.00	—	0.49
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.80	0.00	0.80	0.08	0.00	—	2.79
Total	—	—	—	—	—	—	—	—	—	—	—	35.3	0.00	35.3	3.53	0.00	—	124
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	10.9	0.00	10.9	1.09	0.00	—	38.2

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	23.4	0.00	23.4	2.34	0.00	—	82.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.14	0.00	0.14	0.01	0.00	—	0.49
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.80	0.00	0.80	0.08	0.00	—	2.79
Total	—	—	—	—	—	—	—	—	—	—	—	35.3	0.00	35.3	3.53	0.00	—	124
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	1.81	0.00	1.81	0.18	0.00	—	6.32
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	3.88	0.00	3.88	0.39	0.00	—	13.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.02	0.00	0.02	< 0.005	0.00	—	0.08
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	0.13	0.00	0.13	0.01	0.00	—	0.46
Total	—	—	—	—	—	—	—	—	—	—	—	5.84	0.00	5.84	0.58	0.00	—	20.4

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.6.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	40.8	40.8
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.72	5.72
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	40.8	40.8
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.72	5.72
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.5	46.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.75	6.75
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.95	0.95
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.70	7.70

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.22	1.22	—	—	—	1.22
Firewheel tree(Stenocarpus sinuatus)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.85	0.85	—	—	—	0.85
Coastal live oak(Quercus agrifolia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.35	0.35	—	—	—	0.35
King palm(Archontophoenix cunninghamiana)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-2.21	-2.21	—	—	—	-2.21
Redbud spp(Cercis)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.66	-1.66	—	—	—	-1.66

Monterey cypress(macrocarpa)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.71	-1.71	—	—	—	-1.71
California sycamore(Platanus racemosa)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-2.21	-2.21	—	—	—	-2.21
Subtotal	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	-5.37	-5.37	—	—	—	-5.37
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	—	—	—	—	—	—	—	—	—	—	7.63	7.63	—	—	—	7.63
Firewheel tree(Stenocarpus sinuatus)	—	—	—	—	—	—	—	—	—	—	—	—	2.25	2.25	—	—	—	2.25
Coastal live oak(Quercus agrifolia)	—	—	—	—	—	—	—	—	—	—	—	—	0.71	0.71	—	—	—	0.71
King palm(Archontophoenix cunninghamiana)	—	—	—	—	—	—	—	—	—	—	—	—	-7.23	-7.23	—	—	—	-7.23
Redbud spp(Cercis)	—	—	—	—	—	—	—	—	—	—	—	—	-0.38	-0.38	—	—	—	-0.38

Monterey cypress(Cupressus macrocarpa)	—	—	—	—	—	—	—	—	—	—	—	—	-0.22	-0.22	—	—	—	-0.22
California sycamore(Platanus racemosa)	—	—	—	—	—	—	—	—	—	—	—	—	-0.24	-0.24	—	—	—	-0.24
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	2.52	2.52	—	—	—	2.52
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Firewheel tree(Stenocarpus sinuatus)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Coastal live oak(Quercus agrifolia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
King palm(Archontophoenix cunninghamiana)	—	—	-0.01	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Redbud spp(Cercis)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—

Monterey cypress(Cupress	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
California sycamore(Platanus racemosa)	—	—	-0.01	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Subtotal	—	—	-0.02	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	> -0.005	-0.02	—	> -0.005	-0.01	-0.01	-0.01	> -0.005	> -0.005	> -0.005	—	-2.84	-2.84	—	—	—	-2.84
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.22	1.22	—	—	—	1.22
Firewheel tree(Stenocarpus sinuatus)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.85	0.85	—	—	—	0.85
Coastal live oak(Quercus agrifolia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.35	0.35	—	—	—	0.35
King palm(Archontophoenix cunninghamiana)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-2.21	-2.21	—	—	—	-2.21
Redbud spp(Cercis)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.66	-1.66	—	—	—	-1.66

Montere cypress(Cupressus macrocarpa)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.71	-1.71	—	—	—	-1.71
California sycamore(Platanus racemosa)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-2.21	-2.21	—	—	—	-2.21
Subtotal	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	-5.37	-5.37	—	—	—	-5.37
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	—	—	—	—	—	—	—	—	—	—	7.63	7.63	—	—	—	7.63
Firewheel tree(Stenocarpus sinuatus)	—	—	—	—	—	—	—	—	—	—	—	—	2.25	2.25	—	—	—	2.25
Coastal live oak(Quercus agrifolia)	—	—	—	—	—	—	—	—	—	—	—	—	0.71	0.71	—	—	—	0.71
King palm(Archontophoenix cunninghamiana)	—	—	—	—	—	—	—	—	—	—	—	—	-7.23	-7.23	—	—	—	-7.23
Redbud spp(Cercis)	—	—	—	—	—	—	—	—	—	—	—	—	-0.38	-0.38	—	—	—	-0.38
Montery cypress(Cupressus macrocarpa)	—	—	—	—	—	—	—	—	—	—	—	—	-0.22	-0.22	—	—	—	-0.22

California sycamore(Platanus racemosa)	—	—	—	—	—	—	—	—	—	—	—	—	-0.24	-0.24	—	—	—	-0.24
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	2.52	2.52	—	—	—	2.52
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Firewheel tree(Stenocarpus sinuatus)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Coastal live oak(Quercus agrifolia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
King palm(Archontophoenix cunninghamiana)	—	—	-0.01	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Redbud spp(Cercis)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Monterey cypress(Cupressus macrocarpa)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
California sycamore(Platanus racemosa)	—	—	-0.01	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—

Subtotal	—	—	-0.02	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	> -0.005	-0.02	—	> -0.005	-0.01	-0.01	-0.01	> -0.005	> -0.005	> -0.005	—	-2.84	-2.84	—	—	—	-2.84
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.20	0.20	—	—	—	0.20
Firewheel tree(Stenocarpus sinuatus)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.14	0.14	—	—	—	0.14
Coastal live oak(Quercus agrifolia)	—	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.06	0.06	—	—	—	0.06
King palm(Archontophoenix cunninghamiana)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.37	-0.37	—	—	—	-0.37
Redbud spp(Cercis)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.27	-0.27	—	—	—	-0.27
Monterey cypress(Cupressus macrocarpa)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.28	-0.28	—	—	—	-0.28

California sycamore(Platanus racemosa)	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.37	-0.37	—	—	—	-0.37
Subtotal	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.89	-0.89	—	—	—	-0.89
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	—	—	—	—	—	—	—	—	—	—	1.26	1.26	—	—	—	1.26
Firewheel tree(Stenocarpus sinuatus)	—	—	—	—	—	—	—	—	—	—	—	—	0.37	0.37	—	—	—	0.37
Coastal live oak(Quercus agrifolia)	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12	—	—	—	0.12
King palm(Archontophoenix cunninghamiana)	—	—	—	—	—	—	—	—	—	—	—	—	-1.20	-1.20	—	—	—	-1.20
Redbud spp(Cercis)	—	—	—	—	—	—	—	—	—	—	—	—	-0.06	-0.06	—	—	—	-0.06
Monterey cypress(Cupressus macrocarpa)	—	—	—	—	—	—	—	—	—	—	—	—	-0.04	-0.04	—	—	—	-0.04

California sycamore(Platan	—	—	—	—	—	—	—	—	—	—	—	—	-0.04	-0.04	—	—	—	-0.04
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42	—	—	—	0.42
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corymbia spp(Corymbia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Firewheel tree(Stenocarpus sinuatus)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
Coastal live oak(Quercus agrifolia)	—	—	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	—	—	—	—	—
King palm(Archontophoenix cunninghamiana)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Redbud spp(Cercis)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Monterey cypress(Cupressus macrocarpa)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—

California sycamore(Platanus racemosa)	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Subtotal	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.47	-0.47	—	—	—	-0.47

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	9/2/2025	9/12/2025	5.00	9.00	—
Site Preparation	Site Preparation	6/2/2025	6/6/2025	5.00	5.00	—
Grading	Grading	6/9/2025	6/13/2025	5.00	5.00	—
Parking Lot 4 Construction	Building Construction	6/23/2025	7/18/2025	5.00	20.0	—
Hotel Construction	Building Construction	9/29/2025	7/31/2026	5.00	220	—
Lot 4 Paving	Paving	7/21/2025	7/25/2025	5.00	5.00	—
Architectural Coating	Architectural Coating	2/2/2026	2/13/2026	5.00	10.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37

Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Parking Lot 4 Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Parking Lot 4 Construction	Forklifts	Diesel	Average	2.00	7.00	82.0	0.20
Parking Lot 4 Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Parking Lot 4 Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Parking Lot 4 Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Hotel Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Hotel Construction	Forklifts	Diesel	Average	2.00	7.00	82.0	0.20
Hotel Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Hotel Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Hotel Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Lot 4 Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Lot 4 Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Lot 4 Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Lot 4 Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38

Lot 4 Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	8.00	84.0	0.37
Demolition	Concrete/Industrial Saws	Electric	Average	1.00	8.00	33.0	0.73
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	7.00	84.0	0.37
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	7.00	367	0.40
Site Preparation	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	7.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Parking Lot 4 Construction	Cranes	Diesel	Tier 4 Final	1.00	8.00	367	0.29
Parking Lot 4 Construction	Forklifts	Diesel	Tier 4 Final	2.00	7.00	82.0	0.20
Parking Lot 4 Construction	Generator Sets	Electric	Average	1.00	8.00	14.0	0.74
Parking Lot 4 Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	6.00	84.0	0.37
Parking Lot 4 Construction	Welders	Electric	Average	3.00	8.00	46.0	0.45
Hotel Construction	Cranes	Diesel	Tier 4 Final	1.00	8.00	367	0.29
Hotel Construction	Forklifts	Diesel	Tier 4 Final	2.00	7.00	82.0	0.20
Hotel Construction	Generator Sets	Electric	Average	1.00	8.00	14.0	0.74

Hotel Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	6.00	84.0	0.37
Hotel Construction	Welders	Electric	Average	3.00	8.00	46.0	0.45
Lot 4 Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Lot 4 Paving	Pavers	Diesel	Tier 4 Final	1.00	8.00	81.0	0.42
Lot 4 Paving	Paving Equipment	Diesel	Tier 4 Final	1.00	8.00	89.0	0.36
Lot 4 Paving	Rollers	Electric	Average	2.00	8.00	36.0	0.38
Lot 4 Paving	Cement and Mortar Mixers	Electric	Average	1.00	8.00	10.0	0.56
Architectural Coating	Air Compressors	Electric	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	0.00	8.80	LDA,LDT1,LDT2
Demolition	Vendor	4.00	0.25	HHDT,MHDT
Demolition	Hauling	26.0	0.25	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	0.00	8.80	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	0.25	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	0.00	8.80	LDA,LDT1,LDT2
Grading	Vendor	4.00	0.25	HHDT,MHDT

Grading	Hauling	20.0	0.25	HHDT
Grading	Onsite truck	—	—	HHDT
Parking Lot 4 Construction	—	—	—	—
Parking Lot 4 Construction	Worker	0.00	8.80	LDA,LDT1,LDT2
Parking Lot 4 Construction	Vendor	6.00	0.25	HHDT,MHDT
Parking Lot 4 Construction	Hauling	0.00	20.0	HHDT
Parking Lot 4 Construction	Onsite truck	—	—	HHDT
Lot 4 Paving	—	—	—	—
Lot 4 Paving	Worker	0.00	8.80	LDA,LDT1,LDT2
Lot 4 Paving	Vendor	4.00	0.25	HHDT,MHDT
Lot 4 Paving	Hauling	0.00	20.0	HHDT
Lot 4 Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.00	8.80	LDA,LDT1,LDT2
Architectural Coating	Vendor	2.00	0.25	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Hotel Construction	—	—	—	—
Hotel Construction	Worker	0.00	8.80	LDA,LDT1,LDT2
Hotel Construction	Vendor	6.00	0.25	HHDT,MHDT
Hotel Construction	Hauling	0.00	20.0	HHDT
Hotel Construction	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	0.00	8.80	LDA,LDT1,LDT2
Demolition	Vendor	4.00	0.25	HHDT,MHDT

Demolition	Hauling	26.0	0.25	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	0.00	8.80	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	0.25	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	0.00	8.80	LDA,LDT1,LDT2
Grading	Vendor	4.00	0.25	HHDT,MHDT
Grading	Hauling	20.0	0.25	HHDT
Grading	Onsite truck	—	—	HHDT
Parking Lot 4 Construction	—	—	—	—
Parking Lot 4 Construction	Worker	0.00	8.80	LDA,LDT1,LDT2
Parking Lot 4 Construction	Vendor	6.00	0.25	HHDT,MHDT
Parking Lot 4 Construction	Hauling	0.00	20.0	HHDT
Parking Lot 4 Construction	Onsite truck	—	—	HHDT
Lot 4 Paving	—	—	—	—
Lot 4 Paving	Worker	0.00	8.80	LDA,LDT1,LDT2
Lot 4 Paving	Vendor	4.00	0.25	HHDT,MHDT
Lot 4 Paving	Hauling	0.00	20.0	HHDT
Lot 4 Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.00	8.80	LDA,LDT1,LDT2
Architectural Coating	Vendor	2.00	0.25	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Hotel Construction	—	—	—	—

Hotel Construction	Worker	0.00	8.80	LDA,LDT1,LDT2
Hotel Construction	Vendor	6.00	0.25	HHDT,MHDT
Hotel Construction	Hauling	0.00	20.0	HHDT
Hotel Construction	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	45,000	15,000	3,842

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	870	—
Site Preparation	—	—	4.69	0.00	—
Grading	—	800	4.00	0.00	—
Lot 4 Paving	0.00	0.00	0.00	0.00	1.47

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Hotel	0.00	0%
Parking Lot	1.47	100%
High Turnover (Sit Down Restaurant)	0.00	0%
Strip Mall	0.00	0%
Recreational Swimming Pool	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	9.99	0.03	< 0.005
2026	0.00	9.99	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Hotel	207	207	207	75,533	2,025	2,025	2,025	739,139
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
High Turnover (Sit Down Restaurant)	235	235	235	85,892	889	2,303	2,303	472,023
Strip Mall	9.34	9.34	9.34	3,408	55.2	91.4	91.4	23,921
Recreational Swimming Pool	7.49	2.37	3.54	2,261	73.3	23.2	34.6	22,128

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Hotel	207	207	207	75,533	2,025	2,025	2,025	739,139
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
High Turnover (Sit Down Restaurant)	235	235	235	85,892	889	2,303	2,303	472,023
Strip Mall	9.34	9.34	9.34	3,408	55.2	91.4	91.4	23,921
Recreational Swimming Pool	7.49	2.37	3.54	2,261	73.3	23.2	34.6	22,128

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	45,000	15,000	3,842

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Hotel	200,000	0.00	0.0000	0.0000	0.00
Parking Lot	0.00	0.00	0.0000	0.0000	0.00
High Turnover (Sit Down Restaurant)	0.00	0.00	0.0000	0.0000	0.00
Strip Mall	0.00	0.00	0.0000	0.0000	0.00
Recreational Swimming Pool	0.00	0.00	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Hotel	118,136	0.00	0.0000	0.0000	0.00
Parking Lot	0.00	0.00	0.0000	0.0000	0.00
High Turnover (Sit Down Restaurant)	0.00	0.00	0.0000	0.0000	0.00
Strip Mall	0.00	0.00	0.0000	0.0000	0.00
Recreational Swimming Pool	0.00	0.00	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Hotel	938,570	309,191

Parking Lot	0.00	0.00
High Turnover (Sit Down Restaurant)	1,109,719	0.00
Strip Mall	18,148	0.00
Recreational Swimming Pool	15,377	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Hotel	827,725	309,191
Parking Lot	0.00	0.00
High Turnover (Sit Down Restaurant)	982,102	0.00
Strip Mall	16,061	0.00
Recreational Swimming Pool	15,377	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Hotel	20.3	—
Parking Lot	0.00	—
High Turnover (Sit Down Restaurant)	43.5	—
Strip Mall	0.26	—
Recreational Swimming Pool	1.48	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Hotel	20.3	—
Parking Lot	0.00	—

High Turnover (Sit Down Restaurant)	43.5	—
Strip Mall	0.26	—
Recreational Swimming Pool	1.48	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Recreational Swimming Pool	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Recreational Swimming Pool	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Recreational Swimming Pool	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Recreational Swimming Pool	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
King palm(Archontophoenix cunninghamiana)	20.0	22,236	92.9
Redbud spp(Cercis)	12.0	18,524	59.9
Monterey cypress(Cupressus macrocarpa)	7.00	15,512	81.0
California sycamore(Platanus racemosa)	16.0	24,698	79.9
Corymbia spp(Corymbia)	-5.00	11,080	57.8
Firewheel tree(Stenocarpus sinuatus)	-9.00	8,653	35.5
Coastal live oak(Quercus agrifolia)	-2.00	3,346	16.1

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
King palm(Archontophoenix cunninghamiana)	20.0	22,236	92.9
Redbud spp(Cercis)	12.0	18,524	59.9
Monterey cypress(Cupressus macrocarpa)	7.00	15,512	81.0
California sycamore(Platanus racemosa)	16.0	24,698	79.9
Corymbia spp(Corymbia)	-5.00	11,080	57.8
Firewheel tree(Stenocarpus sinuatus)	-9.00	8,653	35.5
Coastal live oak(Quercus agrifolia)	-2.00	3,346	16.1

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	8.01	annual days of extreme heat
Extreme Precipitation	8.40	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	39.4	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	24.9

AQ-PM	31.0
AQ-DPM	41.5
Drinking Water	49.6
Lead Risk Housing	51.7
Pesticides	43.2
Toxic Releases	12.7
Traffic	46.2
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	74.8
Haz Waste Facilities/Generators	83.4
Impaired Water Bodies	77.3
Solid Waste	86.5
Sensitive Population	—
Asthma	29.2
Cardio-vascular	7.63
Low Birth Weights	18.6
Socioeconomic Factor Indicators	—
Education	58.3
Housing	77.2
Linguistic	59.4
Poverty	34.9
Unemployment	—

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—

Above Poverty	39.08635955
Employed	55.84498909
Median HI	37.91864494
Education	—
Bachelor's or higher	61.18311305
High school enrollment	100
Preschool enrollment	38.70139869
Transportation	—
Auto Access	25.92069806
Active commuting	83.36969075
Social	—
2-parent households	48.8387014
Voting	88.3485179
Neighborhood	—
Alcohol availability	23.21314
Park access	81.35506224
Retail density	74.57975106
Supermarket access	68.49736943
Tree canopy	27.55036571
Housing	—
Homeownership	18.2599769
Housing habitability	37.0075709
Low-inc homeowner severe housing cost burden	24.53483896
Low-inc renter severe housing cost burden	57.65430515
Uncrowded housing	61.41408957
Health Outcomes	—
Insured adults	40.74169126
Arthritis	0.0

Asthma ER Admissions	62.7
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	51.6
Cognitively Disabled	3.8
Physically Disabled	49.3
Heart Attack ER Admissions	83.9
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	82.5
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	27.8
Children	56.6
Elderly	30.9
English Speaking	61.9
Foreign-born	42.1

Outdoor Workers	17.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	56.8
Traffic Density	63.5
Traffic Access	0.0
Other Indices	—
Hardship	39.7
Other Decision Support	—
2016 Voting	88.6

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	43.0
Healthy Places Index Score for Project Location (b)	53.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	City is within the Central Coast Community Energy CCA.
Land Use	Based on applicant provided information.
Construction: Construction Phases	Based on applicant provided information.
Construction: Off-Road Equipment	Based on applicant provided information.
Construction: Dust From Material Movement	Based on grading plan.
Construction: Trips and VMT	Based on applicant provided information.
Construction: Architectural Coatings	Applicant has committed to zero-VOC coatings for interior and exterior finishes.
Operations: Energy Use	All-electric development. Electricity demand provided by project applicant.
Operations: Vehicle Data	Based on ATE trip rate memo.

```
** Lakes Environmental AERMOD MPI
**
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**
** AERMOD Input Produced by:
** AERMOD View Ver. 13.0.0
** Lakes Environmental Software Inc.
** Date: 6/10/2025
** File: C:\Users\apoll\OneDrive - Dudek\Desktop\HARP2\HARP\Surfliner\Surfliner
HRA\Surfliner HRA.ADI
**
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**
**
**************************************
** AERMOD Control Pathway
**************************************
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   AVERTIME 1 PERIOD
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL "Surfliner HRA.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
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SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
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** LINE VOLUME Source ID = SLINE1
** DESCRSRC
** PREFIX
** Length of Side = 8.60
** Configuration = Adjacent
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** Vertical Dimension = 6.80
** SZINIT = 3.16
** Nodes = 2
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** 268100.072, 3808912.828, 4.53, 3.40, 4.00
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   LOCATION L0000031     VOLUME   268039.804 3809002.889 3.94
   LOCATION L0000032     VOLUME   268044.587 3808995.742 3.98
   LOCATION L0000033     VOLUME   268049.369 3808988.595 4.00
   LOCATION L0000034     VOLUME   268054.152 3808981.447 4.03
   LOCATION L0000035     VOLUME   268058.935 3808974.300 4.10
   LOCATION L0000036     VOLUME   268063.718 3808967.153 4.18
   LOCATION L0000037     VOLUME   268068.501 3808960.005 4.24
   LOCATION L0000038     VOLUME   268073.284 3808952.858 4.30
   LOCATION L0000039     VOLUME   268078.067 3808945.711 4.35
   LOCATION L0000040     VOLUME   268082.850 3808938.564 4.40
   LOCATION L0000041     VOLUME   268087.633 3808931.416 4.44
   LOCATION L0000042     VOLUME   268092.416 3808924.269 4.48
   LOCATION L0000043     VOLUME   268097.199 3808917.122 4.52
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** LINE VOLUME Source ID = SLINE2
** DESCRSRC
** PREFIX
** Length of Side = 8.60
** Configuration = Adjacent
** Emission Rate = 0.5172413793
** Vertical Dimension = 6.80
** SZINIT = 3.16
** Nodes = 4
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** 268126.540, 3808949.730, 4.81, 3.40, 4.00
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   LOCATION L0000045     VOLUME   268115.452 3808994.787 4.67
   LOCATION L0000046     VOLUME   268120.276 3808987.667 4.72
   LOCATION L0000047     VOLUME   268125.101 3808980.548 4.77
   LOCATION L0000048     VOLUME   268129.925 3808973.428 4.80
   LOCATION L0000049     VOLUME   268134.749 3808966.309 4.82
   LOCATION L0000050     VOLUME   268139.573 3808959.189 4.83
   LOCATION L0000051     VOLUME   268132.998 3808954.201 4.82
   LOCATION L0000052     VOLUME   268126.145 3808950.362 4.81
   LOCATION L0000053     VOLUME   268121.587 3808957.655 4.78
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** Source Parameters **
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   SRCPARAM L0000039     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000040     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000041     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000042     0.0344827586      3.40      4.00      3.16
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   SRCPARAM L0000047     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000048     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000049     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000050     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000051     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000052     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000053     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000054     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000055     0.0344827586      3.40      4.00      3.16
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   SRCPARAM L0000058     0.0344827586      3.40      4.00      3.16
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** AERMOD Receptor Pathway
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RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
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   UAIRDATA 93214 2019
   SITEDATA 8 2019
   PROFBASE 137.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "Surfliner HRA.AD\01H1GALL.PLT" 31
   PLOTFILE PERIOD ALL "Surfliner HRA.AD\PE00GALL.PLT" 32
   SUMMFILE "Surfliner HRA.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 MX W403     154       PFLCNV: Turbulence data is being used w/o ADJ_U* option
SigA Data

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

↟ *** AERMOD - VERSION 24142  ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner  ***
06/10/25
 *** AERMET - VERSION  23132 ***   ***
                       ***       12:14:16

                                 PAGE   1
```

```
 *** MODELOPTs:    CONC  ELEV  RURAL  SigA Data

                                          ***     MODEL SETUP OPTIONS SUMMARY
 ***
 - - -
```

Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and
Missing Hours

 **Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) =   137.00 ; Decay
Coef. =   0.000   ; Rot. Angle =   0.0
                  Emission Units = GRAMS/SEC   ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =   3.6 MB of RAM.

 **Input Runstream File: aermod.inp

 **Output Print File: aermod.out

 **Detailed Error/Message File: Surfliner HRA.err

 **File for Summary of Results: Surfliner HRA.sum

 *** MODELOPTs: CONC ELEV RURAL SigA Data

                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE   BASE   RELEASE   INIT.
INIT.   URBAN EMISSION RATE   AIRCRAFT
   SOURCE   PART. (GRAMS/SEC)   X   Y   ELEV.   HEIGHT   SY
SZ   SOURCE SCALAR VARY
     ID   CATS.   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   BY
 -
- - - - - - - - - - - - - - - - - - - -

 L0000030   0   0.34483E-01 268035.0 3809010.0   3.9   3.40   4.00
3.16   NO   NO
 L0000031   0   0.34483E-01 268039.8 3809002.9   3.9   3.40   4.00

```
3.16     NO                    NO
 L0000032         0   0.34483E-01  268044.6 3808995.7     4.0     3.40     4.00
3.16     NO                    NO
 L0000033         0   0.34483E-01  268049.4 3808988.6     4.0     3.40     4.00
3.16     NO                    NO
 L0000034         0   0.34483E-01  268054.2 3808981.4     4.0     3.40     4.00
3.16     NO                    NO
 L0000035         0   0.34483E-01  268058.9 3808974.3     4.1     3.40     4.00
3.16     NO                    NO
 L0000036         0   0.34483E-01  268063.7 3808967.2     4.2     3.40     4.00
3.16     NO                    NO
 L0000037         0   0.34483E-01  268068.5 3808960.0     4.2     3.40     4.00
3.16     NO                    NO
 L0000038         0   0.34483E-01  268073.3 3808952.9     4.3     3.40     4.00
3.16     NO                    NO
 L0000039         0   0.34483E-01  268078.1 3808945.7     4.3     3.40     4.00
3.16     NO                    NO
 L0000040         0   0.34483E-01  268082.8 3808938.6     4.4     3.40     4.00
3.16     NO                    NO
 L0000041         0   0.34483E-01  268087.6 3808931.4     4.4     3.40     4.00
3.16     NO                    NO
 L0000042         0   0.34483E-01  268092.4 3808924.3     4.5     3.40     4.00
3.16     NO                    NO
 L0000043         0   0.34483E-01  268097.2 3808917.1     4.5     3.40     4.00
3.16     NO                    NO
 L0000044         0   0.34483E-01  268110.6 3809001.9     4.6     3.40     4.00
3.16     NO                    NO
 L0000045         0   0.34483E-01  268115.5 3808994.8     4.7     3.40     4.00
3.16     NO                    NO
 L0000046         0   0.34483E-01  268120.3 3808987.7     4.7     3.40     4.00
3.16     NO                    NO
 L0000047         0   0.34483E-01  268125.1 3808980.5     4.8     3.40     4.00
3.16     NO                    NO
 L0000048         0   0.34483E-01  268129.9 3808973.4     4.8     3.40     4.00
3.16     NO                    NO
 L0000049         0   0.34483E-01  268134.7 3808966.3     4.8     3.40     4.00
3.16     NO                    NO
 L0000050         0   0.34483E-01  268139.6 3808959.2     4.8     3.40     4.00
3.16     NO                    NO
 L0000051         0   0.34483E-01  268133.0 3808954.2     4.8     3.40     4.00
3.16     NO                    NO
 L0000052         0   0.34483E-01  268126.1 3808950.4     4.8     3.40     4.00
3.16     NO                    NO
 L0000053         0   0.34483E-01  268121.6 3808957.7     4.8     3.40     4.00
3.16     NO                    NO
 L0000054         0   0.34483E-01  268117.0 3808964.9     4.8     3.40     4.00
3.16     NO                    NO
 L0000055         0   0.34483E-01  268112.5 3808972.2     4.7     3.40     4.00
3.16     NO                    NO
 L0000056         0   0.34483E-01  268107.9 3808979.5     4.7     3.40     4.00
```

```
3.16     NO                     NO
 L0000057         0   0.34483E-01  268103.4 3808986.8     4.6     3.40     4.00
3.16     NO                     NO
 L0000058         0   0.34483E-01  268098.8 3808994.1     4.6     3.40     4.00
3.16     NO                     NO
```


```
                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                          SOURCE IDs
 -----------                                          ----------


  ALL        L0000030    , L0000031    , L0000032    , L0000033    , L0000034    ,
L0000035    , L0000036    , L0000037    ,

             L0000038    , L0000039    , L0000040    , L0000041    , L0000042    ,
L0000043    , L0000044    , L0000045    ,

             L0000046    , L0000047    , L0000048    , L0000049    , L0000050    ,
L0000051    , L0000052    , L0000053    ,

             L0000054    , L0000055    , L0000056    , L0000057    , L0000058    ,
```


```
                                       *** GRIDDED RECEPTOR NETWORK SUMMARY ***

                                      *** NETWORK ID: UCART1   ;  NETWORK TYPE: GRIDCART
***

                                         *** X-COORDINATES OF GRID ***
                                                 (METERS)

       267628.8,  267678.8,  267728.8,  267778.8,  267828.8,  267878.8,  267928.8,
267978.8,  268028.8,  268078.8,
```

Y-COORD (METERS)	X-COORD (METERS) 267628.75	267678.75	267728.75	267778.75	267828.75	267878.75	267928.75	267978.75	268028.75
3809433.65	3.40	3.20	3.00	3.10	3.00	3.20	3.50	3.20	3.10
3809383.65	2.30	3.20	3.30	2.80	2.70	2.90	4.20	3.40	3.70
3809333.65	2.30	1.90	2.50	2.80	3.90	4.20	4.30	3.50	3.50
3809283.65	1.80	2.60	2.60	2.70	3.30	4.30	3.70	3.20	3.40
3809233.65	2.90	2.60	2.70	2.50	2.50	2.90	3.20	3.00	3.20
3809183.65	1.90	2.20	2.50	2.50	2.40	2.40	3.00	3.20	3.30
3809133.65	1.30	1.70	2.50	2.30	2.40	2.60	2.70	3.40	3.40
3809083.65	1.60	2.30	2.60	2.30	2.60	2.70	2.90	3.40	3.90
3809033.65	2.00	2.80	2.50	2.50	2.60	2.70	2.90	3.30	3.90

```
  3809283.65 |          3.80          4.20          4.80          5.30          5.70
    6.20          6.70          7.10          7.60
  3809233.65 |          3.80          4.30          4.80          5.30          6.00
    6.50          7.00          7.50          8.00
  3809183.65 |          3.80          4.50          4.70          5.20          5.90
    6.60          7.10          7.50          8.00
  3809133.65 |          4.10          4.70          4.90          5.30          5.90
    6.50          6.90          7.30          7.90
  3809083.65 |          4.10          4.50          5.00          5.40          5.90
    6.30          6.80          7.40          7.70
  3809033.65 |          4.40          4.60          5.10          5.40          5.80
    6.20          6.80          7.30          7.70
  3808983.65 |          4.40          4.80          5.00          5.20          5.70
    6.20          6.70          7.10          7.40
  3808933.65 |          4.30          4.80          4.90          5.20          5.60
    5.90          6.50          6.80          7.20
  3808883.65 |          4.10          4.70          5.00          5.20          5.40
    5.90          6.40          6.60          7.00
  3808833.65 |          3.20          3.90          4.60          5.00          5.40
    5.80          6.10          6.50          6.90
  3808783.65 |          2.50          2.60          3.40          4.90          5.30
    5.80          6.10          6.40          6.70
  3808733.65 |          2.60          2.60          2.70          3.80          5.20
    5.40          5.90          6.30          6.50
  3808683.65 |          2.70          2.70          2.90          3.50          4.80
    5.50          5.90          6.10          5.20
  3808633.65 |          2.80          2.80          2.90          3.70          4.50
    5.50          5.60          5.90          5.20
  3808583.65 |          3.20          3.00          3.00          3.30          4.00
    5.00          5.70          5.40          5.30
  3808533.65 |          3.70          3.70          3.20          3.20          3.40
    4.00          5.10          5.30          5.50
  3808483.65 |          1.90          3.70          3.90          3.30          3.20
    3.70          4.20          5.10          4.80
  3808433.65 |          0.50          1.30          3.10          4.20          3.30
    3.20          3.80          4.20          3.50
 *** AERMOD - VERSION 24142  ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner  ***
06/10/25
 *** AERMET - VERSION  23132 ***   ***
                      ***       12:14:16

                                PAGE   7
 *** MODELOPTs:    CONC  ELEV  RURAL  SigA Data

                                *** NETWORK ID: UCART1   ;  NETWORK TYPE: GRIDCART
***

                                                * ELEVATION HEIGHTS IN METERS *
```

```
    Y-COORD  |                                                  X-COORD (METERS)
    (METERS) |     268528.75    268578.75    268628.75
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

  3809433.65 |          6.40         6.60         7.90
  3809383.65 |          6.90         7.50         8.50
  3809333.65 |          8.00         8.10         8.40
  3809283.65 |          8.10         8.60         9.20
  3809233.65 |          8.50         9.00         9.40
  3809183.65 |          8.80         9.30         9.80
  3809133.65 |          8.70         9.40        10.00
  3809083.65 |          8.50         9.10         9.90
  3809033.65 |          8.20         8.80         9.40
  3808983.65 |          7.80         8.30         9.10
  3808933.65 |          7.50         8.10         8.80
  3808883.65 |          7.60         7.90         8.60
  3808833.65 |          7.40         7.90         8.70
  3808783.65 |          7.30         7.90         8.40
  3808733.65 |          7.10         7.90         8.70
  3808683.65 |          5.00         7.60         8.80
  3808633.65 |          4.90         5.40         8.40
  3808583.65 |          5.50         5.00         6.30
  3808533.65 |          5.50         5.50         4.90
  3808483.65 |          4.00         4.40         4.90
  3808433.65 |          4.30         5.30         8.00
 *** AERMOD - VERSION 24142  ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner  ***
06/10/25
 *** AERMET - VERSION  23132 ***   ***
                      ***        12:14:16

                                 PAGE   8
 *** MODELOPTs:    CONC  ELEV  RURAL  SigA Data

                                 *** NETWORK ID: UCART1   ;  NETWORK TYPE: GRIDCART
***

                                              * HILL HEIGHT SCALES IN METERS *

    Y-COORD  |                                                  X-COORD (METERS)
    (METERS) |     267628.75    267678.75    267728.75    267778.75    267828.75
267878.75    267928.75    267978.75    268028.75
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

  3809433.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
 1831.70      1831.70      1831.70      1831.70
  3809383.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
 1831.70      1831.70      1831.70      1831.70
```

```
 3809333.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3809283.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3809233.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3809183.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3809133.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3809083.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3809033.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3808983.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3808933.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3808883.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3808833.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3808783.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3808733.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3808683.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3808633.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3808583.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3808533.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3808483.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
 3808433.65 |       1831.70      1831.70      1831.70      1831.70      1831.70
1831.70      1831.70      1831.70      1831.70
↑ *** AERMOD - VERSION 24142  ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner  ***
06/10/25
 *** AERMET - VERSION  23132 ***   ***
                      ***        12:14:16

                                 PAGE   9
 *** MODELOPTs:    CONC  ELEV  RURAL  SigA Data

                                 *** NETWORK ID: UCART1   ;  NETWORK TYPE: GRIDCART
***
```

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)				
	268078.75	268128.75	268178.75	268228.75	268278.75
268328.75	268378.75	268428.75	268478.75		
3809433.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3809383.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3809333.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3809283.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3809233.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3809183.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3809133.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3809083.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3809033.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3808983.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3808933.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3808883.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3808833.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3808783.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3808733.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3808683.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3808633.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3808583.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3808533.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3808483.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		
3808433.65	1831.70	1831.70	1831.70	1831.70	1831.70
1831.70	1831.70	1831.70	1831.70		

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)		
	268528.75	268578.75	268628.75
3809433.65	1831.70	1831.70	1831.70
3809383.65	1831.70	1831.70	1831.70
3809333.65	1831.70	1831.70	1831.70
3809283.65	1831.70	1831.70	1831.70
3809233.65	1831.70	1831.70	1831.70
3809183.65	1831.70	1831.70	1831.70
3809133.65	1831.70	1831.70	1831.70
3809083.65	1831.70	1831.70	1831.70
3809033.65	1831.70	1831.70	1831.70
3808983.65	1831.70	1831.70	1831.70
3808933.65	1831.70	1831.70	1831.70
3808883.65	1831.70	1831.70	1831.70
3808833.65	1831.70	1831.70	1831.70
3808783.65	1831.70	1831.70	1831.70
3808733.65	1831.70	1831.70	1831.70
3808683.65	1831.70	1831.70	1831.70
3808633.65	1831.70	1831.70	1831.70
3808583.65	1831.70	1831.70	1831.70
3808533.65	1831.70	1831.70	1831.70
3808483.65	1831.70	1831.70	1831.70
3808433.65	1831.70	1831.70	1831.70

*** DISCRETE CARTESIAN RECEPTORS ***

(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(268139.3, 3809032.9, 4.8, 1831.7, 0.0); (268132.2, 3809043.1, 4.6, 1831.7, 0.0);
(268124.3, 3809052.2, 4.5, 1831.7, 0.0); (268113.6, 3809064.7, 4.4, 1831.7, 0.0);
(268132.9, 3809073.6, 4.6, 1831.7, 0.0); (268139.3, 3809081.8, 4.6, 1831.7, 0.0);
(268150.5, 3809071.3, 4.7, 1831.7, 0.0); (268145.2, 3809056.1, 4.8, 1831.7, 0.0);
(268094.0, 3809106.7, 4.4, 1831.7, 0.0); (268086.6, 3809117.9, 4.3, 1831.7, 0.0);
(268027.3, 3808959.9, 3.8, 1831.7, 0.0); (268019.7, 3808974.4, 3.7, 1831.7, 0.0);
(268002.1, 3809012.8, 3.5, 1831.7, 0.0); (268002.6, 3809029.3, 3.4, 1831.7, 0.0);
(267993.5, 3809043.1, 3.3, 1831.7, 0.0); (267987.9, 3809002.6, 3.4, 1831.7, 0.0);
(267976.4, 3809009.5, 3.3, 1831.7, 0.0); (267971.1, 3809022.5, 3.2, 1831.7, 0.0);
(267979.7, 3809048.4, 3.3, 1831.7, 0.0); (267965.5, 3809037.5, 3.1, 1831.7, 0.0);
(267974.4, 3809061.4, 3.3, 1831.7, 0.0); (267951.5, 3809041.0, 3.0, 1831.7, 0.0);
(268059.4, 3808882.0, 4.0, 1831.7, 0.0); (268040.0, 3808893.7, 3.9, 1831.7, 0.0);
(268021.5, 3808911.8, 3.8, 1831.7, 0.0); (268012.0, 3808924.0, 3.8, 1831.7, 0.0);
(268000.6, 3808933.1, 3.7, 1831.7, 0.0); (267989.9, 3808944.6, 3.6, 1831.7, 0.0);

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)

- - - -

 *** MODELOPTs: CONC ELEV RURAL SigA Data

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file: ..\Carp19-23\Carp19-23.SFC
                Met Version: 23132
   Profile file: ..\Carp19-23\Carp19-23.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:   23190   Upper air station no.:   93214
                  Name: SANTA_BARBARA/FAA_AIRPORT   Name: UNKNOWN

                  Year: 2019   Year: 2019

 First 24 hours of scalar data
 YR MO DY JDY HR   H0   U*   W* DT/DZ ZICNV ZIMCH M-O LEN   Z0 BOWEN
ALBEDO REF WS   WD   HT REF TA   HT
- -
- - - - - - - - - - - - - - - - - - - -
 19 01 01   1 01   -1.3 0.035 -9.000 -9.000 -999.   16.   2.9 0.03   0.31
1.00   1.00 348.   10.0 280.0   10.0
 19 01 01   1 02   -1.5 0.036 -9.000 -9.000 -999.   17.   2.9 0.02   0.31
1.00   1.10   25.   10.0 278.4   10.0
 19 01 01   1 03   -2.9 0.052 -9.000 -9.000 -999.   29.   4.3 0.03   0.31
1.00   1.50 345.   10.0 280.6   10.0
 19 01 01   1 04   -0.8 0.028 -9.000 -9.000 -999.   11.   2.3 0.03   0.31
1.00   0.80 308.   10.0 277.1   10.0
 19 01 01   1 05   -1.6 0.038 -9.000 -9.000 -999.   18.   3.2 0.03   0.31
1.00   1.10 304.   10.0 276.8   10.0
 19 01 01   1 06   -1.0 0.032 -9.000 -9.000 -999.   14.   2.9 0.07   0.31
1.00   0.80 294.   10.0 276.9   10.0
 19 01 01   1 07   -0.6 0.024 -9.000 -9.000 -999.   9.   2.0 0.03   0.31
1.00   0.70 318.   10.0 276.2   10.0
 19 01 01   1 08   -1.4 0.040 -9.000 -9.000 -999.   19.   4.0 0.11   0.31
0.56   0.90 160.   10.0 280.5   10.0
 19 01 01   1 09   9.6 0.145 0.189 0.009   25. 132.   -28.3 0.11   0.31
0.30   1.40 166.   10.0 284.1   10.0
 19 01 01   1 10   33.7 0.193 0.448 0.006   95. 203.   -19.1 0.07   0.31

```
0.22    2.00  272.   10.0  285.2   10.0
 19 01 01   1 11   50.9  0.228  0.625  0.005  172.  262.    -20.9  0.10   0.31
0.19    2.20  268.   10.0  285.4   10.0
 19 01 01   1 12   59.7  0.239  0.728  0.005  231.  281.    -20.5  0.10   0.31
0.18    2.30  255.   10.0  285.4   10.0
 19 01 01   1 13   60.0  0.239  0.776  0.005  279.  281.    -20.5  0.07   0.31
0.17    2.50  279.   10.0  285.8   10.0
 19 01 01   1 14   51.5  0.212  0.798  0.005  353.  235.    -16.7  0.10   0.31
0.18    2.00  261.   10.0  285.8   10.0
 19 01 01   1 15   34.6  0.193  0.730  0.005  403.  204.    -18.7  0.07   0.31
0.21    2.00  270.   10.0  285.1   10.0
 19 01 01   1 16   10.5  0.119  0.506  0.005  439.  100.    -14.4  0.07   0.31
0.30    1.20  283.   10.0  282.9   10.0
 19 01 01   1 17   -1.0  0.031 -9.000 -9.000 -999.   22.      2.8  0.03   0.31
0.55    0.90  308.   10.0  279.8   10.0
 19 01 01   1 18   -1.5  0.040 -9.000 -9.000 -999.   19.      3.8  0.11   0.31
1.00    0.90  237.   10.0  278.8   10.0
 19 01 01   1 19   -1.1  0.031 -9.000 -9.000 -999.   13.      2.6  0.03   0.31
1.00    0.90  303.   10.0  278.2   10.0
 19 01 01   1 20   -0.3  0.017 -9.000 -9.000 -999.    6.      1.4  0.03   0.31
1.00    0.50  344.   10.0  277.1   10.0
 19 01 01   1 21   -0.5  0.021 -9.000 -9.000 -999.    7.      1.7  0.03   0.31
1.00    0.60  331.   10.0  277.0   10.0
 19 01 01   1 22   -0.5  0.021 -9.000 -9.000 -999.    7.      1.7  0.03   0.31
1.00    0.60  312.   10.0  276.8   10.0
 19 01 01   1 23   -0.3  0.017 -9.000 -9.000 -999.    5.      1.3  0.02   0.31
1.00    0.50   33.   10.0  276.5   10.0
 19 01 01   1 24   -0.2  0.014 -9.000 -9.000 -999.    4.      1.1  0.03   0.31
1.00    0.40  330.   10.0  276.1   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 19 01 01 01   10.0 1  348.    1.00   280.1   67.5  -99.00    0.63

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 24142  ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner  ***
06/10/25
 *** AERMET - VERSION  23132 ***   ***
                       ***        12:14:16

                                  PAGE  15
 *** MODELOPTs:    CONC  ELEV  RURAL  SigA Data

                              *** THE PERIOD ( 43824 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     L0000030    , L0000031
, L0000032    , L0000033    , L0000034    ,
                L0000035    , L0000036    , L0000037    , L0000038    , L0000039
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, L0000040    , L0000041    , L0000042    ,
                L0000043    , L0000044    , L0000045    , L0000046    , L0000047
, L0000048    , L0000049    , L0000050    ,
                L0000051    , L0000052    , L0000053    , L0000054    , L0000055
, L0000056    , L0000057    , L0000058    ,

                                  *** NETWORK ID: UCART1   ;  NETWORK TYPE:
GRIDCART ***

                                       ** CONC OF PM_10    IN MICROGRAMS/M**3
                  **

    Y-COORD  |                                                 X-COORD (METERS)
    (METERS) |     267628.75    267678.75    267728.75    267778.75    267828.75
267878.75    267928.75    267978.75    268028.75
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -

  3809433.65 |      32.64303     34.29897     35.93072     38.14728     39.59714
41.69530     44.07833     44.28698     44.85077
  3809383.65 |      32.57117     37.02182     39.97877     41.20748     43.26987
45.89860     52.63768     51.13647     53.68075
  3809333.65 |      34.64514     36.84369     41.26539     45.45008     53.06432
57.54743     60.81516     59.44563     61.18305
  3809283.65 |      35.67347     40.97879     45.05975     49.75591     56.78354
66.41016     67.60146     67.95359     71.61434
  3809233.65 |      39.89169     43.47856     48.84645     53.88282     60.07306
68.36209     76.22029     79.99718     85.12651
  3809183.65 |      39.23384     44.66081     51.37844     58.50268     66.47192
75.87771     89.34324     99.92572    107.54863
  3809133.65 |      39.61848     45.45839     54.18368     61.85778     72.92864
87.55528    104.58771    128.90912    143.17629
  3809083.65 |      41.17790     48.46655     56.86182     65.26637     79.48876
98.12651    125.68455    168.31703    216.55871
  3809033.65 |      42.63079     51.07504     57.96823     68.42710     83.42961
105.49695    142.18783    215.32411    377.78056
  3808983.65 |      44.70047     51.08875     59.73500     69.76301     83.78339
108.40601    150.29456    240.91852    571.04880
  3808933.65 |      45.75318     52.27460     58.84502     69.02322     83.62574
105.77374    145.01419    219.17531    387.57065
  3808883.65 |      44.03526     50.41584     57.65781     67.49799     80.64873
98.94168    125.68272    176.21814    254.01052
  3808833.65 |      44.63143     49.27839     55.41020     64.52815     75.10671
89.63314    108.00254    133.84063    165.16515
  3808783.65 |      39.70006     47.95034     55.58433     60.82077     68.91616
80.74813     93.58243    106.16516    119.08460
  3808733.65 |      35.11814     39.82612     47.36328     57.84785     64.94821
70.70539     79.29322     86.52994     93.39242
  3808683.65 |      33.16023     36.48252     40.43611     46.57782     56.67062
65.56806     72.92409     75.86835     77.49959
```

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  3809233.65 |      92.06529     95.01139     92.87026     85.83399     77.38689
68.90809     60.87179     53.59404     47.14934
  3809183.65 |     116.42571    121.42448    114.65844    103.35922     90.51960
78.17050     67.49473     58.55922     50.80853
  3809133.65 |     160.94245    163.31389    147.60367    126.63699    106.32633
88.97549     75.18149     64.10292     54.70633
  3809083.65 |     239.02399    234.00550    199.05410    157.62474    124.84347
100.81031     82.81753     68.87638     58.62359
  3809033.65 |     445.84432    416.03401    286.34504    197.41226    145.24219
112.39655     89.73046     73.53912     61.60977
  3808983.65 |     926.61121   1018.48216    436.98330    243.46742    165.17159
122.68022     95.96444     77.82712     64.88335
  3808933.65 |     735.27328    816.42639    491.89802    272.60858    179.31745
131.11208    101.32857     81.75853     67.61945
  3808883.65 |     352.21611    390.07556    325.45949    257.22411    185.03488
135.10822    104.11342     84.06181     69.53143
  3808833.65 |     188.29012    204.29607    212.68622    199.86497    173.03771
138.34389    107.91716     85.92813     70.58180
  3808783.65 |     126.50844    127.46774    132.39287    146.74594    141.79465
128.61738    109.31669     89.53682     73.25781
  3808733.65 |      98.07723     98.15345     96.27710    103.66400    110.54910
108.45438    101.18436     89.41713     76.29741
  3808683.65 |      79.76140     79.86187     79.39230     81.23355     88.17906
87.88047     86.50948     82.33367     76.09970
  3808633.65 |      66.96954     67.08291     66.53832     69.28472     72.17759
72.29727     72.47452     71.64450     69.65960
  3808583.65 |      58.85055     58.07377     57.40821     57.46292     59.55259
61.31679     61.00139     61.47249     61.15726
  3808533.65 |      53.11691     53.23632     50.71752     49.78971     49.43714
50.99507     52.69328     52.81850     52.98280
  3808483.65 |      41.44526     46.76164     47.20313     44.36287     43.14494
43.95500     45.06163     46.06780     46.36784
  3808433.65 |      35.08115     36.07539     39.55523     42.30146     38.91957
37.90031     39.02373     39.83443     37.94781
 *** AERMOD - VERSION 24142  ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner  ***
06/10/25
 *** AERMET - VERSION  23132 ***   ***
                      ***        12:14:16

                                 PAGE  17
 *** MODELOPTs:    CONC  ELEV  RURAL  SigA Data

                              *** THE PERIOD ( 43824 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL      ***
                                 INCLUDING SOURCE(S):     L0000030    , L0000031
, L0000032    , L0000033    , L0000034    ,
                    L0000035    , L0000036    , L0000037    , L0000038    , L0000039
, L0000040    , L0000041    , L0000042    ,
                    L0000043    , L0000044    , L0000045    , L0000046    , L0000047
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, L0000048   , L0000049   , L0000050   ,
                L0000051   , L0000052   , L0000053   , L0000054   , L0000055
, L0000056   , L0000057   , L0000058   ,

                                *** NETWORK ID: UCART1   ; NETWORK TYPE:
GRIDCART ***

                                    ** CONC OF PM_10   IN MICROGRAMS/M**3
                **

    Y-COORD | X-COORD (METERS)
    (METERS) | 268528.75   268578.75   268628.75
 -
- -

  3809433.65 | 33.61221   31.28203   28.13321
  3809383.65 | 35.73988   32.58132   29.06637
  3809333.65 | 37.01842   33.94847   30.90861
  3809283.65 | 39.54039   35.26486   29.34945
  3809233.65 | 41.50086   35.64551   29.63996
  3809183.65 | 43.51745   34.99270   25.30380
  3809133.65 | 46.40998   36.25902   24.62110
  3809083.65 | 49.33531   40.47966   26.04511
  3809033.65 | 52.15898   44.37376   35.01940
  3808983.65 | 54.91324   46.89615   38.40852
  3808933.65 | 57.21829   48.59631   41.40473
  3808883.65 | 58.26003   50.00377   42.66142
  3808833.65 | 59.22355   50.48556   42.89128
  3808783.65 | 60.56239   50.99889   43.76070
  3808733.65 | 63.55994   52.66814   43.98926
  3808683.65 | 67.33560   55.57282   45.57737
  3808633.65 | 65.13574   58.80486   48.13192
  3808583.65 | 59.37440   56.42940   51.29186
  3808533.65 | 52.72427   51.54141   49.51277
  3808483.65 | 44.85756   45.77924   45.51245
  3808433.65 | 40.37226   41.17278   38.45028

                               *** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                   INCLUDING SOURCE(S):   L0000030   , L0000031
, L0000032   , L0000033   , L0000034   ,
                L0000035   , L0000036   , L0000037   , L0000038   , L0000039

```
, L0000040    , L0000041    , L0000042    ,
                L0000043    , L0000044    , L0000045    , L0000046    , L0000047
, L0000048    , L0000049    , L0000050    ,
                L0000051    , L0000052    , L0000053    , L0000054    , L0000055
, L0000056    , L0000057    , L0000058    ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_10    IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
         268139.31    3809032.90      395.74832                     268132.18
3809043.08      358.70792
         268124.29    3809052.24      327.58900                     268113.60
3809064.71      288.73124
         268132.94    3809073.62      254.64677                     268139.31
3809081.77      233.04578
         268150.51    3809071.33      246.30903                     268145.16
3809056.06      291.12517
         268094.00    3809106.71      200.51032                     268086.62
3809117.91      182.32018
         268027.32    3808959.86      461.97148                     268019.69
3808974.36      438.42996
         268002.12    3809012.79      315.24935                     268002.63
3809029.34      285.64828
         267993.47    3809043.08      233.56074                     267987.87
3809002.61      265.37811
         267976.42    3809009.49      227.98385                     267971.07
3809022.47      207.71893
         267979.73    3809048.43      201.97094                     267965.48
3809037.48      187.04334
         267974.38    3809061.41      183.51449                     267951.48
3809041.05      165.13768
         268059.39    3808881.98      308.86095                     268040.05
3808893.68      304.48482
         268021.47    3808911.75      299.24476                     268012.05
3808923.97      295.18870
         268000.60    3808933.13      274.08427                     267989.91
3808944.59      254.79049
 *** AERMOD - VERSION 24142  ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner  ***
06/10/25
 *** AERMET - VERSION  23132 ***   ***
                       ***       12:14:16
```

*** MODELOPTs: CONC ELEV RURAL SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000030 , L0000031 , L0000032 , L0000033 , L0000034 , L0000035 , L0000036 , L0000037 , L0000038 , L0000039 , L0000040 , L0000041 , L0000042 , L0000043 , L0000044 , L0000045 , L0000046 , L0000047 , L0000048 , L0000049 , L0000050 , L0000051 , L0000052 , L0000053 , L0000054 , L0000055 , L0000056 , L0000057 , L0000058 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 267628.75	267678.75	267728.75	267778.75	267828.75
3809433.6	1077.62136 (21092120)	1031.76582 (22082405)	1044.93981 (19062102)	1246.23215 (23091621)	1053.03804 (21062823)
3809383.6	1117.28972 (22123007)	1131.56647 (21092120)	1134.83494 (20062503)	1149.09161 (21051202)	1225.51164 (23091621)
3809333.6	1097.67634 (21122708)	1167.78788 (21020807)	1144.85488 (21092120)	1191.56267 (20062503)	1457.33966 (23091621)
3809283.6	1171.78739 (19072320)	1184.83469 (19080322)	1325.27738 (21122708)	1253.69096 (21092120)	1344.48545 (20062503)
3809233.6	1307.20425 (22072402)	1286.51583 (19072320)	1385.77918 (19080322)	1437.68715 (21122708)	1335.81469 (21092120)
3809183.6	1259.69744 (22062124)	1368.41653 (22062124)	1446.11559 (22072402)	1514.15531 (19072320)	1541.50361 (21122708)
3809133.6	1352.72539 (21051704)	1320.91440 (21051704)	1461.31592 (22062124)	1589.30243 (22062124)	1623.42454 (22072402)
3809083.6	1175.72160 (19050804)	1248.18833 (19061823)	1541.29090 (21051704)	1714.69129 (21051704)	1640.02213 (22062124)
3809033.6	1117.12432 (23052606)	1353.04566 (19050804)	1509.16450 (19050804)	1667.22094 (19050804)	1766.78449 (19050804)
3808983.6	1050.69478 (21071724)	1115.74912 (21071724)	1199.75487 (21071724)	1265.98286 (21071724)	1346.74628 (21071724)
3808933.6	1208.91443 (21042521)	1280.62595 (21042521)	1300.30433 (21042521)	1343.19840 (21042521)	1455.09056 (20080905)
3808883.6	1206.18686 (20080905)	1328.95847 (20080905)	1377.89858 (20080905)	1360.60901 (20080905)	1403.07759 (22081306)

```
 3809433.6 |    914.59006 (19020808)    881.41593 (21062304)   1062.41155 (21062304)
   868.62302 (19022823)    929.62407 (19022823)
 3809383.6 |   1008.61193 (19020808)   1002.80689 (20090101)   1145.71133 (21062304)
   930.05248 (19022823)   1017.83012 (19022823)
 3809333.6 |   1358.92064 (21062823)   1151.37220 (19020808)   1163.06404 (21062304)
  1047.78695 (21062304)   1112.00429 (19022823)
 3809283.6 |   1654.58317 (23091621)   1250.07027 (19020808)   1077.99116 (21062304)
  1213.01288 (21062304)   1193.32939 (19022823)
 3809233.6 |   1380.39472 (21051202)   1460.89504 (23091621)   1188.52055 (20090101)
  1272.17956 (21062304)   1264.24247 (19022823)
 3809183.6 |   1435.22385 (21092120)   1573.16805 (23091621)   1436.33178 (23091621)
  1271.82568 (21062304)   1308.45178 (19022823)
 3809133.6 |   1672.74906 (20041723)   1627.91361 (20062503)   1663.17292 (19010901)
  1459.99141 (21062823)   1654.68492 (21062304)
 3809083.6 |   1938.61485 (22062124)   2000.45333 (19072320)   2002.76647 (21051202)
  1891.22250 (20062503)   1836.70816 (23051303)
 3809033.6 |   1840.68557 (21051704)   2310.72633 (21051704)   2589.75470 (22062124)
  2755.98465 (21062823)   2992.74584 (23091621)
 3808983.6 |   1495.93006 (21071724)   1766.34470 (23052606)   2203.68233 (23052606)
  2890.67762 (23052606)   2629.86189 (19061823)
 3808933.6 |   1693.58928 (20080905)   1917.24078 (20080905)   2046.18784 (20080905)
  2184.95728 (19061921)   3346.81790 (19072606)
 3808883.6 |   1351.77739 (22081306)   1477.77659 (21070204)   1824.62695 (19061921)
  2154.50691 (23121306)   2477.91041 (23120508)
 3808833.6 |   1491.75821 (19061921)   1516.42431 (23030702)   1780.07077 (23121306)
  1885.54229 (20070823)   1872.41266 (23011822)
 3808783.6 |   1294.26339 (23030702)   1633.36675 (23121306)   1591.89668 (19020806)
  1436.14751 (21082924)   1567.44786 (22071903)
 3808733.6 |   1492.65353 (23121306)   1513.67556 (23011903)   1462.14472 (21082924)
  1543.48596 (23121308)   1460.66171 (23020104)
 3808683.6 |   1496.53053 (19082904)   1540.81713 (20070823)   1235.23388 (21082924)
  1462.84968 (23011822)   1344.47536 (23012203)
 3808633.6 |   1160.84990 (20070823)   1353.75441 (21082924)   1425.98228 (23121308)
  1322.96756 (23011822)   1315.06126 (23012203)
 3808583.6 |   1152.94235 (20070823)    964.29832 (21082924)   1319.73125 (23121308)
  1429.02855 (22071903)   1314.05651 (23012203)
 3808533.6 |   1046.71378 (21082924)    848.27184 (23121308)   1110.76907 (23011822)
  1172.62263 (22071903)   1330.29524 (21081402)
 3808483.6 |    833.45384 (21082924)    943.01711 (23121308)   1024.38093 (23011822)
  1041.64931 (22071903)   1108.96662 (21081402)
 3808433.6 |    708.40139 (19081423)    960.35391 (23121308)    909.67899 (23011901)
   963.57890 (22071903)   1032.99489 (21081402)
1 *** AERMOD - VERSION 24142  ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner  ***
06/10/25
 *** AERMET - VERSION  23132 ***   ***
                       ***        12:14:16

                                  PAGE  21
 *** MODELOPTs:    CONC  ELEV  RURAL  SigA Data
```

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L0000030 , L0000031 , L0000032 , L0000033 , L0000034 , L0000035 , L0000036 , L0000037 , L0000038 , L0000039 , L0000040 , L0000041 , L0000042 , L0000043 , L0000044 , L0000045 , L0000046 , L0000047 , L0000048 , L0000049 , L0000050 , L0000051 , L0000052 , L0000053 , L0000054 , L0000055 , L0000056 , L0000057 , L0000058 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 268128.75	268178.75	268228.75	268278.75	268328.75
3809433.6	923.43312 (23052903)	929.74255 (20062722)	885.44346 (19061422)	1327.36026 (23061821)	1030.39280 (23061821)
3809383.6	1027.12047 (23052903)	967.01969 (20062722)	1131.66073 (23061821)	1422.18623 (23061821)	914.08554 (23052824)
3809333.6	1139.25341 (23052903)	1009.45048 (20062722)	1428.74127 (23061821)	1297.04429 (23061821)	1151.76265 (23091404)
3809283.6	1274.88908 (23052903)	1078.22463 (19061422)	1668.35978 (23061821)	1146.20896 (23052824)	1344.53160 (23091404)
3809233.6	1428.92493 (23052903)	1386.12883 (23061821)	1677.48652 (23061821)	1459.42658 (23091404)	1294.37206 (23041221)
3809183.6	1631.72381 (23052903)	1835.98432 (23061821)	1508.28008 (23052623)	1441.01739 (23091404)	1341.76223 (23041221)
3809133.6	1895.02193 (23052903)	2185.69631 (23061821)	1805.53394 (23091404)	1599.83244 (19050720)	1313.12484 (22111122)
3809083.6	2157.92856 (23052903)	2161.02020 (23052623)	1952.58824 (19050720)	1581.72920 (23052406)	1617.98246 (23042723)
3809033.6	2805.20835 (23061821)	2326.48518 (19050720)	2071.36728 (23042723)	1786.69086 (23042723)	1575.00858 (19060101)
3808983.6	2540.00715 (19060120)	2795.05089 (19081720)	2582.86548 (19081720)	2368.25909 (19081720)	2143.94503 (19081720)
3808933.6	3501.88718 (19071703)	3369.71516 (23091220)	3017.96153 (22120502)	2659.73525 (22120420)	2187.02388 (22120420)
3808883.6	3159.67881 (23092920)	2678.80734 (21072824)	2665.90013 (20050805)	2522.45487 (20020819)	2261.45923 (19072602)
3808833.6	2152.07634 (19072606)	2169.45280 (20092524)	2197.42234 (20092524)	2312.58870 (19042103)	2307.77307 (23020323)

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 3808783.6 |   1514.81437 (23122422)   1648.35488 (21072824)   1935.96964 (21072824)
  2019.28633 (23082924)   2109.79353 (19032305)
 3808733.6 |   1466.04807 (23122422)   1430.19572 (23021623)   1677.25742 (21072824)
  1904.69726 (20010619)   1867.33378 (23082924)
 3808683.6 |   1422.42606 (23122422)   1354.35998 (23022304)   1573.74247 (19072606)
  1791.98301 (21072824)   1806.80642 (20092524)
 3808633.6 |   1365.68498 (23122422)   1330.40774 (19071703)   1450.58274 (19072601)
  1630.11783 (19072606)   1725.71909 (19092106)
 3808583.6 |   1309.30277 (23122422)   1295.61831 (19071703)   1284.76165 (23022304)
  1511.59689 (19072606)   1563.95645 (21072824)
 3808533.6 |   1307.73888 (23122422)   1266.71256 (19011005)   1167.19396 (19032605)
  1296.87985 (19072601)   1410.91050 (19072606)
 3808483.6 |   1214.29241 (19021003)   1284.48835 (19011005)   1149.19310 (19032605)
  1148.55775 (19072601)   1317.49128 (19072606)
 3808433.6 |    985.41194 (19021003)   1126.01390 (23122423)   1291.93497 (19071703)
  1062.79801 (23022304)   1159.81358 (19082723)
 *** AERMOD - VERSION 24142  ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner  ***
06/10/25
 *** AERMET - VERSION  23132 ***   ***
                      ***       12:14:16

                                PAGE  22
 *** MODELOPTs:    CONC  ELEV  RURAL  SigA Data

                             *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                INCLUDING SOURCE(S):     L0000030    , L0000031
, L0000032    , L0000033    , L0000034    ,
                   L0000035    , L0000036    , L0000037    , L0000038    , L0000039
, L0000040    , L0000041    , L0000042    ,
                   L0000043    , L0000044    , L0000045    , L0000046    , L0000047
, L0000048    , L0000049    , L0000050    ,
                   L0000051    , L0000052    , L0000053    , L0000054    , L0000055
, L0000056    , L0000057    , L0000058    ,

                                 *** NETWORK ID: UCART1   ;  NETWORK TYPE:
GRIDCART ***

                                      ** CONC OF PM_10    IN MICROGRAMS/M**3
                  **

  Y-COORD  |                                                 X-COORD (METERS)
  (METERS) |       268378.75               268428.75               268478.75
      268528.75               268578.75
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -

 3809433.6 |    909.62940 (23091404)   1093.66621 (23091404)    806.41465 (23041221)
   946.26826 (23041221)    782.19201 (23041221)
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 3809383.6 |   1161.10616 (23091404)    971.24749 (23091404)   1030.46413 (23041221)
   849.85953 (23041221)    698.53294 (19050720)
 3809333.6 |   1161.62898 (23091404)   1112.24326 (23041221)    934.46527 (23041221)
   763.52105 (19050720)    764.83078 (22111122)
 3809283.6 |   1194.74089 (23041221)   1035.67968 (23041221)    853.28486 (19050720)
   848.72283 (22111122)    714.22921 (22111122)
 3809233.6 |   1167.15037 (23041221)    946.94416 (19050720)    927.86705 (22111122)
   784.08573 (23052406)    778.62106 (23042723)
 3809183.6 |   1120.36527 (22111122)    997.83416 (22111122)    903.15770 (23042723)
   978.29314 (23042723)    974.32030 (23042723)
 3809133.6 |   1179.33629 (23052406)   1267.98366 (23042723)   1150.06390 (23042723)
   869.96430 (23042723)    969.45192 (19060101)
 3809083.6 |   1435.88690 (23042723)   1210.95550 (19060101)   1092.45306 (19060101)
   887.30080 (19060101)    751.32924 (23052220)
 3809033.6 |   1318.19349 (23052220)   1286.96275 (23052220)   1213.47528 (23052220)
  1109.64128 (23052220)    991.06103 (23052220)
 3808983.6 |   1928.36519 (19081720)   1734.36164 (19081720)   1565.78605 (19081720)
  1409.57672 (19081720)   1263.41890 (19081720)
 3808933.6 |   1727.58174 (19060103)   1514.54121 (19060103)   1356.29053 (19060120)
  1248.47475 (19060120)   1128.69567 (19060120)
 3808883.6 |   2146.78795 (22120502)   1907.12219 (19042022)   1788.03474 (22120420)
  1562.50169 (22120420)   1305.66632 (22120420)
 3808833.6 |   2061.72857 (20020819)   1841.74865 (19072602)   1690.32458 (22120502)
  1628.17475 (22120502)   1465.85966 (19042022)
 3808783.6 |   2035.06074 (19121105)   1969.19541 (19020922)   1729.30422 (20020819)
  1480.00445 (19072602)   1381.17304 (19072602)
 3808733.6 |   1951.60395 (23041506)   1874.13015 (23041522)   1844.56914 (23020323)
  1663.77975 (19020922)   1430.51151 (20020819)
 3808683.6 |   1710.35725 (20080206)   1792.90053 (23041506)   1794.07800 (22013105)
  1668.79318 (19121105)   1542.07997 (19020922)
 3808633.6 |   1707.90461 (20092524)   1572.36469 (20080206)   1650.31306 (23041506)
  1650.02300 (19042103)   1577.40186 (23041522)
 3808583.6 |   1636.23576 (20010619)   1583.82887 (20092524)   1465.86228 (21080604)
  1533.09658 (23022005)   1534.45115 (19032305)
 3808533.6 |   1519.14560 (21072824)   1548.14895 (20010619)   1467.99221 (20111921)
  1362.77915 (21080604)   1438.65651 (23022005)
 3808483.6 |   1257.98607 (21072824)   1464.09983 (19092106)   1439.56240 (23092920)
  1325.14068 (20111921)   1249.72600 (21080604)
 3808433.6 |   1249.73016 (19072606)   1295.90072 (21072824)   1233.08567 (19092106)
  1295.67051 (20092524)   1289.97141 (20111921)
 *** AERMOD - VERSION 24142  ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner  ***
06/10/25
 *** AERMET - VERSION  23132 ***   ***
                      ***        12:14:16

                                 PAGE  23
 *** MODELOPTs:    CONC  ELEV  RURAL  SigA Data

                            *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
```

VALUES FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   L0000030   , L0000031
, L0000032   , L0000033   , L0000034   ,
                  L0000035   , L0000036   , L0000037   , L0000038   , L0000039
, L0000040   , L0000041   , L0000042   ,
                  L0000043   , L0000044   , L0000045   , L0000046   , L0000047
, L0000048   , L0000049   , L0000050   ,
                  L0000051   , L0000052   , L0000053   , L0000054   , L0000055
, L0000056   , L0000057   , L0000058   ,

                                  *** NETWORK ID: UCART1   ; NETWORK TYPE:
GRIDCART ***

                                       ** CONC OF PM_10   IN MICROGRAMS/M**3
                  **

  Y-COORD | X-COORD (METERS)
  (METERS) | 268628.75
 -
- -

 3809433.6 | 628.71174 (19050720)
 3809383.6 | 666.16805 (21031005)
 3809333.6 | 709.87812 (22111122)
 3809283.6 | 613.72222 (23052406)
 3809233.6 | 923.97351 (23042723)
 3809183.6 | 1090.97538 (19082624)
 3809133.6 | 1163.18179 (20081722)
 3809083.6 | 1325.29042 (20011422)
 3809033.6 | 1014.11920 (23022524)
 3808983.6 | 1118.82502 (19081720)
 3808933.6 | 1009.41742 (19060120)
 3808883.6 | 1027.98792 (22120420)
 3808833.6 | 1269.42992 (22120420)
 3808783.6 | 1292.56921 (22120502)
 3808733.6 | 1160.01896 (21043021)
 3808683.6 | 1305.37588 (19020922)
 3808633.6 | 1412.50406 (23020323)
 3808583.6 | 1441.56662 (22013105)
 3808533.6 | 1440.08612 (19032305)
 3808483.6 | 1354.01563 (23022005)
 3808433.6 | 1105.57291 (21080604)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L0000030 , L0000031 , L0000032 , L0000033 , L0000034 , L0000035 , L0000036 , L0000037 , L0000038 , L0000039 , L0000040 , L0000041 , L0000042 , L0000043 , L0000044 , L0000045 , L0000046 , L0000047 , L0000048 , L0000049 , L0000050 , L0000051 , L0000052 , L0000053 , L0000054 , L0000055 , L0000056 , L0000057 , L0000058 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
268139.31	3809032.90	2730.70385	(23061821)	268132.18	3809043.08	2716.08709	(23061821)
268124.29	3809052.24	2486.87302	(23052903)	268113.60	3809064.71	2292.45114	(23052903)
268132.94	3809073.62	2091.16477	(23052903)	268139.31	3809081.77	2180.41237	(23061821)
268150.51	3809071.33	2541.82876	(23061821)	268145.16	3809056.06	2637.15914	(23061821)
268094.00	3809106.71	1689.31820	(19022823)	268086.62	3809117.91	1710.24989	(21062304)
268027.32	3808959.86	2480.37129	(20080905)	268019.69	3808974.36	2412.31916	(23052606)
268002.12	3809012.79	2965.78841	(21051704)	268002.63	3809029.34	2618.34401	(22072402)
267993.47	3809043.08	2352.39826	(20041723)	267987.87	3809002.61	2570.21073	(19050804)
267976.42	3809009.49	2479.40293	(21051704)	267971.07	3809022.47	2638.94737	(21051704)
267979.73	3809048.43	2291.92333	(19072320)	267965.48	3809037.48	2470.79851	(22062124)
267974.38	3809061.41	2194.08359	(20041723)	267951.48	3809041.05	2354.40663	(22062124)
268059.39	3808881.98	2329.28382	(20070823)	268040.05	3808893.68	2237.38298	(23121306)
268021.47	3808911.75	2127.74425	(19061921)	268012.05	3808923.97	2037.41999	(19061921)
268000.60	3808933.13	2056.30466	(20080905)	267989.91	3808944.59	2208.23326	(20080905)

 *** MODELOPTs: CONC ELEV RURAL SigA Data

                                       *** THE SUMMARY OF MAXIMUM PERIOD (43824
HRS) RESULTS ***

                                    ** CONC OF PM_10   IN MICROGRAMS/M**3
              **

                      NETWORK
GROUP ID   AVERAGE CONC   RECEPTOR (XR, YR, ZELEV,
ZHILL, ZFLAG) OF TYPE GRID-ID
- -
- - - - - - - - - - - - - - - - - - -

ALL   1ST HIGHEST VALUE IS   1018.48216 AT (268128.75, 3808983.65,   4.80,
 1831.70,   0.00) GC UCART1
          2ND HIGHEST VALUE IS   926.61121 AT (268078.75, 3808983.65,   4.40,
 1831.70,   0.00) GC UCART1
          3RD HIGHEST VALUE IS   816.42639 AT (268128.75, 3808933.65,   4.80,
 1831.70,   0.00) GC UCART1
          4TH HIGHEST VALUE IS   735.27328 AT (268078.75, 3808933.65,   4.30,
 1831.70,   0.00) GC UCART1
          5TH HIGHEST VALUE IS   571.04880 AT (268028.75, 3808983.65,   3.80,
 1831.70,   0.00) GC UCART1
          6TH HIGHEST VALUE IS   491.89802 AT (268178.75, 3808933.65,   4.90,
 1831.70,   0.00) GC UCART1
          7TH HIGHEST VALUE IS   461.97148 AT (268027.32, 3808959.86,   3.81,
 1831.69,   0.00) DC
          8TH HIGHEST VALUE IS   445.84432 AT (268078.75, 3809033.65,   4.40,
 1831.70,   0.00) GC UCART1
          9TH HIGHEST VALUE IS   438.42996 AT (268019.69, 3808974.36,   3.70,
 1831.69,   0.00) DC
         10TH HIGHEST VALUE IS   436.98330 AT (268178.75, 3808983.65,   5.00,
 1831.70,   0.00) GC UCART1

 *** RECEPTOR TYPES: GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR

 *** MODELOPTs: CONC ELEV RURAL SigA Data

                                                *** THE SUMMARY OF HIGHEST 1-HR
RESULTS ***

                                   ** CONC OF PM_10   IN MICROGRAMS/M**3
              **

                                                        DATE
                                          NETWORK
GROUP ID   AVERAGE CONC   (YYMMDDHH)   RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)   OF TYPE GRID-ID
- -
- -

ALL   HIGH   1ST HIGH VALUE IS   3501.88718 ON 19071703: AT (268128.75,
3808933.65,   4.80, 1831.70,   0.00) GC UCART1

 *** RECEPTOR TYPES: GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR

 *** MODELOPTs: CONC ELEV RURAL SigA Data

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of   0 Fatal Error Message(s)
 A Total of   1 Warning Message(s)
 A Total of   588 Informational Message(s)

 A Total of   43824 Hours Were Processed

 A Total of   86 Calm Hours Identified

```
 A Total of          502 Missing Hours Identified (  1.15 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 MX W403     154       PFLCNV: Turbulence data is being used w/o ADJ_U* option
SigA Data

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
```

 *** MODELOPTs: CONC ELEV RURAL SigA Data

                                          ***   MODEL SETUP OPTIONS SUMMARY
 ***
 -
- -

 ** Model Options Selected:
      * Model Allows User-Specified Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE = F
      * Model Uses NO WET DEPLETION. WETDPLT = F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses RURAL Dispersion Only.
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * Model Assumes No FLAGPOLE Receptor Heights.
      * The User Specified a Pollutant Type of: PM_10

 **Model Calculates 1 Short Term Average(s) of: 1-HR
     and Calculates PERIOD Averages

 **This Run Includes: 29 Source(s);   1 Source Group(s); and   469
Receptor(s)

                with: 0 POINT(s), including
                           0 POINTCAP(s) and   0 POINTHOR(s)
                 and: 29 VOLUME source(s)
                 and: 0 AREA type source(s)
                 and: 0 LINE source(s)
                 and: 0 RLINE/RLINEXT source(s)
                 and: 0 OPENPIT source(s)
                 and: 0 BUOYANT LINE source(s) with a total of   0 line(s)
                 and: 0 SWPOINT source(s)

 **Model Set To Continue RUNning After the Setup Testing.

```
 **The AERMET Input Meteorological Data Version Date:  23132

 **Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and
Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   137.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                 ;
Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.6 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   Surfliner HRA.err

 **File for Summary of Results:   Surfliner HRA.sum

 *** AERMOD - VERSION 24142  ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner  ***
06/10/25
 *** AERMET - VERSION  23132 ***   ***
                      ***        12:14:16

                                 PAGE   2
 *** MODELOPTs:    CONC  ELEV  RURAL  SigA Data

                                          *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                              (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
```

```
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: CONC ELEV RURAL SigA Data

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\Carp19-23\Carp19-23.SFC
Met Version: 23132
Profile file: ..\Carp19-23\Carp19-23.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 23190 Upper air station no.: 93214
Name: SANTA_BARBARA/FAA_AIRPORT Name: UNKNOWN

Year: 2019 Year: 2019

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN

```
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - -
```

```
1.00    0.40  330.   10.0  276.1   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 19 01 01 01   10.0 1  348.    1.00   280.1   67.5  -99.00    0.63

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 24142  ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner  ***
06/10/25
 *** AERMET - VERSION  23132 ***   ***
                       ***        12:14:16

                                  PAGE   4
 *** MODELOPTs:    CONC  ELEV  RURAL  SigA Data

                                       *** THE SUMMARY OF MAXIMUM PERIOD ( 43824
HRS) RESULTS ***


                                    ** CONC OF PM_10    IN MICROGRAMS/M**3
             **


                      NETWORK
GROUP ID                      AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV,
ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -

ALL       1ST HIGHEST VALUE IS    1018.48216 AT (  268128.75,  3808983.65,     4.80,
 1831.70,    0.00)  GC  UCART1
          2ND HIGHEST VALUE IS     926.61121 AT (  268078.75,  3808983.65,     4.40,
 1831.70,    0.00)  GC  UCART1
          3RD HIGHEST VALUE IS     816.42639 AT (  268128.75,  3808933.65,     4.80,
 1831.70,    0.00)  GC  UCART1
          4TH HIGHEST VALUE IS     735.27328 AT (  268078.75,  3808933.65,     4.30,
 1831.70,    0.00)  GC  UCART1
          5TH HIGHEST VALUE IS     571.04880 AT (  268028.75,  3808983.65,     3.80,
 1831.70,    0.00)  GC  UCART1
          6TH HIGHEST VALUE IS     491.89802 AT (  268178.75,  3808933.65,     4.90,
 1831.70,    0.00)  GC  UCART1
          7TH HIGHEST VALUE IS     461.97148 AT (  268027.32,  3808959.86,     3.81,
 1831.69,    0.00)  DC
          8TH HIGHEST VALUE IS     445.84432 AT (  268078.75,  3809033.65,     4.40,
 1831.70,    0.00)  GC  UCART1
          9TH HIGHEST VALUE IS     438.42996 AT (  268019.69,  3808974.36,     3.70,
 1831.69,    0.00)  DC
         10TH HIGHEST VALUE IS     436.98330 AT (  268178.75,  3808983.65,     5.00,
```

1831.70,   0.00) GC UCART1

 *** RECEPTOR TYPES: GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR

                                                *** THE SUMMARY OF HIGHEST 1-HR
RESULTS ***

                                   ** CONC OF PM_10   IN MICROGRAMS/M**3
             **

                                                      DATE
                                          NETWORK
GROUP ID   AVERAGE CONC   (YYMMDDHH)   RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)   OF TYPE GRID-ID
- - - -

```
 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of          588 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of           86 Calm Hours Identified

 A Total of          502 Missing Hours Identified (  1.15 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 MX W403     154       PFLCNV: Turbulence data is being used w/o ADJ_U* option
SigA Data
```

HARP Project Summary Report 6/10/2025 12:44:42 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: SURFLINER INN HRA
Project Output Directory: C:\Users\apoll\OneDrive - Dudek\Desktop\HARP2\HARP\Surfliner\SURFLINER INN HRA
HARP Database: NA

FACILITY INFORMATION
Origin
X (m):0
Y (m):0
Zone:1
No. of Sources:0
No. of Buildings:0

EMISSION INVENTORY
No. of Pollutants:1
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
ALL	0	0	9901	DieselExhPM	1	6.3	0.00303	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH25003
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1					5

AIR DISPERSION MODELING INFORMATION
Versions used in HARP. All executables were obtained from USEPA's Support Center for Regulatory Atmospheric Modeling website (http://www.epa.gov/scram001/)
AERMOD: 18081
AERMAP: 18081
BPIPPRM: 04274
AERPLOT: 13329

METEOROLOGICAL INFORMATION
Version:
Surface File:
Profile File:
Surface Station:
Upper Station:
On-Site Station:

LIST OF AIR DISPERSION FILES
AERMOD Input File:
AERMOD Output File:
AERMOD Error File:
Plotfile list
_____
Cancer Residential.plt

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)
_____
ResidentialCancerRisk.csv
ResidentialCancerRiskSumByRec.csv
ResidentialCancerRiskSumByRec.pdf
ResidentialGLCList.csv
ResidentialHRAInput.hra
ResidentialNCAcuteRisk.csv
ResidentialNCAcuteRiskSumByRec.csv
ResidentialNCChronicRisk.csv
ResidentialNCChronicRiskSumByRec.csv
ResidentialNCChronicRiskSumByRec.pdf
ResidentialOutput.txt
ResidentialPathwayRec.csv
ResidentialPolDB.csv
Thumbs.db
WorkerCancerRisk.csv
WorkerCancerRiskSumByRec.csv
WorkerCancerRiskSumByRec.pdf
WorkerGLCList.csv
WorkerHRAInput.hra
WorkerNCAcuteRisk.csv
WorkerNCAcuteRiskSumByRec.csv

WorkerNCChronicRisk.csv
WorkerNCChronicRiskSumByRec.csv
WorkerNCChronicRiskSumByRec.pdf
WorkerOutput.txt
WorkerPathwayRec.csv
WorkerPolDB.csv

Spatial averaging files (\sa\)
_____

HARP2 - HRACalc (dated 22118) 6/10/2025 12:43:37 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 1.17

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 1.17
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: True
Egg: True

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Warm

****
HOMEGROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden
Fraction leafy: 0.137
Fraction exposed: 0.137
Fraction protected: 0.137
Fraction root: 0.137

****
PIG, CHICKEN, & EGG PATHWAY SETTINGS

Surface area (m^2): 0
Volume (kg): 0
Volume changes per year: 0

Pig
Fraction consumed from contaminated water source: 0
Fraction consumed of contaminated leafy crop: 0.25
Fraction consumed of contaminated exposed crop: 0.25
Fraction consumed of contaminated protected crop: 0.25
Fraction consumed of contaminated root crop: 0.25

Chicken
Fraction consumed from contaminated water source: 0
Fraction consumed of contaminated leafy crop: 0.25
Fraction consumed of contaminated exposed crop: 0.25
Fraction consumed of contaminated protected crop: 0.25
Fraction consumed of contaminated root crop: 0.25

Egg
Fraction consumed from contaminated water source: 0
Fraction consumed of contaminated leafy crop: 0.25
Fraction consumed of contaminated exposed crop: 0.25
Fraction consumed of contaminated protected crop: 0.25
Fraction consumed of contaminated root crop: 0.25

```
**********
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment.  Please see the input file for
details.
Tier2 - What was changed: ED or start age changed
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: C:\Users\apoll\OneDrive -
Dudek\Desktop\HARP2\HARP\Surfliner\SURFLINER INN HRA\hra\ResidentialCancerRisk.csv
Cancer risk total by receptor saved to: C:\Users\apoll\OneDrive -
Dudek\Desktop\HARP2\HARP\Surfliner\SURFLINER INN
HRA\hra\ResidentialCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: C:\Users\apoll\OneDrive -
Dudek\Desktop\HARP2\HARP\Surfliner\SURFLINER INN
HRA\hra\ResidentialNCChronicRisk.csv
Chronic risk total by receptor saved to: C:\Users\apoll\OneDrive -
Dudek\Desktop\HARP2\HARP\Surfliner\SURFLINER INN
HRA\hra\ResidentialNCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to: C:\Users\apoll\OneDrive -
Dudek\Desktop\HARP2\HARP\Surfliner\SURFLINER INN HRA\hra\ResidentialNCAcuteRisk.csv
Acute risk total by receptor saved to: C:\Users\apoll\OneDrive -
Dudek\Desktop\HARP2\HARP\Surfliner\SURFLINER INN
HRA\hra\ResidentialNCAcuteRiskSumByRec.csv
HRA ran successfully
```

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INH_RISK	SOIL_RISK	DERMAL_R	MMILK_RIS	WATER_RIS	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISK	PIG_RISK	CHICKEN_F	EGG_RISK
1	ALL	UCART1	267628.8	3808434	4.58E-07	1.17YrCanc	4.58E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	ALL	UCART1	267678.8	3808434	4.85E-07	1.17YrCanc	4.85E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	ALL	UCART1	267728.8	3808434	5.13E-07	1.17YrCanc	5.13E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	ALL	UCART1	267778.8	3808434	5.41E-07	1.17YrCanc	5.41E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	ALL	UCART1	267828.8	3808434	5.68E-07	1.17YrCanc	5.68E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	ALL	UCART1	267878.8	3808434	5.94E-07	1.17YrCanc	5.94E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7	ALL	UCART1	267928.8	3808434	6.18E-07	1.17YrCanc	6.18E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8	ALL	UCART1	267978.8	3808434	6.36E-07	1.17YrCanc	6.36E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9	ALL	UCART1	268028.8	3808434	6.47E-07	1.17YrCanc	6.47E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10	ALL	UCART1	268078.8	3808434	6.54E-07	1.17YrCanc	6.54E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11	ALL	UCART1	268128.8	3808434	6.73E-07	1.17YrCanc	6.73E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12	ALL	UCART1	268178.8	3808434	7.38E-07	1.17YrCanc	7.38E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
13	ALL	UCART1	268228.8	3808434	7.89E-07	1.17YrCanc	7.89E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
14	ALL	UCART1	268278.8	3808434	7.26E-07	1.17YrCanc	7.26E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
15	ALL	UCART1	268328.8	3808434	7.07E-07	1.17YrCanc	7.07E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
16	ALL	UCART1	268378.8	3808434	7.28E-07	1.17YrCanc	7.28E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
17	ALL	UCART1	268428.8	3808434	7.43E-07	1.17YrCanc	7.43E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
18	ALL	UCART1	268478.8	3808434	7.08E-07	1.17YrCanc	7.08E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
19	ALL	UCART1	268528.8	3808434	7.53E-07	1.17YrCanc	7.53E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
20	ALL	UCART1	268578.8	3808434	7.68E-07	1.17YrCanc	7.68E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
21	ALL	UCART1	268628.8	3808434	7.17E-07	1.17YrCanc	7.17E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
22	ALL	UCART1	267628.8	3808484	4.87E-07	1.17YrCanc	4.87E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
23	ALL	UCART1	267678.8	3808484	5.20E-07	1.17YrCanc	5.20E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
24	ALL	UCART1	267728.8	3808484	5.54E-07	1.17YrCanc	5.54E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
25	ALL	UCART1	267778.8	3808484	5.88E-07	1.17YrCanc	5.88E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
26	ALL	UCART1	267828.8	3808484	6.22E-07	1.17YrCanc	6.22E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
27	ALL	UCART1	267878.8	3808484	6.56E-07	1.17YrCanc	6.56E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
28	ALL	UCART1	267928.8	3808484	6.86E-07	1.17YrCanc	6.86E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
29	ALL	UCART1	267978.8	3808484	7.10E-07	1.17YrCanc	7.10E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
30	ALL	UCART1	268028.8	3808484	7.27E-07	1.17YrCanc	7.27E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
31	ALL	UCART1	268078.8	3808484	7.73E-07	1.17YrCanc	7.73E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
32	ALL	UCART1	268128.8	3808484	8.72E-07	1.17YrCanc	8.72E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
33	ALL	UCART1	268178.8	3808484	8.80E-07	1.17YrCanc	8.80E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
34	ALL	UCART1	268228.8	3808484	8.27E-07	1.17YrCanc	8.27E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
35	ALL	UCART1	268278.8	3808484	8.04E-07	1.17YrCanc	8.04E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
36	ALL	UCART1	268328.8	3808484	8.20E-07	1.17YrCanc	8.20E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
37	ALL	UCART1	268378.8	3808484	8.40E-07	1.17YrCanc	8.40E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
38	ALL	UCART1	268428.8	3808484	8.59E-07	1.17YrCanc	8.59E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
39	ALL	UCART1	268478.8	3808484	8.65E-07	1.17YrCanc	8.65E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
40	ALL	UCART1	268528.8	3808484	8.36E-07	1.17YrCanc	8.36E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
41	ALL	UCART1	268578.8	3808484	8.54E-07	1.17YrCanc	8.54E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
42	ALL	UCART1	268628.8	3808484	8.49E-07	1.17YrCanc	8.49E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
43	ALL	UCART1	267628.8	3808534	5.18E-07	1.17YrCanc	5.18E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
44	ALL	UCART1	267678.8	3808534	5.57E-07	1.17YrCanc	5.57E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
45	ALL	UCART1	267728.8	3808534	5.98E-07	1.17YrCanc	5.98E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
46	ALL	UCART1	267778.8	3808534	6.41E-07	1.17YrCanc	6.41E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

47 ALL	UCART1	267828.8	3808534	6.85E-07	1.17YrCanc	6.85E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
48 ALL	UCART1	267878.8	3808534	7.27E-07	1.17YrCanc	7.27E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
49 ALL	UCART1	267928.8	3808534	7.67E-07	1.17YrCanc	7.67E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
50 ALL	UCART1	267978.8	3808534	8.14E-07	1.17YrCanc	8.14E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
51 ALL	UCART1	268028.8	3808534	8.96E-07	1.17YrCanc	8.96E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
52 ALL	UCART1	268078.8	3808534	9.90E-07	1.17YrCanc	9.90E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
53 ALL	UCART1	268128.8	3808534	9.93E-07	1.17YrCanc	9.93E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
54 ALL	UCART1	268178.8	3808534	9.46E-07	1.17YrCanc	9.46E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
55 ALL	UCART1	268228.8	3808534	9.28E-07	1.17YrCanc	9.28E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
56 ALL	UCART1	268278.8	3808534	9.22E-07	1.17YrCanc	9.22E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
57 ALL	UCART1	268328.8	3808534	9.51E-07	1.17YrCanc	9.51E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
58 ALL	UCART1	268378.8	3808534	9.82E-07	1.17YrCanc	9.82E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
59 ALL	UCART1	268428.8	3808534	9.85E-07	1.17YrCanc	9.85E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
60 ALL	UCART1	268478.8	3808534	9.88E-07	1.17YrCanc	9.88E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
61 ALL	UCART1	268528.8	3808534	9.83E-07	1.17YrCanc	9.83E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
62 ALL	UCART1	268578.8	3808534	9.61E-07	1.17YrCanc	9.61E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
63 ALL	UCART1	268628.8	3808534	9.23E-07	1.17YrCanc	9.23E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
64 ALL	UCART1	267628.8	3808584	5.50E-07	1.17YrCanc	5.50E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
65 ALL	UCART1	267678.8	3808584	5.96E-07	1.17YrCanc	5.96E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
66 ALL	UCART1	267728.8	3808584	6.47E-07	1.17YrCanc	6.47E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
67 ALL	UCART1	267778.8	3808584	7.00E-07	1.17YrCanc	7.00E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
68 ALL	UCART1	267828.8	3808584	7.56E-07	1.17YrCanc	7.56E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
69 ALL	UCART1	267878.8	3808584	8.14E-07	1.17YrCanc	8.14E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
70 ALL	UCART1	267928.8	3808584	8.96E-07	1.17YrCanc	8.96E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
71 ALL	UCART1	267978.8	3808584	1.03E-06	1.17YrCanc	1.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
72 ALL	UCART1	268028.8	3808584	1.17E-06	1.17YrCanc	1.17E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
73 ALL	UCART1	268078.8	3808584	1.10E-06	1.17YrCanc	1.10E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
74 ALL	UCART1	268128.8	3808584	1.08E-06	1.17YrCanc	1.08E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
75 ALL	UCART1	268178.8	3808584	1.07E-06	1.17YrCanc	1.07E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
76 ALL	UCART1	268228.8	3808584	1.07E-06	1.17YrCanc	1.07E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
77 ALL	UCART1	268278.8	3808584	1.11E-06	1.17YrCanc	1.11E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
78 ALL	UCART1	268328.8	3808584	1.14E-06	1.17YrCanc	1.14E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
79 ALL	UCART1	268378.8	3808584	1.14E-06	1.17YrCanc	1.14E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
80 ALL	UCART1	268428.8	3808584	1.15E-06	1.17YrCanc	1.15E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
81 ALL	UCART1	268478.8	3808584	1.14E-06	1.17YrCanc	1.14E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
82 ALL	UCART1	268528.8	3808584	1.11E-06	1.17YrCanc	1.11E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
83 ALL	UCART1	268578.8	3808584	1.05E-06	1.17YrCanc	1.05E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
84 ALL	UCART1	268628.8	3808584	9.56E-07	1.17YrCanc	9.56E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
85 ALL	UCART1	267628.8	3808634	5.83E-07	1.17YrCanc	5.83E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
86 ALL	UCART1	267678.8	3808634	6.37E-07	1.17YrCanc	6.37E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
87 ALL	UCART1	267728.8	3808634	6.98E-07	1.17YrCanc	6.98E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
88 ALL	UCART1	267778.8	3808634	7.65E-07	1.17YrCanc	7.65E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
89 ALL	UCART1	267828.8	3808634	8.52E-07	1.17YrCanc	8.52E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
90 ALL	UCART1	267878.8	3808634	9.82E-07	1.17YrCanc	9.82E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
91 ALL	UCART1	267928.8	3808634	1.14E-06	1.17YrCanc	1.14E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
92 ALL	UCART1	267978.8	3808634	1.30E-06	1.17YrCanc	1.30E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
93 ALL	UCART1	268028.8	3808634	1.24E-06	1.17YrCanc	1.24E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

94	ALL	UCART1	268078.8	3808634	1.25E-06	1.17YrCanc	1.25E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
95	ALL	UCART1	268128.8	3808634	1.25E-06	1.17YrCanc	1.25E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
96	ALL	UCART1	268178.8	3808634	1.24E-06	1.17YrCanc	1.24E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
97	ALL	UCART1	268228.8	3808634	1.29E-06	1.17YrCanc	1.29E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
98	ALL	UCART1	268278.8	3808634	1.35E-06	1.17YrCanc	1.35E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
99	ALL	UCART1	268328.8	3808634	1.35E-06	1.17YrCanc	1.35E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
100	ALL	UCART1	268378.8	3808634	1.35E-06	1.17YrCanc	1.35E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
101	ALL	UCART1	268428.8	3808634	1.34E-06	1.17YrCanc	1.34E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
102	ALL	UCART1	268478.8	3808634	1.30E-06	1.17YrCanc	1.30E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
103	ALL	UCART1	268528.8	3808634	1.21E-06	1.17YrCanc	1.21E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
104	ALL	UCART1	268578.8	3808634	1.10E-06	1.17YrCanc	1.10E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
105	ALL	UCART1	268628.8	3808634	8.97E-07	1.17YrCanc	8.97E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
106	ALL	UCART1	267628.8	3808684	6.18E-07	1.17YrCanc	6.18E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
107	ALL	UCART1	267678.8	3808684	6.80E-07	1.17YrCanc	6.80E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108	ALL	UCART1	267728.8	3808684	7.54E-07	1.17YrCanc	7.54E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
109	ALL	UCART1	267778.8	3808684	8.68E-07	1.17YrCanc	8.68E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
110	ALL	UCART1	267828.8	3808684	1.06E-06	1.17YrCanc	1.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
111	ALL	UCART1	267878.8	3808684	1.22E-06	1.17YrCanc	1.22E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
112	ALL	UCART1	267928.8	3808684	1.36E-06	1.17YrCanc	1.36E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
113	ALL	UCART1	267978.8	3808684	1.41E-06	1.17YrCanc	1.41E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
114	ALL	UCART1	268028.8	3808684	1.45E-06	1.17YrCanc	1.45E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
115	ALL	UCART1	268078.8	3808684	1.49E-06	1.17YrCanc	1.49E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
116	ALL	UCART1	268128.8	3808684	1.49E-06	1.17YrCanc	1.49E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
117	ALL	UCART1	268178.8	3808684	1.48E-06	1.17YrCanc	1.48E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
118	ALL	UCART1	268228.8	3808684	1.51E-06	1.17YrCanc	1.51E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
119	ALL	UCART1	268278.8	3808684	1.64E-06	1.17YrCanc	1.64E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
120	ALL	UCART1	268328.8	3808684	1.64E-06	1.17YrCanc	1.64E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
121	ALL	UCART1	268378.8	3808684	1.61E-06	1.17YrCanc	1.61E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
122	ALL	UCART1	268428.8	3808684	1.54E-06	1.17YrCanc	1.54E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
123	ALL	UCART1	268478.8	3808684	1.42E-06	1.17YrCanc	1.42E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
124	ALL	UCART1	268528.8	3808684	1.26E-06	1.17YrCanc	1.26E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
125	ALL	UCART1	268578.8	3808684	1.04E-06	1.17YrCanc	1.04E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
126	ALL	UCART1	268628.8	3808684	8.50E-07	1.17YrCanc	8.50E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
127	ALL	UCART1	267628.8	3808734	6.55E-07	1.17YrCanc	6.55E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
128	ALL	UCART1	267678.8	3808734	7.43E-07	1.17YrCanc	7.43E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
129	ALL	UCART1	267728.8	3808734	8.83E-07	1.17YrCanc	8.83E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
130	ALL	UCART1	267778.8	3808734	1.08E-06	1.17YrCanc	1.08E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
131	ALL	UCART1	267828.8	3808734	1.21E-06	1.17YrCanc	1.21E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
132	ALL	UCART1	267878.8	3808734	1.32E-06	1.17YrCanc	1.32E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
133	ALL	UCART1	267928.8	3808734	1.48E-06	1.17YrCanc	1.48E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
134	ALL	UCART1	267978.8	3808734	1.61E-06	1.17YrCanc	1.61E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
135	ALL	UCART1	268028.8	3808734	1.74E-06	1.17YrCanc	1.74E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
136	ALL	UCART1	268078.8	3808734	1.83E-06	1.17YrCanc	1.83E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
137	ALL	UCART1	268128.8	3808734	1.83E-06	1.17YrCanc	1.83E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
138	ALL	UCART1	268178.8	3808734	1.80E-06	1.17YrCanc	1.80E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
139	ALL	UCART1	268228.8	3808734	1.93E-06	1.17YrCanc	1.93E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
140	ALL	UCART1	268278.8	3808734	2.06E-06	1.17YrCanc	2.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

141 ALL	UCART1	268328.8	3808734	2.02E-06	1.17YrCanc	2.02E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
142 ALL	UCART1	268378.8	3808734	1.89E-06	1.17YrCanc	1.89E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
143 ALL	UCART1	268428.8	3808734	1.67E-06	1.17YrCanc	1.67E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
144 ALL	UCART1	268478.8	3808734	1.42E-06	1.17YrCanc	1.42E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
145 ALL	UCART1	268528.8	3808734	1.19E-06	1.17YrCanc	1.19E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
146 ALL	UCART1	268578.8	3808734	9.82E-07	1.17YrCanc	9.82E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
147 ALL	UCART1	268628.8	3808734	8.20E-07	1.17YrCanc	8.20E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
148 ALL	UCART1	267628.8	3808784	7.40E-07	1.17YrCanc	7.40E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
149 ALL	UCART1	267678.8	3808784	8.94E-07	1.17YrCanc	8.94E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
150 ALL	UCART1	267728.8	3808784	1.04E-06	1.17YrCanc	1.04E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
151 ALL	UCART1	267778.8	3808784	1.13E-06	1.17YrCanc	1.13E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
152 ALL	UCART1	267828.8	3808784	1.29E-06	1.17YrCanc	1.29E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
153 ALL	UCART1	267878.8	3808784	1.51E-06	1.17YrCanc	1.51E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
154 ALL	UCART1	267928.8	3808784	1.74E-06	1.17YrCanc	1.74E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
155 ALL	UCART1	267978.8	3808784	1.98E-06	1.17YrCanc	1.98E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
156 ALL	UCART1	268028.8	3808784	2.22E-06	1.17YrCanc	2.22E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
157 ALL	UCART1	268078.8	3808784	2.36E-06	1.17YrCanc	2.36E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
158 ALL	UCART1	268128.8	3808784	2.38E-06	1.17YrCanc	2.38E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
159 ALL	UCART1	268178.8	3808784	2.47E-06	1.17YrCanc	2.47E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
160 ALL	UCART1	268228.8	3808784	2.74E-06	1.17YrCanc	2.74E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
161 ALL	UCART1	268278.8	3808784	2.64E-06	1.17YrCanc	2.64E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
162 ALL	UCART1	268328.8	3808784	2.40E-06	1.17YrCanc	2.40E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
163 ALL	UCART1	268378.8	3808784	2.04E-06	1.17YrCanc	2.04E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
164 ALL	UCART1	268428.8	3808784	1.67E-06	1.17YrCanc	1.67E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
165 ALL	UCART1	268478.8	3808784	1.37E-06	1.17YrCanc	1.37E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
166 ALL	UCART1	268528.8	3808784	1.13E-06	1.17YrCanc	1.13E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
167 ALL	UCART1	268578.8	3808784	9.51E-07	1.17YrCanc	9.51E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
168 ALL	UCART1	268628.8	3808784	8.16E-07	1.17YrCanc	8.16E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
169 ALL	UCART1	267628.8	3808834	8.32E-07	1.17YrCanc	8.32E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
170 ALL	UCART1	267678.8	3808834	9.19E-07	1.17YrCanc	9.19E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
171 ALL	UCART1	267728.8	3808834	1.03E-06	1.17YrCanc	1.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
172 ALL	UCART1	267778.8	3808834	1.20E-06	1.17YrCanc	1.20E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
173 ALL	UCART1	267828.8	3808834	1.40E-06	1.17YrCanc	1.40E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
174 ALL	UCART1	267878.8	3808834	1.67E-06	1.17YrCanc	1.67E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
175 ALL	UCART1	267928.8	3808834	2.01E-06	1.17YrCanc	2.01E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
176 ALL	UCART1	267978.8	3808834	2.50E-06	1.17YrCanc	2.50E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
177 ALL	UCART1	268028.8	3808834	3.08E-06	1.17YrCanc	3.08E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
178 ALL	UCART1	268078.8	3808834	3.51E-06	1.17YrCanc	3.51E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
179 ALL	UCART1	268128.8	3808834	3.81E-06	1.17YrCanc	3.81E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
180 ALL	UCART1	268178.8	3808834	3.97E-06	1.17YrCanc	3.97E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
181 ALL	UCART1	268228.8	3808834	3.73E-06	1.17YrCanc	3.73E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
182 ALL	UCART1	268278.8	3808834	3.23E-06	1.17YrCanc	3.23E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
183 ALL	UCART1	268328.8	3808834	2.58E-06	1.17YrCanc	2.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
184 ALL	UCART1	268378.8	3808834	2.01E-06	1.17YrCanc	2.01E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
185 ALL	UCART1	268428.8	3808834	1.60E-06	1.17YrCanc	1.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
186 ALL	UCART1	268478.8	3808834	1.32E-06	1.17YrCanc	1.32E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
187 ALL	UCART1	268528.8	3808834	1.10E-06	1.17YrCanc	1.10E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

188	ALL	UCART1	268578.8	3808834	9.41E-07	1.17YrCanc	9.41E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
189	ALL	UCART1	268628.8	3808834	8.00E-07	1.17YrCanc	8.00E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
190	ALL	UCART1	267628.8	3808884	8.21E-07	1.17YrCanc	8.21E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
191	ALL	UCART1	267678.8	3808884	9.40E-07	1.17YrCanc	9.40E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
192	ALL	UCART1	267728.8	3808884	1.08E-06	1.17YrCanc	1.08E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
193	ALL	UCART1	267778.8	3808884	1.26E-06	1.17YrCanc	1.26E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
194	ALL	UCART1	267828.8	3808884	1.50E-06	1.17YrCanc	1.50E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
195	ALL	UCART1	267878.8	3808884	1.84E-06	1.17YrCanc	1.84E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
196	ALL	UCART1	267928.8	3808884	2.34E-06	1.17YrCanc	2.34E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
197	ALL	UCART1	267978.8	3808884	3.29E-06	1.17YrCanc	3.29E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
198	ALL	UCART1	268028.8	3808884	4.74E-06	1.17YrCanc	4.74E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
199	ALL	UCART1	268078.8	3808884	6.57E-06	1.17YrCanc	6.57E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
200	ALL	UCART1	268128.8	3808884	7.27E-06	1.17YrCanc	7.27E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
201	ALL	UCART1	268178.8	3808884	6.07E-06	1.17YrCanc	6.07E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
202	ALL	UCART1	268228.8	3808884	4.80E-06	1.17YrCanc	4.80E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
203	ALL	UCART1	268278.8	3808884	3.45E-06	1.17YrCanc	3.45E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
204	ALL	UCART1	268328.8	3808884	2.52E-06	1.17YrCanc	2.52E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
205	ALL	UCART1	268378.8	3808884	1.94E-06	1.17YrCanc	1.94E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
206	ALL	UCART1	268428.8	3808884	1.57E-06	1.17YrCanc	1.57E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
207	ALL	UCART1	268478.8	3808884	1.30E-06	1.17YrCanc	1.30E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
208	ALL	UCART1	268528.8	3808884	1.09E-06	1.17YrCanc	1.09E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
209	ALL	UCART1	268578.8	3808884	9.32E-07	1.17YrCanc	9.32E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
210	ALL	UCART1	268628.8	3808884	7.95E-07	1.17YrCanc	7.95E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
211	ALL	UCART1	267628.8	3808934	8.53E-07	1.17YrCanc	8.53E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
212	ALL	UCART1	267678.8	3808934	9.75E-07	1.17YrCanc	9.75E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
213	ALL	UCART1	267728.8	3808934	1.10E-06	1.17YrCanc	1.10E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
214	ALL	UCART1	267778.8	3808934	1.29E-06	1.17YrCanc	1.29E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
215	ALL	UCART1	267828.8	3808934	1.56E-06	1.17YrCanc	1.56E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
216	ALL	UCART1	267878.8	3808934	1.97E-06	1.17YrCanc	1.97E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
217	ALL	UCART1	267928.8	3808934	2.70E-06	1.17YrCanc	2.70E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
218	ALL	UCART1	267978.8	3808934	4.09E-06	1.17YrCanc	4.09E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
219	ALL	UCART1	268028.8	3808934	7.23E-06	1.17YrCanc	7.23E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
220	ALL	UCART1	268078.8	3808934	1.37E-05	1.17YrCanc	1.37E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
221	ALL	UCART1	268128.8	3808934	1.52E-05	1.17YrCanc	1.52E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
222	ALL	UCART1	268178.8	3808934	9.17E-06	1.17YrCanc	9.17E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
223	ALL	UCART1	268228.8	3808934	5.08E-06	1.17YrCanc	5.08E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
224	ALL	UCART1	268278.8	3808934	3.34E-06	1.17YrCanc	3.34E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
225	ALL	UCART1	268328.8	3808934	2.44E-06	1.17YrCanc	2.44E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
226	ALL	UCART1	268378.8	3808934	1.89E-06	1.17YrCanc	1.89E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
227	ALL	UCART1	268428.8	3808934	1.52E-06	1.17YrCanc	1.52E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
228	ALL	UCART1	268478.8	3808934	1.26E-06	1.17YrCanc	1.26E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
229	ALL	UCART1	268528.8	3808934	1.07E-06	1.17YrCanc	1.07E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
230	ALL	UCART1	268578.8	3808934	9.06E-07	1.17YrCanc	9.06E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
231	ALL	UCART1	268628.8	3808934	7.72E-07	1.17YrCanc	7.72E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
232	ALL	UCART1	267628.8	3808984	8.33E-07	1.17YrCanc	8.33E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
233	ALL	UCART1	267678.8	3808984	9.53E-07	1.17YrCanc	9.53E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
234	ALL	UCART1	267728.8	3808984	1.11E-06	1.17YrCanc	1.11E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

235 ALL	UCART1	267778.8	3808984	1.30E-06	1.17YrCanc	1.30E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
236 ALL	UCART1	267828.8	3808984	1.56E-06	1.17YrCanc	1.56E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
237 ALL	UCART1	267878.8	3808984	2.02E-06	1.17YrCanc	2.02E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
238 ALL	UCART1	267928.8	3808984	2.80E-06	1.17YrCanc	2.80E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
239 ALL	UCART1	267978.8	3808984	4.49E-06	1.17YrCanc	4.49E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
240 ALL	UCART1	268028.8	3808984	1.06E-05	1.17YrCanc	1.06E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
241 ALL	UCART1	268078.8	3808984	1.73E-05	1.17YrCanc	1.73E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
242 ALL	UCART1	268128.8	3808984	1.90E-05	1.17YrCanc	1.90E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
243 ALL	UCART1	268178.8	3808984	8.15E-06	1.17YrCanc	8.15E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
244 ALL	UCART1	268228.8	3808984	4.54E-06	1.17YrCanc	4.54E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
245 ALL	UCART1	268278.8	3808984	3.08E-06	1.17YrCanc	3.08E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
246 ALL	UCART1	268328.8	3808984	2.29E-06	1.17YrCanc	2.29E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
247 ALL	UCART1	268378.8	3808984	1.79E-06	1.17YrCanc	1.79E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
248 ALL	UCART1	268428.8	3808984	1.45E-06	1.17YrCanc	1.45E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
249 ALL	UCART1	268478.8	3808984	1.21E-06	1.17YrCanc	1.21E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
250 ALL	UCART1	268528.8	3808984	1.02E-06	1.17YrCanc	1.02E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
251 ALL	UCART1	268578.8	3808984	8.74E-07	1.17YrCanc	8.74E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
252 ALL	UCART1	268628.8	3808984	7.16E-07	1.17YrCanc	7.16E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
253 ALL	UCART1	267628.8	3809034	7.95E-07	1.17YrCanc	7.95E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
254 ALL	UCART1	267678.8	3809034	9.52E-07	1.17YrCanc	9.52E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
255 ALL	UCART1	267728.8	3809034	1.08E-06	1.17YrCanc	1.08E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
256 ALL	UCART1	267778.8	3809034	1.28E-06	1.17YrCanc	1.28E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
257 ALL	UCART1	267828.8	3809034	1.56E-06	1.17YrCanc	1.56E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
258 ALL	UCART1	267878.8	3809034	1.97E-06	1.17YrCanc	1.97E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
259 ALL	UCART1	267928.8	3809034	2.65E-06	1.17YrCanc	2.65E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
260 ALL	UCART1	267978.8	3809034	4.01E-06	1.17YrCanc	4.01E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
261 ALL	UCART1	268028.8	3809034	7.04E-06	1.17YrCanc	7.04E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
262 ALL	UCART1	268078.8	3809034	8.31E-06	1.17YrCanc	8.31E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
263 ALL	UCART1	268128.8	3809034	7.76E-06	1.17YrCanc	7.76E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
264 ALL	UCART1	268178.8	3809034	5.34E-06	1.17YrCanc	5.34E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
265 ALL	UCART1	268228.8	3809034	3.68E-06	1.17YrCanc	3.68E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
266 ALL	UCART1	268278.8	3809034	2.71E-06	1.17YrCanc	2.71E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
267 ALL	UCART1	268328.8	3809034	2.10E-06	1.17YrCanc	2.10E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
268 ALL	UCART1	268378.8	3809034	1.67E-06	1.17YrCanc	1.67E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
269 ALL	UCART1	268428.8	3809034	1.37E-06	1.17YrCanc	1.37E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
270 ALL	UCART1	268478.8	3809034	1.15E-06	1.17YrCanc	1.15E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
271 ALL	UCART1	268528.8	3809034	9.73E-07	1.17YrCanc	9.73E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
272 ALL	UCART1	268578.8	3809034	8.27E-07	1.17YrCanc	8.27E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
273 ALL	UCART1	268628.8	3809034	6.53E-07	1.17YrCanc	6.53E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
274 ALL	UCART1	267628.8	3809084	7.68E-07	1.17YrCanc	7.68E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
275 ALL	UCART1	267678.8	3809084	9.04E-07	1.17YrCanc	9.04E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
276 ALL	UCART1	267728.8	3809084	1.06E-06	1.17YrCanc	1.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
277 ALL	UCART1	267778.8	3809084	1.22E-06	1.17YrCanc	1.22E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
278 ALL	UCART1	267828.8	3809084	1.48E-06	1.17YrCanc	1.48E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
279 ALL	UCART1	267878.8	3809084	1.83E-06	1.17YrCanc	1.83E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
280 ALL	UCART1	267928.8	3809084	2.34E-06	1.17YrCanc	2.34E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
281 ALL	UCART1	267978.8	3809084	3.14E-06	1.17YrCanc	3.14E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

282 ALL	UCART1	268028.8	3809084	4.04E-06	1.17YrCanc	4.04E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
283 ALL	UCART1	268078.8	3809084	4.46E-06	1.17YrCanc	4.46E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
284 ALL	UCART1	268128.8	3809084	4.36E-06	1.17YrCanc	4.36E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
285 ALL	UCART1	268178.8	3809084	3.71E-06	1.17YrCanc	3.71E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
286 ALL	UCART1	268228.8	3809084	2.94E-06	1.17YrCanc	2.94E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
287 ALL	UCART1	268278.8	3809084	2.33E-06	1.17YrCanc	2.33E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
288 ALL	UCART1	268328.8	3809084	1.88E-06	1.17YrCanc	1.88E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
289 ALL	UCART1	268378.8	3809084	1.54E-06	1.17YrCanc	1.54E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
290 ALL	UCART1	268428.8	3809084	1.28E-06	1.17YrCanc	1.28E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
291 ALL	UCART1	268478.8	3809084	1.09E-06	1.17YrCanc	1.09E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
292 ALL	UCART1	268528.8	3809084	9.20E-07	1.17YrCanc	9.20E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
293 ALL	UCART1	268578.8	3809084	7.55E-07	1.17YrCanc	7.55E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
294 ALL	UCART1	268628.8	3809084	4.86E-07	1.17YrCanc	4.86E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
295 ALL	UCART1	267628.8	3809134	7.39E-07	1.17YrCanc	7.39E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
296 ALL	UCART1	267678.8	3809134	8.48E-07	1.17YrCanc	8.48E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
297 ALL	UCART1	267728.8	3809134	1.01E-06	1.17YrCanc	1.01E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
298 ALL	UCART1	267778.8	3809134	1.15E-06	1.17YrCanc	1.15E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
299 ALL	UCART1	267828.8	3809134	1.36E-06	1.17YrCanc	1.36E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
300 ALL	UCART1	267878.8	3809134	1.63E-06	1.17YrCanc	1.63E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
301 ALL	UCART1	267928.8	3809134	1.95E-06	1.17YrCanc	1.95E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
302 ALL	UCART1	267978.8	3809134	2.40E-06	1.17YrCanc	2.40E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
303 ALL	UCART1	268028.8	3809134	2.67E-06	1.17YrCanc	2.67E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
304 ALL	UCART1	268078.8	3809134	3.00E-06	1.17YrCanc	3.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
305 ALL	UCART1	268128.8	3809134	3.05E-06	1.17YrCanc	3.05E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
306 ALL	UCART1	268178.8	3809134	2.75E-06	1.17YrCanc	2.75E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
307 ALL	UCART1	268228.8	3809134	2.36E-06	1.17YrCanc	2.36E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
308 ALL	UCART1	268278.8	3809134	1.98E-06	1.17YrCanc	1.98E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
309 ALL	UCART1	268328.8	3809134	1.66E-06	1.17YrCanc	1.66E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
310 ALL	UCART1	268378.8	3809134	1.40E-06	1.17YrCanc	1.40E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
311 ALL	UCART1	268428.8	3809134	1.20E-06	1.17YrCanc	1.20E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
312 ALL	UCART1	268478.8	3809134	1.02E-06	1.17YrCanc	1.02E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
313 ALL	UCART1	268528.8	3809134	8.65E-07	1.17YrCanc	8.65E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
314 ALL	UCART1	268578.8	3809134	6.76E-07	1.17YrCanc	6.76E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
315 ALL	UCART1	268628.8	3809134	4.59E-07	1.17YrCanc	4.59E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
316 ALL	UCART1	267628.8	3809184	7.32E-07	1.17YrCanc	7.32E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
317 ALL	UCART1	267678.8	3809184	8.33E-07	1.17YrCanc	8.33E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
318 ALL	UCART1	267728.8	3809184	9.58E-07	1.17YrCanc	9.58E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
319 ALL	UCART1	267778.8	3809184	1.09E-06	1.17YrCanc	1.09E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
320 ALL	UCART1	267828.8	3809184	1.24E-06	1.17YrCanc	1.24E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
321 ALL	UCART1	267878.8	3809184	1.41E-06	1.17YrCanc	1.41E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
322 ALL	UCART1	267928.8	3809184	1.67E-06	1.17YrCanc	1.67E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
323 ALL	UCART1	267978.8	3809184	1.86E-06	1.17YrCanc	1.86E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
324 ALL	UCART1	268028.8	3809184	2.01E-06	1.17YrCanc	2.01E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
325 ALL	UCART1	268078.8	3809184	2.17E-06	1.17YrCanc	2.17E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
326 ALL	UCART1	268128.8	3809184	2.26E-06	1.17YrCanc	2.26E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
327 ALL	UCART1	268178.8	3809184	2.14E-06	1.17YrCanc	2.14E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
328 ALL	UCART1	268228.8	3809184	1.93E-06	1.17YrCanc	1.93E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

329 ALL	UCART1	268278.8	3809184	1.69E-06	1.17YrCanc	1.69E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
330 ALL	UCART1	268328.8	3809184	1.46E-06	1.17YrCanc	1.46E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
331 ALL	UCART1	268378.8	3809184	1.26E-06	1.17YrCanc	1.26E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
332 ALL	UCART1	268428.8	3809184	1.09E-06	1.17YrCanc	1.09E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
333 ALL	UCART1	268478.8	3809184	9.47E-07	1.17YrCanc	9.47E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
334 ALL	UCART1	268528.8	3809184	8.11E-07	1.17YrCanc	8.11E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
335 ALL	UCART1	268578.8	3809184	6.52E-07	1.17YrCanc	6.52E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
336 ALL	UCART1	268628.8	3809184	4.72E-07	1.17YrCanc	4.72E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
337 ALL	UCART1	267628.8	3809234	7.44E-07	1.17YrCanc	7.44E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
338 ALL	UCART1	267678.8	3809234	8.11E-07	1.17YrCanc	8.11E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
339 ALL	UCART1	267728.8	3809234	9.11E-07	1.17YrCanc	9.11E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
340 ALL	UCART1	267778.8	3809234	1.00E-06	1.17YrCanc	1.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
341 ALL	UCART1	267828.8	3809234	1.12E-06	1.17YrCanc	1.12E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
342 ALL	UCART1	267878.8	3809234	1.27E-06	1.17YrCanc	1.27E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
343 ALL	UCART1	267928.8	3809234	1.42E-06	1.17YrCanc	1.42E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
344 ALL	UCART1	267978.8	3809234	1.49E-06	1.17YrCanc	1.49E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
345 ALL	UCART1	268028.8	3809234	1.59E-06	1.17YrCanc	1.59E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
346 ALL	UCART1	268078.8	3809234	1.72E-06	1.17YrCanc	1.72E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
347 ALL	UCART1	268128.8	3809234	1.77E-06	1.17YrCanc	1.77E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
348 ALL	UCART1	268178.8	3809234	1.73E-06	1.17YrCanc	1.73E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
349 ALL	UCART1	268228.8	3809234	1.60E-06	1.17YrCanc	1.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
350 ALL	UCART1	268278.8	3809234	1.44E-06	1.17YrCanc	1.44E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
351 ALL	UCART1	268328.8	3809234	1.28E-06	1.17YrCanc	1.28E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
352 ALL	UCART1	268378.8	3809234	1.14E-06	1.17YrCanc	1.14E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
353 ALL	UCART1	268428.8	3809234	9.99E-07	1.17YrCanc	9.99E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
354 ALL	UCART1	268478.8	3809234	8.79E-07	1.17YrCanc	8.79E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
355 ALL	UCART1	268528.8	3809234	7.74E-07	1.17YrCanc	7.74E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
356 ALL	UCART1	268578.8	3809234	6.65E-07	1.17YrCanc	6.65E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
357 ALL	UCART1	268628.8	3809234	5.53E-07	1.17YrCanc	5.53E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
358 ALL	UCART1	267628.8	3809284	6.65E-07	1.17YrCanc	6.65E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
359 ALL	UCART1	267678.8	3809284	7.64E-07	1.17YrCanc	7.64E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
360 ALL	UCART1	267728.8	3809284	8.40E-07	1.17YrCanc	8.40E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
361 ALL	UCART1	267778.8	3809284	9.28E-07	1.17YrCanc	9.28E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
362 ALL	UCART1	267828.8	3809284	1.06E-06	1.17YrCanc	1.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
363 ALL	UCART1	267878.8	3809284	1.24E-06	1.17YrCanc	1.24E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
364 ALL	UCART1	267928.8	3809284	1.26E-06	1.17YrCanc	1.26E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
365 ALL	UCART1	267978.8	3809284	1.27E-06	1.17YrCanc	1.27E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366 ALL	UCART1	268028.8	3809284	1.34E-06	1.17YrCanc	1.34E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367 ALL	UCART1	268078.8	3809284	1.41E-06	1.17YrCanc	1.41E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368 ALL	UCART1	268128.8	3809284	1.45E-06	1.17YrCanc	1.45E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369 ALL	UCART1	268178.8	3809284	1.44E-06	1.17YrCanc	1.44E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370 ALL	UCART1	268228.8	3809284	1.35E-06	1.17YrCanc	1.35E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371 ALL	UCART1	268278.8	3809284	1.25E-06	1.17YrCanc	1.25E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372 ALL	UCART1	268328.8	3809284	1.14E-06	1.17YrCanc	1.14E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373 ALL	UCART1	268378.8	3809284	1.03E-06	1.17YrCanc	1.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374 ALL	UCART1	268428.8	3809284	9.24E-07	1.17YrCanc	9.24E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375 ALL	UCART1	268478.8	3809284	8.26E-07	1.17YrCanc	8.26E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

376 ALL	UCART1	268528.8	3809284	7.37E-07	1.17YrCanc	7.37E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377 ALL	UCART1	268578.8	3809284	6.58E-07	1.17YrCanc	6.58E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378 ALL	UCART1	268628.8	3809284	5.47E-07	1.17YrCanc	5.47E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379 ALL	UCART1	267628.8	3809334	6.46E-07	1.17YrCanc	6.46E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380 ALL	UCART1	267678.8	3809334	6.87E-07	1.17YrCanc	6.87E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381 ALL	UCART1	267728.8	3809334	7.69E-07	1.17YrCanc	7.69E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
382 ALL	UCART1	267778.8	3809334	8.47E-07	1.17YrCanc	8.47E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383 ALL	UCART1	267828.8	3809334	9.89E-07	1.17YrCanc	9.89E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
384 ALL	UCART1	267878.8	3809334	1.07E-06	1.17YrCanc	1.07E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
385 ALL	UCART1	267928.8	3809334	1.13E-06	1.17YrCanc	1.13E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
386 ALL	UCART1	267978.8	3809334	1.11E-06	1.17YrCanc	1.11E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
387 ALL	UCART1	268028.8	3809334	1.14E-06	1.17YrCanc	1.14E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
388 ALL	UCART1	268078.8	3809334	1.19E-06	1.17YrCanc	1.19E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
389 ALL	UCART1	268128.8	3809334	1.20E-06	1.17YrCanc	1.20E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
390 ALL	UCART1	268178.8	3809334	1.21E-06	1.17YrCanc	1.21E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
391 ALL	UCART1	268228.8	3809334	1.16E-06	1.17YrCanc	1.16E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
392 ALL	UCART1	268278.8	3809334	1.09E-06	1.17YrCanc	1.09E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
393 ALL	UCART1	268328.8	3809334	1.01E-06	1.17YrCanc	1.01E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
394 ALL	UCART1	268378.8	3809334	9.34E-07	1.17YrCanc	9.34E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
395 ALL	UCART1	268428.8	3809334	8.57E-07	1.17YrCanc	8.57E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
396 ALL	UCART1	268478.8	3809334	7.77E-07	1.17YrCanc	7.77E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
397 ALL	UCART1	268528.8	3809334	6.90E-07	1.17YrCanc	6.90E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
398 ALL	UCART1	268578.8	3809334	6.33E-07	1.17YrCanc	6.33E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
399 ALL	UCART1	268628.8	3809334	5.76E-07	1.17YrCanc	5.76E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
400 ALL	UCART1	267628.8	3809384	6.07E-07	1.17YrCanc	6.07E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
401 ALL	UCART1	267678.8	3809384	6.90E-07	1.17YrCanc	6.90E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
402 ALL	UCART1	267728.8	3809384	7.45E-07	1.17YrCanc	7.45E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
403 ALL	UCART1	267778.8	3809384	7.68E-07	1.17YrCanc	7.68E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
404 ALL	UCART1	267828.8	3809384	8.07E-07	1.17YrCanc	8.07E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
405 ALL	UCART1	267878.8	3809384	8.56E-07	1.17YrCanc	8.56E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
406 ALL	UCART1	267928.8	3809384	9.81E-07	1.17YrCanc	9.81E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
407 ALL	UCART1	267978.8	3809384	9.53E-07	1.17YrCanc	9.53E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
408 ALL	UCART1	268028.8	3809384	1.00E-06	1.17YrCanc	1.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
409 ALL	UCART1	268078.8	3809384	1.01E-06	1.17YrCanc	1.01E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
410 ALL	UCART1	268128.8	3809384	1.03E-06	1.17YrCanc	1.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
411 ALL	UCART1	268178.8	3809384	1.02E-06	1.17YrCanc	1.02E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
412 ALL	UCART1	268228.8	3809384	1.01E-06	1.17YrCanc	1.01E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
413 ALL	UCART1	268278.8	3809384	9.66E-07	1.17YrCanc	9.66E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
414 ALL	UCART1	268328.8	3809384	9.09E-07	1.17YrCanc	9.09E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
415 ALL	UCART1	268378.8	3809384	8.50E-07	1.17YrCanc	8.50E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
416 ALL	UCART1	268428.8	3809384	7.89E-07	1.17YrCanc	7.89E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
417 ALL	UCART1	268478.8	3809384	7.29E-07	1.17YrCanc	7.29E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
418 ALL	UCART1	268528.8	3809384	6.66E-07	1.17YrCanc	6.66E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
419 ALL	UCART1	268578.8	3809384	6.08E-07	1.17YrCanc	6.08E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
420 ALL	UCART1	268628.8	3809384	5.42E-07	1.17YrCanc	5.42E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
421 ALL	UCART1	267628.8	3809434	6.09E-07	1.17YrCanc	6.09E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
422 ALL	UCART1	267678.8	3809434	6.40E-07	1.17YrCanc	6.40E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

423 ALL	UCART1	267728.8	3809434	6.70E-07	1.17YrCanc	6.70E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
424 ALL	UCART1	267778.8	3809434	7.11E-07	1.17YrCanc	7.11E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
425 ALL	UCART1	267828.8	3809434	7.38E-07	1.17YrCanc	7.38E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
426 ALL	UCART1	267878.8	3809434	7.77E-07	1.17YrCanc	7.77E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
427 ALL	UCART1	267928.8	3809434	8.22E-07	1.17YrCanc	8.22E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
428 ALL	UCART1	267978.8	3809434	8.26E-07	1.17YrCanc	8.26E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
429 ALL	UCART1	268028.8	3809434	8.36E-07	1.17YrCanc	8.36E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
430 ALL	UCART1	268078.8	3809434	8.78E-07	1.17YrCanc	8.78E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
431 ALL	UCART1	268128.8	3809434	8.82E-07	1.17YrCanc	8.82E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
432 ALL	UCART1	268178.8	3809434	8.88E-07	1.17YrCanc	8.88E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
433 ALL	UCART1	268228.8	3809434	8.82E-07	1.17YrCanc	8.82E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
434 ALL	UCART1	268278.8	3809434	8.51E-07	1.17YrCanc	8.51E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
435 ALL	UCART1	268328.8	3809434	8.17E-07	1.17YrCanc	8.17E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
436 ALL	UCART1	268378.8	3809434	7.73E-07	1.17YrCanc	7.73E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
437 ALL	UCART1	268428.8	3809434	7.25E-07	1.17YrCanc	7.25E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
438 ALL	UCART1	268478.8	3809434	6.76E-07	1.17YrCanc	6.76E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
439 ALL	UCART1	268528.8	3809434	6.27E-07	1.17YrCanc	6.27E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
440 ALL	UCART1	268578.8	3809434	5.83E-07	1.17YrCanc	5.83E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
441 ALL	UCART1	268628.8	3809434	5.25E-07	1.17YrCanc	5.25E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
442 ALL		268139.3	3809033	7.38E-06	1.17YrCanc	7.38E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
443 ALL		268132.2	3809043	6.69E-06	1.17YrCanc	6.69E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
444 ALL		268124.3	3809052	6.11E-06	1.17YrCanc	6.11E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
445 ALL		268113.6	3809065	5.38E-06	1.17YrCanc	5.38E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
446 ALL		268132.9	3809074	4.75E-06	1.17YrCanc	4.75E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
447 ALL		268139.3	3809082	4.35E-06	1.17YrCanc	4.35E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
448 ALL		268150.5	3809071	4.59E-06	1.17YrCanc	4.59E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
449 ALL		268145.2	3809056	5.43E-06	1.17YrCanc	5.43E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
450 ALL		268094	3809107	3.74E-06	1.17YrCanc	3.74E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
451 ALL		268086.6	3809118	3.40E-06	1.17YrCanc	3.40E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
452 ALL		268027.3	3808960	8.61E-06	1.17YrCanc	8.61E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
453 ALL		268019.7	3808974	8.17E-06	1.17YrCanc	8.17E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
454 ALL		268002.1	3809013	5.88E-06	1.17YrCanc	5.88E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
455 ALL		268002.6	3809029	5.33E-06	1.17YrCanc	5.33E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
456 ALL		267993.5	3809043	4.35E-06	1.17YrCanc	4.35E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
457 ALL		267987.9	3809003	4.95E-06	1.17YrCanc	4.95E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
458 ALL		267976.4	3809009	4.25E-06	1.17YrCanc	4.25E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
459 ALL		267971.1	3809022	3.87E-06	1.17YrCanc	3.87E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
460 ALL		267979.7	3809048	3.77E-06	1.17YrCanc	3.77E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
461 ALL		267965.5	3809037	3.49E-06	1.17YrCanc	3.49E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
462 ALL		267974.4	3809061	3.42E-06	1.17YrCanc	3.42E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
463 ALL		267951.5	3809041	3.08E-06	1.17YrCanc	3.08E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
464 ALL		268059.4	3808882	5.76E-06	1.17YrCanc	5.76E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
465 ALL		268040.1	3808894	5.68E-06	1.17YrCanc	5.68E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
466 ALL		268021.5	3808912	5.58E-06	1.17YrCanc	5.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
467 ALL		268012.1	3808924	5.50E-06	1.17YrCanc	5.50E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
468 ALL		268000.6	3808933	5.11E-06	1.17YrCanc	5.11E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
469 ALL		267989.9	3808945	4.75E-06	1.17YrCanc	4.75E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

REC	GRP	NETID	X	Y	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE\	RESP	SKIN	EYE	BONE/TEET	ENDO	BLOOD	ODOR	GENERAL	MAXHI
1	ALL	UCART1	267628.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.45E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.45E-04
2	ALL	UCART1	267678.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.71E-04
3	ALL	UCART1	267728.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.98E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.98E-04
4	ALL	UCART1	267778.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.26E-04
5	ALL	UCART1	267828.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.52E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.52E-04
6	ALL	UCART1	267878.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.78E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.78E-04
7	ALL	UCART1	267928.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.01E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.01E-04
8	ALL	UCART1	267978.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.18E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.18E-04
9	ALL	UCART1	268028.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.28E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.28E-04
10	ALL	UCART1	268078.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.36E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.36E-04
11	ALL	UCART1	268128.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.54E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.54E-04
12	ALL	UCART1	268178.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.17E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.17E-04
13	ALL	UCART1	268228.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.67E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.67E-04
14	ALL	UCART1	268278.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.05E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.05E-04
15	ALL	UCART1	268328.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.87E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.87E-04
16	ALL	UCART1	268378.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.07E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.07E-04
17	ALL	UCART1	268428.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.22E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.22E-04
18	ALL	UCART1	268478.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.88E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.88E-04
19	ALL	UCART1	268528.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.32E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.32E-04
20	ALL	UCART1	268578.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.46E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.46E-04
21	ALL	UCART1	268628.8	3808434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.97E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.97E-04
22	ALL	UCART1	267628.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.73E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.73E-04
23	ALL	UCART1	267678.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.05E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.05E-04
24	ALL	UCART1	267728.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.38E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.38E-04
25	ALL	UCART1	267778.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.72E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.72E-04
26	ALL	UCART1	267828.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.05E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.05E-04
27	ALL	UCART1	267878.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.37E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.37E-04
28	ALL	UCART1	267928.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.67E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.67E-04
29	ALL	UCART1	267978.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.90E-04
30	ALL	UCART1	268028.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.07E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.07E-04
31	ALL	UCART1	268078.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.51E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.51E-04
32	ALL	UCART1	268128.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.47E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.47E-04
33	ALL	UCART1	268178.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.55E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.55E-04
34	ALL	UCART1	268228.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.04E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.04E-04
35	ALL	UCART1	268278.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.82E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.82E-04
36	ALL	UCART1	268328.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.97E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.97E-04
37	ALL	UCART1	268378.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.17E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.17E-04
38	ALL	UCART1	268428.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.35E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.35E-04
39	ALL	UCART1	268478.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.40E-04
40	ALL	UCART1	268528.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.13E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.13E-04
41	ALL	UCART1	268578.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.30E-04
42	ALL	UCART1	268628.8	3808484	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.25E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.25E-04
43	ALL	UCART1	267628.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.03E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.03E-04
44	ALL	UCART1	267678.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.41E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.41E-04
45	ALL	UCART1	267728.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.82E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.82E-04
46	ALL	UCART1	267778.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.23E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.23E-04
47	ALL	UCART1	267828.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.65E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.65E-04
48	ALL	UCART1	267878.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.07E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.07E-04
49	ALL	UCART1	267928.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.46E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.46E-04
50	ALL	UCART1	267978.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.91E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.91E-04
51	ALL	UCART1	268028.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.70E-04

52	ALL	UCART1	268078.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.63E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.63E-04
53	ALL	UCART1	268128.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.65E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.65E-04
54	ALL	UCART1	268178.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.19E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.19E-04
55	ALL	UCART1	268228.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.02E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.02E-04
56	ALL	UCART1	268278.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.96E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.96E-04
57	ALL	UCART1	268328.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.24E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.24E-04
58	ALL	UCART1	268378.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.55E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.55E-04
59	ALL	UCART1	268428.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.57E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.57E-04
60	ALL	UCART1	268478.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.60E-04
61	ALL	UCART1	268528.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.56E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.56E-04
62	ALL	UCART1	268578.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.34E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.34E-04
63	ALL	UCART1	268628.8	3808534	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.97E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.97E-04
64	ALL	UCART1	267628.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.34E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.34E-04
65	ALL	UCART1	267678.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.79E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.79E-04
66	ALL	UCART1	267728.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.28E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.28E-04
67	ALL	UCART1	267778.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.81E-04
68	ALL	UCART1	267828.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.35E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.35E-04
69	ALL	UCART1	267878.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.92E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.92E-04
70	ALL	UCART1	267928.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.71E-04
71	ALL	UCART1	267978.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.99E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.99E-04
72	ALL	UCART1	268028.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-03
73	ALL	UCART1	268078.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-03
74	ALL	UCART1	268128.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.05E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.05E-03
75	ALL	UCART1	268178.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-03
76	ALL	UCART1	268228.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-03
77	ALL	UCART1	268278.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-03
78	ALL	UCART1	268328.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-03
79	ALL	UCART1	268378.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-03
80	ALL	UCART1	268428.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-03
81	ALL	UCART1	268478.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-03
82	ALL	UCART1	268528.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-03
83	ALL	UCART1	268578.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E-03
84	ALL	UCART1	268628.8	3808584	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.30E-04
85	ALL	UCART1	267628.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.67E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.67E-04
86	ALL	UCART1	267678.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.19E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.19E-04
87	ALL	UCART1	267728.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.78E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.78E-04
88	ALL	UCART1	267778.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.44E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.44E-04
89	ALL	UCART1	267828.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.28E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.28E-04
90	ALL	UCART1	267878.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.55E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.55E-04
91	ALL	UCART1	267928.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-03
92	ALL	UCART1	267978.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.27E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.27E-03
93	ALL	UCART1	268028.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.21E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.21E-03
94	ALL	UCART1	268078.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.21E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.21E-03
95	ALL	UCART1	268128.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-03
96	ALL	UCART1	268178.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.21E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.21E-03
97	ALL	UCART1	268228.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E-03
98	ALL	UCART1	268278.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.31E-03
99	ALL	UCART1	268328.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.31E-03
100	ALL	UCART1	268378.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.31E-03
101	ALL	UCART1	268428.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.30E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.30E-03
102	ALL	UCART1	268478.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E-03
103	ALL	UCART1	268528.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.18E-03

104	ALL	UCART1	268578.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-03
105	ALL	UCART1	268628.8	3808634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.72E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.72E-04
106	ALL	UCART1	267628.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.01E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.01E-04
107	ALL	UCART1	267678.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.61E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.61E-04
108	ALL	UCART1	267728.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.33E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.33E-04
109	ALL	UCART1	267778.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.44E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.44E-04
110	ALL	UCART1	267828.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-03
111	ALL	UCART1	267878.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.19E-03
112	ALL	UCART1	267928.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.32E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.32E-03
113	ALL	UCART1	267978.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-03
114	ALL	UCART1	268028.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-03
115	ALL	UCART1	268078.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.45E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.45E-03
116	ALL	UCART1	268128.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.45E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.45E-03
117	ALL	UCART1	268178.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.44E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.44E-03
118	ALL	UCART1	268228.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-03
119	ALL	UCART1	268278.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.60E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.60E-03
120	ALL	UCART1	268328.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.59E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.59E-03
121	ALL	UCART1	268378.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.57E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.57E-03
122	ALL	UCART1	268428.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.49E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.49E-03
123	ALL	UCART1	268478.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-03
124	ALL	UCART1	268528.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-03
125	ALL	UCART1	268578.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E-03
126	ALL	UCART1	268628.8	3808684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.26E-04
127	ALL	UCART1	267628.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.36E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.36E-04
128	ALL	UCART1	267678.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.22E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.22E-04
129	ALL	UCART1	267728.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.58E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.58E-04
130	ALL	UCART1	267778.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.05E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.05E-03
131	ALL	UCART1	267828.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.18E-03
132	ALL	UCART1	267878.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.28E-03
133	ALL	UCART1	267928.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.44E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.44E-03
134	ALL	UCART1	267978.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.57E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.57E-03
135	ALL	UCART1	268028.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.69E-03
136	ALL	UCART1	268078.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.78E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.78E-03
137	ALL	UCART1	268128.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.78E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.78E-03
138	ALL	UCART1	268178.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.74E-03
139	ALL	UCART1	268228.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.88E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.88E-03
140	ALL	UCART1	268278.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E-03
141	ALL	UCART1	268328.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E-03
142	ALL	UCART1	268378.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03
143	ALL	UCART1	268428.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E-03
144	ALL	UCART1	268478.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-03
145	ALL	UCART1	268528.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-03
146	ALL	UCART1	268578.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.55E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.55E-04
147	ALL	UCART1	268628.8	3808734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.97E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.97E-04
148	ALL	UCART1	267628.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.19E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.19E-04
149	ALL	UCART1	267678.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.69E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.69E-04
150	ALL	UCART1	267728.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E-03
151	ALL	UCART1	267778.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-03
152	ALL	UCART1	267828.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-03
153	ALL	UCART1	267878.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E-03
154	ALL	UCART1	267928.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.70E-03
155	ALL	UCART1	267978.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.92E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.92E-03

156	ALL	UCART1	268028.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.16E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.16E-03
157	ALL	UCART1	268078.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.29E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.29E-03
158	ALL	UCART1	268128.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.31E-03
159	ALL	UCART1	268178.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.40E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.40E-03
160	ALL	UCART1	268228.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.66E-03
161	ALL	UCART1	268278.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.57E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.57E-03
162	ALL	UCART1	268328.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.33E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.33E-03
163	ALL	UCART1	268378.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.98E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.98E-03
164	ALL	UCART1	268428.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E-03
165	ALL	UCART1	268478.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-03
166	ALL	UCART1	268528.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-03
167	ALL	UCART1	268578.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.24E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.24E-04
168	ALL	UCART1	268628.8	3808784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.93E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.93E-04
169	ALL	UCART1	267628.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.09E-04
170	ALL	UCART1	267678.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.93E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.93E-04
171	ALL	UCART1	267728.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-03
172	ALL	UCART1	267778.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03
173	ALL	UCART1	267828.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.36E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.36E-03
174	ALL	UCART1	267878.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E-03
175	ALL	UCART1	267928.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03
176	ALL	UCART1	267978.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.43E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.43E-03
177	ALL	UCART1	268028.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.99E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.99E-03
178	ALL	UCART1	268078.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.41E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.41E-03
179	ALL	UCART1	268128.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E-03
180	ALL	UCART1	268178.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.85E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.85E-03
181	ALL	UCART1	268228.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.62E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.62E-03
182	ALL	UCART1	268278.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.14E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.14E-03
183	ALL	UCART1	268328.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.51E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.51E-03
184	ALL	UCART1	268378.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03
185	ALL	UCART1	268428.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.56E-03
186	ALL	UCART1	268478.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.28E-03
187	ALL	UCART1	268528.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-03
188	ALL	UCART1	268578.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.15E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.15E-04
189	ALL	UCART1	268628.8	3808834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.77E-04
190	ALL	UCART1	267628.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.98E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.98E-04
191	ALL	UCART1	267678.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.14E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.14E-04
192	ALL	UCART1	267728.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-03
193	ALL	UCART1	267778.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-03
194	ALL	UCART1	267828.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E-03
195	ALL	UCART1	267878.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.79E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.79E-03
196	ALL	UCART1	267928.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03
197	ALL	UCART1	267978.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.19E-03
198	ALL	UCART1	268028.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.60E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.60E-03
199	ALL	UCART1	268078.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.38E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.38E-03
200	ALL	UCART1	268128.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.07E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.07E-03
201	ALL	UCART1	268178.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.90E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.90E-03
202	ALL	UCART1	268228.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.66E-03
203	ALL	UCART1	268278.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.35E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.35E-03
204	ALL	UCART1	268328.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.45E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.45E-03
205	ALL	UCART1	268378.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-03
206	ALL	UCART1	268428.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.52E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.52E-03
207	ALL	UCART1	268478.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E-03

208	ALL	UCART1	268528.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E-03
209	ALL	UCART1	268578.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.06E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.06E-04
210	ALL	UCART1	268628.8	3808884	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.73E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.73E-04
211	ALL	UCART1	267628.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.29E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.29E-04
212	ALL	UCART1	267678.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.47E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.47E-04
213	ALL	UCART1	267728.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-03
214	ALL	UCART1	267778.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-03
215	ALL	UCART1	267828.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.52E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.52E-03
216	ALL	UCART1	267878.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.92E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.92E-03
217	ALL	UCART1	267928.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.63E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.63E-03
218	ALL	UCART1	267978.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.97E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.97E-03
219	ALL	UCART1	268028.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.02E-03
220	ALL	UCART1	268078.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-02
221	ALL	UCART1	268128.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.48E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.48E-02
222	ALL	UCART1	268178.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.91E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.91E-03
223	ALL	UCART1	268228.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.94E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.94E-03
224	ALL	UCART1	268278.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.25E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.25E-03
225	ALL	UCART1	268328.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.38E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.38E-03
226	ALL	UCART1	268378.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.84E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.84E-03
227	ALL	UCART1	268428.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.48E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.48E-03
228	ALL	UCART1	268478.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.23E-03
229	ALL	UCART1	268528.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-03
230	ALL	UCART1	268578.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.81E-04
231	ALL	UCART1	268628.8	3808934	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.50E-04
232	ALL	UCART1	267628.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.10E-04
233	ALL	UCART1	267678.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.26E-04
234	ALL	UCART1	267728.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-03
235	ALL	UCART1	267778.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E-03
236	ALL	UCART1	267828.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.52E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.52E-03
237	ALL	UCART1	267878.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03
238	ALL	UCART1	267928.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.72E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.72E-03
239	ALL	UCART1	267978.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.37E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.37E-03
240	ALL	UCART1	268028.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-02
241	ALL	UCART1	268078.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E-02
242	ALL	UCART1	268128.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.85E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.85E-02
243	ALL	UCART1	268178.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.92E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.92E-03
244	ALL	UCART1	268228.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.41E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.41E-03
245	ALL	UCART1	268278.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.99E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.99E-03
246	ALL	UCART1	268328.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.22E-03
247	ALL	UCART1	268378.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.74E-03
248	ALL	UCART1	268428.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.41E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.41E-03
249	ALL	UCART1	268478.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.18E-03
250	ALL	UCART1	268528.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.95E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.95E-04
251	ALL	UCART1	268578.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.50E-04
252	ALL	UCART1	268628.8	3808984	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.96E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.96E-04
253	ALL	UCART1	267628.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.73E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.73E-04
254	ALL	UCART1	267678.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.26E-04
255	ALL	UCART1	267728.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.05E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.05E-03
256	ALL	UCART1	267778.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.24E-03
257	ALL	UCART1	267828.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.51E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.51E-03
258	ALL	UCART1	267878.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.91E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.91E-03
259	ALL	UCART1	267928.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.58E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.58E-03

260	ALL	UCART1	267978.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.90E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.90E-03
261	ALL	UCART1	268028.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.85E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.85E-03
262	ALL	UCART1	268078.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.08E-03
263	ALL	UCART1	268128.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.54E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.54E-03
264	ALL	UCART1	268178.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.19E-03
265	ALL	UCART1	268228.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.58E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.58E-03
266	ALL	UCART1	268278.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.63E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.63E-03
267	ALL	UCART1	268328.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-03
268	ALL	UCART1	268378.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.63E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.63E-03
269	ALL	UCART1	268428.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-03
270	ALL	UCART1	268478.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-03
271	ALL	UCART1	268528.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.45E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.45E-04
272	ALL	UCART1	268578.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.04E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.04E-04
273	ALL	UCART1	268628.8	3809034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.35E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.35E-04
274	ALL	UCART1	267628.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.46E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.46E-04
275	ALL	UCART1	267678.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.78E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.78E-04
276	ALL	UCART1	267728.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-03
277	ALL	UCART1	267778.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.18E-03
278	ALL	UCART1	267828.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.44E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.44E-03
279	ALL	UCART1	267878.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.78E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.78E-03
280	ALL	UCART1	267928.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03
281	ALL	UCART1	267978.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.05E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.05E-03
282	ALL	UCART1	268028.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.92E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.92E-03
283	ALL	UCART1	268078.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.33E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.33E-03
284	ALL	UCART1	268128.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.24E-03
285	ALL	UCART1	268178.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.61E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.61E-03
286	ALL	UCART1	268228.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.86E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.86E-03
287	ALL	UCART1	268278.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-03
288	ALL	UCART1	268328.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03
289	ALL	UCART1	268378.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.50E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.50E-03
290	ALL	UCART1	268428.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-03
291	ALL	UCART1	268478.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E-03
292	ALL	UCART1	268528.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.94E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.94E-04
293	ALL	UCART1	268578.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.34E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.34E-04
294	ALL	UCART1	268628.8	3809084	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.72E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.72E-04
295	ALL	UCART1	267628.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.18E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.18E-04
296	ALL	UCART1	267678.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.24E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.24E-04
297	ALL	UCART1	267728.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.82E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.82E-04
298	ALL	UCART1	267778.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-03
299	ALL	UCART1	267828.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.32E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.32E-03
300	ALL	UCART1	267878.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.59E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.59E-03
301	ALL	UCART1	267928.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-03
302	ALL	UCART1	267978.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.34E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.34E-03
303	ALL	UCART1	268028.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.59E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.59E-03
304	ALL	UCART1	268078.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.92E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.92E-03
305	ALL	UCART1	268128.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.96E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.96E-03
306	ALL	UCART1	268178.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.68E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.68E-03
307	ALL	UCART1	268228.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.30E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.30E-03
308	ALL	UCART1	268278.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.93E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.93E-03
309	ALL	UCART1	268328.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.61E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.61E-03
310	ALL	UCART1	268378.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.36E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.36E-03
311	ALL	UCART1	268428.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.16E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.16E-03

312	ALL	UCART1	268478.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.91E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.91E-04
313	ALL	UCART1	268528.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.41E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.41E-04
314	ALL	UCART1	268578.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.57E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.57E-04
315	ALL	UCART1	268628.8	3809134	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.46E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.46E-04
316	ALL	UCART1	267628.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.11E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.11E-04
317	ALL	UCART1	267678.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.09E-04
318	ALL	UCART1	267728.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.31E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.31E-04
319	ALL	UCART1	267778.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E-03
320	ALL	UCART1	267828.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.20E-03
321	ALL	UCART1	267878.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-03
322	ALL	UCART1	267928.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E-03
323	ALL	UCART1	267978.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.81E-03
324	ALL	UCART1	268028.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-03
325	ALL	UCART1	268078.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03
326	ALL	UCART1	268128.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.20E-03
327	ALL	UCART1	268178.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E-03
328	ALL	UCART1	268228.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.87E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.87E-03
329	ALL	UCART1	268278.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.64E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.64E-03
330	ALL	UCART1	268328.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.42E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.42E-03
331	ALL	UCART1	268378.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-03
332	ALL	UCART1	268428.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E-03
333	ALL	UCART1	268478.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.21E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.21E-04
334	ALL	UCART1	268528.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.89E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.89E-04
335	ALL	UCART1	268578.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.34E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.34E-04
336	ALL	UCART1	268628.8	3809184	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.59E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.59E-04
337	ALL	UCART1	267628.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.23E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.23E-04
338	ALL	UCART1	267678.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.88E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.88E-04
339	ALL	UCART1	267728.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.85E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.85E-04
340	ALL	UCART1	267778.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.77E-04
341	ALL	UCART1	267828.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.09E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.09E-03
342	ALL	UCART1	267878.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.24E-03
343	ALL	UCART1	267928.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-03
344	ALL	UCART1	267978.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.45E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.45E-03
345	ALL	UCART1	268028.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.54E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.54E-03
346	ALL	UCART1	268078.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.67E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.67E-03
347	ALL	UCART1	268128.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E-03
348	ALL	UCART1	268178.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E-03
349	ALL	UCART1	268228.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.56E-03
350	ALL	UCART1	268278.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-03
351	ALL	UCART1	268328.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-03
352	ALL	UCART1	268378.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-03
353	ALL	UCART1	268428.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.71E-04
354	ALL	UCART1	268478.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.54E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.54E-04
355	ALL	UCART1	268528.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.52E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.52E-04
356	ALL	UCART1	268578.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.46E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.46E-04
357	ALL	UCART1	268628.8	3809234	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.37E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.37E-04
358	ALL	UCART1	267628.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.47E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.47E-04
359	ALL	UCART1	267678.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.43E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.43E-04
360	ALL	UCART1	267728.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.17E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.17E-04
361	ALL	UCART1	267778.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.02E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.02E-04
362	ALL	UCART1	267828.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-03
363	ALL	UCART1	267878.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.20E-03

364	ALL	UCART1	267928.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.23E-03
365	ALL	UCART1	267978.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.23E-03
366	ALL	UCART1	268028.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.30E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.30E-03
367	ALL	UCART1	268078.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.37E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.37E-03
368	ALL	UCART1	268128.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.41E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.41E-03
369	ALL	UCART1	268178.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-03
370	ALL	UCART1	268228.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.32E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.32E-03
371	ALL	UCART1	268278.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-03
372	ALL	UCART1	268328.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-03
373	ALL	UCART1	268378.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.99E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.99E-04
374	ALL	UCART1	268428.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.98E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.98E-04
375	ALL	UCART1	268478.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.03E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.03E-04
376	ALL	UCART1	268528.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.17E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.17E-04
377	ALL	UCART1	268578.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.39E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.39E-04
378	ALL	UCART1	268628.8	3809284	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.32E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.32E-04
379	ALL	UCART1	267628.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.28E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.28E-04
380	ALL	UCART1	267678.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.68E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.68E-04
381	ALL	UCART1	267728.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.48E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.48E-04
382	ALL	UCART1	267778.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.24E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.24E-04
383	ALL	UCART1	267828.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.62E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.62E-04
384	ALL	UCART1	267878.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-03
385	ALL	UCART1	267928.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-03
386	ALL	UCART1	267978.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-03
387	ALL	UCART1	268028.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-03
388	ALL	UCART1	268078.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-03
389	ALL	UCART1	268128.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03
390	ALL	UCART1	268178.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-03
391	ALL	UCART1	268228.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.13E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.13E-03
392	ALL	UCART1	268278.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E-03
393	ALL	UCART1	268328.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.86E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.86E-04
394	ALL	UCART1	268378.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.08E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.08E-04
395	ALL	UCART1	268428.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.33E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.33E-04
396	ALL	UCART1	268478.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.55E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.55E-04
397	ALL	UCART1	268528.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.71E-04
398	ALL	UCART1	268578.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.15E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.15E-04
399	ALL	UCART1	268628.8	3809334	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.60E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.60E-04
400	ALL	UCART1	267628.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.90E-04
401	ALL	UCART1	267678.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.71E-04
402	ALL	UCART1	267728.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.25E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.25E-04
403	ALL	UCART1	267778.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.47E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.47E-04
404	ALL	UCART1	267828.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.84E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.84E-04
405	ALL	UCART1	267878.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.32E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.32E-04
406	ALL	UCART1	267928.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.54E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.54E-04
407	ALL	UCART1	267978.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.27E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.27E-04
408	ALL	UCART1	268028.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.73E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.73E-04
409	ALL	UCART1	268078.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.85E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.85E-04
410	ALL	UCART1	268128.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.97E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.97E-04
411	ALL	UCART1	268178.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.91E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.91E-04
412	ALL	UCART1	268228.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.82E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.82E-04
413	ALL	UCART1	268278.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.39E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.39E-04
414	ALL	UCART1	268328.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.83E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.83E-04
415	ALL	UCART1	268378.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.27E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.27E-04

416	ALL	UCART1	268428.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.67E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.67E-04
417	ALL	UCART1	268478.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.09E-04
418	ALL	UCART1	268528.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.48E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.48E-04
419	ALL	UCART1	268578.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.90E-04
420	ALL	UCART1	268628.8	3809384	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.27E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.27E-04
421	ALL	UCART1	267628.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.92E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.92E-04
422	ALL	UCART1	267678.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.22E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.22E-04
423	ALL	UCART1	267728.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.51E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.51E-04
424	ALL	UCART1	267778.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.91E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.91E-04
425	ALL	UCART1	267828.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.18E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.18E-04
426	ALL	UCART1	267878.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.56E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.56E-04
427	ALL	UCART1	267928.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.99E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.99E-04
428	ALL	UCART1	267978.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.03E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.03E-04
429	ALL	UCART1	268028.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.13E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.13E-04
430	ALL	UCART1	268078.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.53E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.53E-04
431	ALL	UCART1	268128.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.57E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.57E-04
432	ALL	UCART1	268178.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.63E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.63E-04
433	ALL	UCART1	268228.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.58E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.58E-04
434	ALL	UCART1	268278.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.27E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.27E-04
435	ALL	UCART1	268328.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.94E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.94E-04
436	ALL	UCART1	268378.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.51E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.51E-04
437	ALL	UCART1	268428.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.05E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.05E-04
438	ALL	UCART1	268478.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.57E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.57E-04
439	ALL	UCART1	268528.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.09E-04
440	ALL	UCART1	268578.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.67E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.67E-04
441	ALL	UCART1	268628.8	3809434	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.10E-04
442	ALL		268139.3	3809033	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.17E-03
443	ALL		268132.2	3809043	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.50E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.50E-03
444	ALL		268124.3	3809052	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.94E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.94E-03
445	ALL		268113.6	3809065	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.23E-03
446	ALL		268132.9	3809074	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.61E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.61E-03
447	ALL		268139.3	3809082	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.22E-03
448	ALL		268150.5	3809071	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.46E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.46E-03
449	ALL		268145.2	3809056	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.28E-03
450	ALL		268094	3809107	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.63E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.63E-03
451	ALL		268086.6	3809118	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.30E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.30E-03
452	ALL		268027.3	3808960	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.37E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.37E-03
453	ALL		268019.7	3808974	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.95E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.95E-03
454	ALL		268002.1	3809013	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.71E-03
455	ALL		268002.6	3809029	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.18E-03
456	ALL		267993.5	3809043	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.23E-03
457	ALL		267987.9	3809003	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.81E-03
458	ALL		267976.4	3809009	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.13E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.13E-03
459	ALL		267971.1	3809022	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.76E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.76E-03
460	ALL		267979.7	3809048	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.66E-03
461	ALL		267965.5	3809037	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.39E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.39E-03
462	ALL		267974.4	3809061	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.33E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.33E-03
463	ALL		267951.5	3809041	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.99E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.99E-03
464	ALL		268059.4	3808882	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.60E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.60E-03
465	ALL		268040.1	3808894	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.52E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.52E-03
466	ALL		268021.5	3808912	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.42E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.42E-03
467	ALL		268012.1	3808924	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.35E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.35E-03

468	ALL	268000.6	3808933	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.97E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.97E-03
469	ALL	267989.9	3808945	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.62E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.62E-03

```
** Lakes Environmental AERMOD MPI
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 13.0.0
** Lakes Environmental Software Inc.
** Date: 6/10/2025
** File: C:\Users\apoll\OneDrive - Dudek\Desktop\HARP2\HARP\Surfliner\Surfliner HRA
- Worker\Surfliner HRA.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner
   MODELOPT CONC
   AVERTIME 1 PERIOD
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL "Surfliner HRA.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC
** PREFIX
** Length of Side = 8.60
** Configuration = Adjacent
** Emission Rate = 0.4827586207
** Vertical Dimension = 6.80
** SZINIT = 3.16
** Nodes = 2
** 268032.629, 3809013.610, 3.76, 3.40, 4.00
** 268100.072, 3808912.828, 4.53, 3.40, 4.00
** ------------------------------------------------------------------------
```

```
   LOCATION L0000030     VOLUME   268035.021 3809010.036 3.88
   LOCATION L0000031     VOLUME   268039.804 3809002.889 3.94
   LOCATION L0000032     VOLUME   268044.587 3808995.742 3.98
   LOCATION L0000033     VOLUME   268049.369 3808988.595 4.00
   LOCATION L0000034     VOLUME   268054.152 3808981.447 4.03
   LOCATION L0000035     VOLUME   268058.935 3808974.300 4.10
   LOCATION L0000036     VOLUME   268063.718 3808967.153 4.18
   LOCATION L0000037     VOLUME   268068.501 3808960.005 4.24
   LOCATION L0000038     VOLUME   268073.284 3808952.858 4.30
   LOCATION L0000039     VOLUME   268078.067 3808945.711 4.35
   LOCATION L0000040     VOLUME   268082.850 3808938.564 4.40
   LOCATION L0000041     VOLUME   268087.633 3808931.416 4.44
   LOCATION L0000042     VOLUME   268092.416 3808924.269 4.48
   LOCATION L0000043     VOLUME   268097.199 3808917.122 4.52
** End of LINE VOLUME Source ID = SLINE1
** ----------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC
** PREFIX
** Length of Side = 8.60
** Configuration = Adjacent
** Emission Rate = 0.5172413793
** Vertical Dimension = 6.80
** SZINIT = 3.16
** Nodes = 4
** 268108.216, 3809005.466, 4.57, 3.40, 4.00
** 268139.774, 3808958.892, 4.87, 3.40, 4.00
** 268126.540, 3808949.730, 4.81, 3.40, 4.00
** 268096.000, 3808998.595, 4.56, 3.40, 4.00
** ----------------------------------------------------------------
   LOCATION L0000044     VOLUME   268110.628 3809001.906 4.62
   LOCATION L0000045     VOLUME   268115.452 3808994.787 4.67
   LOCATION L0000046     VOLUME   268120.276 3808987.667 4.72
   LOCATION L0000047     VOLUME   268125.101 3808980.548 4.77
   LOCATION L0000048     VOLUME   268129.925 3808973.428 4.80
   LOCATION L0000049     VOLUME   268134.749 3808966.309 4.82
   LOCATION L0000050     VOLUME   268139.573 3808959.189 4.83
   LOCATION L0000051     VOLUME   268132.998 3808954.201 4.82
   LOCATION L0000052     VOLUME   268126.145 3808950.362 4.81
   LOCATION L0000053     VOLUME   268121.587 3808957.655 4.78
   LOCATION L0000054     VOLUME   268117.029 3808964.948 4.75
   LOCATION L0000055     VOLUME   268112.471 3808972.241 4.72
   LOCATION L0000056     VOLUME   268107.913 3808979.534 4.69
   LOCATION L0000057     VOLUME   268103.355 3808986.826 4.64
   LOCATION L0000058     VOLUME   268098.797 3808994.119 4.58
** End of LINE VOLUME Source ID = SLINE2
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0000030     0.0344827586      3.40      4.00      3.16
```

```
   SRCPARAM L0000031     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000032     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000033     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000034     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000035     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000036     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000037     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000038     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000039     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000040     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000041     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000042     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000043     0.0344827586      3.40      4.00      3.16
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0000044     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000045     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000046     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000047     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000048     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000049     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000050     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000051     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000052     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000053     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000054     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000055     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000056     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000057     0.0344827586      3.40      4.00      3.16
   SRCPARAM L0000058     0.0344827586      3.40      4.00      3.16
** ------------------------------------------------------------------
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Surfliner HRA.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE ..\Carp19-23\Carp19-23.SFC
```

```
   PROFFILE ..\Carp19-23\Carp19-23.PFL
   SURFDATA 23190 2019 SANTA_BARBARA/FAA_AIRPORT
   UAIRDATA 93214 2019
   SITEDATA 8 2019
   PROFBASE 137.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "Surfliner HRA.AD\01H1GALL.PLT" 31
   PLOTFILE PERIOD ALL "Surfliner HRA.AD\PE00GALL.PLT" 32
   SUMMFILE "Surfliner HRA.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 MX W403     154       PFLCNV: Turbulence data is being used w/o ADJ_U* option
SigA Data

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

↟ *** AERMOD - VERSION 24142  ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner  ***
06/10/25
 *** AERMET - VERSION  23132 ***   ***
                       ***       12:17:34

                                 PAGE   1
```

```
 *** MODELOPTs:    CONC  ELEV  RURAL  SigA Data

                                          ***     MODEL SETUP OPTIONS SUMMARY
 ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Allows User-Specified Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses RURAL Dispersion Only.
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * Model Assumes No FLAGPOLE Receptor Heights.
      * The User Specified a Pollutant Type of: PM_10

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates PERIOD Averages

 **This Run Includes:     29 Source(s);       1 Source Group(s); and       7
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:     29 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                 and:      0 SWPOINT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  23132

 **Output Options Selected:
          Model Outputs Tables of PERIOD Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
```

Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and
Missing Hours

 **Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) =   137.00 ; Decay
Coef. =   0.000   ; Rot. Angle =   0.0
                  Emission Units = GRAMS/SEC   ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =   3.5 MB of RAM.

 **Input Runstream File: aermod.inp

 **Output Print File: aermod.out

 **Detailed Error/Message File: Surfliner HRA.err

 **File for Summary of Results: Surfliner HRA.sum

 *** AERMOD - VERSION 24142 ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner ***
06/10/25
 *** AERMET - VERSION 23132 ***   ***
                       ***   12:17:34

                                  PAGE   2
 *** MODELOPTs: CONC ELEV RURAL SigA Data

                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE   BASE   RELEASE   INIT.
INIT.   URBAN EMISSION RATE   AIRCRAFT
   SOURCE   PART. (GRAMS/SEC)   X   Y   ELEV.   HEIGHT   SY
SZ   SOURCE SCALAR VARY
     ID   CATS.   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   BY
 -
- - - - - - - - - - - - - - - - - - - -

 L0000030   0   0.34483E-01 268035.0 3809010.0   3.9   3.40   4.00
3.16   NO   NO
 L0000031   0   0.34483E-01 268039.8 3809002.9   3.9   3.40   4.00

```
3.16     NO                    NO
 L0000032         0   0.34483E-01  268044.6 3808995.7     4.0     3.40     4.00
3.16     NO                    NO
 L0000033         0   0.34483E-01  268049.4 3808988.6     4.0     3.40     4.00
3.16     NO                    NO
 L0000034         0   0.34483E-01  268054.2 3808981.4     4.0     3.40     4.00
3.16     NO                    NO
 L0000035         0   0.34483E-01  268058.9 3808974.3     4.1     3.40     4.00
3.16     NO                    NO
 L0000036         0   0.34483E-01  268063.7 3808967.2     4.2     3.40     4.00
3.16     NO                    NO
 L0000037         0   0.34483E-01  268068.5 3808960.0     4.2     3.40     4.00
3.16     NO                    NO
 L0000038         0   0.34483E-01  268073.3 3808952.9     4.3     3.40     4.00
3.16     NO                    NO
 L0000039         0   0.34483E-01  268078.1 3808945.7     4.3     3.40     4.00
3.16     NO                    NO
 L0000040         0   0.34483E-01  268082.8 3808938.6     4.4     3.40     4.00
3.16     NO                    NO
 L0000041         0   0.34483E-01  268087.6 3808931.4     4.4     3.40     4.00
3.16     NO                    NO
 L0000042         0   0.34483E-01  268092.4 3808924.3     4.5     3.40     4.00
3.16     NO                    NO
 L0000043         0   0.34483E-01  268097.2 3808917.1     4.5     3.40     4.00
3.16     NO                    NO
 L0000044         0   0.34483E-01  268110.6 3809001.9     4.6     3.40     4.00
3.16     NO                    NO
 L0000045         0   0.34483E-01  268115.5 3808994.8     4.7     3.40     4.00
3.16     NO                    NO
 L0000046         0   0.34483E-01  268120.3 3808987.7     4.7     3.40     4.00
3.16     NO                    NO
 L0000047         0   0.34483E-01  268125.1 3808980.5     4.8     3.40     4.00
3.16     NO                    NO
 L0000048         0   0.34483E-01  268129.9 3808973.4     4.8     3.40     4.00
3.16     NO                    NO
 L0000049         0   0.34483E-01  268134.7 3808966.3     4.8     3.40     4.00
3.16     NO                    NO
 L0000050         0   0.34483E-01  268139.6 3808959.2     4.8     3.40     4.00
3.16     NO                    NO
 L0000051         0   0.34483E-01  268133.0 3808954.2     4.8     3.40     4.00
3.16     NO                    NO
 L0000052         0   0.34483E-01  268126.1 3808950.4     4.8     3.40     4.00
3.16     NO                    NO
 L0000053         0   0.34483E-01  268121.6 3808957.7     4.8     3.40     4.00
3.16     NO                    NO
 L0000054         0   0.34483E-01  268117.0 3808964.9     4.8     3.40     4.00
3.16     NO                    NO
 L0000055         0   0.34483E-01  268112.5 3808972.2     4.7     3.40     4.00
3.16     NO                    NO
 L0000056         0   0.34483E-01  268107.9 3808979.5     4.7     3.40     4.00
```

3.16   NO   NO
 L0000057   0   0.34483E-01 268103.4 3808986.8   4.6   3.40   4.00
3.16   NO   NO
 L0000058   0   0.34483E-01 268098.8 3808994.1   4.6   3.40   4.00
3.16   NO   NO

                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID   SOURCE IDs
 -----------   ----------

  ALL   L0000030   , L0000031   , L0000032   , L0000033   , L0000034   ,
L0000035   , L0000036   , L0000037   ,

             L0000038   , L0000039   , L0000040   , L0000041   , L0000042   ,
L0000043   , L0000044   , L0000045   ,

             L0000046   , L0000047   , L0000048   , L0000049   , L0000050   ,
L0000051   , L0000052   , L0000053   ,

             L0000054   , L0000055   , L0000056   , L0000057   , L0000058   ,

                                        *** DISCRETE CARTESIAN RECEPTORS ***
                                       (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                (METERS)

     (268174.2, 3808989.4,   5.0,   1831.7,   0.0);   (268156.8,
3808998.7,   5.0,   1831.7,   0.0);
     (268148.3, 3809018.7,   5.0,   1831.7,   0.0);   (268160.1,
3808913.1,   4.9,   1831.7,   0.0);
     (268177.5, 3808884.9,   5.0,   1831.7,   0.0);   (268198.2,
3808863.5,   5.0,   1831.7,   0.0);

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

1 1 1

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\Carp19-23\Carp19-23.SFC
Met Version: 23132
Profile file: ..\Carp19-23\Carp19-23.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 23190 Upper air station no.: 93214
Name: SANTA_BARBARA/FAA_AIRPORT Name: UNKNOWN

Year: 2019 Year: 2019

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
19	01	01	1	01	-1.3	0.035	-9.000	-9.000	-999.	16.	2.9	0.03	0.31	1.00	1.00	348.	10.0	280.0	10.0
19	01	01	1	02	-1.5	0.036	-9.000	-9.000	-999.	17.	2.9	0.02	0.31	1.00	1.10	25.	10.0	278.4	10.0
19	01	01	1	03	-2.9	0.052	-9.000	-9.000	-999.	29.	4.3	0.03	0.31	1.00	1.50	345.	10.0	280.6	10.0
19	01	01	1	04	-0.8	0.028	-9.000	-9.000	-999.	11.	2.3	0.03	0.31	1.00	0.80	308.	10.0	277.1	10.0
19	01	01	1	05	-1.6	0.038	-9.000	-9.000	-999.	18.	3.2	0.03	0.31	1.00	1.10	304.	10.0	276.8	10.0
19	01	01	1	06	-1.0	0.032	-9.000	-9.000	-999.	14.	2.9	0.07	0.31	1.00	0.80	294.	10.0	276.9	10.0
19	01	01	1	07	-0.6	0.024	-9.000	-9.000	-999.	9.	2.0	0.03	0.31	1.00	0.70	318.	10.0	276.2	10.0
19	01	01	1	08	-1.4	0.040	-9.000	-9.000	-999.	19.	4.0	0.11	0.31	0.56	0.90	160.	10.0	280.5	10.0
19	01	01	1	09	9.6	0.145	0.189	0.009	25.	132.	-28.3	0.11	0.31	0.30	1.40	166.	10.0	284.1	10.0
19	01	01	1	10	33.7	0.193	0.448	0.006	95.	203.	-19.1	0.07	0.31	0.22	2.00	272.	10.0	285.2	10.0
19	01	01	1	11	50.9	0.228	0.625	0.005	172.	262.	-20.9	0.10	0.31	0.19	2.20	268.	10.0	285.4	10.0
19	01	01	1	12	59.7	0.239	0.728	0.005	231.	281.	-20.5	0.10	0.31	0.18	2.30	255.	10.0	285.4	10.0
19	01	01	1	13	60.0	0.239	0.776	0.005	279.	281.	-20.5	0.07	0.31	0.17	2.50	279.	10.0	285.8	10.0
19	01	01	1	14	51.5	0.212	0.798	0.005	353.	235.	-16.7	0.10	0.31	0.18	2.00	261.	10.0	285.8	10.0

```
 19 01 01   1 15   34.6  0.193  0.730  0.005  403.  204.    -18.7  0.07   0.31
0.21    2.00  270.   10.0  285.1   10.0
 19 01 01   1 16   10.5  0.119  0.506  0.005  439.  100.    -14.4  0.07   0.31
0.30    1.20  283.   10.0  282.9   10.0
 19 01 01   1 17   -1.0  0.031 -9.000 -9.000 -999.   22.      2.8  0.03   0.31
0.55    0.90  308.   10.0  279.8   10.0
 19 01 01   1 18   -1.5  0.040 -9.000 -9.000 -999.   19.      3.8  0.11   0.31
1.00    0.90  237.   10.0  278.8   10.0
 19 01 01   1 19   -1.1  0.031 -9.000 -9.000 -999.   13.      2.6  0.03   0.31
1.00    0.90  303.   10.0  278.2   10.0
 19 01 01   1 20   -0.3  0.017 -9.000 -9.000 -999.    6.      1.4  0.03   0.31
1.00    0.50  344.   10.0  277.1   10.0
 19 01 01   1 21   -0.5  0.021 -9.000 -9.000 -999.    7.      1.7  0.03   0.31
1.00    0.60  331.   10.0  277.0   10.0
 19 01 01   1 22   -0.5  0.021 -9.000 -9.000 -999.    7.      1.7  0.03   0.31
1.00    0.60  312.   10.0  276.8   10.0
 19 01 01   1 23   -0.3  0.017 -9.000 -9.000 -999.    5.      1.3  0.02   0.31
1.00    0.50   33.   10.0  276.5   10.0
 19 01 01   1 24   -0.2  0.014 -9.000 -9.000 -999.    4.      1.1  0.03   0.31
1.00    0.40  330.   10.0  276.1   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 19 01 01 01   10.0 1  348.    1.00   280.1   67.5  -99.00    0.63

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 24142  ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner  ***
06/10/25
 *** AERMET - VERSION  23132 ***   ***
                      ***        12:17:34

                                 PAGE   7
 *** MODELOPTs:    CONC  ELEV  RURAL  SigA Data

                             *** THE PERIOD ( 43824 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL      ***
                                 INCLUDING SOURCE(S):     L0000030    , L0000031
, L0000032    , L0000033    , L0000034    ,
                  L0000035    , L0000036    , L0000037    , L0000038    , L0000039
, L0000040    , L0000041    , L0000042    ,
                  L0000043    , L0000044    , L0000045    , L0000046    , L0000047
, L0000048    , L0000049    , L0000050    ,
                  L0000051    , L0000052    , L0000053    , L0000054    , L0000055
, L0000056    , L0000057    , L0000058    ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***
```

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
268174.24	3808989.45	445.64002	268156.81	3808998.66	529.08232
268148.26	3809018.72	445.27721	268160.10	3808913.15	475.24773
268177.53	3808884.87	330.43262	268198.25	3808863.49	260.87203
268081.83	3808896.38	445.75180			

*** MODELOPTs: CONC ELEV RURAL SigA Data

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000030 , L0000031 , L0000032 , L0000033 , L0000034 , L0000035 , L0000036 , L0000037 , L0000038 , L0000039 , L0000040 , L0000041 , L0000042 , L0000043 , L0000044 , L0000045 , L0000046 , L0000047 , L0000048 , L0000049 , L0000050 , L0000051 , L0000052 , L0000053 , L0000054 , L0000055 , L0000056 , L0000057 , L0000058 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
268174.24	3808989.45	2684.07740	(19081720)	268156.81	3808998.66	2526.77923	(23071804)
268148.26	3809018.72	2523.50287	(23052623)	268160.10	3808913.15	3175.27393	(19092106)
268177.53	3808884.87	2698.66437	(21072824)	268198.25			

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF PM_10   IN MICROGRAMS/M**3 **

GROUP ID	NETWORK	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	529.08232	AT (268156.81, 3808998.66, 5.04, 1831.69, 0.00)	DC	
	2ND HIGHEST VALUE IS	475.24773	AT (268160.10, 3808913.15, 4.89, 1831.69, 0.00)	DC	
	3RD HIGHEST VALUE IS	445.75180	AT (268081.83, 3808896.38, 4.24, 1831.69, 0.00)	DC	
	4TH HIGHEST VALUE IS	445.64002	AT (268174.24, 3808989.45, 5.01, 1831.69, 0.00)	DC	
	5TH HIGHEST VALUE IS	445.27721	AT (268148.26, 3809018.72, 4.99, 1831.69, 0.00)	DC	
	6TH HIGHEST VALUE IS	330.43262	AT (268177.53, 3808884.87, 5.01, 1831.69, 0.00)	DC	
	7TH HIGHEST VALUE IS	260.87203	AT (268198.25, 3808863.49, 4.97, 1831.69, 0.00)	DC	
	8TH HIGHEST VALUE IS	0.00000	AT (0.00, 0.00, 0.00, 0.00, 0.00)		
	9TH HIGHEST VALUE IS	0.00000	AT (0.00, 0.00, 0.00, 0.00, 0.00)		
	10TH HIGHEST VALUE IS	0.00000	AT (0.00, 0.00, 0.00, 0.00, 0.00)		

 *** RECEPTOR TYPES: GC = GRIDCART
                      GP = GRIDPOLR

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM_10   IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE	CONC	DATE (YYMMDDHH)	NETWORK TYPE	GRID-ID	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF
ALL	HIGH	1ST HIGH VALUE IS	3175.27393	ON 19092106:	AT	(268160.10, 3808913.15, 4.89, 1831.69, 0.00)	DC

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of   0 Fatal Error Message(s)
 A Total of   1 Warning Message(s)
 A Total of   588 Informational Message(s)

```
 A Total of        43824 Hours Were Processed

 A Total of           86 Calm Hours Identified

 A Total of          502 Missing Hours Identified (  1.15 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 MX W403     154       PFLCNV: Turbulence data is being used w/o ADJ_U* option
SigA Data

    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
```

 *** MODELOPTs: CONC ELEV RURAL SigA Data

                                          ***   MODEL SETUP OPTIONS SUMMARY
 ***
 -
- -

 ** Model Options Selected:
      * Model Allows User-Specified Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE = F
      * Model Uses NO WET DEPLETION. WETDPLT = F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses RURAL Dispersion Only.
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * Model Assumes No FLAGPOLE Receptor Heights.
      * The User Specified a Pollutant Type of: PM_10

 **Model Calculates 1 Short Term Average(s) of: 1-HR
     and Calculates PERIOD Averages

 **This Run Includes: 29 Source(s);   1 Source Group(s); and   7
Receptor(s)

                with: 0 POINT(s), including
                           0 POINTCAP(s) and   0 POINTHOR(s)
                 and: 29 VOLUME source(s)
                 and: 0 AREA type source(s)
                 and: 0 LINE source(s)
                 and: 0 RLINE/RLINEXT source(s)
                 and: 0 OPENPIT source(s)
                 and: 0 BUOYANT LINE source(s) with a total of   0 line(s)
                 and: 0 SWPOINT source(s)

 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date: 23132

 **Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and
Missing Hours

 **Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) =   137.00 ; Decay
Coef. =   0.000   ; Rot. Angle =   0.0
                 Emission Units = GRAMS/SEC   ;
Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =   3.5 MB of RAM.

 **Input Runstream File: aermod.inp

 **Output Print File: aermod.out

 **Detailed Error/Message File: Surfliner HRA.err

 **File for Summary of Results: Surfliner HRA.sum

 *** AERMOD - VERSION 24142 ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner ***
06/10/25
 *** AERMET - VERSION 23132 ***   ***
                      ***   12:17:34

                                 PAGE   2
 *** MODELOPTs: CONC ELEV RURAL SigA Data

                                          *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                              (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1

```
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: CONC ELEV RURAL SigA Data

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\Carp19-23\Carp19-23.SFC
Met Version: 23132
Profile file: ..\Carp19-23\Carp19-23.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 23190 Upper air station no.: 93214
Name: SANTA_BARBARA/FAA_AIRPORT Name: UNKNOWN

Year: 2019 Year: 2019

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN

```
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - -
```

```
1.00    0.40  330.   10.0  276.1   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 19 01 01 01   10.0 1  348.    1.00   280.1   67.5  -99.00    0.63

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 24142  ***   ***
C:\Users\apoll\Desktop\HARP2\HARP\Surfliner\Surfliner HRA\Surfliner  ***
06/10/25
 *** AERMET - VERSION  23132 ***   ***
                       ***        12:17:34

                                  PAGE   4
 *** MODELOPTs:    CONC  ELEV  RURAL  SigA Data

                                       *** THE SUMMARY OF MAXIMUM PERIOD ( 43824
HRS) RESULTS ***


                                    ** CONC OF PM_10    IN MICROGRAMS/M**3
             **


                       NETWORK
GROUP ID                      AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV,
ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -

ALL       1ST HIGHEST VALUE IS     529.08232 AT (  268156.81,  3808998.66,     5.04,
 1831.69,    0.00)  DC
          2ND HIGHEST VALUE IS     475.24773 AT (  268160.10,  3808913.15,     4.89,
 1831.69,    0.00)  DC
          3RD HIGHEST VALUE IS     445.75180 AT (  268081.83,  3808896.38,     4.24,
 1831.69,    0.00)  DC
          4TH HIGHEST VALUE IS     445.64002 AT (  268174.24,  3808989.45,     5.01,
 1831.69,    0.00)  DC
          5TH HIGHEST VALUE IS     445.27721 AT (  268148.26,  3809018.72,     4.99,
 1831.69,    0.00)  DC
          6TH HIGHEST VALUE IS     330.43262 AT (  268177.53,  3808884.87,     5.01,
 1831.69,    0.00)  DC
          7TH HIGHEST VALUE IS     260.87203 AT (  268198.25,  3808863.49,     4.97,
 1831.69,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,
    0.00,    0.00)
          9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,
    0.00,    0.00)
         10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,
```

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM_10   IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK OF TYPE	GRID-ID	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)
ALL	HIGH 1ST HIGH VALUE IS	3175.27393	ON 19092106:	AT	(268160.10, 3808913.15, 4.89, 1831.69, 0.00) DC

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

```
 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of          588 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of           86 Calm Hours Identified

 A Total of          502 Missing Hours Identified (  1.15 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 MX W403     154       PFLCNV: Turbulence data is being used w/o ADJ_U* option
SigA Data
```

HARP Project Summary Report 6/10/2025 12:57:09 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: SURFLINER INN HRA
Project Output Directory: C:\Users\apoll\OneDrive - Dudek\Desktop\HARP2\HARP\Surfliner\SURFLINER INN HRA
HARP Database: NA

FACILITY INFORMATION
Origin
X (m):0
Y (m):0
Zone:1
No. of Sources:0
No. of Buildings:0

EMISSION INVENTORY
No. of Pollutants:1
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
ALL	0	0	9901	DieselExhPM	1	6.3	0.00303	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH25003
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1					5

AIR DISPERSION MODELING INFORMATION
Versions used in HARP. All executables were obtained from USEPA's Support Center for Regulatory Atmospheric Modeling website (http://www.epa.gov/scram001/)
AERMOD: 18081
AERMAP: 18081
BPIPPRM: 04274
AERPLOT: 13329

METEOROLOGICAL INFORMATION
Version:
Surface File:
Profile File:
Surface Station:
Upper Station:
On-Site Station:

LIST OF AIR DISPERSION FILES
AERMOD Input File:
AERMOD Output File:
AERMOD Error File:
Plotfile list

_____
Cancer Residential.plt
Cancer Worker.plt

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)

_____
ResidentialCancerRisk.csv
ResidentialCancerRiskSumByRec.csv
ResidentialCancerRiskSumByRec.pdf
ResidentialGLCList.csv
ResidentialHRAInput.hra
ResidentialNCAcuteRisk.csv
ResidentialNCAcuteRiskSumByRec.csv
ResidentialNCChronicRisk.csv
ResidentialNCChronicRiskSumByRec.csv
ResidentialNCChronicRiskSumByRec.pdf
ResidentialOutput.txt
ResidentialPathwayRec.csv
ResidentialPolDB.csv
Thumbs.db
WorkerCancerRisk.csv
WorkerCancerRiskSumByRec.csv
WorkerCancerRiskSumByRec.pdf
WorkerGLCList.csv
WorkerHRAInput.hra
WorkerNCAcuteRisk.csv

WorkerNCAcuteRiskSumByRec.csv
WorkerNCChronicRisk.csv
WorkerNCChronicRiskSumByRec.csv
WorkerNCChronicRiskSumByRec.pdf
WorkerOutput.txt
WorkerPathwayRec.csv
WorkerPolDB.csv

Spatial averaging files (\sa\)
_____

HARP2 - HRACalc (dated 22118) 6/10/2025 12:56:26 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 16
Total Exposure Duration: 1.167

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 1.167
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors
NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.
Worker adjustments factors enabled: YES
GLC adjustment factor: 1.93
Exposure frequency: 250

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Warm

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: C:\Users\apoll\OneDrive - Dudek\Desktop\HARP2\HARP\Surfliner\SURFLINER INN HRA\hra\WorkerCancerRisk.csv
Cancer risk total by receptor saved to: C:\Users\apoll\OneDrive - Dudek\Desktop\HARP2\HARP\Surfliner\SURFLINER INN HRA\hra\WorkerCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: C:\Users\apoll\OneDrive - Dudek\Desktop\HARP2\HARP\Surfliner\SURFLINER INN HRA\hra\WorkerNCChronicRisk.csv
Chronic risk total by receptor saved to: C:\Users\apoll\OneDrive - Dudek\Desktop\HARP2\HARP\Surfliner\SURFLINER INN HRA\hra\WorkerNCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to: C:\Users\apoll\OneDrive - Dudek\Desktop\HARP2\HARP\Surfliner\SURFLINER INN HRA\hra\WorkerNCAcuteRisk.csv
Acute risk total by receptor saved to: C:\Users\apoll\OneDrive - Dudek\Desktop\HARP2\HARP\Surfliner\SURFLINER INN HRA\hra\WorkerNCAcuteRiskSumByRec.csv
HRA ran successfully

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INH_RISK	SOIL_RISK	DERMAL_R	MMILK_RIS	WATER_RIS	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISK	PIG_RISK	CHICKEN_F	EGG_RISK
1	ALL		268174.2	3808989	2.35E-07	1.167YrCar	2.35E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	ALL		268156.8	3808999	2.79E-07	1.167YrCar	2.79E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	ALL		268148.3	3809019	2.35E-07	1.167YrCar	2.35E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	ALL		268160.1	3808913	2.51E-07	1.167YrCar	2.51E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	ALL		268177.5	3808885	1.74E-07	1.167YrCar	1.74E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	ALL		268198.3	3808863	1.38E-07	1.167YrCar	1.38E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7	ALL		268081.8	3808896	2.35E-07	1.167YrCar	2.35E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

REC	GRP	NETID	X	Y	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE\	RESP	SKIN	EYE	BONE/TEET	ENDO	BLOOD	ODOR	GENERAL	MAXHI
1	ALL		268174.2	3808989	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.08E-03
2	ALL		268156.8	3808999	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.59E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.59E-03
3	ALL		268148.3	3809019	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.07E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.07E-03
4	ALL		268160.1	3808913	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.61E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.61E-03
5	ALL		268177.5	3808885	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.99E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.99E-03
6	ALL		268198.3	3808863	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.73E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.73E-03
7	ALL		268081.8	3808896	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.08E-03

Attachment C

County of Santa Barbara 2030 Climate Action Plan Consistency Checklist

EXHIBIT 2: 2030 CLIMATE ACTION PLAN CONSISTENCY CHECKLIST

County of Santa Barbara

CLIMATE ACTION PLAN CONSISTENCY CHECKLIST for Future Development[1]

The County of Santa Barbara 2030 Climate Action Plan establishes 2030 and 2045 greenhouse gas (GHG) emissions targets and provides measures to establish a trajectory towards achieving those targets. The 2030 Climate Action Plan includes specific measures to achieve a GHG emissions target of 50 percent below 2018 levels by 2030. This is consistent with and exceeds California's goal of reducing GHG emissions to 40 percent below 1990 levels (per Senate Bill 32) by 2030 and provides substantial progress towards achieving the State GHG reduction goal of carbon neutrality (per Executive Order B-55-18) by 2045. The County Board of Supervisors, County staff, and community will continue to develop an approach to meet the State 2045 goal of carbon neutrality.

Over the years, the County has implemented many environmental programs. The 2030 Climate Action Plan establishes the continuation of some programs, expansion of other programs, and implementation of new programs to reduce GHG emissions.

Per the 2030 Climate Action Plan, the Santa Barbara County GHG Emissions Inventory will be updated at least every three years. In addition, the CAP will be updated every five to seven years with annual reviews of progress on implementation of specific Santa Barbara County measures and with respect to meeting emissions reduction targets.

Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15183.5, a lead agency may determine that a project's or plan's incremental contribution to a cumulative effect is not cumulatively considerable if it complies with the requirements in a previously adopted plan or mitigation program under specified circumstances. In order for the 2030 Climate Action Plan to be considered a qualified GHG reduction strategy and provide for CEQA streamlining of GHG analysis for future development, the 2030 Climate Action Plan must identify those measures that are applicable to future development projects. The 2030 Climate Action Plan includes measures that are applicable to existing developments, municipal government operations, as well as mandatory measures to be applied to future development for public and private projects and plans. Mandatory GHG reduction measures that are applicable to future development are summarized in the following CEQA GHG Emissions Compliance Checklist (referred to herein as the CEQA GHG Checklist). This CEQA GHG Checklist identifies applicable regulations, applicability, requirements, and monitoring and reporting required by those regulations. The purpose of the CEQA GHG Checklist is to assist with determining project or plan consistency with the 2030 Climate Action Plan and provide a streamlined review process for proposed future development projects that are subject to discretionary review and trigger environmental review pursuant to CEQA.

This CEQA GHG Checklist contains measures that are required to be implemented on a Project-by-Project and Plan-by-Plan basis. Implementation of these measures would ensure that future development is

[1] Future development refers to any project or plan that is subject to discretionary review and triggers environmental review pursuant to CEQA.

consistent with 2030 Climate Action Plan assumptions and that the County is making progress toward achieving the identified GHG reduction targets. Projects or plans that are consistent with the 2030 Climate Action Plan as determined through the use of this CEQA GHG Checklist may rely on the programmatic 2030 Climate Action Plan Environmental Impact Report (EIR) GHG emissions analysis for the respective project- and cumulative-level GHG emissions impacts analysis. Inconsistency with any of the applicable measures in this CEQA GHG Checklist would make a Plan/Project inconsistent with the overall CEQA GHG Checklist. **Projects and plans that are identified as not consistent with the 2030 Climate Action Plan through the use of this CEQA GHG Checklist must prepare a project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions compared to the County GHG emissions thresholds outlined in the CEQA GHG Emissions Thresholds and Guidance Document (2024) and incorporation of the 2030 Climate Action Plan measures in this CEQA GHG Checklist to the extent feasible.**

Cumulative GHG emissions associated with construction from a land use development project are generally orders of magnitude lower than the operational emissions from a project because construction emissions are generally short in duration compared to the project's overall lifetime, and thus can be assessed qualitatively as part of related CEQA GHG emissions analysis. However, some projects may have long construction periods or entail large quantities of cut and fill that could result in construction-related GHG emissions that may be considered significant. Thus, the County retains the discretion on a project-by-project basis to consider whether a project's construction-related GHG emissions could be cumulatively considerable and require more detailed quantitative CEQA GHG emissions analysis and respective mitigation.

This CEQA GHG Checklist may be periodically updated to incorporate new GHG reduction techniques, to comply with later amendments to the CAP, or to reflect changes in other sustainability-focused local, State, or federal laws, regulations, ordinances, and programs. At a minimum, this CEQA GHG Checklist will be updated as needed to be consistent with 2030 Climate Action Plan timing.

APPLICATION COMPLETENESS REQUIREMENTS

The CEQA GHG Checklist will be a completeness requirement once it is determined if the project/plan is subject to CEQA review. The CEQA GHG Checklist is designed to assist the applicant in identifying the minimum 2030 Climate Action Plan and other applicable sustainability-focused requirements specific to a proposed project or plan. However, it may be necessary to supplement the completed CEQA GHG Checklist with supporting materials, calculations, or certifications to demonstrate compliance with 2030 Climate Action Plan and other applicable sustainability-focused requirements. If the minimum 2030 Climate Action Plan and other applicable sustainability-focused requirements are not already clearly committed to as part of the CEQA project description, the completed CEQA GHG Checklist will be included in the respective project or plan conditions of approval.

GENERAL PROJECT INFORMATION

Contact Information:	
Project or Plan Name: Surfliner Inn	
Address: 499 and 399 Linden Avenue, Carpinteria	
Applicant Name and Co.: 499 Linden Managers, LLC	
Contact Phone:	**Contact Email:**
Was a consultant retained to complete this checklist? Yes☒ No☐ If Yes, complete the following:	
Consultant Name: Adam Poll Company Name: Dudek	Contact Phone: 805-308-8516 Contact Email: apoll@dudek.com

Project Information

What is the size of the project site or plan area (acres)?
Gross: 1.15
Net: _____

Identify all applicable proposed land uses:

- ☐ Residential (indicate # of single-family and multi-family dwelling units): _____
- ☒ Commercial (indicate total square footage, gross and net): 30,000 SF _____
- ☐ Other (describe): _____

Project description. This description should be consistent with the project description that will be used for the CEQA document. The description may be attached to the GHG Checklist if there are space constraints.

Project consists of a 36 room hotel with managers suite, onsite restaurant, cafe, and pool.

COMPLIANCE CHECKLIST TABLE

Section 1: COMPREHENSIVE PLAN AND ORDINANCE CONSISTENCY			
Regulation	**Requirements**	**Project/Plan Compliance[2]**	**Required Explanation [3]**
Comprehensive Plan	1a. Does the Project/Plan include a Comprehensive Plan, Zoning Map, or Ordinance Amendment ? If "No", proceed to Section 2 – CAP Strategies Consistency. If "Yes", proceed to question 1b.	Yes☐ No☒ N/A☐	The project would be consistent with the underlying zoning for the site.
Comprehensive Plan	1b. Does the Comprehensive Plan, Zoning Map, or Ordinance Amendment result in an equivalent or less GHG-intensive project when compared to the existing designation? Rezones involving increases in density (e.g., residential density) are an increase in GHG intensity. Rezones between non-density based zones (e.g., commercial zones) may be equivalent, but will depend on the proposed development.	Yes☐ No☐ N/A☐	

[2] A Project/Plan that answers "No" to any question 1.b through 9 is determined inconsistent with the CAP and must prepare a Project/Plan-specific analysis of GHG emissions compared to the GHG emissions thresholds.

[3] Every question included in this checklist is required to be answered with explanation of either: 1) how it will be achieved, 2) why it will not be achieved, or 3) why it is not applicable.

Section 2: 2030 CLIMATE ACTION PLAN MEASURES CONSISTENCY			
Regulation	**Requirements**	**Project/Plan Compliance[2]**	**Required Explanation[3]**
Clean Energy			
County 2030 Climate Action Plan (Measure CE-1)	2. **All Project Types - Building Electrification.** Will the Project/Plan (whether all new construction, remodel, or combination thereof) comply with 2030 Climate Action Plan Action CE-1.1 and be all-electric with no natural gas hookup?	Yes☒ No☐ N/A☐	The project is all-electric.
County 2030 Climate Action Plan (Measure CE-1)	3. **All Project Types** - **Carbon Free Electricity.** Will the Project/Plan (whether all new construction, remodel, or combination thereof) retain Central Coast Community Energy as the energy provider or otherwise utilize 100% carbon free electricity? Southern California Edison (SCE) and Pacific Gas and Electric (PG&E) both distribute power from Central Coast Community Energy.	Yes☒ No☐ N/A☐	The project includes 93 kW of onsite solar and will procure the remaining from 3CE carbon free option.

Section 2: 2030 CLIMATE ACTION PLAN MEASURES CONSISTENCY

Regulation	Requirements	Project/Plan Compliance[2]	Required Explanation[3]
County 2030 Climate Action Plan (Measure TR-1) & County Municipal Code (Article XVII. - Expedited Permitting Procedures for Electric Vehicle Charging Station Review)	4. **All Project Types - EV Charging Infrastructure.** Will the Project/Plan (whether all new construction, remodel, or combination thereof) meet or exceed the requirements of the California Green Building Standards Code, Title 24, Part 11, (CALGreen) Tier II for EV charging infrastructure? New single-family or two-family dwellings are not required to include EV charging infrastructure. Multi-family dwellings (more than three dwellings) and non-residential project must include EV charging infrastructure based on the project size.	Yes☒ No☐ N/A☐	The project includes 25 EV chargers onsite.
County 2030 Climate Action Plan (Measure TR-3)	5. **All Project Types - Off-Road Equipment Electrification.** Will the Project/Plan (whether all new construction, remodel, or combination thereof) commit to the use of electrified off-road landscaping equipment (e.g., mowers, chippers, tractors) for ongoing operations and maintenance?	Yes☒ No☐ N/A☐	Landscaping equipment will be electric.

Section 2: 2030 CLIMATE ACTION PLAN MEASURES CONSISTENCY			
Regulation	**Requirements**	**Project/Plan Compliance[2]**	**Required Explanation[3]**
Housing & Transportation			
County 2030 Climate Action Plan (Measure TR-2) & County Environmental Thresholds and Guidelines Manual	6. **All Project Types- Reduce VMT**. Will the Project/Plan demonstrate consistency with the County's Thresholds of Significance for Transportation Impacts in the County Environmental Thresholds and Guidelines Manual by either: a. meeting the screening criteria for Vehicle Miles Traveled (VMT) to not require further analysis; or b. resulting in a reduction in VMT?	Yes☒ No☐ N/A☐	The retail/local-serving land uses are less than 50,000 SF and the hotel is located at a major transit stop for Amtrak Surfliner. The project would screen out for VMT.
County 2030 Climate Action Plan (Measure TR-2)	7. **Large Employers - Transportation Demand Management (TDM)**. If the Project/Plan will have 50 or more employees, will the Project/Plan (whether all new construction, remodel, or combination thereof) provide a commuter benefit program for employees with measures (such as subsidies for employees that bike, walk, or carpool, telework policy, and/or provide free transit passes for all employees) and achieve a 50-80% telework participation rate by eligible employees able to work remotely consistent with Connected 2050 RTP/SCS?	Yes☐ No☐ N/A☒	Project will employ up to 21 persons.

Section 2: 2030 CLIMATE ACTION PLAN MEASURES CONSISTENCY			
Regulation	**Requirements**	**Project/Plan Compliance[2]**	**Required Explanation[3]**
Waste, Water, and Wastewater			
County 2030 Climate Action Plan (Measure W-1 and W-2)	8. **All Project Types - Residential & Commercial Landfill Diversion Rate Goal.** Will the Project/Plan (whether all new construction, remodel, or combination thereof) meet current legislation and 2030 Climate Action Plan goals to properly sort and collect recyclables and organic waste, as applicable, to reduce communitywide landfilled organics 80% by 2030 and 100% by 2045 by providing dedicated space for organic waste and/or recycling receptacles? To find out your specific requirements based on project type and geographic area, please visit https://lessismore.org/organics/.	Yes☒ No☐ N/A☐	The project will comply with the City's organic waste diversion strategies required ~~for commercial establishments~~.
County 2030 Climate Action Plan (Measure W-2)	9. **All Project Types - Residential & Commercial Organics Recycling Requirement.** Will the Project/Plan (whether all new construction, remodel, or combination thereof) meet SB 1383 legislation requirements by posting education signage, as applicable, and sorting and collecting organic waste, as applicable, to achieve 0.08 tons per capita compost procurement requirements for the unincorporated County? To find out your specific requirements based on project type and geographic area, please visit https://lessismore.org/organics/.	Yes☒ No☐ N/A☐	The project will comply with the City's organic waste diversion strategies required ~~for commercial establishments~~.

Appendix C
Biological Resources

C-1 Preliminary Tree Assessment

Bill Spiewak
CONSULTING ARBORIST
Registered Consulting Arborist #381 • American Society of Consulting Arborists

December 14, 2023

Cameron Hunt-Project Manager
CJM::LA
(805) 570-1963 / cameron@cjm-la.com

PRELIMINARY TREE ASSESSMENT -Project location: Surfliner Inn 499 & 399 Linden Ave., Carpinteria CA 93013

SUMMARY: BACKGROUND & ASSIGNMENT

The Surfliner Inn is proposed to be built at the site of the existing train station and parking lot. I inventoried all trees within the parameters of the proposed project. This includes forty-five trees of nine different species. Only the nine mature sycamores and two young oaks are native to the area. Seven trees are Mexican Fan Palms, six of which are within the city parkway.

While this project is in the conceptual stage, it appears that sixteen trees will be removed including the two young native oaks. The oaks will need to be mitigated as indicated under the *Conclusion* section of my report. All other trees will be protected by following tree protection measures that will be provided upon approval of the conceptual plan. This summary table identifies the proposed status of the trees.

The Table of Contents on the next page illustrates the organization of this report. Refer to the site plan for the location of the trees by corresponding number.

Common Name	***Botanical name***	Quantity	Retained	Removed
California Sycamore	*Platanus racemosa*	9	9	
Firewheel	*Stenocarpus sinuatus*	12	3	9
Lemon gum	*Corymbia citriodora*	9	4	5
Oak	*Quercus agrifolia*	2		2
Mexican Fan palm	*Washingtonia robusta*	7	7	
King palm	*Archonotphoenix cunninghamiana*	1	1	
Date Palm	*Phoenix canariensis*	3	3	
Walnut	*Jugulans species*	1	1	
Stone pine	*Pinus pinea*	1	1	
TOTALS		**45**	**29**	**16**

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OBSERVATIONS & DISCUSSION

- Weight of limbs over parking and street -most of the larger trees have an abundance of heavy limbs growing over high target areas. This needs to be managed through pruning.
- Codominant stems with included bark -this anatomical defect is common among trees and often results in failures of entire trunks and limbs during severe weather. This can be mitigated with pruning and cabling.
- Vegetation growing around the root crowns of trees - the ground cover has not been contained and can impact tree health by creating a potential high moisture soil environment around the root crown (transition zone between roots & trunk), highly susceptible to root rot.

TREE INVENTORY & ASSESSMENT

Height is represented by S = small < 20', M = medium 20' - 40', L = large > 40'
PPS is preliminary project status
Red highlighted cells are trees proposed to be removed.

#	Common Name	*Botanical Name*	DBH	Height	Health	Structure	Comment	PPS
1	Firewheel	*Stenocarpus sinuatus*	9	S	G	F	Multiple codominant stems	Retain
2	Firewheel	*Stenocarpus sinuatus*	8	S	G	F	Multiple codominant stems, root crown surrounded by vegetation	Retain
3	Lemon gum	*Corymbia citriodora*	7	M	F	F	Dieback in crown, root crown surrounded with vegetation	Remove
4	California Sycamore	*Platanus racemosa*	7	S	F	F	Rc surrounded by vegetation growing into light	Retain
5	Lemon gum	*Corymbia citriodora*	13	L	F	G	Stressed, lots of codominant stems	Retain
6	Lemon gum	*Corymbia citriodora*	15	L	G	G	Manage spread	Retain
7	California Sycamore	*Platanus racemosa*	30	L	G	G	Manage weight over rd. and parking lot, consider cable between main trunk and leader over parking lot, also deadwood in crown	Retain

#	Common Name	*Botanical Name*	DBH	Height	Health	Structure	Comment	PPS
8	California Sycamore	*Platanus racemosa*	18	L	G	G	Grows into #9	Retain
9	California Sycamore	*Platanus racemosa*	19/30	L	G	G	Manage weight over rd. and parking lot, consider cable between main trunk and leader over road, also deadwood in crown	Retain
10	California Sycamore	*Platanus racemosa*	20	M	G	G	Low skirt needs lifting for clearance, manage end weight	Retain
11	Firewheel	*Stenocarpus sinuatus*	3/3/3	S	G	P	Codominant stems need management grows into light post	Remove
12	Firewheel	*Stenocarpus sinuatus*	6	S	G	F	Codominant stems need management	Remove
13	Lemon gum	*Corymbia citriodora*	21	L	G	G	Manage weight over rd. and parking lot, consider cable between main trunk and leader over parking lot, also deadwood in crown	Retain
14	Lemon gum	*Corymbia citriodora*	12	M	G	G	Manage weight over rd. and parking lot	Retain
15	King palm	*Archonotphoenix cunninghamiana*	7	S	G	G		Retain
16	Mexican Fan palm	*Washingtonia robusta*	15	L	G	G		Retain
17	Oak	*Quercus agrifolia*	5	S	F	F	Stressed, root crown surrounded by vegetation	Remove
18	Oak	*Quercus agrifolia*	6	S	G	F	Root crown surrounded by vegetation, grows into #19	Remove
19	Mexican Fan palm	*Washingtonia robusta*	16	L	G	G		Retain
20	Mexican Fan palm	*Washingtonia robusta*	16	L	G	G		Retain
21	Mexican Fan palm	*Washingtonia robusta*	18	L	G	G		Retain
22	Firewheel	*Stenocarpus sinuatus*	6/3/3	S	G	F	Multiple codominant stems	Remove
23	Lemon gum	*Corymbia citriodora*	19	L	G	G	Manage weight over rd. and parking lot, surrounded by vegetation	Remove
24	Lemon gum	*Corymbia citriodora*	15	L	F	F	A bit stressed, squeezed between #25 & #27, surrounded by vegetation	Remove
25	Lemon gum	*Corymbia citriodora*	21	L	G	F	Manage weight over rd. and parking lot, surrounded by vegetation	Remove
26	Lemon gum	*Corymbia citriodora*	14	L	G	G	Manage weight over rail road and parking lot	Remove
27	Firewheel	*Stenocarpus sinuatus*	7/5/3	S	G	F	Manage codominant stems	Remove

#	Common Name	*Botanical Name*	DBH	Height	Health	Structure	Comment	PPS
28	Firewheel	*Stenocarpus sinuatus*	7/10	M	G	F	Manage codominant stems	Retain
29	Firewheel	*Stenocarpus sinuatus*	8/4/6	M	G	F	Manage codominant stems	Remove
30	Firewheel	*Stenocarpus sinuatus*	10/10	M	G	F	Manage codominant stems	Remove
31	Firewheel	*Stenocarpus sinuatus*	9/4	M	G	F	Manage codominant stems	Remove
32	Firewheel	*Stenocarpus sinuatus*	5/3	S	F	F	Manage codominant stems, surrounded by vegetation	Remove
33	Firewheel	*Stenocarpus sinuatus*	5	S	F	P	Manage codominant stems	Remove
34	California Sycamore	*Platanus racemosa*	24	L	G	G	Manage weight over parking lot	Retain
35	Date Palm	*Phoenix canariensis*	32	M	G	G	Lift low fronds	Retain
36	California Sycamore	*Platanus racemosa*	18	L	G	G		Retain
37	Date Palm	*Phoenix canariensis*	48	S	G	G	Short and stocky with fronds bending fence, on community garden site	Retain
38	California Sycamore	*Platanus racemosa*	18	L	G	G	Overhangs community garden	Retain
39	Mexican Fan palm	*Washingtonia robusta*	17	L	G	G		Retain
40	California Sycamore	*Platanus racemosa*	16	L	G	G	Overhangs parking lot	Retain
41	Walnut	*Jugulans species*	24/24/5/5	M	F	F	Going into dormancy, multiple codominant stems, limbs on ground	Retain
42	Stone pine	*Pinus pinea*	21	M	G	F	Extremely dense crown, potential long term root conflict with neighboring concrete driveway	Retain
43	Date Palm	*Phoenix canariensis*	30	L	G	F	Bend in trunk at 30'	Retain
44	Mexican Fan palm	*Washingtonia robusta*	17	L	G	G		Retain
45	Mexican Fan palm	*Washingtonia robusta*	15	L	G			Retain

CONCLUSIONS

- Based on this current conceptual plan, sixteen trees will be removed including the two young native oaks.
- All other trees will be protected by following tree protection measures that will be provided upon approval of the conceptual plan.
- The two native oak removals should be mitigated by planting two 48" box oaks on site, which is in compliance with the County of Santa Barbara. Smaller trees can be planted in greater numbers if preferred. This means 2:1 with 36" box oaks (4 oaks at this ratio), 3:1 with 24" box (6 oaks at this ratio), or 5:1 with 15 gallon oaks (1o trees at this ratio).

ARBORIST'S DISCLOSURE AND CERTIFICATION OF PERFORMANCE

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near a tree is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

I Bill Spiewak, certify:
That I have personally inspected the trees on the property referred to in this report and have stated my findings accurately.
The analysis, opinions and conclusions stated herein are my own and are based on current scientific procedures and commonly accepted arboricultural practices.

Signed: Bill Spiewak

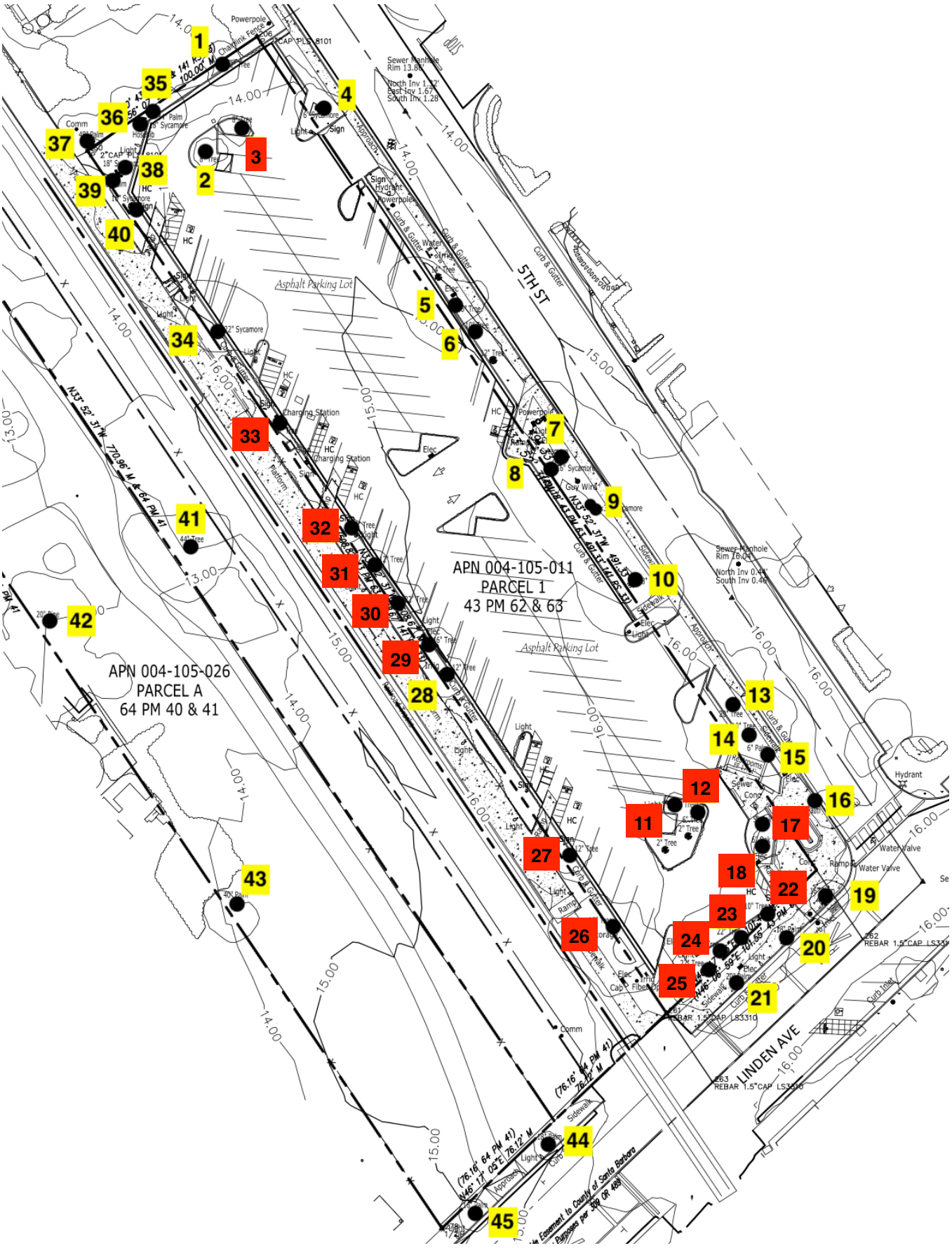
Bill Spiewak
Registered Consulting Arborist #381
American Society of Consulting Arborists
Qualified Tree and Shrub Appraiser

Board Certified Master Arborist #310B
International Society of Arboriculture
Qualified Tree Risk Assessor



SITE PLAN

Tree numbers in red are proposed to be removed.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PARCEL 1
43 PM 62 & 63
APN 004-105-026
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64 PM 40 & 41
5TH ST
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Asphalt Parking Lot
Charging Station
Charging Station
Sewer Manhole
Rim 13.85
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Hydrant
Water Valve
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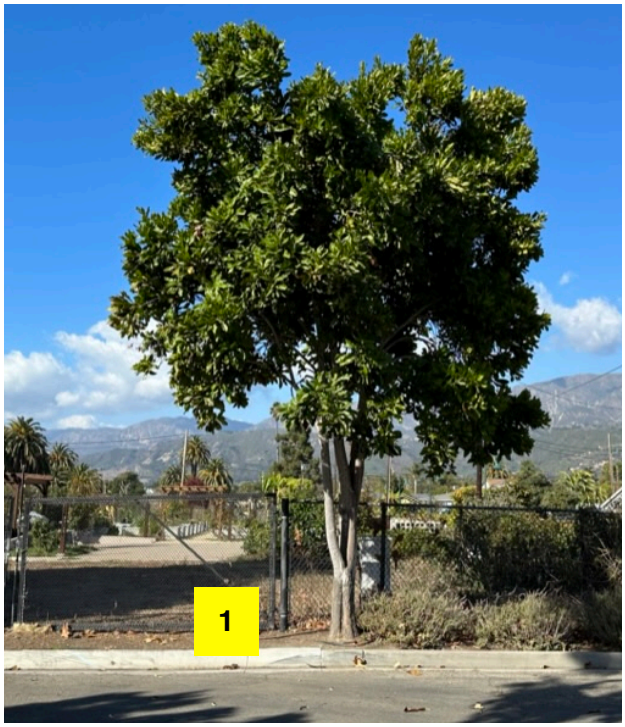
PHOTOS

Tree numbers in red are proposed to be removed.







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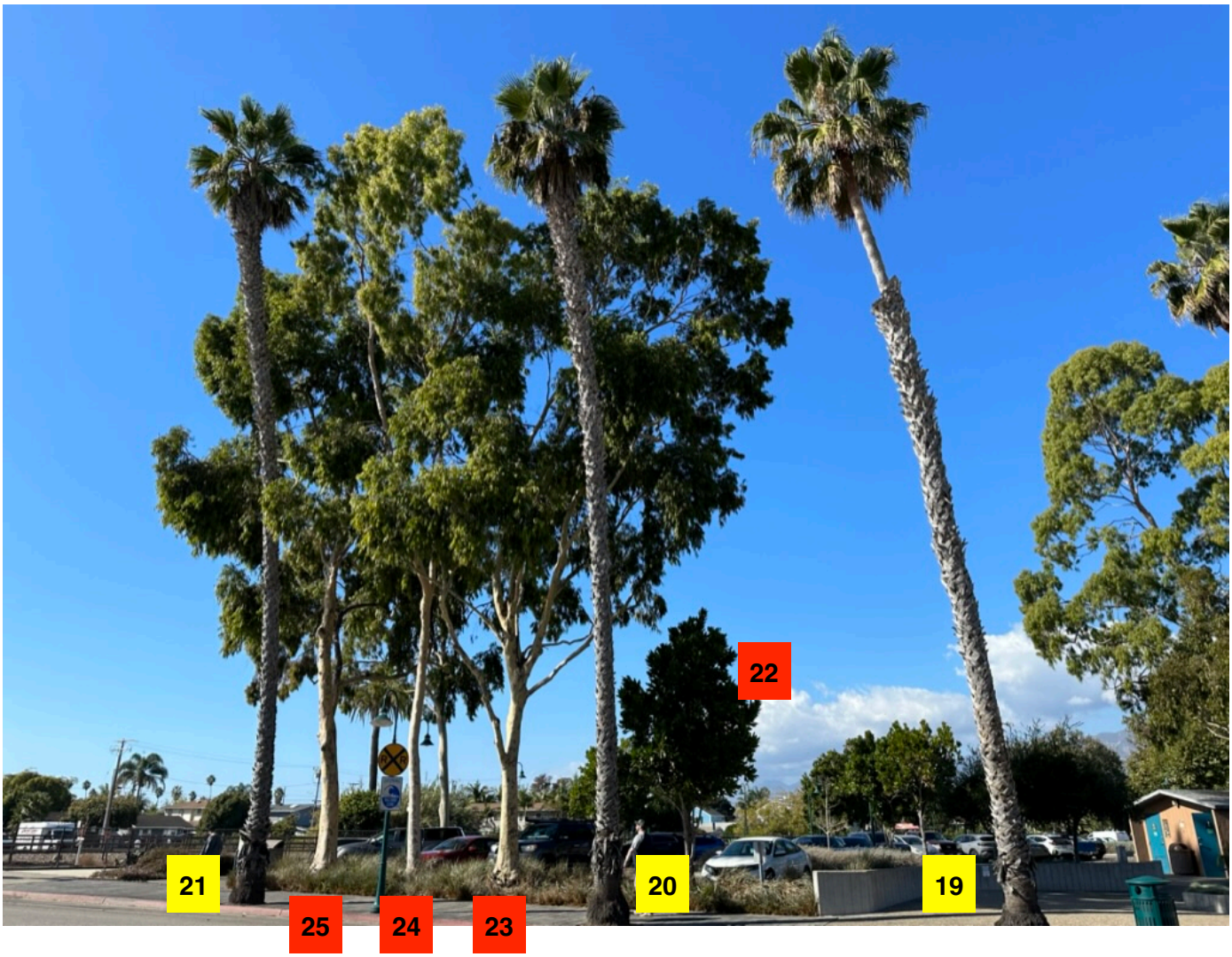
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C-2 Special-Status Plant and Wildlife Species

SPECIAL-STATUS PLANT SPECIES

Common Name *Scientific Name*	Sensitivity Status[1]	Flowering Period	Preferred Habitat/Known Elevation and Distribution[2]	Presence/Potential to Occur Within Biological Study Area
PTERIDOPHYTES (FERNS)				
Thelypteridaceae **(Thelypteris Family)**				
Sonoran maiden fern *Pelazoneuron puberula* var. *sonorensis*	Federal: None State: None Local: 2B.2	Jan.-Sep.	Meadows and seeps; grows along streambanks and within seeps Elevation range extends from 50-610 meters. Found in Los Angeles, Riverside, Santa Barbara, San Bernardino counties, Arizona, Baja California, Sonora Mexico.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable seep habitat and elevational range. The closest known occurrence from 1978 is located approximately 5.22 miles northwest of the project site along Romero Creek.
ANGIOSPERMS (DICOTYLEDONS)				
Asteraceae **(Sunflower Family)**				
southern tarplant *Centromadia parryi* subsp. *australis*	Federal: None State: None Local: 1B.1	May-Nov.	Margins of marshes and swamps, valley and foothill grassland (vernally mesic), and vernal pools. Elevation range extends from 0-425 meters. Found in Los Angeles, Orange, San Diego, Ventura, Santa Barbara counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable wetland and grassland habitat. The closest known occurrence from 1952 is located approximately 14.94 miles northwest of the project site within the Eastern Goleta Valley.
Coulter's goldfields *Lasthenia glabrata* subsp. *coulteri*	Federal: None State: None Local: 1B.1 MSHCP (d)	Feb.-Jun.	Salt-marsh, playas, vernal-pools, coastal; usually occurs in wetlands but occasionally in non-wetlands. Elevation range extends from 1-1,220 meters. Found in Orange, Riverside, Ventura, San Diego, and possibly Los Angeles, Kern and San Bernardino counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable wetland habitat. The closest known occurrence from 1947 includes the project site. This occurrence was documented prior to the urbanization of the area.
Carmel Valley malacothrix *Malacothrix saxatilis* var. *arachnoidea*	Federal: None State: None Local: 1B.2	(Mar). Jun.-Dec.	Chaparral (rocky), coastal scrub. Elevation range extends from 25-1,036 meters. Found in Santa Barbara County.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable chaparral and coastal scrub habitat and elevational range. The closest known occurrence from 1986 is located approximately 16.81 miles northwest of the project site within the Los Padres National Forest.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Flowering Period**	**Preferred Habitat/Known Elevation and Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Brassicaceae **(Cabbage Family)**				
Gambel's water cress *Nasturtium gambelii*	Federal: FE State: CT Local: 1B.1	Apr.-Oct.	Marshes or swamps. Elevation range extends from 5-330 meters. Found in Los Aneles, Orange, San Diego, possibly San Bernardino counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable wetland habitat. The closest known occurrence from 1982 is located approximately 9.16 miles northwest of the project site within Santa Barbara has been extirpated.
southern jewelflower *Streptanthus campestris*	Federal: None State: None Local: 1B.2	(Apr.) May-Jul.	Chaparral, Lower montane coniferous forest, pinyon and juniper woodland/rocky. Elevation range extends from 900-2300 meters. Found in Imperial, Riverside, Santa Barbara, San Bernardino, San Diego, Ventura counties, Baja California.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable chaparral and woodland habitat and elevational range. The closest known occurrence from 1994 is located approximately 7.46 miles northeast of the project site within the Los Padres National Forest.
Caprifoliaceae **(Honeysuckle Family)**				
Santa Barbara honeysuckle *Lonicera subspicata* var. *subspicata*	Federal: None State: None Local: 1B.2	(Feb.) May-Aug. (Dec.)	Chaparral, cismontane woodland, coastal scrub. Elevation range extends from 10-1,000 meters. Found in Los Angeles and Santa Barbara counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable chaparral, coastal scrub, and woodland habitat. The closest known occurrence from 2014 is located approximately 2.86 miles north of the project site within the Los Padres National Forest.
Chenopodiaceae **(Goosefoot Family)**				
Coulter's Saltbush *Atriplex coulteri*	Federal: None State: None Local: 1B.2	Mar.-Oct.	Alkaline or clay soils; coastal bluff scrub, coastal dunes, Coastal scrub, Valley and foothill grassland. Elevation range extends from 3-460 meters. Found in Los Angeles, Orange, San Diego, San Bernardino, Ventura counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable coastal scrub, coastal dune, and grassland habitat. The closest known occurrence from 1927 includes the project site. This occurrence was documented prior to the urbanization of the area.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Flowering Period**	**Preferred Habitat/Known Elevation and Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Davidson's saltscale *Atriplex serenana* var. *davidsonii*	Federal: None State: None Local: 1B.2	Apr.-Oct.	Coastal sage scrub, wetland-riparian; coastal. Elevation range extends from 10-200 meters. Found in Orange, Riverside, San Diego, and possibly Los Angeles and San Bernardino counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable coastal scrub and wetland habitat. The closest known occurrence from 1947 is located approximately 12.35 miles west of the project site along Arroyo Burro Creek.
Convolvulaceae **(Morning-glory Family)**				
Santa Barbara morning-glory *Calystegia sepium* subsp. *binghamiae*	Federal: None State: None Local: 1B.1	Apr.-May	Historically associated with wetland and marshy habitats, but possibly in drier situations as well, such as silty loam and alkaline; marshes and swamps (coastal), riparian scrub (alluvial). Elevation range extends from 0-220 meters. Found in Orange and San Bernardino, possibly Los Angeles counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable coastal wetland habitat. The closest known occurrence from 1886 is located approximately 9.58 miles west of the project site in Santa Barabra has been possibly extirpated.
Fabaceae **(Legume Family)**				
Miles' milk-vetch *Astragalus didymocarpus* var. *milesianus*	Federal: None State: None Local: 1B.2	Mar.-Jun.	Grassy slopes near the coast. Elevation ranges from 0-400 meters. Found in Ventura, Santa Barbara and San Luis Obispo counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable grassy slope habitat. The closest known occurrence from 1945 is located approximately 10.40 miles east of the project site near Lake Casitas.
Ventura marsh milk-vetch *Astragalus pycnostachyus* var. *lanosissimus*	Federal: FE State: CE Local: 1B.1	Jun.-Oct.	Coastal dunes, coastal scrub, marshes and swamps (edges, coastal salt or brackish). Elevation range extends from 1-35 meters. Found in Los Angeles, Orange, Santa Barbara, and Ventura counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable coastal dunes, coastal scrub, and coastal wetland habitat. The closest known occurrence from 2009 is located approximately 21.01 miles southeast of the project site in the Oxnard Dunes.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Flowering Period**	**Preferred Habitat/Known Elevation and Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Santa Ynez false lupine *Thermopsis macrophylla*	Federal: None State: SR Local: 1B.3	Apr.-Jun.	Chaparral (disturbed areas, granitic, sandy). Elevation ranges from 425-1,400 meters. Found in Santa Barbara County.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable chaparral habitat. The closest known occurrence from 1937 is located approximately 17.25 miles northwest of the project site along the San Marcos Pass.
Fagaceae **(Oak Family)**				
Nuttall's scrub oak *Quercus dumosa*	Federal: None State: None Local: 1B.1	Feb.-Aug.	Sage scrub and chaparral; sandy clay loam or sandstone. Elevation range extends from 15-400 meters. Found in Orange, San Diego, Ventura counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable sage scrub and chaparral habitat. The closest known occurrence from 1929 includes the project site. This occurrence was documented prior to the urbanization of the area.
Lamiaceae **(Mint Family)**				
white-veined monardella *Monardella hypoleuca* subsp. *hypoleuca*	Federal: None State: None Local: 1B.3	Apr.-Dec.	Chaparral, cismontane woodland. Dry slopes. Elevation range extends from 50-1,525 meters. Found in Los Angeles, Santa Barbara, Ventura counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable chaparral and woodland habitat and elevational range. The closest known occurrence from 1937 is located approximately 1.99 miles northeast of the project site along Carpinteria Creek.
Orobanchaceae **(Broomrape Family)**				
Southern California galium broomrape *Aphyllon epigalium* subsp. *notocalifornicum*	Federal: None State: None Local: 1B.3	Jun. (Jul.)	Cismontane woodland, lower montane coniferous forest, riparian forest. Elevation range extends from 1,200-1,535 meters. Found in San Bernardino, San Diego, and Ventura counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable woodland and forest habitat and elevational range. The closest known occurrence from 1994 is located approximately 7.17 miles northeast of the project site along the headwaters of Rincon Creek.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Flowering Period**	**Preferred Habitat/Known Elevation and Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Salt marsh bird's beak *Chloropyron [Cordylanthus] maritimum* subsp. *maritimum*	Federal: FE State: SE Local: 1B.2	May-Oct.	Coastal dunes, marshes, and swamps. Elevation range extends from 0-30 meters. Found in Los Angeles, Orange, San Diego, San Bernardino, Ventura counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable coastal dune and wetland habitat. The closest known occurrence from 2018 was reintroduced and is located approximately 0.24 mile west of the project site within the Carpinteria Salt Marsh Reserve.
Ranunculaceae **(Buttercup Family)**				
umbrella larkspur *Delphinium umbraculorum*	Federal: None State: None Local: 1B.3	Apr.-Jun.	Foothill woodland, moist oak forest. Elevation ranges from 400-600 meters. Found in Monterey, San Luis Obispo, Santa Barbara, Ventura and Kern counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable woodland and forest habitat and elevational range. The closest known occurrence from 1962 is located approximately 6.05 miles north of the project site along Escondido Canyon Creek.
Rosaceae **(Rose Family)**				
mesa horkelia *Horkelia cuneata* var. *puberula*	Federal: None State: None Local: 1B.1	Feb.-Jul. (uncommonly Sep.)	Chaparral (maritime), cismontane woodland, coastal scrub/sandy or gravelly. Elevation range extends from 70-810 meters. Found in Los Angeles, Orange, San Bernardino, San Diego, Ventura, possibly Riverside counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable chaparral and woodland habitat and elevational range. The closest known occurrence from 1902 is located approximately 6.08 miles east of the project site along Casitas Pass.
Scrophulariaceae **(Figwort Family)**				
black-flowered figwort *Scrophularia atrata*	Federal: None State: None Local: 1B.2	Mar.-Jul.	Chaparral, closed-cone coniferous forest, coastal dunes, coastal scrub, riparian scrub. Elevation range extends from 10-500 meters. Found in Santa Barbara and San Luis Obispo counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable chaparral, forest, coastal dune, coastal scrub, and riparian scrub habitat. The closest known occurrence from 1924 is located approximately 10.18 miles northwest of the project site in Mission Canyon.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Flowering Period**	**Preferred Habitat/Known Elevation and Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
ANGIOSPERMS (MONOCOTYLEDONS)				
Liliaceae **(Lily Family)**				
late-flowered mariposa lily *Calochortus fimbriatus*	Federal: None State: None Local: 1B.3	Jun.-Jul.	Dry, open coastal woodland, foothill woodland, chaparral. Elevation range extends from 0-900 meters. Found in Monterey, San Luis Obispo, Santa Barbara, and Ventura counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable chaparral and woodland habitat. The closest known occurrence from 1923 is located approximately 2.22 miles north of the project site near Franklin Creek.
Palmer's mariposa lily *Calochortus palmeri* var. *palmeri*	Federal: None State: None Local: 1B.2	Apr.-Jul.	Chaparral, Lower montane coniferous forest, Meadows and seeps/mesic Elevation range extends from 710-2,390 meters. Found in Los Angeles, Riverside, Santa Barbara, San Bernardino, San Luis Obispo, Ventura counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable chaparral and forest habitat. The closest known occurrence from 1981 is located approximately 4.96 miles north of the project site along Escondido Canyon Creek.
Ojai fritillary *Fritillaria ojaiensis*	Federal: None State: None Local: 1B.2	Feb.-May	Rocky slopes, river basins, yellow pine forest, mixed evergreen forest, chaparral. Elevation ranges from 300-500 meters. Found in Monterey, San Luis Obispo, Santa Barbara, and Ventura counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable chaparral and forest habitat and elevational range. The closest known occurrence from 1996 is located approximately 4.82 miles northeast of the project site along Catharina Creek.
Poaceae **(True Grass Family)**				
Aparejo grass *Muhlenbergia utilis*	Federal: None State: None Local: 2B.2	Mar.-Oct.	Chaparral, cismontane woodland, coastal scrub, marshes and swamps, meadows and seeps. Elevation range extends from 25-2,325 meters. Found in San Bernardino, Ventura, Santa Barbara, and Ventura counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable wetland habitat. The closest known occurrence from 1964 is located approximately 9.82 miles northeast of the project site along a tributary of Matilija Creek.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Flowering Period**	**Preferred Habitat/Known Elevation and Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Ruscaceae **(Ruscus Family)**				
chaparral nolina *Nolina cismontana*	Federal: None State: None Local: 1B.2	May-Jul.	Xeric Diegan sage scrubs, open chaparral, coastal scrub; generally grows within sandstone and shale substrates and occasionally within gabbro. Elevation range extends from 140-1,275 meters. Found in Orange, Riverside, San Diego, Ventura counties.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable scrub habitat and soils. The closest known occurrence from an unknown time period is located approximately 8.09 miles northeast of the project site along Coyote Creek.

1. **Sensitivity Status**

Federal

FE	*Federally Endangered*
FT	*Federally Threatened*
FC	*Federal Candidate*
FPE	*Federally Proposed as Endangered*
FPT	*Federally Proposed as Threatened*
FPD	*Federally Proposed for Delisting*

State

SE	*State Listed as Endangered*
ST	*State Listed as Threatened*
SCE	*State Candidate for Endangered*
SCT	*State Candidate for Threatened*
SR	*State Rare*

Local

CRPR *California Rare Plant Ranks:*

California Rare Plant Rank 1A	Plants presumed extirpated in California and either rare or extinct elsewhere
California Rare Plant Rank 1B	Plants rare, threatened, or endangered in California and elsewhere
California Rare Plant Rank 2A	Plants presumed extirpated in California but common elsewhere
California Rare Plant Rank 2B	Plants rare, threatened, or endangered in California, but common elsewhere

Threat Code extensions and their meanings:

0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2-Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
0.3-Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

2. **Sources for Preferred Habitat:**

Calflora. 2025. Information on Wild California Plants. Available online at: https://www.calflora.org/. Accessed in June 2025.

CDFW. 2025. California Natural Diversity Database (CNDDB). RareFind, Version 5.0 (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Available online at: https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed in June 2025.

Source: ESA, 2025.

SPECIAL-STATUS WILDLIFE SPECIES

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Invertebrates			
Order Coleoptera (beetles) ***Insecta***			
globose dune beetle *Coelus globosus*	Federal: None State: None Other: S1S2	Coastal dunes; Inhabits foredunes, sand hummocks, and sometimes back dune; it burrows beneath the sand surface and is most common beneath dune vegetation.	**Not Expected.** This species is not expected to occur within the biological study area due to lack of suitable coastal dune habitat. The closest known occurrence from 1934 is located approximately 700 feet south of the project site along the beach near the outlet of Carpinteria Creek.
Order Lepidoptera (butterflies & moths) ***Insecta***			
monarch butterfly – California overwintering population *Danaus plexippus* pop. 1	Federal: FPT State: None Other: S2	Wintering sites in California are associated with wind-protected groves of large trees (primarily eucalyptus or pine [*Pinus* spp.]) with nectar and water sources nearby that are generally near the coast.	**Not Expected**. This species is not expected to occur due to the lack of suitable grove habitat. The eucalyptus onsite provides a sparse canopy lacking protection from wind. Therefore, these individual trees do not provide roosting habitat. Additionally, the closest known overwintering occurrence from 2022 is located approximately 0.34 miles southwest of the project site.
Busck's gallmoth *Eugnosta busckana*	Federal: None State: None Other: S2S3	Coastal dunes and scrub. Forms galls on *Encelia californica*	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of suitable coastal dune and scrub habitat. The closest known occurrence from 1999 is located approximately 11.50 miles northwest of the project site in the San Roque neighborhood of Santa Barbara.
wandering (= saltmarsh) skipper *Panoquina errans*	Federal: None State: None Other: S2	Southern California coastal salt marshes.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of suitable coastal salt marsh habitat. The closest known occurrence from 2007 is located approximately 0.27 miles west of the project site in the Carpinteria Salt Marsh Reserve.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Order Hymenoptera (ants, bees, & wasps) ***Insecta***			
obscure bumble bee *Bombus caliginosus*	Federal: None State: None Other: S1S2	Pacific Coast, from southern California to southern British Columbia, with scattered records from the east side of California's Central Valley in open grassy coastal prairies and coast range meadows. Nectar sources include *Ceanothus, Cirsium, Clarkia, Keckiella, Lathyrus, Lotus, Lupinus, Rhododendron, Rubus, Trifolium*, and *Vaccinium.*	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of suitable open grassy coastal prairies and coast range meadow habitat and nectar plants. The closest known occurrence from 1965 is located approximately 14.87 miles northwest of the project site in the Los Padres National Forest.
Crotch bumble bee *Bombus crotchii*	Federal: None State: SCE Other: S2	Open grassland and scrub habitats that support potential nectar sources such as plants within the Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae families.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of suitable grassland and scrub habitat. The closest known occurrence from 2019 is located approximately 1.00 mile northwest of the project site in the Carpinteria Salt Marsh Reserve.
Order Anostraca (fairy shrimp) Crustacea			
vernal pool fairy shrimp *Branchinecta lynchi*	Federal: FT State: None Other: S3	Limited to vernal pools in Oregon and California. Occasionally will be found in habitats other than vernal pools, such as artificial pools created by roadside ditches.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of suitable vernal pool habitat.
FISH			
Trout & Salmon ***Salmonidae***			
steelhead - southern California DPS *Oncorhynchus mykiss irideus* pop. 10	Federal: FE State: SCE Other: S1	South coast flowing waters with variable temperatures. Found in streams and rivers with at least 7 inches minimum depth.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of flowing water. The closest known occurrence from 1999 is located approximately 6.61 miles northwest of the project site in the along the San Ysidro Creek.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Gobies ***Gobiidae***			
tidewater goby *Eucyclogobius newberryi*	Federal: FE State: SSC Other: S3	Found in shallow brackish water habitats, lagoons, and lower stream reaches along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Require fairly still but not stagnant water and high oxygen levels.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of brackish water, lagoons, or lower stream reaches. The closest known occurrence from 1995 is located approximately 0.34 mile southeast of the project site along Carpinteria Creek.
AMPHIBIANS			
Newts ***Salamandridae***			
Coast Range newt *Taricha torosa*	Federal: None State: SSC Other: S4	Leave their aquatic habitat within a few weeks of breeding, and estivate terrestrially during the dry summer, residing in moist habitats under woodland debris, animal burrows, or in rock crevices. Species has been documented migrating approximately 2 miles between breeding and estivation sites.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of aquatic habitat. The closest known occurrence from 2004 is located approximately 7.29 miles northeast of the project site along Coyote Creek in the Los Padres National Forest.
True Toads ***Bufonidae***			
arroyo toad *Anaxyrus californicus*	Federal: FE State: SSC Other: S2	Gravelly or sandy washes, stream and river banks, and arroyos where flow rates are great enough to keep silt and clay suspended. Found in desert wash, riparian scrub, riparian woodland, south coast flowing waters, and south coast standing waters. Shallow sandy pools bordered sand and gravel flood terraces are needed for breeding.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of aquatic habitat. The closest known occurrence from 2004 is located approximately 7.48 miles northwest of the project site along the Santa Ynez River in the Los Padres National Forest.
True Frogs ***Ranidae***			
California red-legged frog *Rana draytoni*	Federal: FT State: SSC Other: S2S3	Aquatic habitats including pools and backwaters within streams and creeks, ponds, marshes, springs, sag ponds, dune ponds and lagoons.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of aquatic habitat. The closest known occurrence from 2008 is located approximately 1.92 miles northwest of the project site along Arroyo Paredon.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
REPTILES			
Box & Water Turtles ***Emydidae***			
southwestern pond turtle *Actinemys marmorata pallida*	Federal: FPT State: SSC Other: SNR	Known to occur in slow-moving permanent or intermittent streams, ponds, small lakes, rivers, streams, marshes, irrigation ditches with abundant vegetation, reservoirs with emergent basking sites, and either rocky or muddy bottoms. In woodland, forest, or grassland habitats. In creeks that pool to shallower areas and with logs, rocks, cattail mats, and/or exposed banks for basking are required. Could enter brackish or even seawater. Adjacent uplands used during winter.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of aquatic habitat. The closest known occurrence from 1987 is located approximately 9.51 miles east of the project site within Lake Casitas.
Spiny Lizards ***Phrynosomatidae***			
coast horned lizard *Phrynosoma blainvillii*	Federal: None State: SSC Other: S4	Prefers sandy riparian and sage scrub habitats but also occurs in valley-foothill hardwood, conifer, pine-cypress, juniper and annual grassland habitats below 6,000 feet, open country, especially sandy areas, washes, flood plains, and windblown deposits. Requires open areas for sunning, bushes and loose soil for cover and abundant supply of harvester ants.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of suitable riparian, sage scrub, valley-foothill hardwood, conifer, and annual grassland habitat. The closest known occurrence from 1947 is located approximately 9.16 miles northwest of the project site within Santa Barbara.
Whiptails & relatives ***Teiidae***			
coastal western whiptail *Aspidoscelis tigris stejnegeri*	Federal: None State: SSC Other: S3	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of suitable woodland and riparian habitat. The closest known occurrence from 2013 is located approximately 14.30 miles northwest of the project site within the Los Padres National Forest.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Legless Lizards ***Anniellidae***			
southern California legless lizard [=silvery legless lizard] *Anniella stebbinsi* [=*Anniella pulchra*]	Federal: None State: SSC Other: S3	Occurs in moist warm loose soil with plant cover. Moisture is essential. Occurs in sparsely vegetated areas of beach/coastal dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Leaf litter under trees and bushes in sunny areas and dunes stabilized with bush lupine and mock heather often indicate suitable habitat. Often can be found under surface objects such as rocks, boards, driftwood, and logs. Can also be found by gently raking leaf litter under bushes and trees. Sometimes found in suburban gardens in Southern California.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of suitable coastal dune, desert scrub, riparian, and coastal scrub habitat. The closest known occurrence from 2007 is located approximately 19.11 miles southeast of the project site along McGrath State Beach in Ventura County.
Egg-Laying Snakes ***Colubridae***			
coast patch-nosed snake *Salvadora hexalepis virgultea*	Federal: None State: SSC Other: S3	Known to inhabit semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains with sandy soils and leaf litter.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of suitable scrub habitat. The closest known occurrence from 1939 is located approximately 9.16 miles northwest of the project site in Santa Barbara.
Live-Bearing Snakes ***Natricidae***			
two-striped garter snake *Thamnophis hammondii*	Federal: None State: SSC Other: S3S4	Habitat includes marsh and swamp, riparian scrub, riparian woodland, and wetland. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of aquatic habitat. The closest known occurrence from 1985 is located approximately 6.06 miles north of the project site in the Los Padres National Forest.
BIRDS			
Rails, Coots, & Gallinules ***Rallidae***			
yellow rail *Coturnicops noveboracensis*	Federal: BCC State: SSC Other: S2	Known to occur within freshwater marshlands, meadows, and seeps.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of aquatic habitat. The closest known occurrence from 1996 is located approximately 8.25 miles north of the project site in Santa Barbara.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
California black rail *Laterallus jamaicensis coturniculus*	Federal: BCC State: ST, FP Other: S2	Known to occur in brackish and freshwater marshes. Inhabits riparian thickets of willow and other brushy tangles near watercourses. Needs water depths of about 1 inch that does not fluctuate during the year and dense vegetation for nesting habitat.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of aquatic habitat. The closest known occurrence from 1917 is located approximately 8.25 miles north of the project site in Santa Barbara.
light-footed Ridgway's rail *Rallus obsoletus levipes*	Federal: FE State: SE, FP Other: S1	Found in salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation. Requires dense growth of either pickleweed or cordgrass for nesting or escape cover. Feeds on molluscs and crustaceans.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of salt marsh habitat. The closest known occurrence from 2007 is located approximately 0.27 mile northwest of the project site in the Carpinteria Salt Marsh Reserve.
Cuckoos & relatives ***Cuculidae***			
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	Federal: FT State: SE Other: S1	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry nettles, or wild grape.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of riparian habitat.
Plovers & relatives ***Charadriidae***			
western snowy plover *Anarhynchus nivosus nivosus*	Federal: FT, BCC State: SSC Other: S3	Found in Great Basin standing waters, sand shore, wetland. Sandy beaches, salt pond levees & shores of large alkali lakes. Requires sandy, gravelly, or friable soil substrate for nesting.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of aquatic habitat. The closest known occurrence from 2005 is located approximately 8.04 miles northwest of the project site along the beach in Santa Barbara.
Sandpipers & relatives ***Scolopacidae***			
California least tern *Sternula antillarum browni*	Federal: FE State: SE, FP Local: (MSCP) Covered and Narrow Endemic; (County of SD) Group 1	Known to occur in alkali playas and coastal dune and beach habitats. Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of suitable alkali playa, coast dune, and beach habitat. The closest known occurrence from 1932 is located approximately 9.21 miles northwest of the project site along the beach in Santa Barbara.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Auklets, Puffins, & relatives ***Alcidae***			
marbled murrelet *Brachyramphus marmoratus*	Federal: FT State: SE Other: S2	Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas-fir.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of suitable old-growth redwood forest habitat.
Pelicans ***Pelecanidae***			
California brown pelican *Pelecanus occidentalis californicus*	Federal: Delisted State: Delisted Other: S3	Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators. Roosts communally.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of coastal island habitat. The closest known occurrence from 2002 is located approximately 9.32 miles northwest of the project site along the harbor in Santa Barbara.
Herons, Egrets, & Bitterns ***Ardeidae***			
snowy egret *Egretta thula*	Federal: None State: None Local: S4	Nest in colonies on thick vegetation in isolated places—such as barrier islands, dredge-spoil islands, salt marsh islands, swamps, and marshes. Forage in mangroves, saltwater lagoons, freshwater swamps, grassy ponds, and temporary pools, and forage on beaches, shallow reefs, and wet fields.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of aquatic habitat. The closest known occurrence from 2012 is located approximately 9.41 miles northwest of the project site along the harbor in Santa Barbara.
black-crowned night heron *Nycticorax nycticorax*	Federal: None State: None Other: S4	Colonial nester, usually in trees and occasionally in tule patches. Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of aquatic habitat. The closest known occurrence from 2012 is located approximately 9.41 miles northwest of the project site along the harbor in Santa Barbara.
New World Vultures ***Cathartidae***			
California condor *Gymnogyps californianus*	Federal: FE State: SE, FP Other: S2	Scavenge for carrion in habitats ranging from Pacific beaches to mountain forests and meadows. They nest in caves on cliff faces in mountains up to 6,000 feet in elevation.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of cliff habitat for nesting. The closest known occurrence from 1796 is located approximately 10.01 miles northeast of the project site within Los Padres National Forest.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Hawks, Kites, Harriers, & Eagles ***Accipitridae***			
Cooper's hawk *Accipiter cooperii*	Federal: None State: WL Other: S4	Inhabits cismontane woodland, riparian forest, riparian woodland, upper montane coniferous forest, or other forest habitats near water. Nests and forages near open water or in riparian vegetation.	**Moderate Potential**. This species has a moderate potential to occur due to marginally suitable nesting habitat within the ornamental trees. The closest known occurrence from 1966 is located approximately 11.55 miles northwest of the project site at Santa Barbara Botanic Garden.
white-tailed kite *Elanus leucurus*	Federal: None State: FP Other: S3S4	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes nest to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of suitable nesting trees near aquatic habitat and foraging habitat within grasslands, meadows, and marshes. The closest known occurrence from 2007 is located approximately 13.60 miles northwest of the project site in Hope.
Tyrant Flycatchers ***Tyrannidae***			
southwestern willow flycatcher *Empidonax traillii extimus*	Federal: FE State: SE Other: S3	For nesting, species requires dense riparian habitats (cottonwood/willow and tamarisk vegetation) with microclimatic conditions dictated by the local surroundings. Saturated soils, standing water, or nearby streams, pools, or cienegas are a component of nesting habitat that also influences the microclimate and density vegetation component. Habitat not suitable for nesting may be used for migration and foraging. Recurrent flooding and a natural hydrograph are important to withstand invading exotic species (tamarisk).	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of riparian habitat. The closest known occurrence from 1990 is located approximately 10.09 miles northwest of the project site along the Santa Ynez River.
Vireos ***Vireonidae***			
least Bell's vireo *Vireo bellii pusillus*	Federal: FE State: SE Other: S3	Known to occur in riparian forest, scrub, and woodland habitats. Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 feet. Highly territorial and nests primarily in willow, mule fat, or mesquite habitats.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of riparian habitat. The closest known occurrence from 1980 is located approximately 6.14 miles north of the project site along the Santa Ynez River.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Sparrows ***Passerellidae***			
Belding's savannah sparrow *Passerculus sandwichensis beldingi*	Federal: BCC State: SE Other: S3	Inhabits coastal salt marshes, from Santa Barbara south through San Diego County. Nests in *Salicornia* on and about margins of tidal flats.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of salt marsh habitat. The closest known occurrence from 2001 is located approximately 0.27 mile northwest of the project site in the Carpinteria Salt Marsh Reserve.
Wood-Warblers ***Parulidae***			
yellow warbler *Setophaga petechia*	Federal: None State: SSC Other: S3	Found in riparian forest, scrub, and woodland. Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of suitable riparian habitat. The closest known occurrence from 2015 is located approximately 4.74 miles east of the project site along Casitas Creek.
MAMMALS			
Evening Bats ***Vespertilionidae***			
Townsend's big-eared bat *Corynorhinus townsendi*	Federal: None State: SSC Other: S2	Throughout California in a wide variety of habitats, including broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow and seep, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, upper montane coniferous forest, valley and foothill grassland. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings; tree cavities, mines, and caves. Roosting sites limiting. Extremely sensitive to human disturbance.	**Not Expected.** This species is not expected to occur within the biological study area due to the species sensitivity to human disturbance. The closest known occurrence from 1941 includes the project site. This occurrence was documented prior to the urbanization of the area.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Free-Tailed Bats ***Molossidae***			
big free-tailed bat *Nyctinomops macrotis*	Federal: None State: SSC Other: S3	Low-lying arid areas in Southern California within habitats such as desert shrub, woodlands, and evergreen forests. Need high cliffs or rugged, rocky outcrops or canyons for roosting sites. Feeds principally on large moths.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of suitable rooting habitat within cliffs. The closest known occurrence from 1996 is located approximately 9.56 miles west of the project site in Santa Barbara.
Mice, Rats, & Voles ***Cricetidae***			
San Diego desert woodrat *Neotoma lepida intermedia*	Federal: None State: SSC Other: S3S4	Found in a variety of coastal scrub, desert scrub, chaparral, cactus, and rocky habitats. Nests primarily against rock outcroppings, boulders, cacti, or areas of dense undergrowth.	**Not Expected.** This species is not expected to occur within the biological study area due to the lack of suitable scrub habitat. The closest known occurrence from 1992 is located approximately 5.50 miles southeast of the project site near Mussel Shoals.

1. **Sensitivity Status**

Federal (USFWS)

BGEPA	*Bald and Golden Eagle Protection Act*
FE	*Federally Endangered*
FT	*Federally Threatened*
FPE	*Federally Proposed as Endangered*
FPT	*Federally Proposed as Threatened*

State

FP	*Fully Protected*
SE	*State Endangered*
ST	*State Threatened*
SCE	*State Candidate as Endangered*
SCT	*State Candidate as Threatened*
SSC	*State Species of Special Concern*
WL	*Watch List*
WBWG	*Western Bat Working Group Regional Priority Matrix Species*

Local Include the local sensitivity rankings as applicable to the project.

Bureau of Land Management (BLM) –

- BLM Sensitive = Species listed or proposed for listing under the Endangered Species Act (ESA) and species requiring special management consideration to promote their conservation and reduce the likelihood and need for future listing under the ESA

Desert Renewable Energy Conservation Plan (DRECP) -

Los Angeles County Sensitive Bird List

County of Orange NCCP/HCP (NCCP/HCP) – Covered

Western Riverside County MSHCP (MSHCP)

- WS = Wetland Species under the MSHCP – additional surveys may be required as part of wetlands mapping per the MSHCP
- AS = Additional surveys may be required for these species within locations shown on survey maps as described in Section 6.3.2 of the MSHCP.
- AC = Adequately Conserved Species under the MSHCP

County of San Diego MSCP (MSCP) – Covered, Narrow Endemic (NE)

County of San Diego North County MSCP (NCMSCP) – Covered, Narrow Endemic (NE)

City of San Diego MSCP (MSCP) – Covered, Narrow Endemic (NE)

County of San Diego Sensitive Species Lists (County of SD)

- Group 1 = listed as threatened or endangered or has very specific natural history requirements that must be met
- Group 2 = not common but not so rare that extirpation or extinction is imminent without immediate action

City of Oceanside Subarea Habitat Conservation Plan (OMHCP) – Covered, Narrow Endemic (NE)

2. **Sources for Preferred Habitat:**

CDFW. 2025a. California Natural Diversity Database (CNDDB). RareFind, Version 5.0 (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Available online at: https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed in June 2025.

CDFW. 2025b. California Wildlife Habitat Relationships. Available online at: https://wildlife.ca.gov/Data/CWHR/Life-History-and-Range. Accessed in June 2025.

Source: ESA, 2021.

Appendix D
Energy Calculation

Surfliner Inn Project
Construction Energy Analysis

Annual Fuel Summary

	Heavy-Duty Construction Equipment
26,116	Total Project Consumption
22,482	Annual Consumption
	Haul Trucks
1,064	Total Project Consumption
916	Annual Consumption
	Vendor Trucks
1,174	Total Project Consumption
1,010	Annual Consumption
	Workers
1,551	Total Project Consumption
1,335	Annual Consumption
2,238	Project Consumption of diesel for Haul Trucks and Vendors
1,926	Annual Consumption
28,354	Total Gallons Diesel
1,551	Total Gallons Gasoline

1.16 Estimated Project Construction Duration (years)

24,409 Annual Average Gallons Diesel
1,335 Annual Average Gallons Gasoline

Santa Barbara County (2023)			Percent of Annual Project Compared to Santa Barbara County
Source	**Fuel Type**	**Gallons**	
Workers	Gasoline	166,000,000	0.0008%
Off-Road/Vendor/Haul Trucks	Diesel	29,051,988	0.084%

Notes:

Gasoline and diesel amounts from California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2024. Available at: https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed May 2021. Diesel is adjusted to account for retail (65.4%) and non-retail (34.6%) diesel sales.

Annual Electricity Summary

Electric Construction Equipment	-	MWh/year
Temporary Construction Trailer - Electricity	40.94	MWh/year
Water Conveyance for Dust Control	1.878	MWh/year
Annual Total	**42.814**	**MWh/year**

2023 Southern California Edison Total Sales (MWh) 79,256,000

Project percentage 0.00005%

Notes:

1 Source: Southern California Edison 2023 Annual Report
https://www.edison.com/_gallery/get_file/?file_id=65f32cca3d6332cf05413d08&file_ext=.pdf&page_id=

Surfliner Inn Project

Total On-Road Fuel Consumption

		gal/mile
2025Hauling	Hauling	0.16835204
2025Vendor	Vendor	0.14331582
2025Worker	Worker	0.04268295
2026Hauling	Hauling	0.16562652
2026Vendor	Vendor	0.14166412
2026Worker	Worker	0.0421653

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)	Regional Emissions (gallons) gal/mile	gal/day	Total Gallons/yr
PhaseDemolition2025	2025							
Total Haul Trips	-							
Hauling	24	9	8	20	15	0.17	81	727
Vendor	4	9	8	5.3	15	0.14	3	27
Worker	10	9	8	8.8	0	0.04	4	34
PhaseSitePreparation2025	2025							
Total Haul Trips	-							
Hauling	0	5	8	20	20	0.17	0	0
Vendor	4	5	8	5.3	0.25	0.14	3	15
Worker	8	5	8	8.8	8.8	0.04	3	15
PhaseGrading2025	2025							
Total Haul Trips	-							
Hauling	20	5	8	20	15	0.17	67	337
Vendor	4	5	8	5.3	15	0.14	3	15
Worker	10	5	8	8.8	0	0.04	4	19
PhaseParkingLot4Construction	2025							
Total Haul Trips	-							
Hauling	0	20	8	20	15	0.17	0	0
Vendor	6	20	8	5.3	15	0.14	5	91
Worker	16	20	8	8.8	0	0.04	6	120
PhaseLot4Paving	2025							
Total Haul Trips	-							
Hauling	0	5	8	20	15	0.17	0	0
Vendor	4	5	8	5.3	15	0.14	3	15
Worker	16	5	8	8.8	0	0.04	6	30
PhaseHotelConstruction	2025							
Total Haul Trips	-							
Hauling	0	68	8	20	15	0.17	0	0
Vendor	6	68	8	5.3	15	0.14	5	310
Worker	16	68	8	8.8	0	0.04	6	409
PhaseHotelConstruction	2026							
Total Haul Trips	-							
Hauling	0	152	8	20	15	0.17	0	0
Vendor	6	152	8	5.3	15	0.14	5	685
Worker	16	152	8	8.8	0	0.04	6	902
PhaseArchitecturalCoating	2026							
Total Haul Trips	-							
Hauling	0	10	8	20	15	0.17	0	0
Vendor	2	10	8	5.3	15	0.14	2	15
Worker	6	10	8	8.8	0	0.04	2	22

Source	Fuel Type	Total Fuel Use (gal)
Hauling	Diesel	1,064
Vendor	Diesel	1,174
Worker	Gasoline	1,551

Fuel Type	Total Fuel Use	Annual Fuel Use
Diesel	2,238	1,926
Gasoline	1,551	1,335

Duration of Construction	
Start	6/2/2025
End	7/31/2026
1.2	years

Surfliner Inn Project
Construction Energy Analysis

Off-Road Equipment

Equipment ≤ 100 hp		
pounds diesel fuel/hp-hr (lb/hp-hr):[1]	0.408	lb/hp-hr
diesel density (lb/gal):[1]	7.11	lb/gal
diesel gallons/hp-hr:	0.0574	gal/hp-hr
Total <100	256,963	hp-hr
Total diesel gallons:	14,748	gal
Equipment > 100 hp		
pounds diesel fuel/hp-hr (lb/hp-hr):[1]	0.367	lb/hp-hr
diesel density (lb/gal):[1]	7.11	lb/gal
diesel gallons/hp-hr:	0.0516	gal/hp-hr
Total >100	220,210	hp-hr
Total diesel gallons:	11,368	gal
Total diesel gallons (off-road equipment):	**26,116**	**gal**

1. OFFROAD2017 Emission Factor Documentation

Construction Phase	Equipment	Number	Hours/Day	HP	Load	Days	Total hp-hr
Demolition	Tractors/Loaders/Backhoes	3	8	84	0.37	9	6,713
Demolition	Concrete/Industrial Saws	1	8	33	0.73	9	1,734
Site Preparation	Tractors/Loaders/Backhoes	1	7	84	0.37	5	1,088
Site Preparation	Rubber Tired Dozers	1	7	367	0.4	5	5,138
Site Preparation	Graders	1	8	148	0.41	5	2,427
Grading	Graders	1	8	148	0.41	5	2,427
Grading	Tractors/Loaders/Backhoes	2	7	84	0.37	5	2,176
Grading	Rubber Tired Dozers	1	8	367	0.4	5	5,872
Parking Lot 4 Construction	Cranes	1	8	367	0.29	20	17,029
Parking Lot 4 Construction	Forklifts	2	7	82	0.2	20	4,592
Parking Lot 4 Construction	Generator Sets	1	8	14	0.74	20	1,658
Parking Lot 4 Construction	Tractors/Loaders/Backhoes	1	6	84	0.37	20	3,730
Parking Lot 4 Construction	Welders	3	8	46	0.45	20	9,936
Hotel Construction	Cranes	1	8	367	0.29	220	187,317
Hotel Construction	Forklifts	2	7	82	0.2	220	50,512
Hotel Construction	Generator Sets	1	8	14	0.74	220	18,234
Hotel Construction	Tractors/Loaders/Backhoes	1	6	84	0.37	220	41,026
Hotel Construction	Welders	3	8	46	0.45	220	109,296
Lot 4 Paving	Tractors/Loaders/Backhoes	1	8	84	0.37	5	1,243
Lot 4 Paving	Pavers	1	8	81	0.42	5	1,361
Lot 4 Paving	Paving Equipment	1	8	89	0.36	5	1,282
Lot 4 Paving	Rollers	2	8	36	0.38	5	1,094
Lot 4 Paving	Cement and Mortar Mixers	1	8	10	0.56	5	224
Architectural Coating	Air Compressors	1	6	37	0.48	10	1,066
						Total >100	220,210
						Total <100	256,963

Surfliner Inn Project
Construction Energy Analysis

Temporary Construction Trailer - Electricity

Land Use	Square Feet	Energy Use per year (kWh)	Total Energy Use (MWh)	Energy Use per SF
General Office	2,000	40,936	47.55	20.5

Note: Energy use per sf is derived from CalEEMod User Guide, Appendix G, Table G-28 for the Statewide average for General Office Building land use

Notes

1 Electricity Emissions Factors default from California Air Resources Board, CalE

Surfliner Inn Project
Construction Energy

Site Acre - 2.80. Caleemod 2x water

Construction Water Energy Estimates

Source	Acreage/Day	Number of Days	Total Construction Water Use (Mgal)	Electricity Demand from Water Conveyance (MWh)	Annual Electricity Demand from Water Conveyance (MWh)
Demolition	5.6	9	0.151	0.8	0.7
Site Prep	5.6	5	0.084	0.5	0.4
Grading	5.6	5	0.084	0.5	0.4
Lot 4 Paving	5.6	5	0.084	0.5	0.4
Total			**0.403**	**2.2**	**1.9**

CalEEMod Water Electricity Factors	Electricity Intensity Factor To Supply (kWh/Mgal)	Electricity Intensity Factor To Treat (kWh/Mgal)	Electricity Intensity Factor To Distribute (kWh/Mgal)	Electricity Intensity Factor For Wastewater Treatment (kWh/Mgal)
	1,577	754	1537	1542

Sources and Assumptions:

CalEEMod Appendix A, Pg. 8, based on given piece of equipment can pass over in an 8-hour workday

conservatively assumed acerage per day would be 3 times the project site acerage (3 times watering a day)

-Electricity Intensity Factors, South Coast - California Emissions Estimator Model (CalEEMod).

-Estimated construction water use assumed to be generally equivalent to landscape irrigation, based on a factor of 20.94 gallons per year per square foot of landscaped area within the Los Angeles area (Mediterranean climate), which assumes high water demand landscaping materials and an irrigation system efficiency of 85%. Factor is therefore (20.94 GAL/SF/year) x (43,560 SF/acre) / (365 days/year) / (0.85) = 2,940 gallons/acre/day, rounded up to 3,000 gallons/acre/day. (U.S. Department of Energy, Energy Efficiency & Renewable Energy, Federal Energy Management Program. “Guidelines for Estimating Unmetered Landscaping Water Use." July 2010. Page 12, Table 4 - Annual Irrigation Factor – Landscaped Areas with High Water Requirements).

Surfliner Inn Project 2026
Operational Energy Demand

Electricity	kWh/yr	MWh/yr
Project		
Hotel	200,000	200
Parking Lot	0	-
High Turnover (Sit Down Restaurant)	0	-
Strip Mall	0	-
Recreational Swimming Pool	0	-
EV Charging (see worksheet)	40,150	40
Project Total Building Energy	**240,150**	**240**
Project Total	**240,150**	**240**
Total (including water, see below)	**253,085**	**253**

Source: California Air Resources Board, CalEEMod, Version 2022.1

Electricity	MWh/yr (Supplied)
Total Southern California Edison Sales (20	79,256,000
Project Annual	253
Percent Project of SCE	0.0003%

Source: Southern California Edison 2023 Annual Report
https://www.edison.com/_gallery/get_file/?file_id=65f32cca3d6332cf05413d08&file

Water	Mgal/yr	MWh/yr
Project		
Hotel	1.25	6.75
Parking Lot	0.00	-
High Turnover (Sit Down Restaurant)	1.11	6.00
Strip Mall	0.02	0.10
Recreational Swimming Pool	0.02	0.08
Project Total	**2.391**	**12.94**

Electricity Intensity Factors	kWh/Mgal
Electricity Factor - Supply	1,577
Electricity Factor - Treat	754
Electricity Factor - Distribute	1,537
Electricity Factor - Wastewater Treatment	1,542

Source: California Air Resources Board, CalEEMod, Version 2022.1
Sewage Facilities Charge, Sewage Generation Factor for Residential and Commercial Categories, 2012.

Natural Gas	kBtu/yr	cubic foot (cf)/yr
Project		
Hotel	0	-
Parking Lot	0	-
High Turnover (Sit Down Restaurant)	0	-
Strip Mall	0	-
Mobile Sources	257	249
Total	**257**	**249**
Project Building total	**-**	**-**

Source: California Air Resources Board, CalEEMod, Version 2022.1
Conversion factor of 1,035 Btu per cubic foot based on United States Energy Information Administration data (see: USEIA, Natural Gas, Heat Content of Natural Gas Consumed, February 28, 2018, https://www.eia.gov/dnav/ng/ng_cons_heat_a_EPG0_VGTH_btucf_a.htm. Accessed March 2020.)

Natural Gas	million cubic foot (cf)
SoCalGas 2026	824,535
Project Annual	0.000
Percent Project of SoCalGas	0.0000%

Source: California Gas and Electric Utilities, 2024 California Gas Report, p. 176.

Surfliner Inn Project 2026
Operational Energy Analysis

Estimated Electricity demand from Electric Vehicle Supply Equipment (EVSE)

Land Use Type	Number of EVSE Charging Spaces	Average Charge (kWh/day) [a]	Days/Year	Electricity Demand (kWh/yr)	Electricity Demand (MWh/yr)
Total	**25**	**4.4**	**365**	40,150	40.15

Notes:

a. Estimated based on reference sources listed below.

b. The Project would include 128 standard stalls, 25 electric vehicle (EV) stalls (including 6 stalls with charging stations), four standard ADA stalls (including one EV), ar

Sources:

US Department of Energy. Alternative Fuels Data Center, 2016. Hybrid and Plug-In Electric Vehicle Emissions Data Sources and Assumptions.
Available at: https://www.afdc.energy.gov/vehicles/electric_emissions_sources.html.

US Department of Energy. Smith, Margaret, 2016. Level 1 Electric Vehicle Charging Stations at the Workplace.
Available at: https://www.afdc.energy.gov/uploads/publication/WPCC_L1ChargingAtTheWorkplace_0716.pdf.

UCLA Luskin Center for Innovation. Williams, Brett and JR deShazo, 2013. Pricing Workplace Charging: Financial Viability and Fueling Costs.
Available at: http://luskin.ucla.edu/sites/default/files/Luskin-WPC-TRB-13-11-15d.pdf.

Surfliner Inn Project 2026
Project Operation Energy Demand Analysis (2030)
Fuel Usage from VMT

Annual VMT (Traffic Study)[4]: 1,257,211 miles/year

Fuel Type:[1]	Gasoline	Diesel	Electricity	Natural Gas	Plug-in Hybrid
Percent:	88.27%	6.00%	3.75%	0.11%	1.88%
Miles per Gallon Fuel:	25.2	9.3	#DIV/0!	5.4	66.7
Project Annual VMT by Fuel Type (miles):	1,109,734	75,371	47,134	1,387	23,585
Project Annual Fuel Usage (gallons):	43,955	8,121	-	257	354
Annual Fuel Savings from Electric Vehicles:[2]	-	-	1,867		

	Santa Barbara County Fuel Consumption [3]		
	Gasoline	Diesel	
Santa Barbara County:	166,000,000	29,051,988	
Project Total	44,309	8,121	52,430
Percent Net Project of Los Angeles County:	0.027%	0.028%	

Notes:

1. California Air Resources Board, EMFAC2021 (LA County; Annual; 2028', Aggregate Fleet).
2. Assumes electric vehicles would replace traditional gasoline-fueled vehicles.
3. California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2024. Available at: https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed May 2021. Diesel is adjusted to account for retail (65.4%) and non-retail (34.6%) diesel sales.

Appendix E
Geotechnical Engineering Report

ENGINEERING GEOLOGY AND
GEOTECHNICAL ENGINEERING REPORT
499 LINDEN AVENUE
CARPINTERIA, CALIFORNIA

PROJECT NO.: 306184-001
NOVEMBER 17, 2023
(REVISED NOVEMBER 22, 2023)

PREPARED FOR
499 LINDEN MANAGERS, LLC
ATTENTION: R. W. HOLLIS

BY
EARTH SYSTEMS PACIFIC
115 WEST CANON PERDIDO STREET
SANTA BARBARA, CALIFORNIA 93101

EARTH SYSTEMS
115 West Canon Perdido Street | Santa Barbara, CA 93101 | (805) 642-6727 | www.earthsystems.com

November 17, 2023
(Revised November 22, 2023)

Project No.: 306184-001
Report No.: 23-11-79

499 Linden Managers, LLC
Attention: R. W. Hollis
1072 Casitas Pass Road
Carpinteria, CA 93013

Project: 499 Linden Avenue
Carpinteria, California
Subject: Engineering Geology and Geotechnical Engineering Report

As authorized, Earth Systems Pacific (Earth Systems) has prepared this Engineering Geology and Geotechnical Engineering Report for proposed hotel construction at 499 Linden Avenue in Carpinteria, California. The accompanying Engineering Geology and Geotechnical Engineering Report presents the results of our subsurface exploration and laboratory testing programs, and our conclusions and recommendations pertaining to geotechnical aspects of project design. This report completes Phase 1 of the scope of services described within our Proposal No. SBA-23-05-009 dated May 17, 2023, and authorized by R. W. Hollis on June 16, 2023.

We appreciate the opportunity to be of service to you on this project. Please call if you have any questions, or if we can be of further service.

Respectfully submitted,

EARTH SYSTEMS PACIFIC

REGISTERED PROFESSIONAL ENGINEER
MENG WEI LU
No. C 89106
EXP. 9-30-2024
CIVIL
STATE OF CALIFORNIA

Meng Wei Lu
Project Engineer
11-22-2023

PROFESSIONAL GEOLOGIST
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CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

Todd J. Tranby
Engineering Geologist
11-22-2023

Copies: 1 - Client (email)
1 - Project File

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INTRODUCTION

Project Description

This report presents results of an Engineering Geology and Geotechnical Engineering study performed for proposed hotel construction at 499 Linden Avenue in Carpinteria, California (see Vicinity Map in Appendix A).

Current plans prepared by AB Design Studio indicate that the proposed hotel building will be a two-story structure with a swimming pool at on the roof. Exterior parking is proposed and will include 45 spaces adjacent to the proposed hotel and 83 spaces south of the railroad tracts that split the project site. No basement is proposed.

Structural considerations for building column loads of up to 35 kips with maximum wall loads of 3 kips per lineal foot were used as a basis for the recommendations of this report. If actual loads vary significantly from these assumed loads, Earth Systems should be notified since reevaluation of the recommendations contained in this report may be required.

Purpose and Scope of Work

The purpose of the geologic/geotechnical study that led to this report was to analyze the soil conditions at the project site and to provide geologic/geotechnical recommendations for design and construction. The soil conditions include surface and subsurface soil types, soil expansion potential, soil strength, settlement potential, bearing capacity, and the presence or absence of subsurface water. The scope of work included:

- Performing a reconnaissance of the project site.
- Drilling, sampling, and logging 14 hollow-stem-auger borings (B-1 through B-8 and IT-1 through IT-6) to study soil and groundwater conditions. Six of the borings drilled (IT-1 through IT-6) were used for infiltration testing.
- Performing three Cone Penetrometer Test (CPT) soundings on the project site to study soil and groundwater conditions, and to evaluate the liquefaction potential of the soils within the depth tested.
- Laboratory testing soil samples obtained during the subsurface exploration to determine their physical and engineering properties.
- Performing infiltration tests.
- Consulting with owner representatives and design professionals.

- Analyzing the geotechnical data obtained.
- Preparing this report.

Contained in this report are:

- Descriptions and results of field and laboratory tests that were performed.
- Conclusions and recommendations pertaining to site grading and structural design.

Site Setting

The project site is currently a relatively flat asphalt-paved Amtrak parking lot with some planters and trees. Additionally, south of the railroad tracks, the project site is a flat vacant undeveloped parcel.

The project site is bounded by Linden Avenue to the southeast, railroad tracks to the southwest, the Carpinteria Community Garden Park to the northwest, and 5th Street to the northeast. The part of the project site with hotel structure will be accessed from 5th Street and the parking lot southwest of railroad tracks will be accessed from Linden Avenue.

The southern vacant lot is bounded by Linden Avenue to the southeast, a restaurant, parking lot and residences to the southwest and Elm Avenue to the northwest. The proposed new parking lot portion of the project will be accessed from Linden Avenue and Elm Avenue via an emergency access gate.

The geographic coordinates of the project site are 34.3963˚ North Latitude and 119.5225° West Longitude.

REGIONAL GEOLOGY

The site lies within the Carpinteria alluvial plain in the western portion of the Transverse Ranges geologic province. Numerous east-west trending folds and reverse faults indicative of active north-south transpressional tectonics characterize the region. The ongoing regional compression produces the east-west trending faults that deform early Pleistocene- to Tertiary-aged marine and non-marine sedimentary bedrock units. These sedimentary bedrock units underlie the property at unknown depths.

Geologic mapping by T.W. Dibblee, Jr. (Geologic Map of the Carpinteria Quadrangle, 1986) places questionable and concealed sections of the east-west trending Rincon Creek fault and the northwest-southeast trending Carpinteria fault about 600 feet and 1,000 feet, respectively, south of the site (see Regional Geologic Map 1 in Appendix A).

Mapping by the United States Geologic Survey (Geologic Map of the Santa Barbara Coastal Plain, 2009) places inferred sections of the east-west trending Rincon Creek fault and the northwest-southeast trending Carpinteria fault about 500 and 700 feet, respectively, south of the site (see Regional Geologic Map 2 in Appendix A).

The site is mapped by T.W. Dibblee, Jr. and the United States Geologic Survey to be underlain by alluvium. Our field study encountered artificial fill overlying alluvium.

SEISMICITY AND SEISMIC DESIGN

The project site is located in an active seismic region where large numbers of earthquakes are recorded each year. Historically, major earthquakes felt in the vicinity of the subject site have originated from faults inside and/or outside the area. These include the December 21, 1812 “Santa Barbara Region” earthquake, that was presumably centered in the Santa Barbara Channel, the 1857 Fort Tejon earthquake, the 1872 Owens Valley earthquake, and the 1952 Arvin-Tehachapi earthquake.

It is assumed that the 2022 CBC and ASCE 7-16 guidelines will apply for the seismic design parameters. The 2022 CBC includes several seismic design parameters that are influenced by the geographic site location with respect to active and potentially active faults, and with respect to subsurface soil or rock conditions. The “general procedure” (i.e., probabilistic) seismic design parameters presented below were retrieved from the U.S. Seismic Design Maps web services using the SEAOC/OSHPD website which presents the data in a report format. The data were retrieved for the ASCE 7-16 design code, site coordinates 34.3963° North Latitude and 119.5225° West Longitude, Site Class D, and Occupancy (Risk) Category II. A listing of the 2022 CBC and ASCE 7-16 Seismic Parameters is presented below and again in Appendix D.

Summary of Seismic Parameters – 2022 CBC "General Procedure"

Site Class (ASCE 7-16)	D
Occupancy (Risk) Category	II
Seismic Design Category	See ASCE 7-16 Section 11.4.8
Maximum Considered Earthquake (MCE) Ground Motion	
Spectral Response Acceleration, Short Period – S_s	2.287 g
Spectral Response Acceleration at 1 sec. – S_1	0.835 g
Site Coefficient – F_a	1.0
Site Coefficient – F_v	See ASCE 7-16 Section 11.4.8
Site-Modified Spectral Response Acceleration, Short Period – S_{MS}	2.287 g
Site-Modified Spectral Response Acceleration at 1 sec. – S_{M1}	See ASCE 7-16 Section 11.4.8
Design Earthquake Ground Motion	
Short Period Spectral Response – S_{DS}	1.525 g
One Second Spectral Response – S_{D1}	See ASCE 7-16 Section 11.4.8
Site Modified Peak Ground Acceleration - PGA_M	1.115 g
Values appropriate for a 2% probability of exceedance in 50 years	

The Fault Parameters table in Appendix D lists the significant "active" and "potentially active" faults within an approximate 39-mile radius of the project site. The distance between the project site and the nearest portion of each fault is shown as well as the respective estimated maximum earthquake magnitudes.

SOIL AND GROUNDWATER CONDITIONS

Evaluation of the subsurface indicates that much of the project site is blanketed by a layer of artificial fill consisting of silty sand, sandy silt, and clayey sand. The artificial fill at our boring locations has thicknesses of at least 3.5 feet and a maximum of 5 feet or more. The artificial fill is underlain by alluvium composed of interbedded sand, silt, and clay. Earth Systems is not aware of any documentation about the placement and testing of this artificial fill. Hence, for the purposes of this report, the artificial fill is considered to be non-engineered and uncertified.

Testing indicates that anticipated bearing soils lie in the "Low" expansion range based on a measured expansion index of 40. A version of this classification of soil expansion is

incorporated into a Minimum Foundation Design Table, which is included in Appendix C of this report. It appears that soils can be cut by normal grading equipment.

Groundwater was encountered in our onsite borings at a depth of about 10 feet below the existing ground surface. It should be noted that fluctuations in groundwater levels may occur because of variations in rainfall, tidal fluctuations in the nearby ocean, regional climate, and other factors.

A sample of near-surface soil was tested for pH, resistivity, soluble sulfates, and soluble chlorides. The test results provided in Appendix B should be distributed to the design team for their interpretations pertaining to the corrosivity or reactivity of various construction materials (such as concrete and piping) with the soils. It should be noted that the sulfate content (600 mg/Kg) is in the "S0" exposure class (i.e., "Negligible" severity range) of Table 19.3.1.1 of ACI 318-14. Therefore, special concrete designs will not be necessary for the measured sulfate content according to Table 19.3.2.1 of ACI 318-14.

Based on criteria established by the County of Los Angeles (2013), the measured resistivity of a near-surface soil sample (1,900 ohms-cm) indicates that near-surface soils are "Corrosive" to ferrous metal (i.e., cast iron, etc.) pipes. It should be noted that Earth Systems does not practice soil corrosion engineering.

HYDROCOLLAPSE POTENTIAL

Hydrocollapse is a phenomenon in which naturally occurring soil deposits, or non-engineered fill soils, collapse when wetted. Natural soils that are susceptible to this phenomenon are typically aeolian, debris flow, alluvial, or colluvial deposits with high apparent strength when dry. Loosely compacted fills can also be susceptible to this phenomenon. The dry strength is attributed to salts, clays, silts, and in some cases capillary tension, "bonding" larger soil grains together. So long as these soils remain dry, their strength and resistance to compression are retained. However, when wetted, the salt, clay, or silt bonding agent is weakened or dissolved, or capillary tension reduced, eventually leading to collapse. Soils susceptible to this phenomenon are found throughout the southwestern United States.

Hydrocollapse is not a potential below groundwater which was encountered at about 10 feet below the ground surface. Also, hydrocollapse is a low potential when soil saturation is greater than 60%, which it was for all the soil samples gathered between depths of zero and 10 feet.

EARTHQUAKE-INDUCED HAZARDS

Earthquake-induced cyclic loading can be the cause of several significant phenomena, including liquefaction in fine sands and silty sands. Liquefaction results in a loss of soil strength and can cause structures to settle and, in extreme cases, to experience bearing failure. Cyclic softening in clays during earthquakes has resulted in buildings experiencing foundation failure and ground surface deformation similar to that resultant from liquefaction. If liquefaction or cyclic softening occurs beneath sloping ground, a phenomenon known as lateral spreading can occur. Liquefaction and cyclic softening typically are limited to the upper 50 feet of the subsurface soils. There are a number of conditions that need to be satisfied for liquefaction or cyclic softening to occur. Of primary importance is that groundwater, perched or otherwise, usually must be within the upper 50 feet of soils. In order for liquefaction to occur, a potentially liquefiable soil must be saturated and subjected to rapid cyclic loading that is sufficiently intense to overcome a soil's internal resistance to liquefaction.

Another type of ground damage caused by earthquakes is settlement in non-saturated (dry) sands. This occurs when ground motion causes the soil particles to reorient into a denser configuration. We have included analyses of this phenomenon within the same program that analyzes liquefaction.

Earth Systems performed liquefaction and dry sand seismic settlement analyses using the onsite CPT sounding data and a proprietary program that implements standard accepted analytical methods. In the analyses, a 7.4 moment magnitude earthquake, a PGA_M of 1.115 g, and a groundwater depth of 10 feet (as discussed in the “Soil and Groundwater Conditions” section of this report) were used.

The results of the analyses predict earthquake-induced settlements of up to about 2.9 inches (0.3 inches caused by dry sands densification, and 2.6 inches caused by liquefaction). See Appendix E for CPT-Based Seismic Settlement Analyses Results.

Based on interpretation of a chart derived by Ishihara (National Academy Press, 1985), the thickness of non-liquefiable soils at the surface is sufficiently thick to prevent the potentially liquefiable layer below from generating ground damage.

Lateral spreading can be experienced as two different phenomena: free face lateral spreading and ground oscillation. Free face lateral spreading does not appear to pose a potential hazard because there are no nearby sloped areas or canyons (Bartlett and Youd, 1995).

Ground oscillation, which is the other type of lateral spreading, occurs where sites are gently sloping, but not adjacent to sloped areas or canyons. It can pose a hazard when standard blow counts ($N_{1(60)}$) in the zones of potential liquefaction are less than 15. Based on the results of the liquefaction analyses, there is an accumulative thicknesses of about 3.5 to 4 feet of soils with equivalent standard blow counts less than 15 in the liquefiable zones in our onsite CPT soundings.

The results of the analyses predict a ground-oscillation-type of spreading of about 0.7 feet, which is considered to be a localized lateral displacement because it is smaller than 0.5 meter, or 1.6 feet (according to CGS, 2008, Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117A, page 43). This level of lateral spread can be mitigated by structural design. The project Structural Engineer is encouraged to design the foundation to withstand the predicted lateral spreading. See Appendix E for Lateral Spreading Analyses Results.

FAULT RUPTURE HAZARD

A fault is a break in the earth's crust upon which movement has occurred in the recent geologic past and at which future movement is expected. A summary of nearby active faults is presented in Appendix D under Table 1 Fault Parameters.

The project site does not lie within a State of California designated active fault hazard zone. The activity of faults is classified by the State of California based on the Alquist-Priolo Earthquake Fault Zoning Act (1972, Revised 1999). An active fault has had surface rupture with Holocene time (the past 11,000 years). A potentially active fault shows evidence of surface displacement during Quaternary time (last 1.6 million years). An inactive fault has no evidence of movement within the Quaternary time.

As previously discussed in the Regional Geology section of this report, all nearby fault sections, (as shown on the reviewed Regional Geologic Maps), which are mapped to be questionable and inferred, are at least about 500 feet away from the project site. Therefore, the potential for fault rupture at the project site is considered low.

LANDSLIDES

Landsliding is a process where a distinct mass of rock or soil moves downslope because of gravity. No landslides are mapped on the project site by Dibblee or USGS (see Regional Geologic Maps in Appendix A). Because there are no identified landslides either on or trending into the project site, and the site is essentially flat, hazards associated with this phenomenon are considered low.

ROCKFALL

Loose boulder-sized rocks and/or weathering bedrock outcrops located upslope from construction can lead to a rockfall hazard. Because the project site is located on a relatively flat alluvial plain with no nearby slopes, the potential for rockfall onto the project site appears to be low.

EARTHQUAKE-INDUCED FLOODING

Earthquake-induced flooding include tsunamis, seiches, and reservoir failure. Earthquake-induced tsunamis should be considered a hazard because the project site is located in a tsunami inundation area according to California Tsunami Maps and Data on a California Geological Survey website (https://www.conservation.ca.gov/cgs/tsunami/maps). Because of the project site's relative position away from any reservoirs, the potential for seiche and reservoir failure are considered low.

OTHER FLOODING

The two proposed parking lot areas of the project site are located within a special flood hazard area (Zone X) mapped by Federal Emergency Management Agency (FEMA), FEMA Flood Map

for Santa Barbara County, effective September 28, 2018, Map No. 06083C1419H. The proposed hotel building area is adjacent to, but not within this mapped special flood hazard area (Zone X).

INFILTRATION TESTING

On July 24, 2023, six approximately 9-inch diameter infiltration borings (IT-1 through IT-6) were drilled to depths of about 2, 5, 2, 5, 2, and 5 feet, respectively, below the existing ground surface to determine the soil profiles and allow installation of plastic casings for infiltration testing (see Site Plan in Appendix A for infiltration boring locations).

After drilling was completed, 4-inch diameter slotted PVC casings were lowered into the boreholes. The annuli between the casings and boring walls were then filled with pea gravel. The holes were then presaturated. The falling-head borehole infiltration test procedure was used for infiltration testing. To start the tests, water was added to the holes until it was about 2 feet deep, and then the drop in the water surface was monitored by taking periodic measurements. Readings were taken at reasonable time intervals based on the infiltrating rate, and after each of these intervals, water was added to return the water level to its approximate original depth above the hole bottom. The tests were run until the infiltration rates were reasonably stable.

It should be noted that the rate the water surface drops in a borehole is a percolation rate, which is related to, but is not an infiltration rate. Percolation rate ignores the wetted soil surface area into which the water is infiltrating and does not account for the volume of water infiltrated. An infiltration rate considers both factors. Hence, percolation rates (in unit length per unit time) are an overestimation of infiltration rates (also in unit length per unit time). Earth Systems uses the Porchet equation to account for the wetted surface area and volume of water infiltrated to estimate an infiltration rate. Forms of the equation can be found in the Riverside County - Low Impact Development BMP Design Handbook (2001), the South Orange County Version, Technical Guidance Documents Appendices (2017), or in a paper by J.W. Van Hoorn, “Determining Hydraulic Conductivity with the Inversed Auger Hole and Infiltrometer Methods.” The Porchet equation in its most simple form is the volume of water infiltrated divided by the product of the change in time and the wetted surface area. By substitution, the equation can be shown to be equal to:

$$\text{Infiltration Rate (inches /hr.)} = \frac{\Delta H * r * 60}{\Delta t * (r + 2H_{avg})}$$

Where: ΔH = Change in water level (inches)
Δt = Change in time (minutes)
r = Radius of test hole (inches)
H_{avg} = Average height of water in test hole (inches)

The above equation does not account for the gravel pack in the annulus between the borehole wall and the slotted pipe fitted in the test hole. Ignoring the gravel pack inflates the amount of water infiltrated and, hence, yields an unconservative infiltration rate. A method to account for the volume occupied by the gravel (and the slotted pipe) and adjust the infiltration rate accordingly is presented in Caltrans Test 750. Earth Systems makes this additional adjustment to our test data. The equation is:

$$\text{Correction Factor} = n * [1 - (O/D)^2] + (I/D)^2$$

Where: n = Pea gravel porosity
O = Outside diameter of slotted pipe (inches)
D = Test hole diameter (inches)
I = Inside diameter of slotted pipe (inches)

Earth Systems has determined an average porosity for the pea gravel used in our testing. The other values are simple measurements.

Based on the infiltration testing results in Appendix F, the measured test infiltration rates for the depths tested and boring locations are summarized in the following table:

Boring	Boring Depth (feet)	Infiltration Rate (inch/hour)
IT-1	2	3.06
IT-2	5	4.45
IT-3	2	0.64
IT-4	5	0.07
IT-5	2	0.55
IT-6	5	0.02

There are many factors that influence the infiltration rate. Clear water was used in our tests, whereas deleterious material will likely be contained in the storm water. Variations in soil conditions within the limits of the proposed infiltration system will likely affect infiltration characteristics. The designer who utilizes the infiltration results should consider these factors, as well as apply a factor-of-safety to the infiltration rate to account for future disposal bed siltation.

CONCLUSIONS AND RECOMMENDATIONS

Based on the data provided in this report, it appears that the project site is suitable for the proposed construction from an engineering geology and geotechnical engineering standpoint provided that the recommendations provided herein are properly implemented into the project. Because the current plans appear to be conceptual, Earth Systems reserves the right to modify our current recommendations based on the final project plans.

Earth Systems believes that a rigid foundation system capable of accommodating the anticipated total and differential settlements (i.e., mat or "waffle" foundations, reinforced structural slabs, or reinforced conventional spread footings tied together with tie-beams) will be suitable to support the proposed hotel building. Remedial grading (i.e., overexcavation and recompaction) will be needed to provide a more uniform and moisture-conditioned subgrade.

Specific conclusions and recommendations addressing these geologic/geotechnical considerations, as well as general recommendations regarding the geotechnical aspects of design and construction, are presented in the following sections.

A. Grading

1. Pre-Grading Considerations

a. Roof draining systems should be designed so that water is not discharged into bearing soils or near structures. Final site grade should be designed so that all water is diverted away from the structures over paved surfaces, or over landscaped surfaces in accordance with current codes. Water should not be allowed to pond anywhere on the pad.

b. Shrinkage of soils (uncertified fills) affected by compaction is estimated to be about 10 percent based on an anticipated average compaction of 92 percent. This does not include losses from removing oversized rocks.

c. Earth Systems should be retained to provide engineering geology and geotechnical engineering services during site development and grading, and foundation construction phases of the work to observe compliance with the design concepts, specifications and recommendations. This will allow for timely design changes in the event that subsurface conditions differ from those anticipated prior to the start of construction.

d. Plans and specifications should be provided to Earth Systems prior to grading. Plans should include the grading plans, foundation plans, and foundation details. Earth Systems will review these plans only for conformity with geotechnical parameters not including drainage. It is the responsibility of the Client and other Engineers to review and approve designs and plans for conformity with all engineering and design requirements necessary for the proper function and performance of the structure.

e. Compaction tests should be made per ASTM D 6938 or ASTM D 1556 to determine the relative compaction of the fills in accordance with the following minimum guidelines: two tests for each 1-foot vertical lift in every isolated area graded; one test for each 500 cubic yards of material placed; and two tests at finished subgrade elevation in every area of remedial grading.

2. Rough Grading/Areas of Development

a. Grading at a minimum should conform to Appendix J of the 2022 California Building Code and local grading ordinances.

b. The existing ground surface should be initially prepared for grading by removing the existing parking lot, abandoned utility lines, vegetation, trees, large roots, debris, other organic material and non-complying fill from construction areas. Organics and debris should be stockpiled away from areas to be graded, and ultimately removed from the project site to prevent their inclusion in fills. Voids created by removal of such material should be properly backfilled and compacted. No compacted fill should be placed unless the underlying soil has been observed by the Geotechnical Engineer.

c. To provide a more uniform and moisture-conditioned subgrade, overexcavation and recompaction of soils in these construction areas will be necessary.

d. Soils should be overexcavated throughout the proposed hotel building areas, to the greater depth of the following: 1) 5 feet below the bottom of footings; 2) 7 feet below the finished pad grade; or 3) until all artificial fills or loose soils are removed.

e. Overexcavations should be extended to a distance of at least 5 feet laterally, but not less than a distance equal to the depth of removal, beyond the outside edge of the foundation elements.

f. The bottoms of all excavations should be observed by a representative of Earth Systems prior to processing or placing fill.

g. The resulting surface(s) should then be scarified an additional 6 inches, uniformly moisture conditioned to about 3 percent above the optimum moisture content, and compacted to achieve a minimum relative compaction of 90 percent of the ASTM D 1557 maximum dry density. Compaction of the prepared subgrade should be verified by testing prior to the placement of recompacted fill.

h. Areas outside of the proposed hotel building to receive fill, exterior slabs-on-grade, sidewalks, or paving should be overexcavated either throughout the existing fill or to a minimum depth of 1 foot below finished subgrade, whichever is deeper. The resulting surfaces should then be scarified an additional 6 inches, moisture conditioned, and recompacted. If the owner decides to leave any existing fill in place under and/or within the influence of proposed exterior improvements, then the owner should aware that there is a risk of settlement that may cause displacement and cracking of exterior improvements.

i. On-site soils, including the removed existing fill, may be used for fill once they are cleaned of all organic material, rocks, debris, and irreducible material larger than 6 inches.

j. Fill and backfill placed about 3 percent above optimum moisture in layers with a loose thickness not greater than 6 inches should be compacted to a minimum of 90 percent of the maximum dry density obtainable by the ASTM D 1557 test method unless otherwise recommended or specified by the Geotechnical Engineer or his/her representative. Random compaction tests by Earth

Systems can assist the Grading Contractor in evaluating whether the Grading Contractor is meeting compaction requirements. However, compaction tests pertain only to specific locations and do not guarantee that all fill has been compacted to the prescribed percentage of maximum density. It is the ultimate responsibility of the Grading Contractor to achieve uniform compaction in accordance with the requirements of this report and the grading ordinance.

k. Import soils used (if any) to raise site grade should be equal to, or better than, on-site soils in strength, expansion, and compressibility characteristics. Import soil can be evaluated, but will not be prequalified by the Geotechnical Engineer. Final comments on the characteristics of the import will be given after the material is at the project site.

l. According to the 2022 CBC Section 1804.4, the ground immediately adjacent to the foundation shall be sloped away from the building at a slope of not less than 5% for a minimum distance of 10 feet measured perpendicular to the face of the wall.

3. Utility Trenches

a. Utility trench backfill should be governed by the provisions of this report relating to minimum compaction standards. In general, on-site service lines may be backfilled with recompacted fill compacted to 90 percent of the maximum density. Backfill of offsite service lines will be subject to the specifications of the jurisdictional agency or this report, whichever are greater.

b. Utility trenches running parallel to footings should be located at least 5 feet outside the footing line, and above a 1-horizontal versus 1-vertical projection downward from the outside edge of the bottom of the footing. If the utility line is located below the 1:1 projection, the trench will need to be backfilled with slurry to a level above the 1:1 projection.

c. Compacted fills should be utilized for backfill. Clean sand backfill should be avoided under structures because it provides a conduit for water to migrate under foundations.

d. Backfill operations should be observed and tested by the Geotechnical Engineer to monitor compliance with these recommendations.

e. Although not anticipated, shoring and/or sloping of trenches may be required because of the potential presence of caving sand.

f. Rocks greater than 6 inches in diameter should not be placed in trench zones (from 12 inches below pavement subgrade or ground surface to 12 inches above top of pipe or box); rocks greater than 2.5 inches in diameter should not be placed in pipe zones (from 12 inches above top of pipe or box to 6 inches below bottom of pipe or box exterior).

g. Jetting should not be utilized for compaction in utility trenches.

h. If any utilities are to be located in public rights-of-way, construction will need to comply with the requirements of the public agency.

B. Structural Design

1. Mat Foundations

a. Because of the variable in-situ density nature of the site soils and the potential for 2.9 inches of seismic-induced settlement, a structural mat foundation can be used for the building foundation. The mat may be conventionally reinforced or may consist of a post-tensioned slab system. Specific criteria for post-tensioned slab design can be provided if a post-tensioned system is chosen.

b. The mat foundations for the proposed hotel building should be supported by at least 5 feet of recompacted fill.

c. To minimize the total settlement under static conditions, an allowable "net" bearing capacity of 300 pounds per square foot (psf), for loads distributed over the full footprint of the mat foundations, may be utilized for dead and sustained live loads for design of the mat foundation.

d. An allowable "net" bearing capacity of 2,500 psf may be used for thickened edges or other concentrated load areas bearing in compacted fill. This value includes a safety factor of 3.0 and may be increased by one-third when considering transient loads such as earthquake or wind forces.

e. For subgrade soils beneath the proposed hotel building consisting of recompacted fill, a modulus of subgrade reaction of k_1 = 100 kips per cubic foot is recommended. The value k_1 reflects a 1 square foot area and must be appropriately corrected for a loaded rectangular area of width B and length, m x B, using the formula: $k_s = (k_1)[(m+0.5)/1.5m]$.

Where: k_1= coefficient of subgrade reaction for 1 square foot plate (100 kcf)
B = width beneath column or bearing wall, in feet, where stresses are imposed on the ground

A value of B should be assumed to estimate the k_s value in the initial structural analysis. Then, the calculated B value (from the initial structural analysis) should be used to re-calculate the k_s value. Additional structural analyses (iterations) should be made using re-calculated k_s values in the same manner, as appropriate, until the B value calculated from the structural analysis is consistent with the B value used to calculate k_s.

f. The actual depth, width, and reinforcement requirements for the mat foundation should be specified by the Project Structural Engineer.

g. The Project Structural Engineer should account for the estimated static and seismically-induced settlements (total and differential) in the mat foundation design.

2. Frictional and Lateral Coefficients

a. Resistance to lateral loading may be provided by soil friction acting on the base of foundations. A coefficient of friction of 0.65 may be applied to dead load forces. This value does not include a safety factor.

b. Passive resistance acting on the sides of foundation stems equal to 410 pcf of equivalent fluid weight may be included for resistance to lateral load. This value does not include a safety factor.

c. A minimum safety factor of 1.5 should be used when designing for sliding or overturning.

d. Passive resistance may be combined with frictional resistance provided that a one-third reduction in the coefficient of friction is used.

3. Settlement Considerations

a. A maximum settlement of about 4 inches (1.3 inches from static and 2.7 inches from seismic) is anticipated for the proposed hotel building supported by at least 5 feet of recompacted fill as recommended.

b. Differential settlement over a distance of 30 feet should be about one-half the maximum total settlement.

c. The Project Structural Engineer will need to design the foundation system to accommodate the potential settlement values.

4. Preliminary Asphalt Paving Sections

   a. The following preliminary paving sections table summarizes thicknesses of asphalt and Class II base required for different traffic indices (ranging from 4.0 to 8.0, with 0.5 intervals) using the smaller tested R-Value, which is 37. Asphalt and Class II base should be compacted to a minimum of 95 percent of maximum dry density on subgrade soils compacted to a minimum of 90 percent of maximum dry density.

Traffic Index	Asphalt Thickness (inches)	Min. Aggregate Base Thickness (inches)
4.0	3.0	4.0
4.5	3.0	4.0
5.0	3.0	4.5
5.5	3.0	6.0
6.0	3.0	7.0
6.5	3.0	8.5
7.0	3.0	10.0
7.5	3.5	10.5
8.0	5.0	8.5

   b. The preliminary paving sections provided above have been designed for the type of traffic indicated and the assumed design life. If the pavement is placed before project construction is complete, construction loads, which could increase the Traffic Indices above those assumed above, should be taken into account.

   c. Subgrade R-Values should be reevaluated at or near the end of rough grading so that final pavement designs can be made.

ADDITIONAL SERVICES

This report is based on the assumption that an adequate program of monitoring and testing will be performed by Earth Systems during construction to check compliance with the recommendations given in this report. The recommended tests and observations include, but are not necessarily limited to the following:

- Review of the structural and grading plans during the design phase of the project.
- Observation and testing during site preparation, grading, placing of recompacted fill, and foundation construction.
- Consultation as required during construction.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

The analyses and recommendations submitted in this report are based in part upon the data obtained from the on-site borings. The nature and extent of variations between and beyond the points of exploration may not become evident until construction. If variations then appear evident, it will be necessary to reevaluate the recommendations of this report.

The scope of services did not include any environmental assessment or investigation for the presence or absence of wetlands, hazardous or toxic materials in the soil, surface water, groundwater or air, on, below, or around this site. Any statements in this report or on the soil boring logs regarding odors noted, unusual or suspicious items or conditions observed, are strictly for the information of the client.

Findings of this report are valid as of this date; however, changes in conditions of a property can occur with passage of time whether they are because of natural processes or works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur whether they result from legislation or broadening of knowledge. Accordingly, findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of 1 year.

In the event that any changes in the nature, design, or location of the proposed construction and/or other improvements are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and the conclusions of this report modified or verified in writing.

This report is issued with the understanding that it is the responsibility of the Owner, or of his representative to ensure that the information and recommendations contained herein are called to the attention of the Architect and Engineers for the project and incorporated into the plan and that the necessary steps are taken to see that the Contractor and Subcontractors carry out such recommendations in the field.

As the Geotechnical Engineers for this project, Earth Systems has striven to provide services in accordance with generally accepted geotechnical engineering practices in this community at this time. No warranty or guarantee is expressed or implied. This report was prepared for the exclusive use of the Client for the purposes stated in this document for the referenced project

only. No third party may use or rely on this report without express written authorization from Earth Systems for such use or reliance.

It is recommended that Earth Systems be provided the opportunity for a general review of final design and specifications in order that earthwork and foundation recommendations may be properly interpreted and implemented in the design and specifications. If Earth Systems is not accorded the privilege of making this recommended review, it can assume no responsibility for misinterpretation of the recommendations contained herein.

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APPENDIX A

Vicinity Map
Regional Geologic Map 1 (Dibblee)
Regional Geologic Map 2 (USGS)
Field Study
Site Plan
Logs of Borings
Logs of CPT Interpretations and Soundings
Boring Log Symbols
Unified Soil Classification System



*Taken from USGS Topo Map, Carpinteria Quadrangle, California, 2021.

Approximate Scale: 1" = 2,000'

0 2,000' 4,000'

N

VICINITY MAP

499 Linden Avenue
Carpinteria, California

Earth Systems

November 2023	306184-001



*Taken from Dibblee, T.W., and Ehrenspeck, H.E., ed., 1986, Geologic map of the Carpinteria quadrangle Santa Barbara County, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-04,

GEOLOGIC SYMBOLS

not all symbols shown on each map

FORMATION CONTACT *dashed where inferred or indefinite, dotted where concealed*

MEMBER CONTACT *between units of a formation* ····· Prominent bed

CONTACT BETWEEN SURFICIAL SEDIMENTS *located only approximately in places*

FAULT: *Dashed where indefinite or inferred, dotted where concealed, queried where existence is doubtful. Parallel arrows indicate inferred relative lateral movement. Relative vertical movement is shown by U/D (U=upthrown side, D=downthrown side). Short arrow indicates dip of fault plane. Sawteeth are on upper plate of low angle thrust fault.*

FOLDS: *overturned* — **ANTICLINE** — **SYNCLINE**

arrow on axial trace of fold indicates direction of plunge; dotted where concealed by surficial sediments

Strike and dip of sedimentary rocks: inclined; inclined (approximate); overturned; horizontal; vertical

Strike and dip of metamorphic or igneous rock foliation or flow banding or compositional layers: inclined; inclined (approximate); vertical; overturned

OTHER SYMBOLS: *Direction of landslide movement; outline of water bodies shown on map; water well; oil well; springs*

Qs / Qg / Qa — **SURFICIAL SEDIMENTS**

Qog / Qoa — **OLDER DISSECTED SURFICIAL SEDIMENTS**

Tm / Tml — **MONTEREY SHALE** *Marine; early to late Miocene age*

Qs *Beach sand deposits*

Qg *Stream channel deposits, mostly gravel and sand*

Qa *Alluvium: unconsolidated floodplain deposits of silt, sand and gravel*

Qoa *Former alluvial deposits of silt, sand and gravel, in places weakly consolidated; local unconformities at base*

Qog *Cobble-boulder fan gravel and fanglomerate deposits composed largely of sandstone detritus*

Tm *Upper shale unit: white-weathering, thin bedded, hard, platy to brittle siliceous shale; Mohnian Stage*

Tml *Lower shale unit: white weathering, soft, fissle to punky clay shale with interbeds of hard siliceous shale and thin limestone strata; lower Mohnian to uppermost Saucesian Stages*

Approximate Scale: 1" = 2,000'

0 2,000' 4,000'

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REGIONAL GEOLOGIC MAP 1

499 Linden Avenue
Carpinteria, California

Earth Systems

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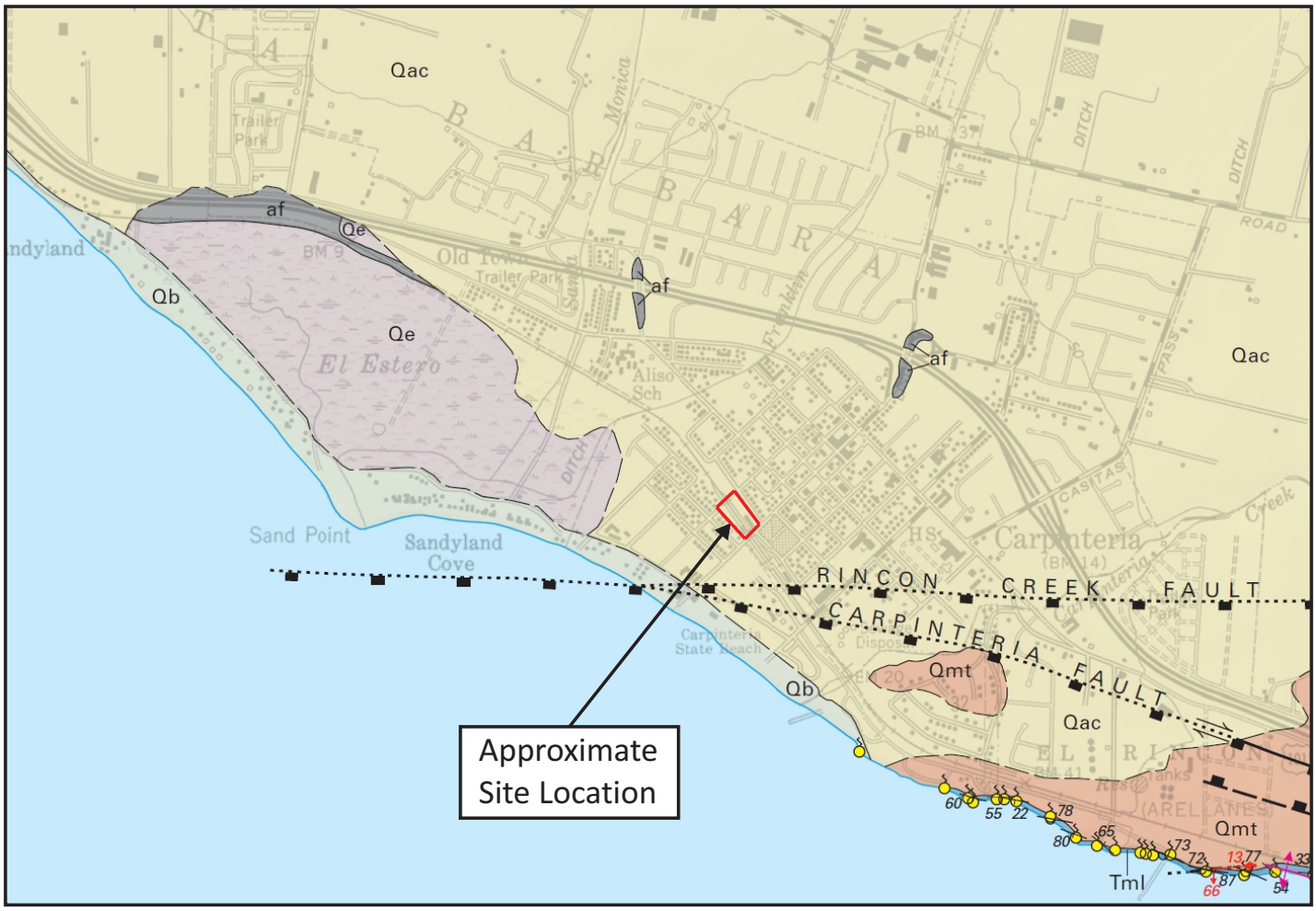

*Taken from Geologic Map of the Santa Barbara Coastal Plain Area, Santa Barbara County, California, 2009.

- **Contact**—Long-dashed where approximately located; short-dashed where inferred; dotted where concealed; tic shows direction and angle of dip
- **Trace of marker bed**
- **Outline of erosionally beveled geomorphic surface**
- **Marine-terrace shoreline angle**—Approximately located based on subtle to strong topographic steps of terrace surface; locally coincides with contact between Qmt and older units
- **Faults**—Long-dashed where approximately located; short dashed where inferred; dotted where concealed; queried where uncertain; small red arrow shows direction and angle of dip; red diamond-headed arrow shows bearing and rake of slickenlines and inferred slip direction of hanging-wall block
- **Strike-slip fault**—Opposing arrows show sense of strike-slip movement, queried where uncertain; bi-directional arrows indicate superposed dextral and sinistral slip on same fault
- **Normal fault**—Ball and bar on apparent downthrown side
- **Reverse fault**—Rectangles on apparent upthrown side
- **Thrust fault**—Sawteeth on apparent upthrown side
- **Fault-line scarp**—Inferred from aerial photographs; hachures point downscarp
- **Slide-block boundary**—Inferred; hachures on slide block
- **Fold and warp axial traces**—Long-dashed where approximately located; short-dashed where inferred; dotted where concealed

- **Anticline**—Large arrow indicates plunge direction
- **Overturned anticline**
- **Upwarp axis**—Large arrow indicates plunge direction; mapped in Quaternary deposits where geomorphically expressed
- **Syncline**—Large arrow indicates plunge direction
- **Overturned syncline**
- **Downwarp axis**—Mapped in Quaternary deposits where geomorphically expressed
- **Horizontal bedding**
- **Inclined bedding**—Showing strike and dip
- **Inclined bedding**—Showing approximate strike and dip
- **Inclined bedding**—Showing strike and dip of beds calculated from bedding trace
- **Vertical bedding**—Showing strike
- **Overturned bedding**—Showing strike and dip
- **Concealed bedding**—Measured in unit indicated where temporarily exposed at low tide or in construction excavation

Approximate Scale: 1" = 2,000'

0 2,000' 4,000'

N

- **af** **Artificial fill (Holocene)**—Fill used for construction of highways, roads, buildings, airport runways, harbor facilities, breakwaters, and dams
- **Qb** **Beach deposits (Holocene)**—Unconsolidated sand along coastal beaches. Thickness varies seasonally and rarely exceeds 5 m
- **Qe** **Estuarine deposits (Holocene)**—Locally organic-rich clay, silt, and subordinate sand deposited primarily in peritidal environment in low-lying coastal areas of modern and historically active sloughs. Maximum thickness probably less than 20 m
- **Qac** **Alluvium and colluvium (Holocene and upper Pleistocene)**—Poorly consolidated silt, sand, and gravel deposits of modern drainages and piedmont alluvial fans and floodplains. Exposed thickness generally less than 10 m
- **Qmt** **Marine-terrace deposits (upper Pleistocene)**—Basal (~1 m) weakly to moderately consolidated, variably stratified, fossiliferous gravel, sand, and silt deposited as marine intertidal, beach, and estuarine deposits and overlying nonmarine eolian, alluvial, and colluvial deposits. Marine-terrace deposits rest on elevated marine wave-cut platforms and form single terraces or flights of terraces ranging in elevation from 10 to 90 m (30–300 ft) and in age from 45 ka (oxygen-isotope substage 3a) to 105 ka (substage 5c). Maximum exposed thickness about 20 m
- **Tml** **Lower calcareous unit (middle and lower Miocene)**—Calcareous, siliceous, and phosphatic, white- to tan-weathering mudstone and shale, with subordinate dolomite, porcelanite, breccia, glauconitic sandstone, and tuff. In places, unit exhibits intraformational deformation (including breccia) that may have formed by gravitational slumping shortly after deposition. Thickness about 250 m thick near the mouth of Dos Pueblos Canyon

REGIONAL GEOLOGIC MAP 2

499 Linden Avenue
Carpinteria, California

Earth Systems

November 2023	306184-001

FIELD STUDY

A. On July 24, 2023, fourteen borings (B-1 through B-8, and IT-1 through IT-6) were drilled to depths ranging from approximately 2 to 51.5 feet below the existing ground surface to observe the soil profile and to obtain samples for laboratory analyses, and in IT-1 through IT-6 to perform infiltration tests. The borings were drilled using 8-inch diameter hollow-stem continuous flight auger powered by a SIMCO truck mounted drilling rig. The approximate locations of the borings were determined in the field by pacing and sighting, and are shown on the Site Plan in this Appendix.

B. Samples were obtained within the Borings B-1 through B-8 with a Modified California (M.C.) ring sampler (ASTM D 3550 with a shoe similar to ASTM D 1586). The M.C. sampler has a 3-inch outside diameter, and a 2.42-inch inside diameter when used with brass ring liners (as it was during this study). The samples were obtained by driving the sampler with a 140-pound hammer dropping 30 inches in accordance with ASTM D 1586. The hammer was operated with an automatic trip mechanism.

C. Bulk soil samples were collected from the cuttings of the soils encountered in the borings between depths of zero and 5 feet below the ground surface.

D. On July 25, 2023, three Cone Penetrometer Test (CPT) soundings (CPT-1, CPT-2, and CPT-2A) were performed to obtain information pertaining to the soil profile. The CPT soundings were performed using equipment owned and operated by Kehoe Testing and Engineering. During advancement of the cone penetrometer, readings of sleeve friction (in tons per square foot), tip resistance (also in tons per square foot), and friction ratio (in percent) were recorded at 0.05-meter intervals as per ASTM D 5778 and ASTM D 3441. The approximate locations of the test soundings were determined in the field by pacing and sighting, and are shown on the Site Plan in this Appendix. It should be noted that although CPT-1 was able to be advanced to a depth of about 104 feet, CPT-2 encountered refusal at a depth of about 55 feet. Therefore, CPT-2A was advanced near CPT-2, but again encountered refusal at a depth of about 55 feet.

E. The final logs of the borings represent interpretations of the contents of the field logs obtained during the subsurface study and the results of laboratory testing performed on the samples. The final logs, as well as the interpretations of the CPT soundings, are included in this Appendix.



B-8 : Approximate boring locations.

IT-6 : Approximate infiltration testing locations.

CPT-2A : Approximate Cone Penetrometer Test (CPT) sounding locations.

Approximate Scale: 1" = 50'

0 50' 100'

N

SITE PLAN

499 Linden Avenue
Carpinteria, California

Earth Systems

November 2023 | 306184-001

Logs of Borings

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5917 Olivas Park Drive, Suite F, Ventura, CA
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-1
PROJECT NAME: 499 Linden Ave
PROJECT NUMBER: 306184-001
BORING LOCATION: Per Plan

DRILLING DATE: July 24, 2023
DRILL RIG: SIMCO
DRILLING METHOD: Hollow-Stem Auger
LOGGED BY: AL

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6"	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0	X					SC			**3.0" Asphalt; 5.0" Base Material**
	X			8/6/7		SM	114.0	12.2	**ARTIFICIAL FILL:** Brown Clayey fine Sand, loose to medium dense, damp **ARTIFICIAL FILL:** Dark Gray to Black Silty fine Sand, trace Clay, loose, damp
5				9/12/16		SW	111.8	14.6	**ALLUVIUM:** Dark Brown fine to medium Sand, little coarse Sand, trace Silt, medium dense, dry to damp
				4/6/7		SM	115.7	16.5	**ALLUVIUM:** Dark Brown Silty fine Sand, little to some Clay, loose, very moist
10				5/7/9		SC	113.5	17.4	**ALLUVIUM:** Brown Clayey fine Sand, loose, wet
15				2/3/3		CL			**ALLUVIUM:** Dark Gray Brown Silty Clay, medium stiff, moist
20				4/4/6		CL			**ALLUVIUM:** Dark Gray Brown Silty Clay, medium stiff, moist
25				4/8/9		SM			
30				5/8/13		SM			**ALLUVIUM:** Dark Brown Silty fine Sand, loose to medium dense, wet
35				5/12/9		SM			

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

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BORING NO: B-1
PROJECT NAME: 499 Linden Ave
PROJECT NUMBER: 306184-001
BORING LOCATION: Per Plan

DRILLING DATE: July 24, 2023
DRILL RIG: SIMCO
DRILLING METHOD: Hollow-Stem Auger
LOGGED BY: AL

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
40			■	10/20/23		SP			
45			■	16/28/31		SP			**ALLUVIUM:** Dark Gray fine Sand, medium dense to dense, wet
50			■	8/14/21		SP			
55									**Total Depth: 51.5 feet** **Groundwater Depth: 10.0 feet**
60									
65									
70									
75									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

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BORING NO: B-2
PROJECT NAME: 499 Linden Ave
PROJECT NUMBER: 306184-001
BORING LOCATION: Per Plan

DRILLING DATE: July 24, 2023
DRILL RIG: SIMCO
DRILLING METHOD: Hollow-Stem Auger
LOGGED BY: AL

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6"	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0	X		■	8/10/12		SM	113.7	14.4	**3.0" Asphalt; 5.0" Base Material** **ARTIFICIAL FILL:** Dark Brown Silty fine Sand, little to some Clay, medium dense, damp
5	X		■	4/3/4		ML	97.4	21.8	**ALLUVIUM:** Brown to Dark Brown Clayey Silt, medium stiff, moist to very moist
			■	4/5/6		SM	108.0	14.8	**ALLUVIUM:** Brown Silty fine Sand, loose, moist
10 ▼			■	4/5/10		CL	107.6	18.9	**ALLUVIUM:** Brown fine Sandy Clay, stiff, wet
15			■	3/5/10		SC			**ALLUVIUM:** Brown fine Sandy Clay to Clayey fine Sand, loose, wet
20									**Total Depth: 16.5 feet** **Groundwater Depth: 10.0 feet**
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

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PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-3
PROJECT NAME: 499 Linden Ave
PROJECT NUMBER: 306184-001
BORING LOCATION: Per Plan

DRILLING DATE: July 24, 2023
DRILL RIG: SIMCO
DRILLING METHOD: Hollow-Stem Auger
LOGGED BY: AL

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6"	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									**3.0" Asphalt; 6.0" Base Material**
			■	15/12/10		SM	112.2	12.8	**ARTIFICIAL FILL:** Dark Brown Silty fine Sand, little to some Clay, medium dense, damp
5			■	8/9/11		SC	113.7	16.2	**ALLUVIUM:** Brown Clayey fine Sand, medium dense, damp to moist
			■	7/9/12		SM	116.8	14.6	**ALLUVIUM:** Brown Silty fine Sand, medium dense, wet
10			■	4/4/8		CL	104.4	21.8	**ALLUVIUM:** Brown fine Sandy Clay, stiff, very moist to wet
15			■	4/4/7		CL			**ALLUVIUM:** Gray Brown Silty Clay, stiff, very moist to wet
20									**Total Depth: 16.5 feet** **Groundwater Depth: 10.0 feet**
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

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BORING NO: B-4
PROJECT NAME: 499 Linden Ave
PROJECT NUMBER: 306184-001
BORING LOCATION: Per Plan

DRILLING DATE: July 24, 2023
DRILL RIG: SIMCO
DRILLING METHOD: Hollow-Stem Auger
LOGGED BY: AL

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									**3.0" Asphalt; 5.0" Base Material**
			■	10/11/11		ML	108.6	16.8	**ARTIFICIAL FILL:** Dark Brown fine Sand Silt, very stiff, damp
5			■	4/7/7		ML	110.3	15.4	**ALLUVIUM:** Brown Clayey Silt, some fine Sand, stiff, damp to moist
			■	6/6/8		SM	106.4	15.5	
10			■	10/7/7		SM	106.5	20.7	**ALLUVIUM:** Brown Silty fine Sand, loose, wet
15			■	5/6/9					
									Total Depth: 16.5 feet
									Groundwater Depth: 10.0 feet
20									
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

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PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-5
PROJECT NAME: 499 Linden Ave
PROJECT NUMBER: 306184-001
BORING LOCATION: Per Plan

DRILLING DATE: July 24, 2023
DRILL RIG: SIMCO
DRILLING METHOD: Hollow-Stem Auger
LOGGED BY: AL

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6"	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0	X					SC			**ARTIFICIAL FILL:** Dark Gray Brown to Dark Brown Clayey fine Sand, medium dense, damp to moist
5									**Total Depth: 5.0 feet** **No Groundwater Encountered**
10									
15									
20									
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
5917 Olivas Park Drive, Suite F, Ventura, CA
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-6
PROJECT NAME: 499 Linden Ave
PROJECT NUMBER: 306184-001
BORING LOCATION: Per Plan

DRILLING DATE: July 24, 2023
DRILL RIG: SIMCO
DRILLING METHOD: Hollow-Stem Auger
LOGGED BY: AL

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0	X					SM			**ARTIFICIAL FILL:** Gray Brown Silty fine Sand, loose, dry to damp
	X					SM			**ALLUVIUM:** Brown Silty fine Sand, little Clay, medium dense, damp
5									**Total Depth: 5.0 feet** **No Groundwater Encountered**
10									
15									
20									
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
5917 Olivas Park Drive, Suite F, Ventura, CA
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-7
PROJECT NAME: 499 Linden Ave
PROJECT NUMBER: 306184-001
BORING LOCATION: Per Plan

DRILLING DATE: July 24, 2023
DRILL RIG: SIMCO
DRILLING METHOD: Hollow-Stem Auger
LOGGED BY: AL

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0	X					SM			**ARTIFICIAL FILL:** Dark Gray Brown Silty fine Sand, trace Clay, medium dense, damp
5									**Total Depth: 5.0 feet** **No Groundwater Encountered**
10									
15									
20									
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
5917 Olivas Park Drive, Suite F, Ventura, CA
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-8
PROJECT NAME: 499 Linden Ave
PROJECT NUMBER: 306184-001
BORING LOCATION: Per Plan

DRILLING DATE: July 24, 2023
DRILL RIG: SIMCO
DRILLING METHOD: Hollow-Stem Auger
LOGGED BY: AL

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0	X					SM			**ARTIFICIAL FILL:** Gray Brown Silty fine Sand, loose, dry to damp
	X					CL			**ALLUVIUM:** Brown Silty Clay, medium stiff, damp to moist
5									**Total Depth: 5.0 feet** **No Groundwater Encountered**
10									
15									
20									
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
5917 Olivas Park Drive, Suite F, Ventura, CA
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: IT-1
PROJECT NAME: 499 Linden Avenue
PROJECT NUMBER: 306184-001
BORING LOCATION: Per Plan

DRILLING DATE: July 24, 2023
DRILL RIG: SIMCO
DRILLING METHOD: Hollow-Stem Auger
LOGGED BY: AL

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0						SM			**ARTIFICIAL FILL:** Brown Silty fine Sand, some medium to coarse Sand, some fine to coarse Gravel, medium dense to dense, damp
5									**Total Depth: 2.0 feet** **No Groundwater Encountered**
10									
15									
20									
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
5917 Olivas Park Drive, Suite F, Ventura, CA
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: IT-2
PROJECT NAME: 499 Linden Avenue
PROJECT NUMBER: 306184-001
BORING LOCATION: Per Plan

DRILLING DATE: July 24, 2023
DRILL RIG: SIMCO
DRILLING METHOD: Hollow-Stem Auger
LOGGED BY: AL

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6"	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0						SM			**ARTIFICIAL FILL:** Brown Silty fine Sand, some medium to coarse Sand, some fine to coarse Gravel, medium dense to dense, damp
						SC			**ALLUVIUM:** Dark Brown Clayey fine Sand, medium dense, damp
5									**Total Depth: 5.0 feet** **No Groundwater Encountered**
10									
15									
20									
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
5917 Olivas Park Drive, Suite F, Ventura, CA
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: IT-3
PROJECT NAME: 499 Linden Avenue
PROJECT NUMBER: 306184-001
BORING LOCATION: Per Plan

DRILLING DATE: July 24, 2023
DRILL RIG: SIMCO
DRILLING METHOD: Hollow-Stem Auger
LOGGED BY: AL

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6"	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0						SM			**ARTIFICIAL FILL:** Dark Gray Silty fine Sand, medium dense, damp
									Total Depth: 2.0 feet
									No Groundwater Encountered
5									
10									
15									
20									
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
5917 Olivas Park Drive, Suite F, Ventura, CA
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: IT-4
PROJECT NAME: 499 Linden Avenue
PROJECT NUMBER: 306184-001
BORING LOCATION: Per Plan

DRILLING DATE: July 24, 2023
DRILL RIG: SIMCO
DRILLING METHOD: Hollow-Stem Auger
LOGGED BY: AL

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6"	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0						SM			**ARTIFICIAL FILL:** Dark Gray Silty fine Sand, medium dense, damp
						SC			**ALLUVIUM:** Dark Brown Clayey fine Sand, medium dense, damp
5									**Total Depth: 5.0 feet** **No Groundwater Encountered**
10									
15									
20									
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
5917 Olivas Park Drive, Suite F, Ventura, CA
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: IT-5
PROJECT NAME: 499 Linden Avenue
PROJECT NUMBER: 306184-001
BORING LOCATION: Per Plan

DRILLING DATE: July 24, 2023
DRILL RIG: SIMCO
DRILLING METHOD: Hollow-Stem Auger
LOGGED BY: AL

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6"	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0						SM			**ARTIFICIAL FILL:** Dark Gray Silty fine Sand, trace to little Clay, medium dense, damp
									Total Depth: 2.0 feet
									No Groundwater Encountered
5									
10									
15									
20									
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
5917 Olivas Park Drive, Suite F, Ventura, CA
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: IT-6
PROJECT NAME: 499 Linden Avenue
PROJECT NUMBER: 306184-001
BORING LOCATION: Per Plan

DRILLING DATE: July 24, 2023
DRILL RIG: SIMCO
DRILLING METHOD: Hollow-Stem Auger
LOGGED BY: AL

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6"	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0						SM			**ARTIFICIAL FILL:** Dark Gray Silty fine Sand, medium dense, damp
						SC			**ALLUVIUM:** Dark Brown Clayey fine Sand, medium dense, damp
5									**Total Depth: 5.0 feet** **No Groundwater Encountered**
10									
15									
20									
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Logs of CPT Interpretations and Soundings

Earth Systems Pacific

CONE PENETROMETER INTERPRETATION (based on Robertson & Campanella, 1989)

Project: 499 Linden Avenue Project No: 306184-001 Date: 07/25/23

CPT SOUNDING: CPT-1 Plot: 1 Density: 1 SPT N Program developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Est. GWT (feet): **10.0** Shift SBT: 0 Dr correlation: 0 Baldi Qc/N: 0 Jefferies & Davies Phi Correlation: 4 SPT N

Base Depth meters	Base Depth feet	Avg Tip Qc, tsf	Avg Friction Ratio, %	Soil Classification	USCS	Density or Consistency	Est. Density (pcf)	Qc to N	SPT N(60)	Total po tsf	p'o tsf	F	n	Cq	Norm. Qc1n	2.6 Ic	Clean Sand Qc1n	Clean Sand $N_{1(60)}$	Clean Sand $N_{1(60)}$	Rel. Dens. Dr (%)	Phi (deg.)	Nk: 17 Su (tsf)	OCR
0.15	0.5	47.07	2.98	Sandy Silt to Clayey Silt	ML	medium dense	110	4.4	11	0.014	0.014	2.98	0.71	1.70	75.6	2.32	153.4	18	31	65	33		
0.30	1.0	90.33	1.09	Sand to Silty Sand	SP/SM	medium dense	100	5.4	17	0.040	0.040	1.09	0.55	1.70	145.1	1.81	162.1	28	32	92	36		
0.46	1.5	33.83	2.62	Sandy Silt to Clayey Silt	ML	medium dense	110	4.3	8	0.066	0.066	2.62	0.72	1.70	54.4	2.39	122.7	13	25	52	31		
0.61	2.0	17.69	2.42	Clayey Silt to Silty Clay	ML/CL	loose	110	4.0	4	0.094	0.094	2.43	0.78	1.70	28.4	2.58	90.8	8	18	25	29		
0.76	2.5	25.48	2.91	Clayey Silt to Silty Clay	ML/CL	medium dense	110	4.1	6	0.121	0.121	2.92	0.76	1.70	40.9	2.51	115.1	11	23	40	30		
0.91	3.0	21.45	2.89	Clayey Silt to Silty Clay	ML/CL	loose	110	4.0	5	0.149	0.149	2.91	0.78	1.70	34.5	2.56	107.2	9	21	33	30		
1.07	3.5	12.46	3.86	Clay	CL/CH	stiff	110	3.5	4	0.176	0.176	3.92	0.86	1.70	20.0	2.83		4				0.72	20.9
1.22	4.0	22.69	3.16	Clayey Silt to Silty Clay	ML/CL	loose	110	4.0	6	0.204	0.204	3.19	0.78	1.70	36.5	2.57	115.0	10	23	35	30		
1.37	4.5	24.39	4.27	Silty Clay to Clay	CL	very stiff	110	3.8	6	0.231	0.231	4.31	0.80	1.70	39.2	2.64		6				1.42	31.3
1.52	5.0	22.94	4.29	Silty Clay to Clay	CL	very stiff	110	3.8	6	0.259	0.259	4.34	0.81	1.70	36.9	2.66		6				1.33	26.3
1.68	5.5	16.02	4.96	Clay	CL/CH	stiff	110	3.5	5	0.286	0.286	5.05	0.86	1.70	25.7	2.82		5				0.93	16.5
1.83	6.0	9.64	3.80	Clay	CL/CH	stiff	110	3.3	3	0.314	0.314	3.93	0.89	1.70	15.5	2.91		3				0.55	8.9
1.98	6.5	7.13	3.79	Clay	CL/CH	firm	110	3.1	2	0.341	0.341	3.98	0.92	1.70	11.5	3.02		2				0.40	6.0
2.13	7.0	14.37	2.83	Clayey Silt to Silty Clay	ML/CL	stiff	120	3.7	4	0.370	0.370	2.90	0.82	1.70	23.1	2.70		4				0.82	11.3
2.29	7.5	32.77	2.25	Sandy Silt to Clayey Silt	ML	medium dense	120	4.4	7	0.400	0.400	2.28	0.72	1.70	52.6	2.35	112.5	12	22	50	31		
2.44	8.0	50.52	2.05	Sandy Silt to Clayey Silt	ML	medium dense	120	4.7	11	0.430	0.430	2.07	0.67	1.70	81.2	2.19	133.2	16	27	68	32		
2.59	8.5	75.33	0.77	Sand to Silty Sand	SP/SM	medium dense	120	5.5	14	0.460	0.460	0.78	0.55	1.58	112.6	1.80	124.7	20	25	82	33		
2.74	9.0	80.83	0.78	Sand to Silty Sand	SP/SM	medium dense	120	5.5	15	0.490	0.490	0.78	0.55	1.52	116.4	1.79	128.2	21	26	83	34		
2.90	9.5	75.07	0.70	Sand to Silty Sand	SP/SM	medium dense	120	5.5	14	0.520	0.520	0.71	0.55	1.48	104.9	1.80	116.2	19	23	79	33		
3.05	10.0	36.26	1.69	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.6	8	0.550	0.550	1.72	0.69	1.57	53.8	2.27	99.5	11	20	51	30		
3.20	10.5	9.21	3.54	Clay	CL/CH	stiff	120	3.3	3	0.580	0.564	3.77	0.89	1.70	14.8	2.92		3				0.51	4.6
3.35	11.0	8.05	2.41	Silty Clay to Clay	CL	firm	120	3.4	2	0.610	0.579	2.61	0.88	1.70	12.9	2.87		2				0.44	3.9
3.51	11.5	8.76	1.96	Clayey Silt to Silty Clay	ML/CL	firm	120	3.5	2	0.640	0.593	2.11	0.86	1.64	13.6	2.80		2				0.48	4.1
3.66	12.0	25.73	1.92	Sandy Silt to Clayey Silt	ML	loose	120	4.2	6	0.670	0.608	1.97	0.74	1.51	36.7	2.43	90.0	8	18	35	29		
3.81	12.5	47.39	0.79	Silty Sand to Sandy Silt	SM/ML	medium dense	120	5.0	9	0.700	0.622	0.80	0.62	1.39	62.1	2.02	82.3	12	16	57	31		
3.96	13.0	23.45	1.04	Sandy Silt to Clayey Silt	ML	loose	120	4.4	5	0.730	0.636	1.08	0.71	1.44	31.8	2.33	65.4	7	13	29	29		
4.11	13.5	7.81	2.59	Silty Clay to Clay	CL	firm	120	3.2	2	0.760	0.651	2.87	0.90	1.55	11.4	2.94		2				0.42	3.2
4.27	14.0	7.34	2.67	Silty Clay to Clay	CL	firm	120	3.2	2	0.790	0.665	2.99	0.91	1.53	10.6	2.98		2				0.39	3.0
4.42	14.5	7.82	3.08	Silty Clay to Clay	CL	firm	120	3.1	2	0.820	0.680	3.44	0.92	1.50	11.1	2.99		2				0.42	3.1
4.57	15.0	7.28	4.21	Clay	CL/CH	firm	120	2.9	2	0.850	0.694	4.77	0.95	1.49	10.3	3.11		2				0.39	2.8
4.72	15.5	6.16	3.63	Clay	CL/CH	firm	120	2.9	2	0.880	0.708	4.23	0.96	1.47	8.6	3.14		2				0.32	2.2
4.88	16.0	6.51	2.41	Silty Clay to Clay	CL	firm	120	3.1	2	0.910	0.723	2.80	0.93	1.42	8.8	3.03		2				0.34	2.3
5.03	16.5	10.44	2.93	Silty Clay to Clay	CL	stiff	120	3.3	3	0.940	0.737	3.22	0.89	1.38	13.6	2.91		3				0.57	3.9
5.18	17.0	37.59	1.79	Sandy Silt to Clayey Silt	ML	loose	120	4.4	9	0.970	0.752	1.84	0.71	1.28	45.3	2.34	95.0	10	19	44	30		
5.33	17.5	77.56	0.59	Sand to Silty Sand	SP/SM	medium dense	120	5.4	14	1.000	0.766	0.60	0.56	1.20	87.8	1.83	98.8	16	20	71	32		
5.49	18.0	50.86	1.16	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.8	11	1.030	0.780	1.18	0.65	1.22	58.6	2.14	89.5	12	18	55	31		
5.64	18.5	15.36	2.24	Clayey Silt to Silty Clay	ML/CL	stiff	120	3.7	4	1.060	0.795	2.40	0.83	1.27	18.4	2.72		4				0.86	5.4
5.79	19.0	18.26	2.09	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.8	5	1.090	0.809	2.22	0.81	1.24	21.4	2.65		5				1.03	6.4
5.94	19.5	12.01	3.11	Silty Clay to Clay	CL	stiff	120	3.3	4	1.120	0.824	3.43	0.89	1.25	14.2	2.91		4				0.66	4.0
6.10	20.0	10.49	3.93	Clay	CL/CH	stiff	120	3.1	3	1.150	0.838	4.41	0.92	1.24	12.3	3.02		3				0.57	3.3
6.25	20.5	9.97	3.80	Clay	CL/CH	stiff	120	3.1	3	1.180	0.852	4.31	0.93	1.22	11.5	3.04		3				0.54	3.1
6.40	21.0	10.32	3.85	Clay	CL/CH	stiff	120	3.1	3	1.210	0.867	4.36	0.93	1.20	11.7	3.04		3				0.56	3.2
6.55	21.5	11.91	3.98	Clay	CL/CH	stiff	120	3.1	4	1.240	0.881	4.44	0.92	1.18	13.3	3.00		4				0.65	3.6
6.71	22.0	24.52	5.08	Clay	CL/CH	very stiff	120	3.5	7	1.270	0.896	5.35	0.86	1.15	26.7	2.82		7				1.39	7.8
6.86	22.5	36.73	3.02	Clayey Silt to Silty Clay	ML/CL	loose	120	4.0	9	1.300	0.910	3.13	0.77	1.12	39.0	2.54	117.1	10	23	38	30		
7.01	23.0	23.61	4.46	Silty Clay to Clay	CL	very stiff	120	3.5	7	1.330	0.924	4.73	0.85	1.12	25.0	2.81		7				1.33	7.2
7.16	23.5	39.98	4.24	Silty Clay to Clay	CL	hard	120	3.9	10	1.360	0.939	4.39	0.80	1.10	41.6	2.63		10				2.30	12.3
7.32	24.0	70.66	3.31	Sandy Silt to Clayey Silt	ML	medium dense	120	4.3	16	1.390	0.953	3.37	0.72	1.08	72.0	2.38	160.3	17	32	63	32		
7.47	24.5	169.41	1.37	Sand to Silty Sand	SP/SM	dense	120	5.4	31	1.420	0.968	1.39	0.56	1.05	168.4	1.84	192.0	32	38	98	37		
7.62	25.0	183.72	0.71	Sand	SP	dense	120	5.8	32	1.450	0.982	0.71	0.50	1.04	180.2	1.62	180.2	32	36	100	37		
7.77	25.5	144.97	0.68	Sand	SP	medium dense	120	5.7	25	1.480	0.996	0.69	0.52	1.03	141.3	1.69	145.7	26	29	91	35		
7.92	26.0	130.37	0.97	Sand	SP	medium dense	120	5.4	24	1.510	1.011	0.98	0.56	1.03	126.4	1.83	142.6	24	29	87	34		
8.08	26.5	131.92	0.63	Sand	SP	medium dense	120	5.7	23	1.540	1.025	0.63	0.52	1.02	126.7	1.71	132.1	23	26	87	34		
8.23	27.0	118.90	0.72	Sand	SP	medium dense	120	5.5	22	1.570	1.040	0.73	0.54	1.01	113.5	1.78	124.1	21	25	82	34		
8.38	27.5	111.51	0.74	Sand	SP	medium dense	120	5.4	20	1.600	1.054	0.75	0.55	1.00	105.6	1.82	118.1	20	24	79	33		
8.53	28.0	78.40	1.35	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.9	16	1.630	1.068	1.38	0.64	0.99	73.6	2.10	107.4	16	21	64	32		
8.69	28.5	29.33	3.57	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.7	8	1.660	1.083	3.78	0.83	0.98	27.2	2.72		8				1.66	7.7
8.84	29.0	22.23	2.52	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.7	6	1.690	1.097	2.73	0.83	0.97	20.4	2.72		6				1.24	5.6
8.99	29.5	22.77	2.00	Sandy Silt to Clayey Silt	ML	very stiff	120	3.8	6	1.720	1.112	2.16	0.81	0.96	20.7	2.66		6				1.27	5.7
9.14	30.0	21.98	3.03	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.6	6	1.750	1.126	3.29	0.85	0.95	19.7	2.78		6				1.23	5.4
9.30	30.5	99.53	2.01	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.8	21	1.780	1.140	2.04	0.66	0.95	89.6	2.16	140.1	20	28	72	33		
9.45	31.0	158.35	1.50	Sand to Silty Sand	SP/SM	medium dense	120	5.2	30	1.810	1.155	1.51	0.59	0.95	142.2	1.92	172.2	28	34	91	36		
9.60	31.5	139.92	1.85	Sand to Silty Sand	SP/SM	medium dense	120	5.0	28	1.840	1.169	1.88	0.62	0.94	124.3	2.03	166.8	26	33	86	35		
9.75	32.0	108.05	1.27	Sand to Silty Sand	SP/SM	medium dense	120	5.1	21	1.870	1.184	1.29	0.61	0.93	95.4	2.00	123.8	20	25	75	33		
9.91	32.5	72.30	2.14	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.5	16	1.900	1.198	2.20	0.70	0.92	62.7	2.29	119.9	15	24	57	32		
10.06	33.0	83.74	1.83	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.7	18	1.930	1.212	1.88	0.67	0.91	72.3	2.20	119.9	16	24	63	32		
10.21	33.5	66.64	1.23	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.8	14	1.960	1.227	1.27	0.66	0.91	57.1	2.16	90.5	13	18	54	31		
10.36	34.0	27.09	2.53	Sandy Silt to Clayey Silt	ML	very stiff	120	3.7	7	1.990	1.241	2.73	0.82	0.88	22.5	2.69		7				1.52	6.1
10.52	34.5	87.41	1.69	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.8	18	2.020	1.256	1.73	0.66	0.89	73.8	2.17	117.3	16	23	64	32		
10.67	35.0	148.86	0.76	Sand	SP	medium dense	120	5.6	27	2.050	1.270	0.77	0.54	0.91	127.6	1.76	137.3	24	27	87	34		
10.82	35.5	151.68	0.76	Sand	SP	medium dense	120	5.6	27	2.080	1.284	0.77	0.53	0.90	129.2	1.75	138.6	24	28	87	34		
10.97	36.0	92.18	1.42	Sand to Silty Sand	SP/SM	medium dense	120	4.9	19	2.110	1.299	1.45	0.64	0.88	76.4	2.10	111.7	17	22	66	32		
11.13	36.5	27.88	3.06	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.6	8	2.140	1.313	3.31	0.84	0.83	22.0	2.75		8				1.56	5.9
11.28	37.0	54.80	1.22	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.6	12	2.170	1.328	1.27	0.69	0.86	44.3	2.25	80.1	10	16	43	30		
11.43	37.5	31.70	2.00	Sandy Silt to Clayey Silt	ML	loose	120	3.9	8	2.200	1.342	2.15	0.79	0.83	24.8	2.59	81.3	7	16	19	29		
11.58	38.0	82.92	1.36	Sand to Silty Sand	SP/SM	medium dense	120	4.8	17	2.230	1.356	1.40	0.65	0.85	66.7	2.14	102.0	15	20	60	32		
11.73	38.5	252.52	0.70	Sand	SP	dense	120	5.9	43	2.260	1.371	0.70	0.50	0.88	209.7	1.57	209.7	36	42	100	38		
11.89	39.0	392.00	0.95	Sand	SP	very dense	120	6.0	65	2.290	1.385	0.95	0.50	0.87	323.8	1.54	323.8	56	65	100	42		
12.04	39.5	523.59	0.87	Gravelly Sand to Sand	SW	very dense	120	6.2	84	2.320	1.400	0.87	0.50	0.87	430.3	1.43	430.3	71	86	100	44		
12.19	40.0	531.33	0.81	Gravelly Sand to Sand	SW	very dense	120	6.3	85	2.350	1.414	0.81	0.50	0.87	434.4	1.40	434.4	71	87	100	44		
12.34	40.5	553.05	0.85	Gravelly Sand to Sand	SW	very dense	120	6.2	89	2.380	1.428	0.86	0.50	0.86	449.9	1.41	449.9	74	90	100	45		
12.50	41.0	556.56	0.85	Gravelly Sand to Sand	SW	very dense	120	6.2	89	2.410	1.443	0.86	0.50	0.86	450.5	1.41	450.5	74	90	100	45		
12.65	41.5	584.93	1.01	Gravelly Sand to Sand	SW	very dense	120	6.1	95	2.440	1.457	1.01	0.50	0.85	471.1	1.46	471.1	79	94	100	45		
12.80	42.0	621.28	0.80	Gravelly Sand to Sand	SW	very dense	120	6.3	98	2.470	1.472	0.80	0.50	0.85	497.9	1.37	497.9	81	100	100	45		
12.95	42.5	588.93	0.68	Gravelly Sand to Sand	SW	very dense	120	6.4	92	2.500	1.486	0.68	0.50	0.84	469.7	1.32	469.7	75	94	100	45		
13.11	43.0	562.57	0.47	Gravelly Sand to Sand	SW	very dense	120	6.6	85	2.530	1.500	0.48	0.50	0.84	446.5	1.22	446.5	69	89	100	44		
13.26	43.5	480.99	1.76	Sand to Silty Sand	SP/SM	very dense	120	5.6	85	2.560	1.515	1.77	0.52	0.83	376.7	1.72	395.6	69	79	100	44		
13.41	44.0	407.57	1.61	Sand to Silty Sand	SP/SM	very dense	120	5.6	73	2.590	1.529	1.62	0.53	0.82	317.3	1.73	334.9	59	67	100	42		
13.56	44.5	350.04	0.94	Sand	SP	dense	120	5.9	59	2.620	1.544	0.94	0.50	0.83	273.9	1.58	273.9	48	55	100	40		
13.72	45.0	299.58	1.05	Sand	SP	dense	120	5.7	52	2.650	1.558	1.06	0.51	0.82	232.6	1.66	235.8	42	47	100	39		
13.87	45.5	251.65	0.71	Sand	SP	dense	120	5.9	43	2.680	1.572	0.72	0.50	0.82	195.1	1.60	195.1	34	39	100	37		
14.02	46.0	243.37	0.95	Sand	SP	dense	120	5.7	43	2.710	1.587	0.96	0.52	0.81	186.4	1.70	193.4	34	39	100	37		
14.17	46.5	219.85	0.87	Sand	SP	dense	120	5.7	39	2.740	1.601	0.88	0.52	0.81	167.4	1.71	174.4	31	35	98	36		
14.33	47.0	69.78	3.59	Sandy Silt to Clayey Silt	ML	medium dense	120	4.0	17	2.770	1.616	3.74	0.77	0.72	47.6	2.54	140.5	14	28	46	31		
14.48	47.5	45.03	2.88	Sandy Silt to Clayey Silt	ML	hard	120	3.9	12	2.800	1.630	3.07	0.80	0.71	30.1	2.62		12				2.55	7.8
14.63	48.0	174.98	0.97	Sand	SP	medium dense	120	5.4	32	2.830	1.644	0.99	0.56	0.78	129.4	1.82	145.3	25	29	88	35		
14.78	48.5	381.01	0.84	Gravelly Sand to Sand	SW	dense	120	6.0	63	2.860	1.659	0.84	0.50	0.80	287.6	1.53	287.6	49	58	100	40		
14.94	49.0	479.84	0.96	Gravelly Sand to Sand	SW	very dense	120	6.0	79	2.890	1.673	0.96	0.50	0.80	360.6	1.51	360.6	61	72	100	43		
15.09	49.5	524.79	0.78	Gravelly Sand to Sand	SW	very dense	120	6.2	84	2.920	1.688	0.78	0.50	0.79	392.7	1.42	392.7	65	79	100	43		
15.24	50.0	514.14	0.57	Gravelly Sand to Sand	SW	very dense	120	6.4	80	2.950	1.702	0.58	0.50	0.79	383.1	1.32	383.1	62	77	100	43		
15.39	50.5	510.03	0.87	Gravelly Sand to Sand	SW	very dense	120	6.1	83	2.980	1.716	0.87	0.50	0.79	378.5	1.46	378.5	64	76	100	43		
15.54	51.0	401.54	0.94	Sand	SP	very dense	120	5.9	67	3.010	1.731	0.94	0.50	0.78	296.7	1.56	296.7	51	59	100	41		
15.70	51.5	517.60	0.70	Gravelly Sand to Sand	SW	very dense	120	6.3	82	3.040	1.745	0.70	0.50	0.78	380.9	1.39	380.9	62	76	100	43		
15.85	52.0	604.12	0.64	Gravelly Sand to Sand	SW	very dense	120	6.4	94	3.070	1.760	0.64	0.50	0.78	442.8	1.32	442.8	71	89	100	44		
16.00	52.5	617.85	0.51	Gravelly Sand to Sand	SW	very dense	120	6.6	94	3.100	1.774	0.51	0.50	0.77	451.0	1.23	451.0	71	90	100	44		
16.15	53.0	593.39	0.92	Gravelly Sand to Sand	SW	very dense	120	6.2	96	3.130	1.788	0.93	0.50	0.77	431.4	1.45	431.4	72	86	100	44		
16.31	53.5	608.60	0.77	Gravelly Sand to Sand	SW	very dense	120	6.3	97	3.160	1.803	0.77	0.50	0.77	440.7	1.38	440.7	72	88	100	44		
16.46	54.0	606.54	0.72	Gravelly Sand to Sand	SW	very dense	120	6.3	96	3.190	1.817	0.73	0.50	0.76	437.4	1.36	437.4	71	87	100	44		
16.61	54.5	538.22	1.34	Sand	SP	very dense	120	5.8	92	3.220	1.832	1.35	0.50	0.76	386.6	1.61	386.6	68	77	100	44		
16.76	55.0	551.82	1.00	Gravelly Sand to Sand	SW	very dense	120	6.1	91	3.250	1.846	1.01	0.50	0.76	394.9	1.50	394.9	67	79	100	44		
16.92	55.5	574.48	0.90	Gravelly Sand to Sand	SW	very dense	120	6.1	93	3.280	1.860	0.91	0.50	0.75	409.5	1.46	409.5	69	82	100	44		
17.07	56.0	619.00	0.50	Gravelly Sand to Sand	SW	very dense	120	6.6	94	3.310	1.875	0.50	0.50	0.75	439.5	1.24	439.5	69	88	100	44		

Earth Systems Pacific

CONE PENETROMETER INTERPRETATION (based on Robertson & Campanella, 1989)

Project: 499 Linden Avenue Project No: 306184-001 Date: 07/25/23

CPT SOUNDING: CPT-1 Plot: 1 Density: 1 SPT N Program developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Est. GWT (feet): **10.0** Shift SBT: 0 Dr correlation: 0 Baldi Qc/N: 0 Jefferies & Davies Phi Correlation: 4 SPT N

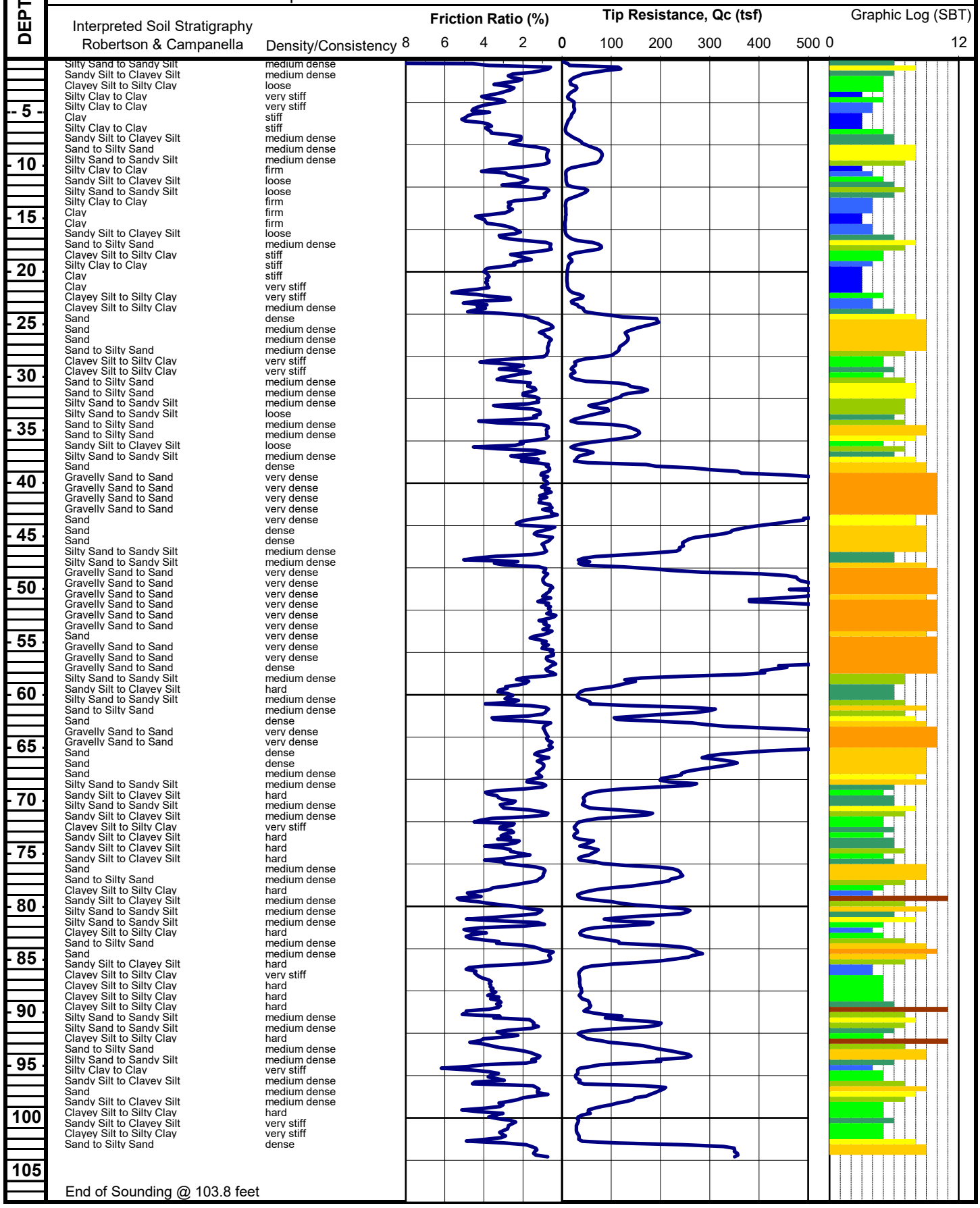
Base Depth meters	Base Depth feet	Avg Tip Qc, tsf	Avg Friction Ratio, %	Soil Classification	USCS	Density or Consistency	Est. Density (pcf)	Qc to N	SPT N(60)	Total po tsf	p'o tsf	F	n	Cq	Norm. Qc1n	2.6 Ic	Clean Sand Qc1n	Clean Sand $N_{1(60)}$	Rel. Dens. $N_{1(60)}$	Dr (%)	Phi (deg.)	Nk: 17 Su (tsf)	OCR
17.22	56.5	590.93	0.68	Gravelly Sand to Sand	SW	very dense	120	6.3	93	3.340	1.889	0.68	0.50	0.75	418.0	1.35	418.0	68	84	100	44		
17.37	57.0	555.19	0.50	Gravelly Sand to Sand	SW	very dense	120	6.5	85	3.370	1.904	0.50	0.50	0.75	391.2	1.27	391.2	62	78	100	43		
17.53	57.5	432.55	0.70	Gravelly Sand to Sand	SW	very dense	120	6.2	70	3.400	1.918	0.70	0.50	0.74	303.6	1.45	303.6	51	61	100	41		
17.68	58.0	341.12	0.56	Gravelly Sand to Sand	SW	dense	120	6.1	56	3.430	1.932	0.57	0.50	0.74	238.6	1.46	238.6	40	48	100	38		
17.83	58.5	145.55	2.01	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.8	30	3.460	1.947	2.06	0.66	0.67	92.3	2.15	143.1	22	29	73	34		
17.98	59.0	116.59	2.32	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.6	26	3.490	1.961	2.40	0.69	0.65	71.9	2.27	133.8	18	27	63	33		
18.14	59.5	51.97	3.10	Sandy Silt to Clayey Silt	ML	hard	120	3.8	14	3.520	1.976	3.33	0.81	0.60	29.7	2.65		14				2.94	7.4
18.29	60.0	32.17	2.69	Sandy Silt to Clayey Silt	ML	very stiff	120	3.5	9	3.550	1.990	3.02	0.85	0.58	17.7	2.80		9				1.78	4.3
18.44	60.5	47.94	2.58	Sandy Silt to Clayey Silt	ML	hard	120	3.9	12	3.580	2.004	2.79	0.80	0.60	27.1	2.63		12				2.70	6.6
18.59	61.0	153.22	2.13	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.8	32	3.610	2.019	2.19	0.66	0.65	94.6	2.16	148.9	23	30	75	34		
18.75	61.5	293.36	0.78	Sand	SP	dense	120	5.8	50	3.640	2.033	0.79	0.50	0.72	200.0	1.62	200.0	35	40	100	37		
18.90	62.0	156.89	2.11	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.8	33	3.670	2.048	2.16	0.66	0.65	96.2	2.15	149.7	23	30	75	34		
19.05	62.5	190.12	1.93	Sand to Silty Sand	SP/SM	medium dense	120	5.0	38	3.700	2.062	1.97	0.63	0.66	118.1	2.06	164.1	27	33	84	35		
19.20	63.0	349.16	0.88	Sand	SP	dense	120	5.9	60	3.730	2.076	0.89	0.50	0.71	235.6	1.60	235.6	41	47	100	39		
19.35	63.5	533.50	0.86	Gravelly Sand to Sand	SW	very dense	120	6.1	87	3.760	2.091	0.87	0.50	0.71	358.7	1.48	358.7	60	72	100	42		
19.51	64.0	564.27	0.76	Gravelly Sand to Sand	SW	very dense	120	6.2	91	3.790	2.105	0.76	0.50	0.71	378.1	1.42	378.1	63	76	100	43		
19.66	64.5	586.46	0.61	Gravelly Sand to Sand	SW	very dense	120	6.4	92	3.820	2.120	0.61	0.50	0.71	391.6	1.34	391.6	63	78	100	43		
19.81	65.0	545.86	0.61	Gravelly Sand to Sand	SW	very dense	120	6.3	86	3.850	2.134	0.61	0.50	0.70	363.3	1.36	363.3	59	73	100	42		
19.96	65.5	371.53	1.19	Sand	SP	dense	120	5.7	65	3.880	2.148	1.21	0.52	0.69	243.2	1.69	251.5	45	50	100	39		
20.12	66.0	299.27	0.96	Sand	SP	dense	120	5.7	53	3.910	2.163	0.97	0.52	0.69	195.5	1.69	201.2	36	40	100	37		
20.27	66.5	346.04	1.08	Sand	SP	dense	120	5.7	61	3.940	2.177	1.09	0.52	0.69	225.5	1.68	231.5	41	46	100	39		
20.42	67.0	295.46	1.00	Sand	SP	dense	120	5.7	52	3.970	2.192	1.02	0.52	0.68	190.8	1.71	199.1	35	40	100	37		
20.57	67.5	245.70	1.22	Sand	SP	dense	120	5.4	45	4.000	2.206	1.24	0.56	0.66	153.7	1.84	174.3	31	35	95	36		
20.73	68.0	210.35	1.49	Sand to Silty Sand	SP/SM	medium dense	120	5.2	41	4.030	2.220	1.52	0.60	0.64	127.7	1.95	159.0	27	32	87	35		
20.88	68.5	242.05	0.95	Sand	SP	medium dense	120	5.5	44	4.060	2.235	0.97	0.54	0.67	152.8	1.76	165.0	29	33	94	36		
21.03	69.0	89.28	3.05	Sandy Silt to Clayey Silt	ML	medium dense	120	4.1	22	4.090	2.249	3.20	0.76	0.56	47.7	2.49	128.9	14	26	46	31		
21.18	69.5	46.76	3.46	Clayey Silt to Silty Clay	ML/CL	hard	120	3.6	13	4.120	2.264	3.79	0.84	0.53	23.3	2.77		13				2.62	5.7
21.34	70.0	44.65	2.64	Sandy Silt to Clayey Silt	ML	hard	120	3.7	12	4.150	2.278	2.91	0.83	0.53	22.4	2.71		12				2.49	5.3
21.49	70.5	49.14	3.07	Sandy Silt to Clayey Silt	ML	hard	120	3.7	13	4.180	2.292	3.36	0.83	0.53	24.5	2.72		13				2.76	5.9
21.64	71.0	150.42	1.20	Sand to Silty Sand	SP/SM	medium dense	120	5.1	30	4.210	2.307	1.23	0.62	0.62	88.0	2.01	115.8	20	23	72	33		
21.79	71.5	124.97	2.04	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.6	27	4.240	2.321	2.11	0.69	0.58	68.9	2.25	123.3	18	25	61	33		
21.95	72.0	38.96	3.70	Clayey Silt to Silty Clay	ML/CL	hard	120	3.4	12	4.270	2.336	4.16	0.88	0.50	18.4	2.87		12				2.15	4.5
22.10	72.5	26.34	2.96	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.2	8	4.300	2.350	3.54	0.91	0.48	12.0	2.97		8				1.41	2.8
22.25	73.0	29.32	2.67	Sandy Silt to Clayey Silt	ML	very stiff	120	3.3	9	4.330	2.364	3.13	0.89	0.49	13.6	2.90		9				1.59	3.2
22.40	73.5	28.50	3.02	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.2	9	4.360	2.379	3.56	0.90	0.48	13.0	2.95		9				1.54	3.0
22.56	74.0	55.74	2.45	Sandy Silt to Clayey Silt	ML	hard	120	3.9	14	4.390	2.393	2.66	0.80	0.52	27.5	2.61		14				3.14	6.4
22.71	74.5	55.92	3.24	Sandy Silt to Clayey Silt	ML	hard	120	3.7	15	4.420	2.408	3.51	0.82	0.51	26.9	2.70		15				3.15	6.4
22.86	75.0	61.59	2.17	Silty Sand to Sandy Silt	SM/ML	loose	120	4.0	15	4.450	2.422	2.34	0.78	0.53	30.6	2.54	91.5	10	18	28	30		
23.01	75.5	36.53	3.09	Clayey Silt to Silty Clay	ML/CL	hard	120	3.4	11	4.480	2.436	3.53	0.87	0.48	16.7	2.86		11				2.01	3.9
23.16	76.0	91.86	2.68	Sandy Silt to Clayey Silt	ML	medium dense	120	4.2	22	4.510	2.451	2.82	0.75	0.53	46.2	2.46	118.9	14	24	45	31		
23.32	76.5	219.08	1.04	Sand	SP	medium dense	120	5.4	41	4.540	2.465	1.07	0.57	0.62	128.3	1.85	146.6	26	29	87	35		
23.47	77.0	242.47	0.94	Sand	SP	medium dense	120	5.5	44	4.570	2.480	0.96	0.55	0.63	144.0	1.78	157.2	28	31	92	35		
23.62	77.5	224.96	1.17	Sand	SP	medium dense	120	5.3	42	4.600	2.494	1.20	0.58	0.61	129.9	1.88	151.8	27	30	88	35		
23.77	78.0	168.95	2.30	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.7	36	4.630	2.508	2.36	0.67	0.56	89.4	2.20	149.3	23	30	72	34		
23.93	78.5	66.36	4.06	Clayey Silt to Silty Clay	ML/CL	hard	120	3.7	18	4.660	2.523	4.36	0.83	0.49	30.5	2.72		18				3.75	7.3
24.08	79.0	34.43	4.74	Silty Clay to Clay	CL	very stiff	120	3.1	11	4.690	2.537	5.48	0.92	0.45	14.5	3.03		11				1.88	3.5
24.23	79.5	94.87	4.44	Overconsolidated Soil	??	hard	120	3.9	25	4.720	2.552	4.67	0.80	0.49	44.4	2.63		25				5.43	10.6
24.38	80.0	203.13	2.32	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.8	42	4.750	2.566	2.38	0.66	0.56	107.4	2.15	166.5	26	33	80	35		
24.54	80.5	251.18	1.17	Sand	SP	medium dense	120	5.4	47	4.780	2.580	1.19	0.57	0.60	143.4	1.85	163.7	29	33	92	36		
24.69	81.0	127.94	3.60	Sandy Silt to Clayey Silt	ML	medium dense	120	4.2	31	4.810	2.595	3.74	0.75	0.51	61.8	2.46	158.0	19	32	57	33		
24.84	81.5	156.64	1.77	Sand to Silty Sand	SP/SM	medium dense	120	4.8	33	4.840	2.609	1.83	0.66	0.55	81.8	2.15	127.0	20	25	69	33		
24.99	82.0	77.50	3.72	Clayey Silt to Silty Clay	ML/CL	hard	120	3.8	20	4.870	2.624	3.97	0.81	0.48	35.2	2.65		20				4.40	8.3
25.15	82.5	37.76	4.38	Silty Clay to Clay	CL	hard	120	3.2	12	4.900	2.638	5.04	0.91	0.44	15.5	2.98		12				2.07	3.7
25.30	83.0	70.47	4.56	Clayey Silt to Silty Clay	ML/CL	hard	120	3.6	20	4.930	2.652	4.91	0.84	0.46	30.8	2.75		20				3.99	7.4
25.45	83.5	141.39	2.88	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.4	32	4.960	2.667	2.98	0.72	0.52	68.8	2.35	146.6	20	29	61	33		
25.60	84.0	255.66	1.21	Sand	SP	medium dense	120	5.4	48	4.990	2.681	1.24	0.57	0.59	142.3	1.86	164.0	29	33	91	36		
25.76	84.5	275.10	0.58	Gravelly Sand to Sand	SW	medium dense	120	5.9	47	5.020	2.696	0.59	0.50	0.63	162.9	1.60	162.9	29	33	97	36		
25.91	85.0	230.97	0.62	Sand	SP	medium dense	120	5.7	41	5.050	2.710	0.63	0.52	0.61	133.9	1.69	137.8	25	28	89	35		
26.06	85.5	108.66	2.32	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.3	25	5.080	2.724	2.44	0.73	0.50	51.6	2.38	115.5	15	23	49	32		
26.21	86.0	40.31	4.69	Silty Clay to Clay	CL	hard	120	3.1	13	5.110	2.739	5.37	0.91	0.42	16.0	2.99		13				2.21	3.9
26.37	86.5	34.19	4.37	Silty Clay to Clay	CL	very stiff	120	3.1	11	5.140	2.753	5.14	0.93	0.41	13.3	3.04		11				1.85	3.2
26.52	87.0	35.86	3.82	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.2	11	5.170	2.768	4.46	0.91	0.42	14.1	2.98		11				1.95	3.3
26.67	87.5	36.44	3.68	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.2	11	5.200	2.782	4.30	0.91	0.42	14.3	2.96		11				1.98	3.4
26.82	88.0	39.66	3.52	Clayey Silt to Silty Clay	ML/CL	hard	120	3.3	12	5.230	2.796	4.06	0.89	0.42	15.8	2.92		12				2.17	3.7
26.97	88.5	36.92	3.54	Clayey Silt to Silty Clay	ML/CL	hard	120	3.2	11	5.260	2.811	4.13	0.90	0.41	14.5	2.95		11				2.01	3.4
27.13	89.0	51.27	3.33	Clayey Silt to Silty Clay	ML/CL	hard	120	3.5	15	5.290	2.825	3.72	0.85	0.43	20.9	2.80		15				2.85	4.9
27.28	89.5	54.56	3.39	Sandy Silt to Clayey Silt	ML	hard	120	3.6	15	5.320	2.840	3.76	0.85	0.43	22.3	2.78		15				3.04	5.2
27.43	90.0	62.81	4.97	Overconsolidated Soil	??	hard	120	3.4	18	5.350	2.854	5.43	0.87	0.42	25.1	2.85		18				3.53	6.0
27.58	90.5	109.57	2.78	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.2	26	5.380	2.868	2.93	0.75	0.47	49.1	2.45	124.5	15	25	47	32		
27.74	91.0	191.00	1.48	Sand to Silty Sand	SP/SM	medium dense	120	5.0	38	5.410	2.883	1.52	0.63	0.53	96.4	2.04	131.2	23	26	75	34		
27.89	91.5	118.74	1.86	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.5	26	5.440	2.897	1.95	0.70	0.49	55.4	2.29	106.7	15	21	52	32		
28.04	92.0	36.83	2.89	Sandy Silt to Clayey Silt	ML	very stiff	120	3.3	11	5.470	2.912	3.39	0.89	0.41	14.1	2.91		11				2.00	3.2
28.19	92.5	57.96	3.73	Clayey Silt to Silty Clay	ML/CL	hard	120	3.5	16	5.500	2.926	4.12	0.85	0.42	23.0	2.80		16				3.24	5.4
28.35	93.0	131.91	4.12	Overconsolidated Soil	??	medium dense	120	4.1	33	5.530	2.940	4.30	0.77	0.46	56.8	2.53	164.8	19	33	53	33		
28.50	93.5	200.79	2.57	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.7	43	5.560	2.955	2.65	0.68	0.50	94.6	2.22	162.6	25	33	75	35		
28.65	94.0	252.62	1.37	Sand	SP	medium dense	120	5.2	48	5.590	2.969	1.40	0.59	0.54	129.8	1.93	157.7	28	32	88	36		
28.80	94.5	214.29	1.36	Sand	SP	medium dense	120	5.1	42	5.620	2.984	1.40	0.61	0.53	107.9	1.98	137.9	24	28	80	34		
28.96	95.0	91.94	3.57	Sandy Silt to Clayey Silt	ML	hard	120	3.9	24	5.650	2.998	3.80	0.80	0.44	37.9	2.61		24				5.23	8.6
29.11	95.5	33.37	4.88	Silty Clay to Clay	CL	very stiff	120	2.9	12	5.680	3.012	5.88	0.95	0.37	11.6	3.12		12				1.79	2.8
29.26	96.0	29.04	3.56	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.0	10	5.710	3.027	4.43	0.95	0.37	10.1	3.09		10				1.53	2.3
29.41	96.5	33.54	3.59	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.1	11	5.740	3.041	4.33	0.93	0.38	11.9	3.03		11				1.79	2.7
29.57	97.0	140.68	2.46	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.4	32	5.770	3.056	2.57	0.71	0.47	62.4	2.34	129.3	18	26	57	33		
29.72	97.5	197.12	1.23	Sand	SP	medium dense	120	5.1	39	5.800	3.070	1.27	0.61	0.52	97.3	1.99	124.9	22	25	76	34		
29.87	98.0	166.39	1.37	Sand to Silty Sand	SP/SM	medium dense	120	4.9	34	5.830	3.084	1.42	0.64	0.50	79.4	2.09	113.4	19	23	67	33		
30.02	98.5	130.08	2.72	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.3	30	5.860	3.099	2.85	0.73	0.45	55.9	2.40	129.8	17	26	53	32		
30.18	99.0	74.94	3.82	Clayey Silt to Silty Clay	ML/CL	hard	120	3.7	20	5.890	3.113	4.14	0.83	0.41	28.9	2.72		20				4.22	6.7
30.33	99.5	50.41	3.55	Clayey Silt to Silty Clay	ML/CL	hard	120	3.4	15	5.920	3.128	4.02	0.87	0.39	18.5	2.86		15				2.78	4.3
30.48	100.0	32.50	3.24	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.1	11	5.950	3.142	3.96	0.93	0.36	11.2	3.03		11				1.73	2.5
30.63	100.5	30.97	2.55	Sandy Silt to Clayey Silt	ML	very stiff	120	3.2	10	5.980	3.156	3.17	0.92	0.37	10.8	2.98		10				1.64	2.4
30.78	101.0	29.16	2.85	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.0	10	6.010	3.171	3.60	0.93	0.36	9.9	3.05		10				1.53	2.2
30.94	101.5	32.26	3.06	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.1	10	6.040	3.185	3.76	0.93	0.36	11.0	3.02		10				1.71	2.5
31.09	102.0	36.48	3.97	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.0	12	6.070	3.200	4.76	0.93	0.36	12.3	3.04		12				1.96	2.9
31.24	102.5	227.03	2.12	Sand to Silty Sand	SP/SM	medium dense	120	4.8	47	6.100	3.214	2.18	0.65	0.48	104.0	2.13	157.5	26	31	78	35		
31.39	103.0	350.16	1.34	Sand	SP	dense	120	5.4	65	6.130	3.228	1.37	0.56	0.54	177.1	1.83	199.4	36	40	100	38		
31.55	103.5	354.62	1.18	Sand	SP	dense	120	5.5	64	6.160	3.243	1.20	0.55	0.54	181.9	1.78	198.1	36	40	100	37		

Earth Systems
Pacific

CPT No : CPT-1

Project Name: 499 Linden Avenue
Project No.: 306184-001
Location: See Site Exploration Plan

Cone Penetrometer: Kehoe Testing and Engineerin
Truck Mounted Electric Cone
with 23-ton reaction weight
Date: 7/25/2023



Earth Systems Pacific

CONE PENETROMETER INTERPRETATION (based on Robertson & Campanella, 1989)

Project: 499 Linden Avenue Project No: 306184-001 Date: 07/25/23

CPT SOUNDING: CPT-2 Plot: 2 Density: 1 SPT N Program developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Est. GWT (feet): **10.0** Shift SBT: 0 Dr correlation: 0 Baldi Qc/N: 0 Jefferies & Davies Phi Correlation: 4 SPT N

Base Depth meters	Base Depth feet	Avg Tip Qc, tsf	Avg Friction Ratio, %	Soil Classification	USCS	Density or Consistency	Est. Density (pcf)	Qc to N	SPT N(60)	Total po tsf	p'o tsf	F	n	Cq	Norm. Qc1n	2.6 Ic	Clean Sand Qc1n	$N_{1(60)}$	Clean Sand $N_{1(60)}$	Rel. Dens. Dr (%)	Phi (deg.)	Nk: 17 Su (tsf)	OCR
0.15	0.5	28.79	3.30	Clayey Silt to Silty Clay	ML/CL	medium dense	110	4.1	7	0.014	0.014	3.31	0.76	1.70	46.3	2.51	129.6	12	26	45	31		
0.30	1.0	55.93	2.52	Sandy Silt to Clayey Silt	ML	medium dense	110	4.7	12	0.041	0.041	2.52	0.67	1.70	89.9	2.22	154.3	20	31	72	33		
0.46	1.5	52.09	3.95	Clayey Silt to Silty Clay	ML/CL	medium dense	110	4.3	12	0.069	0.069	3.96	0.72	1.70	83.7	2.39	189.2	20	38	69	33		
0.61	2.0	68.95	3.24	Sandy Silt to Clayey Silt	ML	medium dense	110	4.6	15	0.096	0.096	3.25	0.68	1.70	110.8	2.24	197.0	25	39	81	35		
0.76	2.5	45.01	2.93	Sandy Silt to Clayey Silt	ML	medium dense	110	4.4	10	0.124	0.124	2.93	0.71	1.70	72.3	2.33	148.9	17	30	63	32		
0.91	3.0	38.20	2.37	Sandy Silt to Clayey Silt	ML	medium dense	110	4.5	9	0.151	0.151	2.38	0.70	1.70	61.4	2.32	123.4	15	25	57	32		
1.07	3.5	40.21	2.09	Sandy Silt to Clayey Silt	ML	medium dense	110	4.6	9	0.179	0.179	2.09	0.69	1.70	64.6	2.26	118.9	15	24	59	32		
1.22	4.0	39.52	2.69	Sandy Silt to Clayey Silt	ML	medium dense	110	4.4	9	0.206	0.206	2.70	0.71	1.70	63.5	2.35	133.9	15	27	58	32		
1.37	4.5	38.01	2.26	Sandy Silt to Clayey Silt	ML	medium dense	110	4.5	8	0.234	0.234	2.27	0.70	1.70	61.1	2.31	120.3	14	24	56	31		
1.52	5.0	38.83	1.80	Silty Sand to Sandy Silt	SM/ML	medium dense	110	4.6	8	0.261	0.261	1.81	0.68	1.70	62.4	2.23	109.3	14	22	57	31		
1.68	5.5	52.65	1.40	Silty Sand to Sandy Silt	SM/ML	medium dense	110	5.0	11	0.289	0.289	1.41	0.63	1.70	84.6	2.06	117.7	18	24	70	33		
1.83	6.0	60.36	0.61	Sand to Silty Sand	SP/SM	medium dense	100	5.5	11	0.315	0.315	0.61	0.55	1.70	97.0	1.79	106.7	19	21	76	33		
1.98	6.5	48.25	0.99	Silty Sand to Sandy Silt	SM/ML	medium dense	110	5.1	9	0.341	0.341	0.99	0.61	1.70	77.5	1.99	100.2	16	20	66	32		
2.13	7.0	19.81	4.14	Silty Clay to Clay	CL	very stiff	120	3.7	5	0.370	0.370	4.22	0.82	1.70	31.8	2.70		5				1.14	15.8
2.29	7.5	10.65	5.58	Clay	CL/CH	stiff	120	3.1	3	0.400	0.400	5.80	0.91	1.70	17.1	2.99		3				0.60	7.7
2.44	8.0	10.50	3.83	Clay	CL/CH	stiff	120	3.3	3	0.430	0.430	3.99	0.88	1.70	16.9	2.89		3				0.59	7.0
2.59	8.5	13.91	3.80	Silty Clay to Clay	CL	stiff	120	3.5	4	0.460	0.460	3.93	0.85	1.70	22.3	2.79		4				0.79	8.8
2.74	9.0	33.68	1.81	Sandy Silt to Clayey Silt	ML	medium dense	120	4.5	7	0.490	0.490	1.84	0.69	1.70	54.1	2.28	102.8	11	21	51	30		
2.90	9.5	34.24	1.35	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.7	7	0.520	0.520	1.37	0.67	1.61	52.3	2.22	89.1	10	18	50	30		
3.05	10.0	18.23	3.01	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.8	5	0.550	0.550	3.11	0.80	1.69	29.1	2.64		5				1.04	9.6
3.20	10.5	9.44	5.43	Clay	CL/CH	stiff	120	3.1	3	0.580	0.564	5.78	0.92	1.70	15.2	3.03		3				0.52	4.7
3.35	11.0	7.66	4.02	Clay	CL/CH	firm	120	3.1	2	0.610	0.579	4.37	0.92	1.70	12.3	3.02		2				0.42	3.7
3.51	11.5	11.83	3.15	Silty Clay to Clay	CL	stiff	120	3.5	3	0.640	0.593	3.33	0.86	1.64	18.4	2.81		3				0.66	5.7
3.66	12.0	38.21	1.46	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.6	8	0.670	0.608	1.48	0.68	1.46	52.7	2.23	92.4	11	18	50	30		
3.81	12.5	58.40	0.37	Sand to Silty Sand	SP/SM	medium dense	120	5.5	11	0.700	0.622	0.38	0.55	1.34	73.8	1.79	73.8	13	15	64	31		
3.96	13.0	58.10	0.67	Sand to Silty Sand	SP/SM	medium dense	120	5.2	11	0.730	0.636	0.68	0.59	1.35	73.9	1.92	89.1	14	18	64	31		
4.11	13.5	50.09	0.70	Sand to Silty Sand	SP/SM	medium dense	120	5.1	10	0.760	0.651	0.71	0.61	1.34	63.5	1.98	81.1	12	16	58	31		
4.27	14.0	26.46	1.33	Sandy Silt to Clayey Silt	ML	loose	120	4.4	6	0.790	0.665	1.37	0.72	1.40	34.9	2.36	74.9	7	15	33	29		
4.42	14.5	8.03	4.13	Clay	CL/CH	firm	120	3.0	3	0.820	0.680	4.60	0.93	1.51	11.5	3.06		3				0.43	3.2
4.57	15.0	6.13	3.40	Clay	CL/CH	firm	120	2.9	2	0.850	0.694	3.95	0.96	1.50	8.7	3.12		2				0.32	2.3
4.72	15.5	7.20	2.80	Silty Clay to Clay	CL	firm	120	3.1	2	0.880	0.708	3.18	0.92	1.45	9.9	3.02		2				0.38	2.7
4.88	16.0	8.32	4.19	Clay	CL/CH	firm	120	3.0	3	0.910	0.723	4.70	0.94	1.43	11.2	3.07		3				0.45	3.1
5.03	16.5	8.16	4.49	Clay	CL/CH	firm	120	2.9	3	0.940	0.737	5.07	0.95	1.41	10.9	3.10		3				0.44	2.9
5.18	17.0	8.64	3.42	Clay	CL/CH	firm	120	3.1	3	0.970	0.752	3.85	0.92	1.37	11.2	3.02		3				0.46	3.1
5.33	17.5	20.88	3.92	Silty Clay to Clay	CL	very stiff	120	3.6	6	1.000	0.766	4.11	0.84	1.31	25.9	2.76		6				1.18	7.8
5.49	18.0	63.91	1.49	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.8	13	1.030	0.780	1.51	0.65	1.22	73.6	2.13	110.9	15	22	64	32		
5.64	18.5	86.92	0.68	Sand to Silty Sand	SP/SM	medium dense	120	5.4	16	1.060	0.795	0.69	0.56	1.17	96.3	1.82	108.3	18	22	75	33		
5.79	19.0	90.38	0.55	Sand	SP	medium dense	120	5.5	16	1.090	0.809	0.55	0.54	1.16	98.7	1.76	106.6	18	21	76	33		
5.94	19.5	40.10	1.76	Silty Sand to Sandy Silt	SM/ML	loose	120	4.4	9	1.120	0.824	1.81	0.71	1.20	45.3	2.34	94.3	10	19	44	30		
6.10	20.0	18.73	4.01	Silty Clay to Clay	CL	very stiff	120	3.5	5	1.150	0.838	4.27	0.86	1.22	21.6	2.83		5				1.05	6.3
6.25	20.5	19.78	1.43	Sandy Silt to Clayey Silt	ML	loose	120	4.0	5	1.180	0.852	1.52	0.78	1.18	22.1	2.55	66.6	5	13	14	28		
6.40	21.0	11.56	4.08	Clay	CL/CH	stiff	120	3.1	4	1.210	0.867	4.56	0.92	1.20	13.1	3.01		4				0.63	3.6
6.55	21.5	10.25	4.83	Clay	CL/CH	stiff	120	2.9	4	1.240	0.881	5.50	0.95	1.19	11.5	3.11		4				0.55	3.1
6.71	22.0	8.65	2.92	Silty Clay to Clay	CL	firm	120	3.0	3	1.270	0.896	3.43	0.93	1.17	9.6	3.05		3				0.46	2.5
6.86	22.5	8.73	2.00	Clayey Silt to Silty Clay	ML/CL	firm	120	3.2	3	1.300	0.910	2.35	0.91	1.15	9.5	2.96		3				0.46	2.4
7.01	23.0	35.30	3.80	Clayey Silt to Silty Clay	ML/CL	hard	120	3.9	9	1.330	0.924	3.95	0.80	1.11	37.2	2.63		9				2.02	11.0
7.16	23.5	77.73	3.49	Sandy Silt to Clayey Silt	ML	medium dense	120	4.4	18	1.360	0.939	3.55	0.72	1.09	80.1	2.36	173.8	18	35	68	33		
7.32	24.0	131.93	2.24	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.9	27	1.390	0.953	2.26	0.63	1.07	133.2	2.07	187.1	27	37	89	35		
7.47	24.5	150.12	1.55	Sand to Silty Sand	SP/SM	medium dense	120	5.2	29	1.420	0.968	1.56	0.58	1.05	149.5	1.92	180.2	29	36	94	36		
7.62	25.0	127.89	1.08	Sand to Silty Sand	SP/SM	medium dense	120	5.4	24	1.450	0.982	1.09	0.57	1.04	126.1	1.86	145.4	24	29	86	34		
7.77	25.5	118.61	0.94	Sand to Silty Sand	SP/SM	medium dense	120	5.4	22	1.480	0.996	0.95	0.56	1.03	116.0	1.85	132.5	22	27	83	34		
7.92	26.0	117.19	1.18	Sand to Silty Sand	SP/SM	medium dense	120	5.2	22	1.510	1.011	1.20	0.58	1.03	113.8	1.92	137.5	22	27	82	34		
8.08	26.5	126.02	0.70	Sand	SP	medium dense	120	5.6	23	1.540	1.025	0.71	0.53	1.02	121.1	1.75	130.0	22	26	85	34		
8.23	27.0	124.51	0.60	Sand	SP	medium dense	120	5.6	22	1.570	1.040	0.61	0.52	1.01	118.8	1.72	124.8	22	25	84	34		
8.38	27.5	90.48	1.34	Sand to Silty Sand	SP/SM	medium dense	120	5.0	18	1.600	1.054	1.36	0.62	1.00	85.7	2.05	117.3	18	23	70	33		
8.53	28.0	89.07	1.64	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.9	18	1.630	1.068	1.67	0.64	0.99	83.7	2.12	124.2	18	25	69	33		
8.69	28.5	97.90	0.95	Sand to Silty Sand	SP/SM	medium dense	120	5.2	19	1.660	1.083	0.96	0.59	0.99	91.3	1.93	111.3	18	22	73	33		
8.84	29.0	98.90	0.82	Sand to Silty Sand	SP/SM	medium dense	120	5.3	19	1.690	1.097	0.84	0.58	0.98	91.5	1.89	108.1	18	22	73	33		
8.99	29.5	41.97	2.66	Sandy Silt to Clayey Silt	ML	loose	120	4.1	10	1.720	1.112	2.77	0.77	0.96	38.2	2.52	108.8	10	22	37	30		
9.14	30.0	18.83	2.59	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.5	5	1.750	1.126	2.85	0.85	0.95	16.9	2.80		5				1.04	4.6
9.30	30.5	14.70	2.40	Clayey Silt to Silty Clay	ML/CL	stiff	120	3.4	4	1.780	1.140	2.73	0.88	0.94	13.0	2.88		4				0.80	3.4
9.45	31.0	15.22	2.34	Clayey Silt to Silty Clay	ML/CL	stiff	120	3.4	4	1.810	1.155	2.66	0.88	0.93	13.3	2.86		4				0.83	3.5
9.60	31.5	27.70	2.63	Sandy Silt to Clayey Silt	ML	very stiff	120	3.8	7	1.840	1.169	2.81	0.81	0.92	24.1	2.67		7				1.56	6.6
9.75	32.0	102.64	2.01	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.8	21	1.870	1.184	2.05	0.66	0.93	90.1	2.15	140.7	20	28	73	33		
9.91	32.5	116.11	1.05	Sand to Silty Sand	SP/SM	medium dense	120	5.2	22	1.900	1.198	1.07	0.59	0.93	102.0	1.92	123.5	20	25	78	33		
10.06	33.0	79.97	1.31	Sand to Silty Sand	SP/SM	medium dense	120	4.9	16	1.930	1.212	1.34	0.64	0.92	69.2	2.12	102.7	15	21	62	32		
10.21	33.5	39.08	3.53	Clayey Silt to Silty Clay	ML/CL	hard	120	3.8	10	1.960	1.227	3.72	0.81	0.89	32.8	2.65		10				2.23	9.1
10.36	34.0	80.84	1.58	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.7	17	1.990	1.241	1.62	0.66	0.90	68.8	2.17	109.9	15	22	61	32		
10.52	34.5	95.46	0.68	Sand to Silty Sand	SP/SM	medium dense	120	5.3	18	2.020	1.256	0.69	0.57	0.91	81.8	1.88	96.0	16	19	68	32		
10.67	35.0	79.43	0.83	Sand to Silty Sand	SP/SM	medium dense	120	5.1	16	2.050	1.270	0.85	0.61	0.89	67.1	2.01	87.8	14	18	60	31		
10.82	35.5	39.06	1.35	Silty Sand to Sandy Silt	SM/ML	loose	120	4.3	9	2.080	1.284	1.43	0.73	0.87	32.0	2.40	73.8	8	15	30	29		
10.97	36.0	14.45	2.94	Clayey Silt to Silty Clay	ML/CL	stiff	120	3.2	5	2.110	1.299	3.45	0.91	0.83	11.3	2.99		5				0.77	2.8
11.13	36.5	43.27	1.73	Silty Sand to Sandy Silt	SM/ML	loose	120	4.2	10	2.140	1.313	1.83	0.74	0.85	34.8	2.43	85.2	9	17	33	30		
11.28	37.0	26.92	2.86	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.6	7	2.170	1.328	3.11	0.84	0.83	21.0	2.75		7				1.51	5.6
11.43	37.5	26.87	1.83	Sandy Silt to Clayey Silt	ML	very stiff	120	3.8	7	2.200	1.342	1.99	0.80	0.83	21.0	2.63		7				1.50	5.5
11.58	38.0	25.76	1.48	Sandy Silt to Clayey Silt	ML	loose	120	3.9	7	2.230	1.356	1.62	0.79	0.82	20.0	2.60	66.3	6	13	10	28		
11.73	38.5	65.97	1.80	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.5	15	2.260	1.371	1.87	0.70	0.83	52.0	2.30	101.7	13	20	50	31		
11.89	39.0	291.35	0.86	Sand	SP	dense	120	5.9	49	2.290	1.385	0.87	0.50	0.87	240.7	1.59	240.7	42	48	100	39		
12.04	39.5	364.52	0.86	Gravelly Sand to Sand	SW	very dense	120	6.0	61	2.320	1.400	0.86	0.50	0.87	299.6	1.52	299.6	51	60	100	41		

Earth Systems Pacific

CONE PENETROMETER INTERPRETATION (based on Robertson & Campanella, 1989)

Project: 499 Linden Avenue Project No: 306184-001 Date: 07/25/23

CPT SOUNDING: CPT-2 Plot: 2 Density: 1 SPT N Program developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Est. GWT (feet): **10.0** Shift SBT: 0 Dr correlation: 0 Baldi Qc/N: 0 Jefferies & Davies Phi Correlation: 4 SPT N

Nk: 17

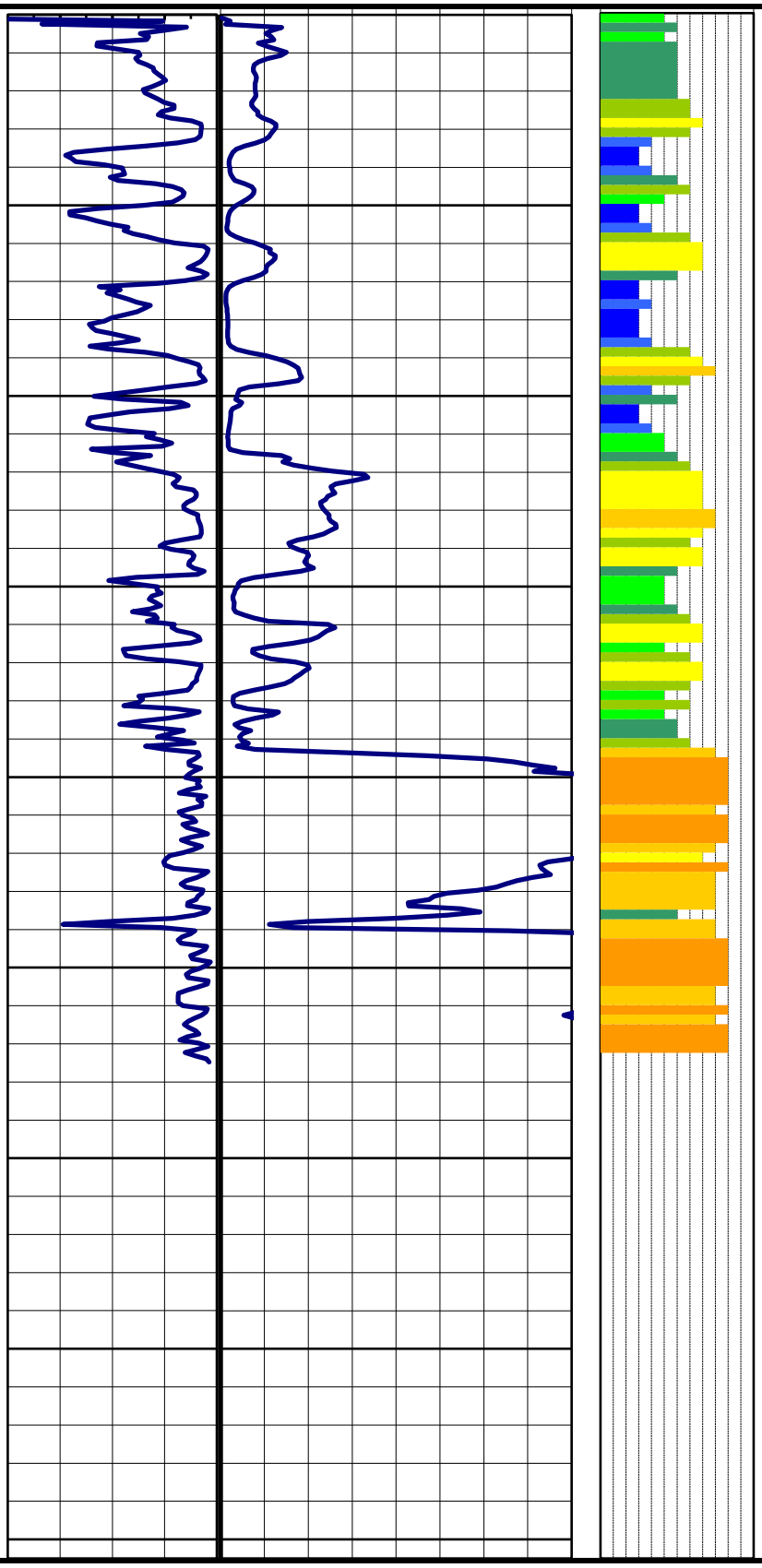
Base Depth meters	Base Depth feet	Avg Tip Qc, tsf	Avg Friction Ratio, %	Soil Classification	USCS	Density or Consistency	Est. Density (pcf)	Qc to N	SPT N(60)	Total po tsf	p'o tsf	F	n	Cq	Norm. Qc1n	Ic	Clean Sand Qc1n	$N_{1(60)}$	Clean Sand $N_{1(60)}$	Rel. Dens. Dr (%)	Phi (deg.)	Su (tsf)	OCR
12.19	40.0	457.43	0.99	Gravelly Sand to Sand	SW	very dense	120	6.0	76	2.350	1.414	0.99	0.50	0.87	374.0	1.51	374.0	64	75	100	43		
12.34	40.5	529.88	0.84	Gravelly Sand to Sand	SW	very dense	120	6.2	85	2.380	1.428	0.84	0.50	0.86	431.0	1.42	431.0	71	86	100	44		
12.50	41.0	545.24	0.86	Gravelly Sand to Sand	SW	very dense	120	6.2	88	2.410	1.443	0.87	0.50	0.86	441.3	1.42	441.3	73	88	100	44		
12.65	41.5	557.05	0.73	Gravelly Sand to Sand	SW	very dense	120	6.3	88	2.440	1.457	0.73	0.50	0.85	448.6	1.36	448.6	73	90	100	44		
12.80	42.0	571.01	1.23	Sand	SP	very dense	120	6.0	96	2.470	1.472	1.24	0.50	0.85	457.6	1.54	457.6	79	92	100	45		
12.95	42.5	580.48	1.09	Gravelly Sand to Sand	SW	very dense	120	6.1	96	2.500	1.486	1.09	0.50	0.84	463.0	1.49	463.0	78	93	100	45		
13.11	43.0	569.08	0.67	Gravelly Sand to Sand	SW	very dense	120	6.4	89	2.530	1.500	0.67	0.50	0.84	451.7	1.33	451.7	73	90	100	44		
13.26	43.5	527.43	0.99	Gravelly Sand to Sand	SW	very dense	120	6.1	87	2.560	1.515	1.00	0.50	0.84	416.6	1.49	416.6	70	83	100	44		
13.41	44.0	431.99	1.32	Sand	SP	very dense	120	5.8	75	2.590	1.529	1.33	0.50	0.83	339.6	1.64	339.6	60	68	100	42		
13.56	44.5	377.92	1.99	Sand to Silty Sand	SP/SM	very dense	120	5.4	70	2.620	1.544	2.00	0.56	0.81	289.5	1.83	325.9	56	65	100	42		
13.72	45.0	370.70	0.83	Gravelly Sand to Sand	SW	dense	120	6.0	62	2.650	1.558	0.83	0.50	0.82	288.7	1.52	288.7	49	58	100	40		
13.87	45.5	339.07	1.11	Sand	SP	dense	120	5.8	59	2.680	1.572	1.12	0.50	0.82	262.6	1.65	262.8	47	53	100	40		
14.02	46.0	288.62	0.77	Sand	SP	dense	120	5.9	49	2.710	1.587	0.78	0.50	0.82	222.7	1.58	222.7	39	45	100	38		
14.17	46.5	231.45	0.88	Sand	SP	dense	120	5.7	41	2.740	1.601	0.89	0.52	0.81	176.6	1.69	182.2	32	36	100	37		
14.33	47.0	260.83	0.67	Sand	SP	dense	120	5.9	44	2.770	1.616	0.68	0.50	0.81	199.5	1.57	199.5	35	40	100	37		
14.48	47.5	117.61	3.84	Sandy Silt to Clayey Silt	ML	medium dense	120	4.3	27	2.800	1.630	3.93	0.73	0.73	81.2	2.39	185.5	21	37	68	34		
14.63	48.0	285.50	1.32	Sand	SP	dense	120	5.5	52	2.830	1.644	1.34	0.54	0.79	212.8	1.76	230.2	40	46	100	39		
14.78	48.5	502.97	1.40	Sand	SP	very dense	120	5.8	87	2.860	1.659	1.40	0.50	0.80	379.7	1.63	379.7	67	76	100	44		
14.94	49.0	500.11	0.52	Gravelly Sand to Sand	SW	very dense	120	6.5	77	2.890	1.673	0.52	0.50	0.80	375.9	1.30	375.9	60	75	100	42		
15.09	49.5	488.03	0.73	Gravelly Sand to Sand	SW	very dense	120	6.2	78	2.920	1.688	0.74	0.50	0.79	365.2	1.42	365.2	60	73	100	42		
15.24	50.0	471.52	0.68	Gravelly Sand to Sand	SW	very dense	120	6.3	75	2.950	1.702	0.68	0.50	0.79	351.4	1.40	351.4	58	70	100	42		
15.39	50.5	455.38	0.87	Gravelly Sand to Sand	SW	very dense	120	6.1	75	2.980	1.716	0.87	0.50	0.79	337.9	1.50	337.9	57	68	100	42		
15.54	51.0	465.65	0.74	Gravelly Sand to Sand	SW	very dense	120	6.2	75	3.010	1.731	0.74	0.50	0.78	344.1	1.44	344.1	57	69	100	42		
15.70	51.5	452.54	1.48	Sand	SP	very dense	120	5.7	79	3.040	1.745	1.49	0.51	0.77	330.6	1.69	340.0	60	68	100	42		
15.85	52.0	421.52	1.05	Sand	SP	very dense	120	5.9	71	3.070	1.760	1.06	0.50	0.78	308.9	1.58	308.9	54	62	100	41		
16.00	52.5	399.98	0.62	Gravelly Sand to Sand	SW	dense	120	6.2	65	3.100	1.774	0.63	0.50	0.77	292.0	1.43	292.0	48	58	100	40		
16.15	53.0	427.11	1.14	Sand	SP	very dense	120	5.8	73	3.130	1.788	1.14	0.50	0.77	310.5	1.61	310.5	55	62	100	41		
16.31	53.5	490.83	0.88	Gravelly Sand to Sand	SW	very dense	120	6.1	81	3.160	1.803	0.89	0.50	0.77	355.4	1.49	355.4	60	71	100	42		
16.46	54.0	559.66	0.81	Gravelly Sand to Sand	SW	very dense	120	6.2	90	3.190	1.817	0.81	0.50	0.76	403.6	1.42	403.6	67	81	100	43		
16.61	54.5	502.14	0.95	Gravelly Sand to Sand	SW	very dense	120	6.0	83	3.220	1.832	0.96	0.50	0.76	360.7	1.51	360.7	61	72	100	43		

Earth Systems
Pacific

CPT No : CPT-2
Project Name: 499 Linden Avenue
Project No.: 306184-001
Location: See Site Exploration Plan

Cone Penetrometer: **Kehoe Testing and Engineerin**
Truck Mounted Electric Cone
with 23-ton reaction weight
Date: 7/25/2023

DEPTH (FEET)	Interpreted Soil Stratigraphy Robertson & Campanella ('89)	Density/Consistency
	Sandy Silt to Clayey Silt	medium dense
	Clayey Silt to Silty Clay	medium dense
	Sandy Silt to Clayey Silt	medium dense
	Sandy Silt to Clayey Silt	medium dense
	Sandy Silt to Clayey Silt	medium dense
5	Silty Sand to Sandy Silt	medium dense
	Sandy Silt to Clayey Silt	medium dense
	Clay	stiff
	Clayey Silt to Silty Clay	loose
10	Sandy Silt to Clayey Silt	loose
	Clay	firm
	Sandy Silt to Clayey Silt	loose
	Sand to Silty Sand	medium dense
	Silty Sand to Sandy Silt	loose
15	Clay	firm
	Clay	firm
	Clay	firm
	Sandy Silt to Clayey Silt	medium dense
	Sand to Silty Sand	medium dense
20	Clayey Silt to Silty Clay	loose
	Clayey Silt to Silty Clay	stiff
	Clay	stiff
	Clayey Silt to Silty Clay	very stiff
	Sandy Silt to Clayey Silt	medium dense
25	Sand to Silty Sand	medium dense
	Sand to Silty Sand	medium dense
	Sand	medium dense
	Sand to Silty Sand	medium dense
	Sand to Silty Sand	medium dense
30	Sandy Silt to Clayey Silt	very stiff
	Clayey Silt to Silty Clay	stiff
	Sandy Silt to Clayey Silt	medium dense
	Sand to Silty Sand	medium dense
	Sandy Silt to Clayey Silt	medium dense
35	Sand to Silty Sand	medium dense
	Sandy Silt to Clayey Silt	very stiff
	Sandy Silt to Clayey Silt	loose
	Sandy Silt to Clayey Silt	very stiff
	Sand to Silty Sand	medium dense
40	Sand	very dense
	Gravelly Sand to Sand	very dense
	Gravelly Sand to Sand	very dense
	Gravelly Sand to Sand	very dense
	Sand	very dense
45	Sand	very dense
	Sand	dense
	Sand	dense
	Silty Sand to Sandy Silt	dense
	Gravelly Sand to Sand	very dense
50	Gravelly Sand to Sand	very dense
	Gravelly Sand to Sand	very dense
	Sand	very dense
	Gravelly Sand to Sand	very dense
	Gravelly Sand to Sand	very dense
55		
60		
65		
70		
75		
80	End of Sounding @ 55.1 feet	



Earth Systems Pacific

CONE PENETROMETER INTERPRETATION (based on Robertson & Campanella, 1989)

Project: 499 Linden Avenue Project No: 306184-001 Date: 07/25/23

CPT SOUNDING: CPT-2A Plot: 3 Density: 1 SPT N Program developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Est. GWT (feet): **10.0** Shift SBT: 0 Dr correlation: 0 Baldi Qc/N: 0 Jefferies & Davies Phi Correlation: 4 SPT N

Base Depth meters	Base Depth feet	Avg Tip Qc, tsf	Avg Friction Ratio, %	Soil Classification	USCS	Density or Consistency	Est. Density (pcf)	Qc to N	SPT N(60)	Total po tsf	p'o tsf	F	n	Cq	Norm. Qc1n	2.6 Ic	Clean Sand Qc1n	$N_{1(60)}$	Clean Sand $N_{1(60)}$	Rel. Dens. Dr (%)	Phi (deg.)	Nk: 17 Su (tsf)	OCR
0.15	0.5	42.77	4.09	Clayey Silt to Silty Clay	ML/CL	medium dense	110	4.2	10	0.014	0.014	4.09	0.74	1.70	68.7	2.45	175.1	17	35	61	32		
0.30	1.0	66.07	2.93	Sandy Silt to Clayey Silt	ML	medium dense	110	4.7	14	0.041	0.041	2.94	0.67	1.70	106.2	2.22	182.6	24	37	79	34		
0.46	1.5	56.53	3.16	Sandy Silt to Clayey Silt	ML	medium dense	110	4.5	13	0.069	0.069	3.16	0.70	1.70	90.8	2.29	174.1	21	35	73	34		
0.61	2.0	53.91	3.74	Clayey Silt to Silty Clay	ML/CL	medium dense	110	4.4	12	0.096	0.096	3.74	0.72	1.70	86.6	2.36	186.5	21	37	71	34		
0.76	2.5	41.39	2.74	Sandy Silt to Clayey Silt	ML	medium dense	110	4.4	9	0.124	0.124	2.75	0.71	1.70	66.5	2.34	138.2	16	28	60	32		
0.91	3.0	24.76	2.13	Sandy Silt to Clayey Silt	ML	loose	110	4.2	6	0.151	0.151	2.14	0.74	1.70	39.8	2.43	97.0	10	19	39	30		
1.07	3.5	22.77	1.45	Sandy Silt to Clayey Silt	ML	loose	110	4.4	5	0.179	0.179	1.46	0.72	1.70	36.6	2.36	78.4	9	16	35	30		
1.22	4.0	19.84	1.82	Sandy Silt to Clayey Silt	ML	loose	110	4.2	5	0.206	0.206	1.84	0.75	1.70	31.9	2.46	82.7	8	17	29	29		
1.37	4.5	27.38	2.59	Sandy Silt to Clayey Silt	ML	medium dense	110	4.2	7	0.234	0.234	2.61	0.74	1.70	44.0	2.45	111.7	11	22	43	30		
1.52	5.0	36.67	3.59	Clayey Silt to Silty Clay	ML/CL	medium dense	110	4.2	9	0.261	0.261	3.62	0.75	1.70	58.9	2.46	151.7	15	30	55	32		
1.68	5.5	59.28	1.01	Silty Sand to Sandy Silt	SM/ML	medium dense	110	5.2	11	0.289	0.289	1.01	0.59	1.70	95.3	1.93	116.0	19	23	75	33		
1.83	6.0	56.70	0.84	Sand to Silty Sand	SP/SM	medium dense	100	5.3	11	0.315	0.315	0.85	0.58	1.70	91.1	1.90	108.1	18	22	73	33		
1.98	6.5	33.99	2.50	Sandy Silt to Clayey Silt	ML	medium dense	110	4.4	8	0.341	0.341	2.52	0.72	1.70	54.6	2.37	120.5	13	24	52	31		
2.13	7.0	13.56	5.23	Clay	CL/CH	stiff	120	3.3	4	0.370	0.370	5.38	0.88	1.70	21.8	2.89		4				0.78	10.7
2.29	7.5	9.40	4.53	Clay	CL/CH	stiff	120	3.2	3	0.400	0.400	4.74	0.90	1.70	15.1	2.97		3				0.53	6.8
2.44	8.0	11.22	3.39	Silty Clay to Clay	CL	stiff	120	3.5	3	0.430	0.430	3.53	0.86	1.70	18.0	2.83		3				0.63	7.5
2.59	8.5	15.02	3.86	Silty Clay to Clay	CL	stiff	120	3.6	4	0.460	0.460	3.98	0.84	1.70	24.1	2.77		4				0.86	9.5
2.74	9.0	25.17	2.83	Clayey Silt to Silty Clay	ML/CL	loose	120	4.1	6	0.490	0.490	2.88	0.76	1.70	40.4	2.51	113.8	9	23	39	30		
2.90	9.5	26.91	2.31	Sandy Silt to Clayey Silt	ML	loose	120	4.2	6	0.520	0.520	2.36	0.74	1.69	43.0	2.43	105.0	9	21	42	30		
3.05	10.0	14.12	3.65	Silty Clay to Clay	CL	stiff	120	3.6	4	0.550	0.550	3.80	0.84	1.70	22.7	2.78		4				0.80	7.4
3.20	10.5	8.50	5.74	Clay	CL/CH	firm	120	3.0	3	0.580	0.564	6.16	0.94	1.70	13.7	3.08		3				0.47	4.2
3.35	11.0	7.51	2.90	Silty Clay to Clay	CL	firm	120	3.2	2	0.610	0.579	3.16	0.90	1.70	12.1	2.94		2				0.41	3.6
3.51	11.5	8.94	2.35	Clayey Silt to Silty Clay	ML/CL	firm	120	3.4	3	0.640	0.593	2.53	0.87	1.65	14.0	2.84		3				0.49	4.2
3.66	12.0	31.50	1.58	Sandy Silt to Clayey Silt	ML	loose	120	4.5	7	0.670	0.608	1.61	0.71	1.48	44.0	2.32	88.4	9	18	43	30		
3.81	12.5	52.71	0.60	Sand to Silty Sand	SP/SM	medium dense	120	5.2	10	0.700	0.622	0.61	0.59	1.37	68.0	1.92	82.2	13	16	61	31		
3.96	13.0	47.75	0.75	Silty Sand to Sandy Silt	SM/ML	medium dense	120	5.1	9	0.730	0.636	0.76	0.61	1.37	61.6	2.01	80.9	12	16	57	31		
4.11	13.5	27.08	1.86	Sandy Silt to Clayey Silt	ML	loose	120	4.2	6	0.760	0.651	1.91	0.74	1.43	36.7	2.43	88.8	8	18	35	29		
4.27	14.0	9.65	2.88	Silty Clay to Clay	CL	stiff	120	3.3	3	0.790	0.665	3.13	0.88	1.51	13.7	2.90		3				0.53	4.0
4.42	14.5	6.05	2.40	Silty Clay to Clay	CL	firm	120	3.1	2	0.820	0.680	2.78	0.93	1.51	8.6	3.03		2				0.32	2.3
4.57	15.0	5.57	1.67	Sensitive fine grained	ML	firm	120	3.1	2	0.850	0.694	1.97	0.92	1.47	7.8	2.99		2				0.29	2.0
4.72	15.5	6.09	1.67	Silty Clay to Clay	CL	firm	120	3.2	2	0.880	0.708	1.95	0.91	1.44	8.3	2.96		2				0.32	2.2
4.88	16.0	7.38	3.07	Silty Clay to Clay	CL	firm	120	3.1	2	0.910	0.723	3.50	0.93	1.43	9.9	3.04		2				0.39	2.7
5.03	16.5	9.06	3.46	Clay	CL/CH	firm	120	3.1	3	0.940	0.737	3.86	0.92	1.39	11.9	3.00		3				0.49	3.3
5.18	17.0	12.23	3.59	Silty Clay to Clay	CL	stiff	120	3.3	4	0.970	0.752	3.90	0.89	1.35	15.7	2.91		4				0.68	4.5
5.33	17.5	38.60	2.44	Sandy Silt to Clayey Silt	ML	medium dense	120	4.3	9	1.000	0.766	2.51	0.74	1.27	46.3	2.42	111.8	10	22	45	30		
5.49	18.0	80.51	0.59	Sand to Silty Sand	SP/SM	medium dense	120	5.4	15	1.030	0.780	0.60	0.55	1.18	90.1	1.81	100.6	17	20	72	32		
5.64	18.5	92.54	0.59	Sand	SP	medium dense	120	5.5	17	1.060	0.795	0.59	0.54	1.17	102.1	1.77	110.6	19	22	78	33		
5.79	19.0	87.63	0.52	Sand to Silty Sand	SP/SM	medium dense	120	5.5	16	1.090	0.809	0.53	0.54	1.16	95.7	1.76	103.3	18	21	75	32		
5.94	19.5	31.86	1.26	Silty Sand to Sandy Silt	SM/ML	loose	120	4.4	7	1.120	0.824	1.31	0.71	1.20	36.0	2.33	74.3	8	15	34	29		
6.10	20.0	13.61	1.68	Clayey Silt to Silty Clay	ML/CL	stiff	120	3.7	4	1.150	0.838	1.84	0.83	1.21	15.6	2.72		4				0.75	4.5
6.25	20.5	11.01	2.93	Silty Clay to Clay	CL	stiff	120	3.3	3	1.180	0.852	3.28	0.90	1.21	12.6	2.94		3				0.60	3.5
6.40	21.0	10.59	4.28	Clay	CL/CH	stiff	120	3.0	4	1.210	0.867	4.83	0.93	1.20	12.1	3.06		4				0.57	3.2
6.55	21.5	9.70	4.11	Clay	CL/CH	stiff	120	3.0	3	1.240	0.881	4.72	0.94	1.19	10.9	3.08		3				0.52	2.9
6.71	22.0	8.60	2.88	Silty Clay to Clay	CL	firm	120	3.0	3	1.270	0.896	3.38	0.93	1.17	9.5	3.04		3				0.45	2.5
6.86	22.5	9.70	2.94	Silty Clay to Clay	CL	stiff	120	3.1	3	1.300	0.910	3.40	0.92	1.15	10.5	3.01		3				0.52	2.8
7.01	23.0	42.52	4.01	Clayey Silt to Silty Clay	ML/CL	medium dense	120	3.9	11	1.330	0.924	4.14	0.79	1.11	44.7	2.59	144.7	11	29	43	30		
7.16	23.5	95.06	3.06	Sandy Silt to Clayey Silt	ML	medium dense	120	4.6	21	1.360	0.939	3.11	0.69	1.09	97.5	2.26	179.2	21	36	76	34		
7.32	24.0	129.64	2.09	Silty Sand to Sandy Silt	SM/ML	medium dense	120	5.0	26	1.390	0.953	2.11	0.62	1.07	130.8	2.05	180.0	27	36	88	35		
7.47	24.5	128.59	1.68	Sand to Silty Sand	SP/SM	medium dense	120	5.1	25	1.420	0.968	1.70	0.61	1.06	128.3	1.99	164.9	26	33	87	35		
7.62	25.0	118.98	1.12	Sand to Silty Sand	SP/SM	medium dense	120	5.3	22	1.450	0.982	1.13	0.58	1.04	117.4	1.89	138.8	23	28	83	34		
7.77	25.5	118.86	1.16	Sand to Silty Sand	SP/SM	medium dense	120	5.3	23	1.480	0.996	1.17	0.58	1.04	116.3	1.91	138.9	23	28	83	34		
7.92	26.0	122.86	0.82	Sand	SP	medium dense	120	5.5	22	1.510	1.011	0.83	0.55	1.03	119.1	1.80	131.9	22	26	84	34		
8.08	26.5	114.83	0.84	Sand	SP	medium dense	120	5.4	21	1.540	1.025	0.85	0.56	1.02	110.5	1.83	124.9	21	25	81	34		
8.23	27.0	105.27	0.72	Sand	SP	medium dense	120	5.4	19	1.570	1.040	0.73	0.56	1.01	100.5	1.82	113.0	19	23	77	33		
8.38	27.5	72.93	1.55	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.8	15	1.600	1.054	1.58	0.66	1.00	69.1	2.16	109.0	15	22	61	32		
8.53	28.0	70.84	1.37	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.8	15	1.630	1.068	1.40	0.65	0.99	66.5	2.14	101.8	14	20	60	31		
8.69	28.5	68.32	1.33	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.8	14	1.660	1.083	1.36	0.65	0.98	63.6	2.15	98.5	14	20	58	31		
8.84	29.0	45.57	1.52	Silty Sand to Sandy Silt	SM/ML	loose	120	4.4	10	1.690	1.097	1.58	0.71	0.97	42.0	2.33	85.7	10	17	41	30		
8.99	29.5	17.70	2.52	Clayey Silt to Silty Clay	ML/CL	stiff	120	3.5	5	1.720	1.112	2.79	0.86	0.96	16.0	2.81		5				0.98	4.3
9.14	30.0	13.96	1.95	Clayey Silt to Silty Clay	ML/CL	stiff	120	3.4	4	1.750	1.126	2.23	0.87	0.95	12.5	2.85		4				0.75	3.3
9.30	30.5	14.30	2.12	Clayey Silt to Silty Clay	ML/CL	stiff	120	3.4	4	1.780	1.140	2.42	0.87	0.94	12.7	2.86		4				0.77	3.3
9.45	31.0	25.42	3.03	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.6	7	1.810	1.155	3.26	0.83	0.93	22.3	2.74		7				1.43	6.1
9.60	31.5	123.87	1.13	Sand to Silty Sand	SP/SM	medium dense	120	5.2	24	1.840	1.169	1.15	0.58	0.94	110.4	1.92	133.1	22	27	81	34		
9.75	32.0	133.56	1.59	Sand to Silty Sand	SP/SM	medium dense	120	5.1	26	1.870	1.184	1.62	0.61	0.93	117.9	2.00	153.1	24	31	84	34		
9.91	32.5	86.51	1.08	Sand to Silty Sand	SP/SM	medium dense	120	5.0	17	1.900	1.198	1.10	0.62	0.93	75.7	2.03	101.7	16	20	65	32		
10.06	33.0	39.01	3.68	Clayey Silt to Silty Clay	ML/CL	hard	120	3.8	10	1.930	1.212	3.87	0.81	0.90	33.0	2.66		10				2.22	9.2
10.21	33.5	68.17	1.97	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.5	15	1.960	1.227	2.03	0.70	0.90	58.1	2.29	111.3	14	22	54	31		
10.36	34.0	97.29	0.88	Sand to Silty Sand	SP/SM	medium dense	120	5.2	19	1.990	1.241	0.89	0.59	0.91	83.7	1.94	102.9	17	21	69	32		
10.52	34.5	79.05	0.99	Sand to Silty Sand	SP/SM	medium dense	120	5.0	16	2.020	1.256	1.02	0.63	0.90	67.1	2.05	92.2	14	18	60	31		
10.67	35.0	27.05	3.33	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.6	8	2.050	1.270	3.61	0.84	0.86	21.9	2.77		8				1.52	5.9
10.82	35.5	16.63	3.19	Clayey Silt to Silty Clay	ML/CL	stiff	120	3.2	5	2.080	1.284	3.64	0.90	0.84	13.2	2.95		5				0.90	3.4
10.97	36.0	88.15	0.92	Sand to Silty Sand	SP/SM	medium dense	120	5.1	17	2.110	1.299	0.94	0.61	0.88	73.5	2.00	95.4	15	19	64	32		
11.13	36.5	64.78	1.74	Silty Sand to Sandy Silt	SM/ML	medium dense	120	4.5	14	2.140	1.313	1.80	0.70	0.86	52.7	2.29	100.7	13	20	50	31		
11.28	37.0	30.21	2.98	Clayey Silt to Silty Clay	ML/CL	very stiff	120	3.7	8	2.170	1.328	3.21	0.83	0.83	23.7	2.72		8				1.70	6.3
11.43	37.5	34.77	2.29	Sandy Silt to Clayey Silt	ML	loose	120	3.9	9	2.200	1.342	2.44	0.79	0.83	27.2	2.59	89.5	8	18	23	29		
11.58	38.0	30.01	1.95	Sandy Silt to Clayey Silt	ML	very stiff	120	3.9	8	2.230	1.356	2.11	0.80	0.82	23.3	2.61		8				1.69	6.1
11.73	38.5	141.99	1.16	Sand to Silty Sand	SP/SM	medium dense	120	5.3	27	2.260	1.371	1.18	0.58	0.86	115.4	1.91	138.5	23	28	83	34		
11.89	39.0	324.40	1.06	Sand	SP	dense	120	5.8	56	2.290	1.385	1.07	0.50	0.87	268.0	1.63	268.0	47	54	100	40		
12.04	39.5	412.79	1.28	Sand	SP	very dense	120	5.8	71	2.320	1.400	1.29	0.50	0.87	339.2	1.63	339.2	60	68	100	42		

Earth Systems Pacific

CONE PENETROMETER INTERPRETATION (based on Robertson & Campanella, 1989)

Project: 499 Linden Avenue Project No: 306184-001 Date: 07/25/23

CPT SOUNDING: CPT-2A Plot: 3 Density: 1 SPT N Program developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Est. GWT (feet): **10.0** Shift SBT: 0 Dr correlation: 0 Baldi Qc/N: 0 Jefferies & Davies Phi Correlation: 4 SPT N

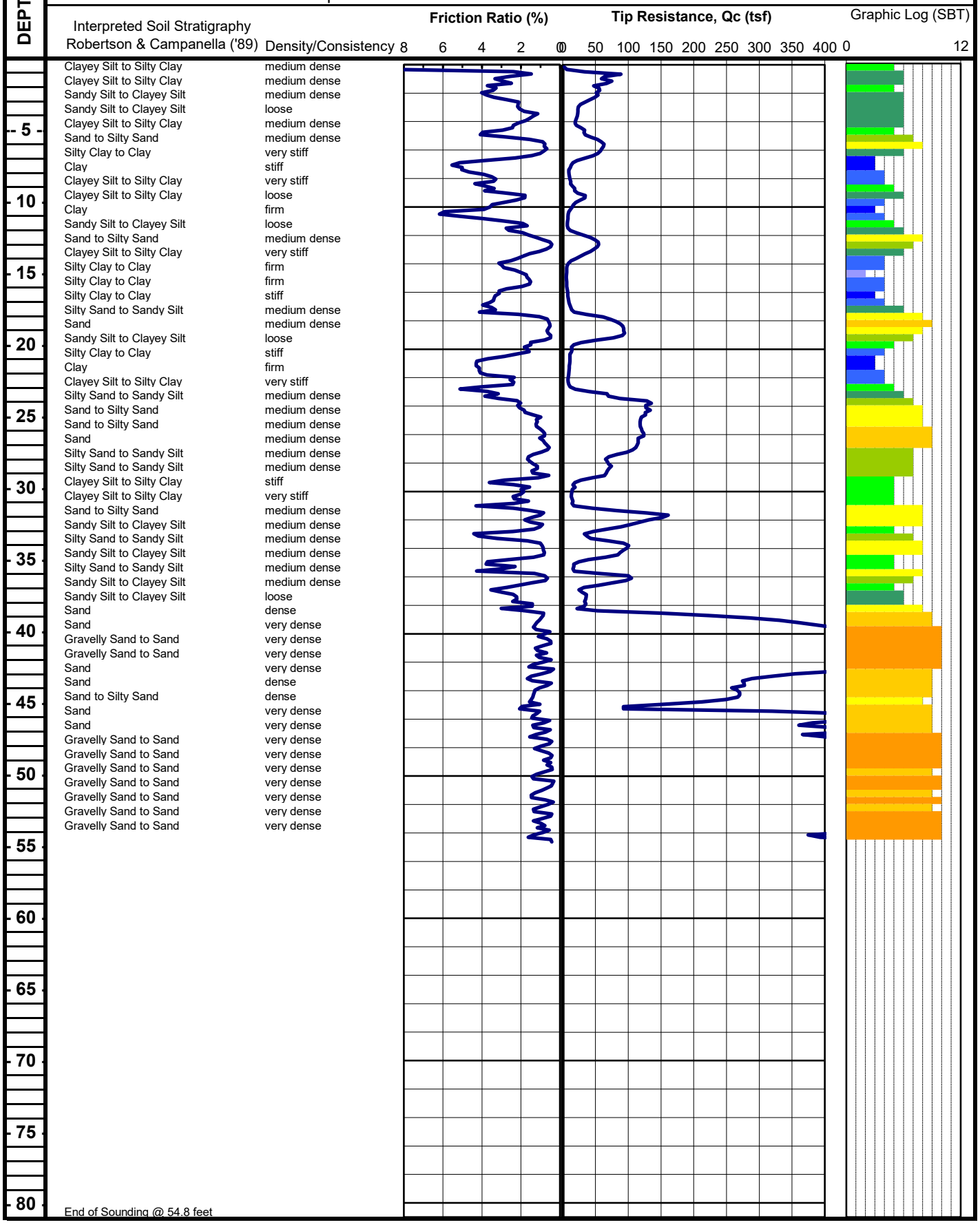
Nk: 17

Base Depth meters	Base Depth feet	Avg Tip Qc, tsf	Avg Friction Ratio, %	Soil Classification	USCS	Density or Consistency	Est. Density (pcf)	Qc to N	SPT N(60)	Total po tsf	p'o tsf	F	n	Cq	Norm. Qc1n	Ic	Clean Sand Qc1n	$N_{1(60)}$	Clean Sand $N_{1(60)}$	Rel. Dens. Dr (%)	Phi (deg.)	Su (tsf)	OCR
12.19	40.0	490.10	0.81	Gravelly Sand to Sand	SW	very dense	120	6.2	79	2.350	1.414	0.81	0.50	0.87	400.7	1.42	400.7	66	80	100	43		
12.34	40.5	532.84	0.53	Gravelly Sand to Sand	SW	very dense	120	6.5	82	2.380	1.428	0.54	0.50	0.86	433.4	1.26	433.4	68	87	100	44		
12.50	41.0	551.43	1.10	Gravelly Sand to Sand	SW	very dense	120	6.0	91	2.410	1.443	1.10	0.50	0.86	446.3	1.51	446.3	76	89	100	45		
12.65	41.5	553.27	0.98	Gravelly Sand to Sand	SW	very dense	120	6.1	90	2.440	1.457	0.99	0.50	0.85	445.6	1.47	445.6	75	89	100	45		
12.80	42.0	510.30	0.90	Gravelly Sand to Sand	SW	very dense	120	6.1	83	2.470	1.472	0.91	0.50	0.85	409.0	1.46	409.0	68	82	100	44		
12.95	42.5	447.50	0.81	Gravelly Sand to Sand	SW	very dense	120	6.1	73	2.500	1.486	0.81	0.50	0.84	356.9	1.46	356.9	60	71	100	42		
13.11	43.0	321.15	1.36	Sand	SP	dense	120	5.6	57	2.530	1.500	1.37	0.53	0.83	252.5	1.73	266.7	47	53	100	40		
13.26	43.5	276.14	0.84	Sand	SP	dense	120	5.8	47	2.560	1.515	0.84	0.50	0.84	218.1	1.61	218.1	38	44	100	38		
13.41	44.0	264.79	1.22	Sand	SP	dense	120	5.6	47	2.590	1.529	1.23	0.53	0.82	205.6	1.75	220.0	38	44	100	38		
13.56	44.5	261.91	1.41	Sand	SP	dense	120	5.5	48	2.620	1.544	1.42	0.55	0.81	201.2	1.80	222.8	39	45	100	38		
13.72	45.0	153.37	1.51	Sand to Silty Sand	SP/SM	medium dense	120	5.1	30	2.650	1.558	1.54	0.61	0.79	114.6	1.99	147.9	24	30	82	34		
13.87	45.5	280.45	1.43	Sand	SP	dense	120	5.5	51	2.680	1.572	1.45	0.55	0.81	213.5	1.79	234.8	41	47	100	39		
14.02	46.0	448.20	1.13	Sand	SP	very dense	120	5.9	76	2.710	1.587	1.13	0.50	0.82	345.9	1.58	345.9	60	69	100	42		
14.17	46.5	384.74	1.19	Sand	SP	very dense	120	5.8	66	2.740	1.601	1.20	0.50	0.81	295.5	1.64	295.5	53	59	100	41		
14.33	47.0	412.80	1.00	Sand	SP	very dense	120	5.9	70	2.770	1.616	1.01	0.50	0.81	315.7	1.56	315.7	55	63	100	41		
14.48	47.5	498.09	0.54	Gravelly Sand to Sand	SW	very dense	120	6.4	77	2.800	1.630	0.55	0.50	0.81	379.3	1.31	379.3	61	76	100	42		
14.63	48.0	582.47	1.07	Gravelly Sand to Sand	SW	very dense	120	6.1	96	2.830	1.644	1.07	0.50	0.80	441.6	1.50	441.6	75	88	100	45		
14.78	48.5	586.34	0.49	Gravelly Sand to Sand	SW	very dense	120	6.6	89	2.860	1.659	0.49	0.50	0.80	442.6	1.23	442.6	69	89	100	44		
14.94	49.0	612.04	0.66	Gravelly Sand to Sand	SW	very dense	120	6.4	95	2.890	1.673	0.66	0.50	0.80	460.0	1.32	460.0	74	92	100	44		
15.09	49.5	518.00	0.54	Gravelly Sand to Sand	SW	very dense	120	6.5	80	2.920	1.688	0.54	0.50	0.79	387.7	1.30	387.7	62	78	100	43		
15.24	50.0	481.90	1.33	Sand	SP	very dense	120	5.8	83	2.950	1.702	1.34	0.50	0.79	359.1	1.63	359.1	64	72	100	43		
15.39	50.5	493.83	0.38	Gravelly Sand to Sand	SW	very dense	120	6.6	75	2.980	1.716	0.38	0.50	0.79	366.5	1.21	366.5	57	73	100	42		
15.54	51.0	489.43	0.97	Gravelly Sand to Sand	SW	very dense	120	6.0	81	3.010	1.731	0.98	0.50	0.78	361.7	1.51	361.7	62	72	100	43		
15.70	51.5	474.70	1.23	Sand	SP	very dense	120	5.9	81	3.040	1.745	1.23	0.50	0.78	349.3	1.61	349.3	61	70	100	43		
15.85	52.0	469.53	0.65	Gravelly Sand to Sand	SW	very dense	120	6.3	75	3.070	1.760	0.66	0.50	0.78	344.1	1.39	344.1	56	69	100	42		
16.00	52.5	455.06	1.04	Sand	SP	very dense	120	5.9	77	3.100	1.774	1.05	0.50	0.77	332.2	1.56	332.2	57	66	100	42		
16.15	53.0	462.25	0.91	Gravelly Sand to Sand	SW	very dense	120	6.0	77	3.130	1.788	0.92	0.50	0.77	336.1	1.51	336.1	57	67	100	42		
16.31	53.5	506.27	0.97	Gravelly Sand to Sand	SW	very dense	120	6.0	84	3.160	1.803	0.98	0.50	0.77	366.6	1.51	366.6	62	73	100	43		
16.46	54.0	429.34	0.93	Gravelly Sand to Sand	SW	very dense	120	6.0	72	3.190	1.817	0.93	0.50	0.76	309.6	1.54	309.6	53	62	100	41		
16.61	54.5	480.96	0.84	Gravelly Sand to Sand	SW	very dense	120	6.1	79	3.220	1.832	0.84	0.50	0.76	345.5	1.48	345.5	58	69	100	42		

Earth Systems
Pacific

CPT No : CPT-2A
Project Name: 499 Linden Avenue
Project No.: 306184-001
Location: See Site Exploration Plan

Cone Penetrometer: **Kehoe Testing and Engineerin**
Truck Mounted Electric Cone
with 23-ton reaction weight
Date: 7/25/2023



End of Sounding @ 54.8 feet

BORING LOG SYMBOLS


Modified California Split Barrel Sampler


Modified California Split Barrel Sampler - No Recovery


Standard Penetration Test (SPT) Sampler


Standard Penetration Test (SPT) Sampler - No Recovery


Perched Water Level


Water Level First Encountered


Water Level After Drilling


Pocket Penetrometer (tsf)


Vane Shear (ksf)

1. The location of borings were approximately determined by pacing and/or siting from visible features. Elevations of borings are approximately determined by interpolating between plan contours. The location and elevation of the borings should be considered.

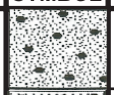
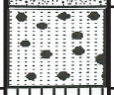
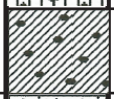
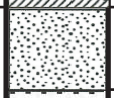
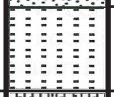
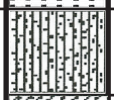
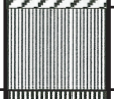
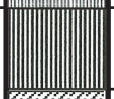
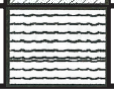
2. The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

3. Water level readings have been made in the drill holes at times and under conditions stated on the boring logs. This data has been reviewed and interpretations made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, tides, temperature, and other factors at the time measurements were made.

BORING LOG SYMBOLS

Earth Systems

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GRAPH SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	CLEAN SAND (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNTOF FINES)		SM	SILTY SANDS, SAND-SILT MIXTURES
				SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENT

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

UNIFIED SOIL CLASSIFICATION SYSTEM

Earth Systems

APPENDIX B

Laboratory Testing
Tabulated Laboratory Test Results
Individual Laboratory Test Results

LABORATORY TESTING

A. Samples were reviewed along with field logs to determine which would be analyzed further. Those chosen for laboratory analyses were considered representative of soils that would be exposed and/or used during grading, and those deemed to be within the influence of proposed construction. Test results are presented in graphic and tabular form in this Appendix.

B. In-situ moisture content and dry unit weight for the ring samples were determined in general accordance with ASTM D 2937.

C. A maximum density test was performed to estimate the moisture-density relationship of typical soil materials. The test was performed in accordance with ASTM D 1557.

D. The relative strength characteristics of soils were determined from the results of a direct shear test on a remolded sample. Test specimens were placed in contact with water at least 24 hours before testing, and then sheared under normal loads ranging from 1 to 3 ksf in general accordance with ASTM D 3080.

E. Settlement characteristics were developed from the results of a one-dimensional consolidation/hydrocollapse test performed in general accordance with ASTM D 2435. The sample was incrementally loaded to its approximate overburden pressure and then flooded with water. After monitoring for collapse, the sample was incrementally loaded up to 8 ksf. The sample was allowed to consolidate under each load increment. Rebound was measured under reverse alternate loading. Compression was measured by dial gauges accurate to 0.0001 inch. Results of the consolidation tests are presented in this Appendix in the form of percent consolidation versus log of pressure curves.

F. An expansion index test was performed on a bulk soil sample in accordance with ASTM D 4829. The sample was surcharged under 144 pounds per square foot at moisture content of near 50 percent saturation. The sample was then submerged in water for 24 hours, and the amount of expansion was recorded with a dial indicator.

G. Resistance ("R") Value tests were conducted on bulk samples secured during the field study. The tests were performed in accordance with California Method 301. Three specimens at different moisture contents were tested for each sample, and the R-Value at 300 psi exudation pressure was determined from the plotted results.

H. A portion of the bulk sample was sent to another laboratory for analyses of soil pH, resistivity, chloride contents, and sulfate contents. Soluble chloride and sulfate contents were determined on a dry weight basis. Resistivity testing was performed in accordance with California Test Method 424, wherein the ratio of soil to water was 1:3.

TABULATED LABORATORY TEST RESULTS

REMOLDED SAMPLE

BORING AND DEPTH	B-1@0'-5'
USCS	SM
MAXIMUM DRY DENSITY (pcf)	122.5 124*
OPTIMUM MOISTURE (%)	11 10.5*
PEAK COHESION (psf)	100
PEAK FRICTION ANGLE	33°
ULTIMATE COHESION (psf)	40
ULTIMATE FRICTION ANGLE	33°
EXPANSION INDEX	40
pH	8.0
RESISTIVITY (ohms-cm)	1,900
SOLUBLE CHLORIDES (mg/Kg)	11
SOLUBLE SULFATES (mg/Kg)	600

*Corrected for Oversized Material (ASTM D4718)

REMOLDED SAMPLES

BORING AND DEPTH	B-5@0'-5'	B-7@0’-7’
USCS	SC	SM
R-VALUE	37	43

Individual Laboratory Test Results

File Number: 306184-001 Lab Number: 098707

MAXIMUM DENSITY / OPTIMUM MOISTURE

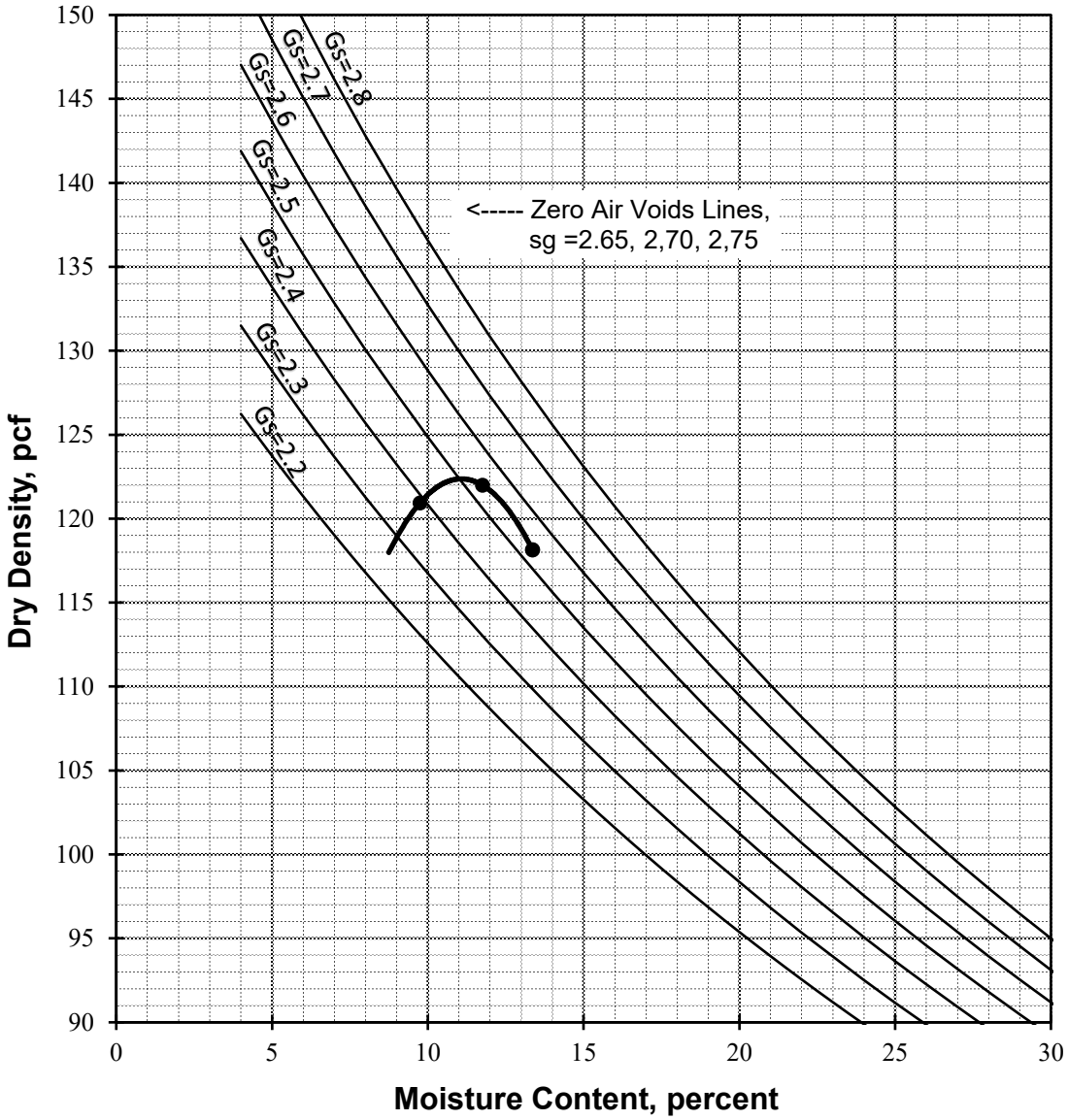
ASTM D 1557-12 (Modified)

Job Name: 499 Linden Avenue
Sample ID: B 1 @ 0-5'
Date: 8/27/2023
Description: Silty Sand

Procedure Used: A
Prep. Method: Moist
Rammer Type: Automatic

Maximum Density: **122.5 pcf**
Optimum Moisture: **11%**

Sieve Size	% Retained
3/4"	0.0
3/8"	0.0
#4	6.4



File Number: 306184-001 Lab Number: 098707

MAXIMUM DENSITY / OPTIMUM MOISTURE

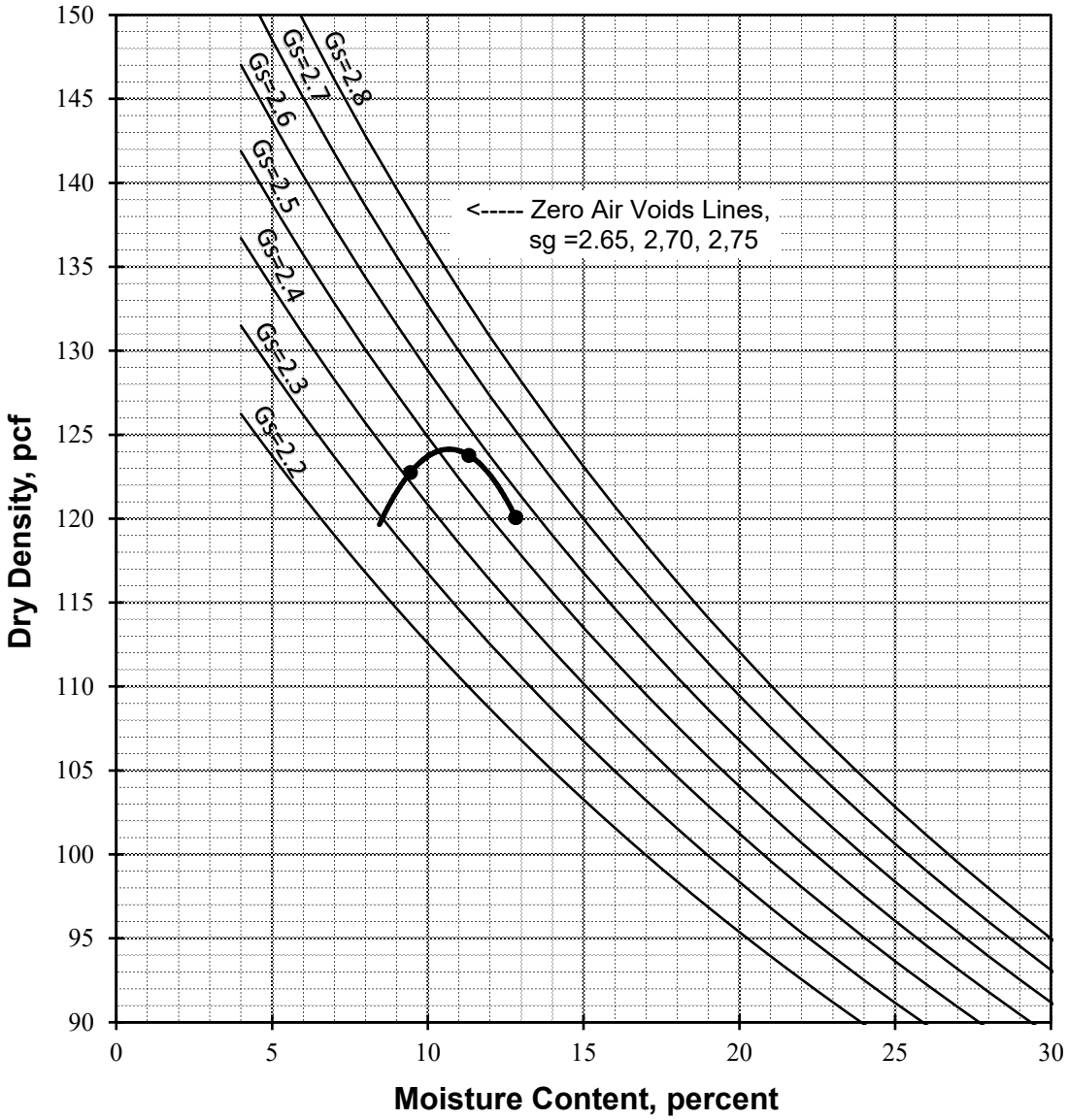
ASTM D 1557-12 (Modified)

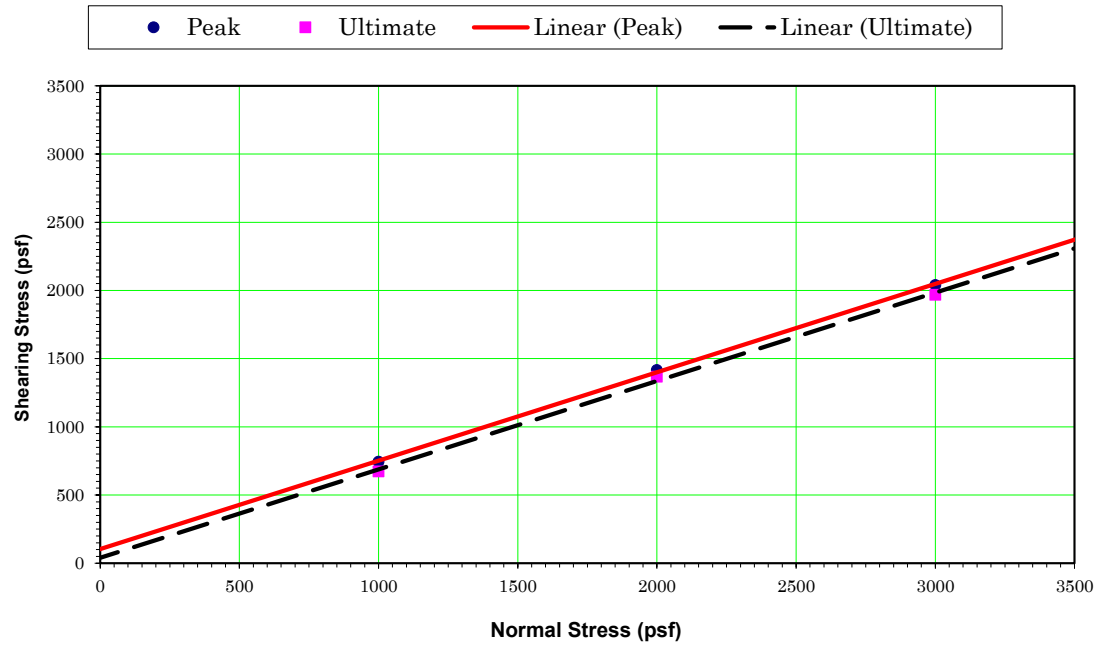
Job Name: 499 Linden Avenue
Sample ID: B 1 @ 0-5'
Date: 8/27/2023
Description: Silty Sand

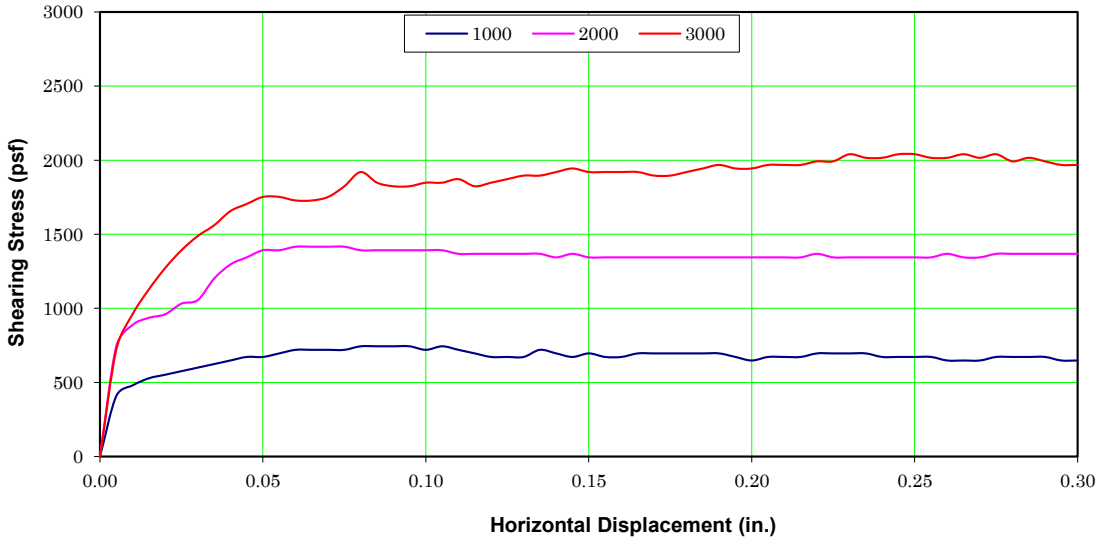
Procedure Used: A
Prep. Method: Moist
Rammer Type: Automatic

Maximum Density: **124 pcf**
Optimum Moisture: **10.5%**
Corrected for Oversize (ASTM D4718)

Sieve Size	% Retained
3/4"	0.0
3/8"	0.0
#4	6.4







DIRECT SHEAR DATA*

Sample Location: B 1 @ 0-5'
Sample Description: Silty Sand
Dry Density (pcf): 110.0
Intial % Moisture: 11.1
Average Degree of Saturation: 100.0
Shear Rate (in/min): 0.005 in/min

Normal stress (psf)	1000	2000	3000
Peak stress (psf)	744	1416	2040
Ultimate stress (psf)	672	1368	1968

	Peak	Ultimate
ϕ Angle of Friction (degrees):	33	33
c Cohesive Strength (psf):	100	40

Test Type: Peak & Ultimate

* Test Method: ASTM D-3080

Note: Sample specimens were initially saturated before testing by partially immersing the specimens in water for about 24 hours while the specimens were restrained from swelling. Initial saturation was not performed in the direct shear machine, and is not prescribed by ASTM D 3080.

DIRECT SHEAR TEST

499 Linden Avenue

Earth Systems

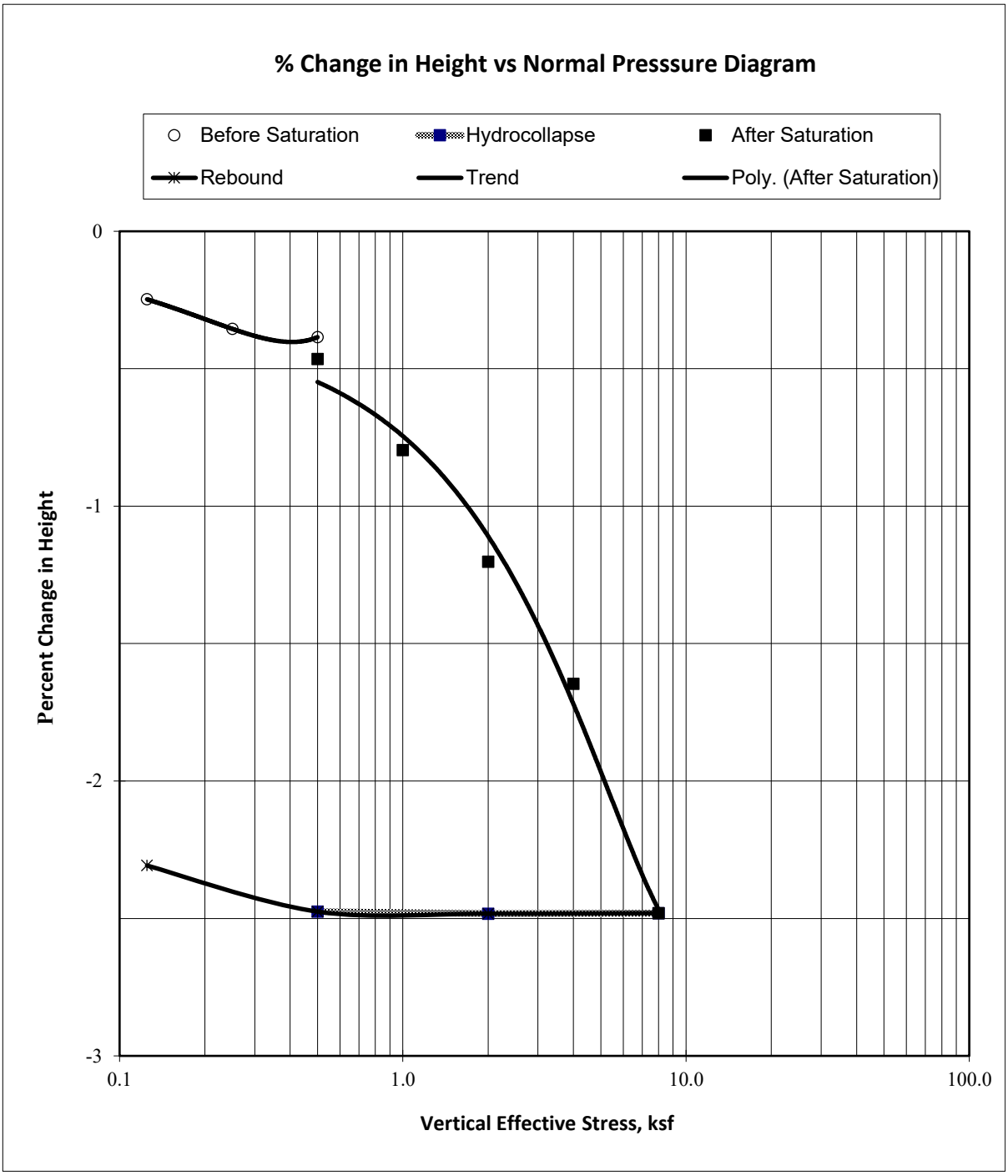
10/5/2023 | 306184-001

CONSOLIDATION TEST

ASTM D 2435-90

499 Linden Avenue
B 2 @ 7.5
SM
Ring Sample

Initial Dry Density: 107.9 pcf
Initial Moisture, %: 14.8%
Specific Gravity: 2.67 (assume
Initial Void Ratio: 0.545



File No.: 306184-001

EXPANSION INDEX

ASTM D-4829, UBC 18-2

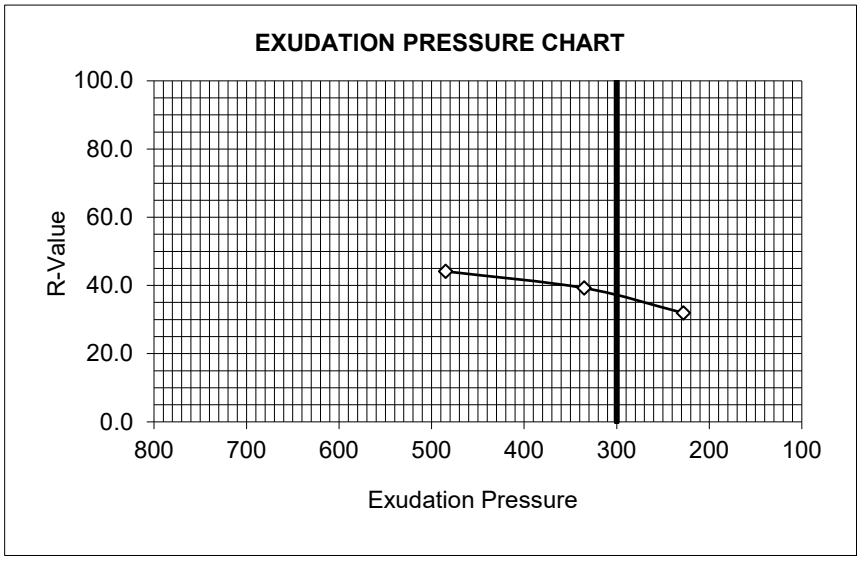
Job Name: 499 Linden Avenue
Sample ID: B 1 @ 0-5'
Soil Description: SM

Initial Moisture, %:	9.5
Initial Compacted Dry Density, pcf:	110.6
Initial Saturation, %:	49
Final Moisture, %:	27.6
Volumetric Swell, %:	4.0

Expansion Index: 40 **Low**

EI	UBC Classification
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
130+	Very High

September 6, 2023 **File No.: 306184-001**



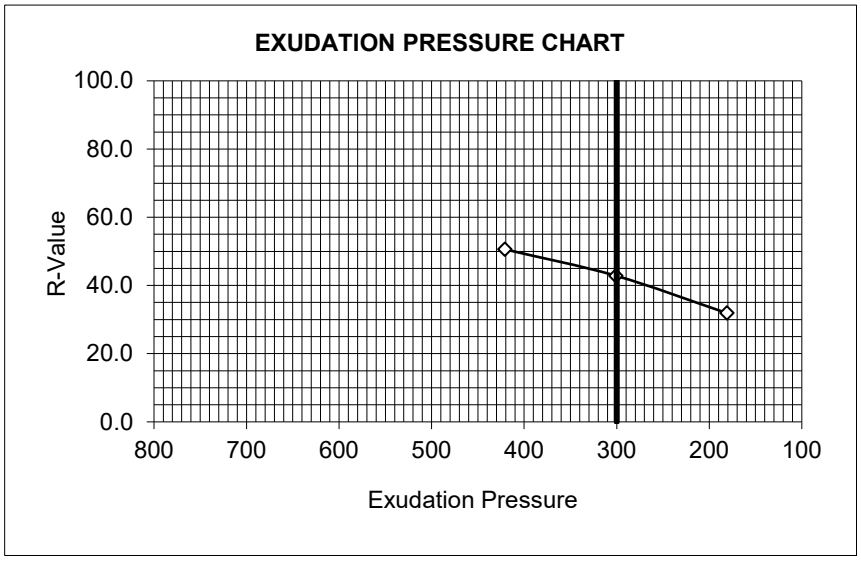
JOB NAME: 498 Lincoln Ave
SAMPLE I. D.: B-5 @ 0-5
SOIL DESCRIPTION: Clayey Sand

SPECIMEN NUMBER	D	E	F
EXUDATION PRESSURE	485	335	228
RESISTANCE VALUE	44.1	39.2	31.9
EXPANSION DIAL(0.0001")	0	0	0
EXPANSION PRESSURE (PSF)	0.0	0.0	0.0
% MOISTURE AT TEST	11.8	12.9	13.6
DRY DENSITY AT TEST	124.3	123.6	122.5

R-VALUE @ 300 PSI EXUDATION **37**

**Based on Traffic Index = 8.00 & Gravel Factor = 1.34*

September 6, 2023 **File No.: 306184-001**



JOB NAME: 498 Lincoln Ave
SAMPLE I. D.: B-7 @ 0-5
SOIL DESCRIPTION: Silty Sand

SPECIMEN NUMBER	D	E	F
EXUDATION PRESSURE	421	301	181
RESISTANCE VALUE	50.6	42.9	31.9
EXPANSION DIAL(0.0001")	0	0	0
EXPANSION PRESSURE (PSF)	0.0	0.0	0.0
% MOISTURE AT TEST	11.9	12.7	13.2
DRY DENSITY AT TEST	12.5	12.6	12.4

R-VALUE @ 300 PSI EXUDATION **43**

**Based on Traffic Index = 8.00 & Gravel Factor = 1.34*

CAPCO
Analytical Services, Inc.

Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Earth Systems Pacific
CAS LAB NO: 232188-01
Sample ID: B1@0-5' 499 Linden Avenue
Analyst: Gloria

Date Sampled: 08/27/23
Date Received: 08/28/23
Sample Matrix: Soil

WET CHEMISTRY SUMMARY

COMPOUND	RESULTS	UNITS	DF	PQL	METHOD	ANALYZED
pH (Corrosivity)**	8.0	S.U.	1	---	9045	08/31/23
Resistivity*	1900	Ohms-cm	1	---	SM 120.1M	08/31/23
Chloride	11	mg/Kg	1	0.6	300.0M	08/31/23
Sulfate	600	mg/Kg	1	0.6	300.0M	08/31/23

*Sample was extracted using a 1:3 ratio of soil and DI water.
**Sample was extracted using 1:1 ratio of soil and DI water.

DF: Dilution Factor
PQL: Practical Quantitation Limit
BQL: Below Quantitation Limit
mg/Kg: Milligrams/Kilograms(ppm)

2978 Seaborg Ave. Unit #4, Ventura, California 93003 Ph: (805)644-1095 FAX: (805)644-9947
www.capcoenv.com

APPENDIX C

Minimum Foundation Design Table

MINIMUM FOUNDATION DESIGN

FOUNDATIONS FOR STUD BEARING WALLS – MINIMUM REQUIREMENTS

EXPANSION INDEX (E. I.)	FOUNDATIONS FOR SLAB AND RAISED FLOOR SYSTEM						REINFORCEMENT FOR FOUNDATIONS	CONCRETE SLAB 3-1/2" MINIMUM THICKNESS (4" WHEN OVER 51, E. I.)		PREMOISTENING CONTROLS FOR SOILS UNDER FOOTINGS, PEIRS AND SLABS	PIERS UNDER RAISED FLOORS
	NUMBER OF STORIES	STEM THICKNESS	FOOTING WIDTH	FOOTING THICKNESS	ALL PERIMETER FOOTINGS	INTERIOR FOOTINGS FOR SLAB AND RAISED FLOORS		REINFORCEMENT	TOTAL THICKNESS OF SAND		
					DEPTH BELOW NATURAL SURFACE OF GROUND & FINISH GRADE						
		INCHES									
0 -20 VERY LOW (NON-EXPANSIVE)	1 2 3	6 8 10	12 15 18	6 7 8	12 18 24	12 18 24	1 - #4 @ TOP AND BOTTOM	#3 @ 24" O.C. EACH WAY	2"	MOISTENING OF GROUND PRIOR TO PLACING CONCRETE IS RECOMMENDED	PIERS ALLOWED FOR SINGLE FLOOR LOADS ONLY
21-50 LOW	1 2 3	6 8 10	12 15 18	6 7 8	15 18 24	12 18 24	1 - #4 @ TOP AND BOTTOM	#3 @ 24" O.C. EACH WAY	4"	3% OVER OPTIMUM MOISTURE CONTENT TO A DEPTH OF 18" BELOW LOWEST ADJACENT GRADE TESTING REQ'D	PIERS ALLOWED FO SINGLE FLOOR LOADS ONLY
51-90 MEDIUM	1 2 3	6 8 10	12 15 18	6 8 8	21 21 24	12 18 24	1 - #4 @ TOP AND BOTTOM #3 BARS @ 24" O.C. 12" INTO FOOTING AND BENT 3' INTO SLAB	#3 @ 24" O.C. EACH WAY	4"	3% OVER OPTIMUM MOISTURE CONTENT TO A DEPTH OF 18" BELOW LOWEST ADJ ACENT GRADE TESTING REQ'D	PIERS NOT ALLOWED
91-130 HIGH	1 2 3	6 8 10	12 15 18	8 8 8	27 27 27	12 18 24	2 - #4 @ TOP AND BOTTOM #3 BARS @ 24" O.C. 12" INTO FOOTING AND BENT 3' INTO SLAB	#3 @ 24" O.C. EACH WAY	4"	3% OVER OPTIMUM MOISTURE CONTENT TO A DEPTH OF 24" BELOW LOWEST ADJACENT GRADE TESTING REQ'D	PIERS NOT ALLOWED
ABOVE 130 VERY HIGH	REQUIRES SPECIAL DESIGN BY A STATE LICENSED SOILS PROFESSIONAL										

APPENDIX D

US Seismic Design Maps
Fault Parameters

USGS web services were down for some period of time and as a result this tool wasn't operational, resulting in *timeout* error.
USGS web services are now operational so this tool should work as expected.

306184-001 499 Linden Avenue

Latitude, Longitude: 34.3963, -119.5225



Date	8/9/2023, 12:12:16 PM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	D - Stiff Soil

Type	Value	Description
S_S	2.287	MCE_R ground motion. (for 0.2 second period)
S_1	0.835	MCE_R ground motion. (for 1.0s period)
S_{MS}	2.287	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1.525	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	1.014	MCE_G peak ground acceleration
F_{PGA}	1.1	Site amplification factor at PGA
PGA_M	1.115	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	2.287	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	2.616	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	3.013	Factored deterministic acceleration value. (0.2 second)
S1RT	0.835	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.959	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.97	Factored deterministic acceleration value. (1.0 second)
PGAd	1.207	Factored deterministic acceleration value. (Peak Ground Acceleration)
PGA_{UH}	1.014	Uniform-hazard (2% probability of exceedance in 50 years) Peak Ground Acceleration
C_{RS}	0.874	Mapped value of the risk coefficient at short periods
C_{R1}	0.87	Mapped value of the risk coefficient at a period of 1 s
C_V	1.5	Vertical coefficient

Table E-1
Fault Parameters

Fault Section Name	Distance (miles)	Distance (km)	Upper Seis. Depth (km)	Lower Seis. Depth (km)	Avg Dip Angle (deg.)	Avg Dip Direction (deg.)	Avg Rake (deg.)	Trace Length (km)	Fault Type	**Mean Mag**	Mean Return Interval (years)	Slip Rate (mm/yr)
Mission Ridge-Arroyo Parida-Santa Ana FM3.1, 3	2.5	4.0	0.0	7.6	70	176	90	69	B	**6.8**		0.4
Red Mountain FM3.1, 3.2	2.7	4.3	0.0	14.1	56	2	90	101	B	**7.4**		2
Santa Ynez (East) FM3.1, 3.2	6.4	10.2	0.0	13.3	70	172	0	68	B	**7.2**		2
Ventura-Pitas Point FM3.1, 3.2	6.6	10.7	1.0	15.0	64	353	60	59	B	**6.9**		1
North Channel FM3.2	6.8	10.9	1.1	4.5	26	10	90	51	B	**6.7**		1
Pitas Point (Upper) FM3.2	8.2	13.1	1.4	10.0	42	15	90	35	B	**6.8**		1
Santa Ynez (West) FM3.1, 3.2	9.6	15.4	0.0	9.2	70	182	0	80	B	**6.9**		2
Oak Ridge (Offshore) FM3.2	9.9	16.0	0.0	7.9	32	180	90	38	B	**6.9**		3
Oak Ridge (Offshore), west extension FM3.2	13.3	21.4	0.0	3.1	67	195	na	28	B'	**6.1**		
Sisar FM3.1, 3.2	13.3	21.4	0.0	17.4	29	168	na	20	B'	**7.0**		
Pitas Point (Lower)-Montalvo, FM3.1	15.7	25.3	0.4	12.7	16	359	90	30	B	**7.3**		2.5
Channel Islands Western Deep Ramp FM3.1, 3.2	16.8	27.0	4.8	12.5	21	204	90	62	B'	**7.3**		
Pitas Point (Lower, West), FM 3.1	18.3	29.4	1.5	8.8	13	3	90	35	B	**7.2**		2.5
Pine Mtn FM3.1, 3.2	18.9	30.4	0.0	16.3	45	5	na	62	B'	**7.3**		
Big Pine (West) FM3.1, 3.2	19.0	30.5	0.0	11.0	50	2	na	18	B'	**6.5**		
Oak Ridge (Onshore) FM3.1, 3.2	20.0	32.2	1.0	19.4	65	159	90	50	B	**7.2**		4
San Luis Range (So Margin) FM3.2	20.9	33.6	0.0	12.0	45	37	90	115	B	**7.1**		0.2
Big Pine (Central) FM3.1, 3.2	21.0	33.8	0.0	6.6	76	167	na	23	B'	**6.3**		
San Cayetano FM3.1, 3.2	21.0	33.8	0.0	16.0	42	3	90	42	B	**7.2**		6
Ozena FM3.1, 3.2	21.7	34.9	0.0	13.9	33	na	na	41	B'	**7.2**		
Los Alamos extension FM3.1, 3.2	22.8	36.7	0.0	12.0	30	na	na	22	B'	**6.8**		
Santa Ynez River FM3.1, 3.2	23.9	38.4	0.0	12.0	70	na	na	73	B'	**7.1**		
Malibu Coast (Extension), alt 1, FM3.1	25.8	41.5	0.0	7.8	74	4	30	35	B'	**6.5**		
Malibu Coast (Extension), alt 2 FM3.2	25.8	41.5	0.0	16.6	74	4	30	35	B'	**6.9**		
Simi-Santa Rosa FM3.1, 3.2	27.1	43.6	1.0	12.1	60	346	30	39	B	**6.8**		1
Santa Cruz Island FM3.1, 3.2	28.3	45.5	0.0	13.3	90	188	30	69	B	**7.1**		1
Channel Islands Thrust FM3.1, 3.2	28.3	45.5	5.0	12.3	20	354	90	59	B	**7.3**		1.5
Santa Cruz Catalina Ridge Alt2 FM3.2	28.5	45.8	0.0	11.0	90	38	na	137	B'	**7.3**		
Santa Cruz Catalina Ridge alt 1, FM3.1	28.5	45.8	0.0	11.0	90	na	na	114	B'	**7.2**		
Big Pine (East) FM3.1, 3.2	29.2	46.9	0.0	14.3	73	338	na	23	B'	**6.6**		
South Cuyama FM3.1, 3.2	32.4	52.2	0.0	13.9	33	210	na	83	B'	**7.5**		
Santa Rosa Island FM3.1, 3.2	34.4	55.4	0.0	8.7	90	1	30	58	B	**6.8**		1
Anacapa-Dume, alt 1, FM3.1	35.8	57.6	0.0	15.5	45	354	60	51	B	**7.2**		3
Anacapa-Dume, alt 2, FM3.2	35.8	57.6	1.2	11.4	41	352	60	65	B	**7.2**		3
Los Alamos 2011 CFM FM3.1, 3.2	36.4	58.6	0.0	12.0	30	na	na	27	B'	**6.9**		
San Andreas (Big Bend) FM3.1, 3.2	36.8	59.3	0.0	15.1	90	198	180	50	A	**6.8**	89	3.5
Lions Head 2011 CFM FM3.1, 3.2	37.3	60.1	0.0	12.0	75	29	90	65	B	**6.7**		0.02
Morales (East) FM3.1, 3.2	37.8	60.9	0.0	8.6	32	14	na	18	B'	**6.6**		
San Andreas (Carrizo) rev FM3.1, 3.2	38.4	61.8	0.0	15.1	90	224	180	59	A	**6.8**	89	3.5
East Huasna 2011 CFM FM3.1, 3.2	38.7	62.2	0.0	15.0	90	na	na	74	B'	**7.2**		

Reference: USGS OFR 2013-1165 (CGS SP 228) Based on Site Coordinates of 34.3963 Latitude, -119.5225 Longitude

Mean Magnitude for Type A Faults based on 0.1 weight for unsegmented section, 0.9 weight for segmented model (weighted by probability of each scenario with section listed as given on Table 3 of Appendix G in OFR 2008-1437). Mean magntude is average of Ellworths-B and Hanks & Bakun moment area relationship.

APPENDIX E

CPT-Based Liquefaction and Dry Sand Seismic Settlement Analyses
Lateral Spreading Analyses Results

CPT-LIQUEFY.XLS - A SPREADSHEET FOR EMPIRICAL ESTIMATION OF LIQUEFACTION POTENTIAL USING CPT DATA

Developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Project: 499 Linden Avenue
Job No: 306184-001
Date: 8/9/2023
Sounding: CPT-1

Liquefaction Analysis using 1998 NCEER (Robertson & Wride) method
Settlement Analysis using Tokimatsu & Seed (1987), clean sand Qc1n/N1(60) ratio =5

Plot: 1
Method Used: 1 1998 NCEER (Robertson & Wride)

EARTHQUAKE INFORMATION:

Magnitude: 7.4 (7.5)
PGA, g: 1.115 (1.08)
MSF: 1.03
GWT, feet: 10.0
Calc GWT, feet: 10.0

Averaging Increment: 3 0.15 m
Induced CSR (M=7.5) = 0.65*PGA*(po/p'o)*rd/MSF
Clean Sand Qc1n = C_Q*K_C*K_H*Qc
SF = $CRR_{7.5}$*Kσ/CSR

Ignore 1st/last increment into sand/silt soils: 1 yes
Ignore/remediate upper: 0.0 m
Unit Weight of unsaturated soils: 115 pcf
Unit Weight of saturated soils: 130 pcf
Limiting Ic for liquefiable soils: 2.60 Limiting Ic for K_H: 2.6

Use Moss @ P_L: 15%
Use Tokimatsu & Seed (0) or Ishihara &Yoshmine (1): 0
Required SF: 1.30 Max $\Delta N_{1(60)}$ - post liquefied: 5.5
Min SF of Liquefiable Layers: 0.13 Max $\Delta N_{1(60)}$ - non liquefied: 5.0
Avg SF of Liquefiable Layers: 0.30

Total Liquefied Thickness (feet)
17.2
Total Induced Subsidence (inches)
2.9

Depth (feet)	(m)	Tip Qc (tsf)	Friction Fs (tsf)	Friction Ratio Rf %	qc MPa	Total Unit Wt. (pcf)	Total Stress po (tsf)	Eff. Stress p'o (tsf)	rd	F %	n	Max 1.70 Cq	Q	Moss qc1 MPa	Moss Δqc MPa	Moss qc_{1mod} MPa	Moss eff K_C	Qc1n	Ic	Override	Liquef. Suscept. (0 or 1)	Rel. Dens. Dr (%)	K_C	K_H	Clean Sand Qc1n	1.0 Kσ	CRR	Induced M=7.5 CSR	Liquefac. Safety Factor	Qc1n $N_{1(60)}$ Ratio	Equiv. $N_{1(60)}$	FC Adj. $\Delta N_{1(60)}$	Equiv. $N_{1(60)cs}$	*Volumetric Strain (%)*
0.49	0.15	9.95	0.55	5.53	0.95	115	0.028	0.028	1.000	5.55	0.91	1.70	15.94	1.62	5.27	6.89		15.99	3.00		0			1.00		1.00		0.467	**Non-Liq.**	3.1	5.1			**0.00**
0.98	0.30	106.76	0.41	0.38	10.22	115	0.057	0.057	1.000	0.38	0.50	1.70	171.45	18.62	0.00	18.62		183.78	1.47		0			1.07		1.00		0.467	**Non-Liq.**	6.1	30.1			**0.00**
1.48	0.45	57.38	0.91	1.59	5.49	115	0.085	0.085	0.999	1.59	0.63	1.70	92.06	10.01	1.27	11.28	1.13	98.78	2.07		1	76	1.40	1.07	138.7	1.00	0.328	0.466	**Non-Liq.**	4.9	20.0	5.0	25.0	**0.26**
1.97	0.60	24.97	0.83	3.33	2.39	115	0.113	0.113	0.997	3.34	0.77	1.70	39.94	4.35	3.31	7.66	1.76	42.98	2.56		1	42	3.07	1.07	131.9	1.00	0.294	0.466	**Non-Liq.**	4.0	10.8	5.0	15.8	**1.09**
2.46	0.75	21.28	0.64	3.03	2.04	115	0.141	0.141	0.996	3.05	0.78	1.70	33.96	3.71	2.95	6.66	1.80	36.63	2.58		1	35	3.21	1.07	117.7	1.00	0.232	0.465	**Non-Liq.**	3.9	9.3	5.0	14.3	**1.50**
2.95	0.90	26.04	0.66	2.55	2.49	115	0.170	0.170	0.995	2.56	0.75	1.70	41.57	4.54	2.39	6.93		44.83	2.47		0			1.07		1.00		0.465	**Non-Liq.**	4.2	10.7			**0.00**
3.44	1.05	13.65	0.59	4.29	1.31	115	0.198	0.198	0.994	4.36	0.86	1.70	21.62	2.22	4.43	6.65		21.94	2.83		0			1.00		1.00		0.464	**Non-Liq.**	3.5	6.3			**0.00**
3.94	1.20	18.71	0.54	2.90	1.79	115	0.226	0.226	0.993	2.94	0.79	1.70	29.70	3.05	2.80	5.85		30.07	2.61		0			1.00		1.00		0.464	**Non-Liq.**	3.9	7.7			**0.00**
4.43	1.35	24.14	0.77	3.19	2.31	115	0.255	0.255	0.992	3.23	0.78	1.70	38.38	6.21	3.14	9.35		61.28	2.56		0			1.58		1.00		0.463	**Non-Liq.**	4.0	15.4			**0.00**
4.92	1.50	24.68	1.00	4.06	2.36	115	0.283	0.283	0.990	4.11	0.80	1.70	39.21	4.02	4.16	8.18		39.66	2.62		0			1.00		1.00		0.463	**Non-Liq.**	3.9	10.3			**0.00**
5.41	1.65	19.03	0.98	5.17	1.82	115	0.311	0.311	0.989	5.25	0.84	1.70	30.08	3.10	5.25	8.35		30.58	2.78		0			1.00		1.00		0.462	**Non-Liq.**	3.6	8.6			**0.00**
5.91	1.80	12.74	0.76	5.94	1.22	115	0.340	0.340	0.988	6.10	0.89	1.70	19.92	2.07	5.25	7.32		20.47	2.96		0			1.00		1.00		0.461	**Non-Liq.**	3.2	6.4			**0.00**
6.40	1.95	8.28	0.46	5.54	0.79	115	0.368	0.368	0.987	5.80	0.93	1.70	12.71	1.35	5.25	6.59		13.30	3.09		0			1.00		1.00		0.461	**Non-Liq.**	3.0	4.5			**0.00**
6.89	2.10	7.78	0.30	3.84	0.75	115	0.396	0.396	0.986	4.04	0.92	1.70	11.86	1.27	3.89	5.15		12.50	3.01		0			1.00		1.00		0.460	**Non-Liq.**	3.1	4.0			**0.00**
7.38	2.25	19.90	0.37	1.85	1.91	130	0.428	0.428	0.985	1.89	0.76	1.70	31.28	3.17	1.57	4.74		32.09	2.48		0			1.00		1.00		0.460	**Non-Liq.**	4.1	7.7			**0.00**
7.87	2.40	35.45	0.63	1.77	3.39	130	0.460	0.460	0.984	1.79	0.70	1.70	56.22	4.99	1.48	6.46	1.30	56.96	2.26		1	53	1.84	1.00	104.8	1.00	0.187	0.459	**Non-Liq.**	4.6	12.5	5.0	17.5	**0.83**
8.37	2.55	50.52	0.90	1.78	4.84	130	0.492	0.492	0.983	1.80	0.67	1.67	78.80	6.63	1.49	8.12	1.22	79.58	2.16		1	67	1.57	1.00	124.7	1.00	0.260	0.459	**Non-Liq.**	4.8	16.7	5.0	21.7	**0.46**
8.86	2.70	75.33	0.79	1.05	7.21	130	0.524	0.524	0.982	1.05	0.58	1.51	106.63	9.80	0.64	10.43	1.06	107.38	1.90		1	80	1.19	1.00	128.0	1.00	0.275	0.458	**Non-Liq.**	5.3	20.4	5.0	25.4	**0.30**
9.35	2.85	80.83	0.60	0.75	7.74	130	0.556	0.556	0.981	0.75	0.55	1.43	108.31	10.53	0.29	10.82	1.03	109.06	1.81		1	80	1.11	1.00	121.2	1.00	0.246	0.458	**Non-Liq.**	5.5	20.0	4.3	24.2	**0.34**
9.84	3.00	75.07	0.58	0.77	7.19	130	0.588	0.588	0.979	0.78	0.57	1.39	98.20	9.54	0.32	9.86	1.03	98.97	1.85		1	76	1.14	1.00	113.2	1.00	0.215	0.457	**Non-Liq.**	5.4	18.4	4.2	22.6	**0.42**
10.33	3.15	36.26	0.53	1.45	3.47	130	0.620	0.617	0.978	1.48	0.70	1.46	49.02	4.51	1.25	5.76		49.86	2.26		0			1.00		1.00		0.688	**Non-Liq.**	4.6	10.9			**0.00**
10.83	3.30	9.21	0.42	4.61	0.88	130	0.652	0.634	0.977	4.95	0.94	1.62	13.13	1.23	5.45	6.68		14.10	3.03		0			1.00		1.00		0.704	**Non-Liq.**	3.1	4.6			**0.00**
11.32	3.45	8.05	0.26	3.23	0.77	130	0.684	0.651	0.976	3.52	0.93	1.57	11.00	1.10	3.65	4.74		11.97	3.00		0			1.00		1.00		0.719	**Non-Liq.**	3.1	3.8			**0.00**
11.81	3.60	8.76	0.18	2.09	0.84	130	0.716	0.667	0.975	2.26	0.89	1.51	11.53	1.18	2.13	3.32		12.48	2.88		0			1.00		1.00		0.733	**Non-Liq.**	3.4	3.7			**0.00**
12.30	3.75	25.73	0.27	1.04	2.46	130	0.748	0.684	0.974	1.07	0.72	1.37	32.35	4.03	0.73	4.76		42.02	2.32		0			1.26		1.00		0.747	**Non-Liq.**	4.4	9.4			**0.00**
12.80	3.90	47.39	0.37	0.77	4.54	130	0.780	0.700	0.973	0.78	0.63	1.29	57.15	7.17	0.37	7.54	1.05	73.35	2.04		1	64	1.36	1.26	99.8	1.00	0.173	0.759	**0.23**	5.0	14.7	5.3	20.0	**1.53**
13.29	4.05	23.45	0.30	1.27	2.25	130	0.812	0.717	0.972	1.31	0.74	1.34	28.68	3.55	1.05	4.61		37.41	2.42		0			1.26		1.00		0.771	**Non-Liq.**	4.3	8.8			**0.00**
13.78	4.20	7.81	0.21	2.75	0.75	130	0.844	0.734	0.971	3.03	0.93	1.41	9.40	0.98	3.07	4.06		10.38	3.02		0			1.00		1.00		0.783	**Non-Liq.**	3.1	3.4			**0.00**
14.27	4.35	7.34	0.20	2.71	0.70	130	0.876	0.750	0.970	3.01	0.94	1.38	8.60	0.92	3.03	3.94		9.58	3.05		0			1.00		1.00		0.793	**Non-Liq.**	3.0	3.2			**0.00**
14.76	4.50	7.82	0.22	2.80	0.75	130	0.908	0.767	0.969	3.10	0.94	1.35	9.01	0.95	3.16	4.11		9.99	3.04		0			1.00		1.00		0.804	**Non-Liq.**	3.0	3.3			**0.00**
15.26	4.65	7.28	0.27	3.77	0.70	130	0.940	0.784	0.968	4.22	0.97	1.34	8.22	0.87	4.51	5.38		9.21	3.15		0			1.00		1.00		0.813	**Non-Liq.**	2.8	3.3			**0.00**
15.75	4.80	6.16	0.27	4.31	0.59	130	0.972	0.800	0.967	4.95	1.00	1.32	6.70	0.74	5.28	6.02		7.70	3.26		0			1.00		1.00		0.823	**Non-Liq.**	2.6	2.9			**0.00**
16.24	4.95	6.37	0.19	3.01	0.61	130	1.004	0.817	0.966	3.45	0.97	1.29	6.75	0.75	3.49	4.24		7.74	3.17		0			1.00		1.00		0.831	**Non-Liq.**	2.8	2.8			**0.00**
16.73	5.10	8.04	0.19	2.32	0.77	130	1.036	0.834	0.965	2.59	0.93	1.25	8.49	0.92	2.54	3.46		9.47	3.02		0			1.00		1.00		0.840	**Non-Liq.**	3.1	3.1			**0.00**
17.22	5.25	21.94	0.37	1.68	2.10	130	1.068	0.850	0.964	1.75	0.78	1.19	23.65	3.00	1.65	4.64		31.11	2.56		0			1.26		1.00		0.848	**Non-Liq.**	4.0	7.8			**0.00**
17.72	5.40	71.21	0.50	0.70	6.82	130	1.100	0.867	0.962	0.70	0.59	1.12	74.73	9.54	0.27	9.81	1.03	95.66	1.92		1	75	1.21	1.26	115.6	1.00	0.224	0.856	**0.26**	5.2	18.3	4.9	23.1	**1.32**
18.21	5.55	68.15	0.47	0.69	6.53	130	1.132	0.883	0.961	0.70	0.59	1.11	70.73	9.05	0.27	9.32		90.61	1.94		0			1.26		1.00		0.863	**Non-Liq.**	5.2	17.4			**0.00**
18.70	5.70	19.67	0.45	2.29	1.88	130	1.164	0.900	0.960	2.40	0.82	1.14	20.26	2.05	2.52	4.57		21.23	2.69		0			1.00		1.00		0.870	**Non-Liq.**	3.7	5.7			**0.00**
19.19	5.85	18.38	0.39	2.11	1.76	130	1.196	0.917	0.959	2.22	0.82	1.13	18.57	1.91	2.27	4.18		19.55	2.70		0			1.00		1.00		0.876	**Non-Liq.**	3.7	5.3			**0.00**
19.69	6.00	13.21	0.35	2.64	1.26	130	1.228	0.933	0.958	2.84	0.88	1.12	12.95	1.36	3.02	4.39		13.94	2.89		0			1.00		1.00		0.883	**Non-Liq.**	3.3	4.2			**0.00**
20.18	6.15	10.87	0.39	3.57	1.04	130	1.260	0.950	0.956	3.91	0.93	1.11	10.36	1.11	4.34	5.45		11.35	3.05		0			1.00		1.00		0.889	**Non-Liq.**	3.0	3.7			**0.00**
20.67	6.30	10.17	0.41	3.99	0.97	130	1.292	0.967	0.955	4.41	0.95	1.09	9.47	1.03	4.94	5.97		10.47	3.11		0			1.00		1.00		0.894	**Non-Liq.**	2.9	3.6			**0.00**
21.16	6.45	10.03	0.39	3.85	0.96	130	1.324	0.983	0.954	4.27	0.95	1.07	9.16	1.01	4.76	5.77		10.16	3.12		0			1.00		1.00		0.900	**Non-Liq.**	2.9	3.5			**0.00**
21.65	6.60	10.99	0.40	3.66	1.05	130	1.356	1.000	0.952	4.03	0.93	1.05	9.96	1.09	4.50	5.59		10.95	3.07		0			1.00		1.00		0.905	**Non-Liq.**	3.0	3.7			**0.00**
22.15	6.75	17.24	0.65	3.80	1.65	130	1.388	1.017	0.951	4.04	0.88	1.04	15.89	1.68	4.70	6.38		16.88	2.91		0			1.00		1.00		0.910	**Non-Liq.**	3.3	5.1			**0.00**
22.64	6.90	39.71	1.15	2.90	3.80	130	1.420	1.033	0.950	2.98	0.77	1.02	37.23	4.42	3.42	7.85		44.06	2.54		0			1.15		1.00		0.914	**Non-Liq.**	4.0	11.0			**0.00**
23.13	7.05	21.86	1.14	5.20	2.09	130	1.452	1.050	0.948	5.46	0.89	1.01	19.81	2.10	6.42	8.52		20.80	2.92		0			1.00		1.00		0.918	**Non-Liq.**	3.3	6.4			**0.00**

Depth		Tip	Friction	Friction		Total	Total	Eff.				Max		Moss	Moss	Moss	Moss			Liquef.	Rel.				Clean			Induced	**Liquefac.**	Qc1n				***Volumetric***
		Qc	Fs	Ratio	qc	Unit Wt.	Stress	Stress		F		1.70		qc1	Δqc	qc_{1mod}	eff			Suscept.	Dens.				Sand	1.0		M=7.5	**Safety**	$N_{1(60)}$	Equiv.	FC Adj.	Equiv.	***Strain***
(feet)	(m)	(tsf)	(tsf)	Rf %	MPa	(pcf)	po (tsf)	p'o (tsf)	rd	%	n	Cq	Q	MPa	MPa	MPa	K_C	Qc1n	Ic	(0 or 1)	Dr (%)	K_C	K_H	Qc1n	Kσ	CRR	CSR	**Factor**	Ratio	$N_{1(60)}$	$\Delta N_{1(60)}$	$N_{1(60)cs}$	***(%)***
23.62	7.20	35.72	1.15	3.22	3.42	130	1.484	1.066	0.946	3.32	0.79	0.99	32.55	3.41	3.88	7.29		33.55	2.62	0			1.00		1.00		0.922	**Non-Liq.**	3.9	8.7			**0.00**
24.11	7.35	52.83	1.78	3.36	5.06	130	1.516	1.083	0.945	3.43	0.76	0.98	48.05	5.04	4.09	9.13		49.24	2.51	0			1.00		1.00		0.926	**Non-Liq.**	4.1	12.0			**0.00**
24.61	7.50	137.56	2.13	1.55	13.17	130	1.548	1.100	0.943	1.56	0.60	0.98	126.03	13.01	1.51	14.51	1.12	127.05	1.97	1	87	1.26	1.00	160.2	0.98	Infin.	0.930	**Non-Liq.**	5.1	24.7	5.0	29.7	**0.00**
25.10	7.65	191.52	1.96	1.02	18.34	130	1.580	1.116	0.941	1.03	0.53	0.97	174.92	18.00	0.75	18.74	1.04	175.95	1.74	1	100	1.06	1.00	187.2	0.98	Infin.	0.933	**Non-Liq.**	5.6	31.5	5.0	36.5	**0.00**
25.59	7.80	156.77	1.30	0.83	15.01	130	1.612	1.133	0.940	0.83	0.53	0.96	141.86	14.61	0.47	15.08	1.03	142.89	1.74	1	92	1.07	1.00	152.5	0.97	0.410	0.936	**0.43**	5.6	25.6	4.9	30.5	**0.79**
26.08	7.95	130.93	1.08	0.82	12.54	130	1.644	1.150	0.938	0.83	0.55	0.96	117.20	12.11	0.46	12.58	1.04	118.24	1.81	1	84	1.11	1.00	131.3	0.97	0.291	0.939	**0.30**	5.5	21.6	4.6	26.3	**1.14**
26.57	8.10	133.80	1.11	0.83	12.81	130	1.676	1.166	0.936	0.84	0.55	0.95	118.84	12.31	0.47	12.79	1.04	119.89	1.80	1	84	1.11	1.00	133.0	0.96	0.299	0.942	**0.30**	5.5	21.9	4.7	26.6	**1.12**
27.07	8.25	127.31	0.88	0.69	12.19	130	1.708	1.183	0.934	0.70	0.54	0.94	112.24	11.60	0.27	11.88	1.02	113.30	1.77	1	82	1.09	1.00	123.3	0.96	0.254	0.945	**0.26**	5.5	20.5	4.1	24.7	**1.24**
27.56	8.40	116.55	0.85	0.73	11.16	130	1.740	1.200	0.932	0.74	0.55	0.93	101.70	10.56	0.33	10.89	1.03	102.76	1.82	1	78	1.12	1.00	115.5	0.95	0.223	0.947	**0.22**	5.4	18.9	4.2	23.1	**1.34**
28.05	8.55	107.04	0.84	0.78	10.25	130	1.772	1.216	0.930	0.79	0.57	0.92	92.40	9.64	0.41	10.05	1.04	93.46	1.87	1	74	1.17	1.00	109.0	0.95	0.200	0.949	**0.20**	5.3	17.5	4.3	21.8	**1.43**
28.54	8.70	55.81	0.94	1.69	5.34	130	1.804	1.233	0.928	1.73	0.70	0.90	46.34	5.02	1.71	6.73		47.39	2.32	0			1.00		0.97		0.951	**Non-Liq.**	4.5	10.6			**0.00**
29.04	8.85	26.78	0.93	3.48	2.56	130	1.836	1.249	0.925	3.66	0.84	0.87	20.99	2.39	4.30	6.69		22.02	2.79	0			1.00		0.97		0.952	**Non-Liq.**	3.5	6.2			**0.00**
29.53	9.00	21.35	0.67	3.16	2.04	130	1.868	1.266	0.923	3.36	0.86	0.86	16.27	1.88	3.83	5.71		17.30	2.85	0			1.00		0.96		0.954	**Non-Liq.**	3.4	5.1			**0.00**
30.02	9.15	20.38	0.48	2.37	1.95	130	1.900	1.283	0.920	2.53	0.84	0.85	15.35	1.77	2.70	4.46		16.38	2.80	0			1.00		0.96		0.955	**Non-Liq.**	3.5	4.7			**0.00**
30.51	9.30	32.61	0.69	2.13	3.12	130	1.932	1.299	0.918	2.21	0.78	0.85	25.21	2.86	2.35	5.20		26.36	2.59	0			1.00		0.96		0.956	**Non-Liq.**	3.9	6.7			**0.00**
31.00	9.45	137.23	1.56	1.13	13.14	130	1.964	1.316	0.915	1.15	0.58	0.88	113.22	12.14	0.92	13.05	1.08	114.32	1.91	1	82	1.20	1.00	136.8	0.92	0.318	0.957	**0.30**	5.3	21.7	5.5	27.2	**1.09**
31.50	9.60	157.17	2.34	1.49	15.05	130	1.996	1.333	0.913	1.50	0.59	0.87	128.51	13.98	1.43	15.41	1.10	129.61	1.95	1	88	1.24	1.00	160.7	0.91	Infin.	0.957	**Non-Liq.**	5.2	25.0	5.0	30.0	**0.00**
31.99	9.75	115.97	2.15	1.85	11.11	130	2.028	1.349	0.910	1.88	0.64	0.86	92.72	10.27	1.95	12.23	1.19	93.81	2.12	1	74	1.49	1.00	139.7	0.91	0.334	0.958	**0.32**	4.9	19.3	5.5	24.8	**1.23**
32.48	9.90	86.77	1.48	1.71	8.31	130	2.060	1.366	0.907	1.73	0.66	0.84	68.17	7.59	1.74	9.33	1.23	69.26	2.19	1	62	1.65	1.00	114.1	0.93	0.218	0.958	**0.21**	4.7	14.7	5.5	20.2	**1.54**
32.97	10.05	70.50	1.45	2.06	6.75	130	2.092	1.382	0.904	2.10	0.70	0.83	54.18	6.14	2.25	8.39	1.37	55.27	2.32	1	52	2.02	1.00	111.7	0.92	0.210	0.958	**0.20**	4.5	12.4	5.5	17.9	**1.72**
33.46	10.20	81.08	1.32	1.62	7.76	130	2.124	1.399	0.901	1.65	0.67	0.83	62.54	7.00	1.62	8.62	1.23	63.63	2.21	1	58	1.68	1.00	107.1	0.92	0.194	0.958	**0.19**	4.7	13.6	5.5	19.1	**1.63**
33.96	10.35	37.96	0.75	1.97	3.64	130	2.156	1.416	0.898	2.05	0.76	0.80	27.66	3.20	2.13	5.33	1.66	28.73	2.54	1	25	2.99	1.00	85.8	0.94	0.139	0.957	**0.14**	4.0	7.1	5.5	12.6	**2.26**
34.45	10.50	50.07	0.76	1.53	4.79	130	2.188	1.432	0.894	1.57	0.71	0.81	37.04	4.20	1.48	5.68	1.35	38.13	2.37	1	37	2.20	1.00	83.8	0.94	0.135	0.957	**0.13**	4.4	8.7	5.5	14.2	**2.07**
34.94	10.65	140.30	1.00	0.71	13.43	130	2.219	1.449	0.891	0.72	0.54	0.84	110.65	11.74	0.30	12.04	1.03	111.80	1.79	1	81	1.10	1.00	122.6	0.88	0.252	0.956	**0.23**	5.5	20.3	4.2	24.5	**1.25**
35.43	10.80	155.36	1.13	0.73	14.88	130	2.251	1.466	0.888	0.73	0.53	0.84	122.21	12.99	0.33	13.32	1.03	123.38	1.76	1	86	1.08	1.00	132.9	0.88	0.298	0.955	**0.27**	5.6	22.2	4.4	26.6	**1.13**
35.93	10.95	119.77	1.14	0.95	11.47	130	2.283	1.482	0.884	0.97	0.58	0.82	91.82	10.02	0.66	10.68	1.07	92.97	1.93	1	74	1.22	1.00	113.3	0.87	0.215	0.954	**0.20**	5.2	17.8	4.8	22.7	**1.37**
36.42	11.10	43.03	1.00	2.32	4.12	130	2.315	1.499	0.880	2.40	0.77	0.77	30.07	3.58	2.62	6.20		31.15	2.56	0			1.00		0.93		0.953	**Non-Liq.**	4.0	7.8			**0.00**
36.91	11.25	31.61	0.86	2.71	3.03	130	2.347	1.516	0.877	2.85	0.81	0.75	21.24	2.60	3.19	5.78		22.31	2.72	0			1.00		0.93		0.951	**Non-Liq.**	3.7	6.1			**0.00**
37.40	11.40	49.80	0.76	1.54	4.77	130	2.379	1.532	0.873	1.58	0.72	0.77	34.98	4.35	1.49	5.84		38.66	2.39	0			1.07		0.93		0.949	**Non-Liq.**	4.3	9.0			**0.00**
37.89	11.55	28.35	0.63	2.21	2.71	130	2.411	1.549	0.869	2.33	0.81	0.73	18.60	2.27	2.46	4.73		19.68	2.71	0			1.00		0.93		0.948	**Non-Liq.**	3.7	5.3			**0.00**
38.39	11.70	138.09	0.83	0.60	13.22	130	2.443	1.565	0.865	0.61	0.54	0.81	104.62	11.09	0.14	11.23		106.21	1.76	0			1.00		0.92		0.946	**Non-Liq.**	5.5	19.2			**0.00**
38.88	11.85	307.97	1.61	0.52	29.49	130	2.475	1.582	0.861	0.53	0.50	0.82	236.82	25.00	0.03	25.03	1.00	238.04	1.44	1	100	1.00	1.00	238.0	0.85	Infin.	0.943	**Non-Liq.**	6.2	38.6	5.0	43.6	**0.00**
39.37	12.00	441.64	3.11	0.70	42.29	130	2.507	1.599	0.857	0.71	0.50	0.81	338.35	36.75	0.29	37.04	1.01	339.58	1.42	1	100	1.00	1.00	339.6	0.85	Infin.	0.941	**Non-Liq.**	6.2	54.7	5.0	59.7	**0.00**
39.86	12.15	532.94	4.41	0.83	51.03	130	2.539	1.615	0.852	0.83	0.50	0.81	406.43	44.82	0.47	45.29	1.01	407.66	1.43	1	100	1.00	1.00	407.7	0.84	Infin.	0.939	**Non-Liq.**	6.2	65.7	5.0	70.7	**0.00**
40.35	12.30	533.90	4.75	0.89	51.13	130	2.571	1.632	0.848	0.89	0.50	0.81	405.07	44.94	0.56	45.50	1.01	406.31	1.45	1	100	1.00	1.00	406.3	0.84	Infin.	0.936	**Non-Liq.**	6.2	66.1	5.0	71.1	**0.00**
40.85	12.45	557.77	4.33	0.78	53.41	130	2.603	1.649	0.843	0.78	0.50	0.80	421.08	46.51	0.40	46.91	1.01	422.33	1.40	1	100	1.00	1.00	422.3	0.84	Infin.	0.933	**Non-Liq.**	6.3	67.4	5.0	72.4	**0.00**
41.34	12.60	551.14	4.48	0.81	52.78	130	2.635	1.665	0.839	0.82	0.50	0.80	413.96	45.92	0.45	46.37	1.01	415.22	1.42	1	100	1.00	1.00	415.2	0.83	Infin.	0.930	**Non-Liq.**	6.2	66.7	5.0	71.7	**0.00**
41.83	12.75	612.01	6.05	0.99	58.61	130	2.667	1.682	0.834	0.99	0.50	0.79	457.54	51.54	0.70	52.24	1.01	458.80	1.46	1	100	1.00	1.00	458.8	0.83	Infin.	0.927	**Non-Liq.**	6.1	74.8	5.0	79.8	**0.00**
42.32	12.90	623.98	5.29	0.85	59.75	130	2.699	1.699	0.830	0.85	0.50	0.79	464.21	51.99	0.50	52.49	1.01	465.47	1.40	1	100	1.00	1.00	465.5	0.83	Infin.	0.924	**Non-Liq.**	6.3	74.5	5.0	79.5	**0.00**
42.81	13.05	573.03	3.75	0.66	54.87	130	2.731	1.715	0.825	0.66	0.50	0.79	424.11	46.72	0.22	46.95	1.00	425.38	1.34	1	100	1.00	1.00	425.4	0.82	Infin.	0.920	**Non-Liq.**	6.4	66.7	5.0	71.7	**0.00**
43.31	13.20	532.52	3.82	0.72	50.99	130	2.763	1.732	0.820	0.72	0.50	0.78	392.13	43.44	0.31	43.75	1.01	393.41	1.39	1	100	1.00	1.00	393.4	0.82	Infin.	0.917	**Non-Liq.**	6.3	62.7	5.0	67.7	**0.00**
43.80	13.35	462.51	6.72	1.45	44.29	130	2.795	1.748	0.816	1.46	0.51	0.77	337.09	39.04	1.36	40.40	1.03	338.37	1.67	1	100	1.02	1.00	345.3	0.82	Infin.	0.913	**Non-Liq.**	5.7	59.2	5.0	64.2	**0.00**
44.29	13.50	383.05	6.88	1.79	36.68	130	2.827	1.765	0.811	1.80	0.55	0.76	272.38	32.43	1.84	34.27	1.06	273.64	1.80	1	100	1.11	1.00	303.4	0.81	Infin.	0.910	**Non-Liq.**	5.5	50.0	5.0	55.0	**0.00**
44.78	13.65	338.15	4.07	1.20	32.38	130	2.859	1.782	0.806	1.21	0.52	0.76	242.99	27.83	1.00	28.83	1.04	244.28	1.69	1	100	1.03	1.00	252.7	0.81	Infin.	0.906	**Non-Liq.**	5.7	43.0	5.0	48.0	**0.00**
45.28	13.80	276.88	3.16	1.14	26.51	130	2.891	1.798	0.801	1.15	0.53	0.76	196.45	22.50	0.91	23.41	1.04	197.73	1.74	1	100	1.06	1.00	210.4	0.81	Infin.	0.902	**Non-Liq.**	5.6	35.4	5.0	40.4	**0.00**
45.77	13.95	247.15	2.16	0.87	23.67	130	2.923	1.815	0.796	0.88	0.51	0.76	175.68	19.57	0.53	20.10	1.03	176.98	1.69	1	100	1.03	1.00	182.5	0.81	Infin.	0.898	**Non-Liq.**	5.7	31.1	5.0	36.1	**0.00**
46.26	14.10	241.61	2.14	0.89	23.14	130	2.955	1.832	0.791	0.89	0.52	0.75	170.53	19.07	0.55	19.62	1.03	171.84	1.70	1	99	1.04	1.00	178.8	0.80	Infin.	0.894	**Non-Liq.**	5.7	30.3	5.0	35.3	**0.00**
46.75	14.25	184.96	2.04	1.10	17.71	130	2.987	1.848	0.786	1.11	0.56	0.73	126.35	14.62	0.85	15.47		127.63	1.86	0			1.00		0.89		0.890	**Non-Liq.**	5.3	23.9			**0.00**
47.24	14.40	48.12	1.93	4.01	4.61	130	3.019	1.865	0.781	4.18	0.81	0.63	27.58	3.83	4.97	8.80		28.69	2.74	0			1.00		0.89		0.886	**Non-Liq.**	3.6	7.9			**0.00**
47.74	14.55	45.03	1.61	3.57	4.31	130	3.051	1.881	0.776	3.72	0.81	0.63	25.58	3.53	4.33	7.86		26.70	2.73	0			1.00		0.89		0.881	**Non-Liq.**	3.7	7.3			**0.00**
48.23	14.70	174.98	1.45	0.83	16.76	130	3.083	1.898	0.771	0.84	0.55	0.73	118.89	13.41	0.46	13.87		120.64	1.80	0			1.00		0.89		0.877	**Non-Liq.**	5.5	22.1			**0.00**
48.72	14.85	381.01	2.39	0.63	36.49	130	3.115	1.915	0.766	0.63	0.50	0.74	266.35	29.35	0.18	29.53	1.01	267.69	1.46	1	100	1.00	1.00	267.7	0.79	Infin.	0.873	**Non-Liq.**	6.1	43.6	5.0	48.6	**0.00**
49.21	15.00	479.84	3.87	0.81	45.95	130	3.147	1.931	0.761	0.81	0.50	0.74	334.32	37.97	0.43	38.40	1.01	335.67	1.47	1	100	1.00	1.00	335.7	0.79	Infin.	0.868	**Non-Liq.**	6.1	54.9	5.0	59.9	**0.00**
49.70	15.15	524.79	4.32	0.82	50.25	130	3.179	1.948	0.756	0.83	0.50	0.74	364.19	41.63	0.45	42.09	1.01	365.55	1.46	1	100	1.00	1.00	365.5	0.78	Infin.	0.864	**Non-Liq.**	6.1	59.5	5.0	64.5	**0.00**
50.20	15.30	514.14	3.49	0.68	49.23	130	3.211	1.965	0.751	0.68	0.50	0.73	355.25	40.01	0.25	40.26	1.01	356.61	1.40	1	100	1.00	1.00	356.6	0.78	Infin.	0.860	**Non-Liq.**	6.3	57.0	5.0	62.0	**0.00**
50.69	15.45	510.03	3.67	0.72	48.84	130	3.243	1.981	0.746	0.72	0.50	0.73	350.91	39.77	0.31	40.08	1.01	352.27	1.42	1	100	1.00	1.00	352.3	0.78	Infin.	0.855	**Non-Liq.**	6.2	56.7	5.0	61.7	**0.00**
51.18	15.60	401.54	4.05	1.01	38.45	130	3.275	1.998	0.741	1.01	0.50	0.73	274.81	31.77	0.71	32.48	1.02	276.18	1.60	1	100	1.00	1.00	276.2	0.78	Infin.	0.851	**Non-Liq.**	5.9	47.1	5.0	52.1	**0.00**
51.67	15.75	517.60	3.65	0.70	49.57	130	3.307	2.015	0.736	0.71	0.50	0.72	353.15	40.09	0.29	40.37	1.01	354.53	1.41	1	100	1.00	1.00	354.5	0.77	Infin.	0.846	**Non-Liq.**	6.2	56.9	5.0	61.9	**0.00**
52.17	15.90	604.12	3.73	0.62	57.85	130	3.339	2.031	0.731	0.62	0.50	0.72	410.72	46.42	0.16	46.58	1.00	412.10	1.33	1	100	1.00	1.00	412.1	0.77	Infin.	0.842	**Non-Liq.**	6.4	64.4	5.0	69.4	**0.00**
52.66	16.05	617.85	3.49	0.57	59.17	130	3.371	2.048	0.726	0.57	0.50	0.72	418.36	47.00	0.09	47.09	1.00	419.76	1.29	1	100	1.00	1.00	419.8	0.77	Infin.	0.837	**Non-Liq.**	5.5	75.9	5.0	80.9	**0.00**
53.15	16.20	593.39	4.30	0.72	56.82	130	3.403	2.064	0.721	0.73	0.50	0.72	400.11	45.97	0.31	46.29	1.01	401.51	1.39	1	100	1.00	1.00	401.5	0.77	Infin.	0.833	**Non-Liq.**	6.3	63.9	5.0	68.9	**0.00**
53.64	16.35	608.60	5.08	0.83	58.28	130	3.435	2.081	0.716	0.84	0.50	0.71	408.75	47.65	0.46	48.12	1.01	410.15	1.43	1	100	1.00	1.00	410.2	0.76	Infin.	0.828	**Non-Liq.**	6.2	66.2	5.0	71.2	**0.00**
54.13	16.50	606.54	4.54	0.75	58.08	130	3.467	2.098	0.712	0.75	0.50	0.71	405.73	46.93	0.34	47.27	1.01	407.14	1.39	1	100	1.00	1.00	407.1	0.76	Infin.	0.824	**Non-Liq.**	6.3	65.0	5.0	70.0	**0.00**

Depth		Tip Qc	Friction Fs	Friction Ratio	qc	Total Unit Wt.	Total Stress	Eff. Stress		F		Max 1.70		Moss qc1	Moss Δqc	Moss qc_{1mod}	Moss eff			Overide	Liquef. Suscept.	Rel. Dens.			Clean Sand	1.0		Induced M=7.5	**Liquefac. Safety**	Qc1n $N_{1(60)}$	Equiv.	FC Adj.	Equiv.	***Volumetric Strain***
(feet)	(m)	(tsf)	(tsf)	Rf %	MPa	(pcf)	po (tsf)	p'o (tsf)	rd	%	n	Cq	Q	MPa	MPa	MPa	K_C	Qc1n	Ic		(0 or 1)	Dr (%)	K_C	K_H	Qc1n	Kσ	CRR	CSR	**Factor**	Ratio	$N_{1(60)}$	$\Delta N_{1(60)}$	$N_{1(60)cs}$	***(%)***
54.63	16.65	538.22	5.79	1.08	51.54	130	3.499	2.114	0.707	1.08	0.50	0.71	358.44	42.60	0.80	43.40	1.02	359.86	1.55		1	100	1.00	1.00	359.9	0.76	Infin.	0.819	**Non-Liq.**	6.0	60.4	5.0	65.4	**0.00**
55.12	16.80	551.82	6.35	1.15	52.84	130	3.531	2.131	0.702	1.15	0.50	0.70	366.08	43.86	0.90	44.76	1.02	367.50	1.57		1	100	1.00	1.00	367.5	0.76	Infin.	0.815	**Non-Liq.**	5.9	62.1	5.0	67.1	**0.00**
55.61	16.95	574.48	5.35	0.93	55.01	130	3.563	2.148	0.698	0.93	0.50	0.70	379.69	44.87	0.59	45.46	1.01	381.11	1.49		1	100	1.00	1.00	381.1	0.75	Infin.	0.811	**Non-Liq.**	6.1	62.6	5.0	67.6	**0.00**
56.10	17.10	619.00	4.14	0.67	59.28	130	3.595	2.164	0.693	0.67	0.50	0.70	407.64	46.97	0.23	47.21	1.00	409.07	1.35		1	100	1.00	1.00	409.1	0.75	Infin.	0.806	**Non-Liq.**	6.3	64.5	5.0	69.5	**0.00**
56.59	17.25	590.93	3.54	0.60	56.59	130	3.627	2.181	0.689	0.60	0.50	0.70	387.59	44.14	0.14	44.28	1.00	389.03	1.33		1	100	1.00	1.00	389.0	0.75	Infin.	0.802	**Non-Liq.**	6.4	60.9	5.0	65.9	**0.00**
57.09	17.40	555.19	3.38	0.61	53.16	130	3.659	2.198	0.684	0.61	0.50	0.69	362.67	41.31	0.15	41.46	1.00	364.11	1.36		1	100	1.00	1.00	364.1	0.75	Infin.	0.798	**Non-Liq.**	6.3	57.4	5.0	62.4	**0.00**
57.58	17.55	442.08	2.88	0.65	42.33	130	3.691	2.214	0.680	0.66	0.50	0.69	287.39	32.67	0.21	32.88	1.01	288.84	1.45		1	100	1.00	1.00	288.8	0.74	Infin.	0.794	**Non-Liq.**	6.2	46.9	5.0	51.9	**0.00**
58.07	17.70	392.69	2.53	0.65	37.60	130	3.723	2.231	0.675	0.65	0.50	0.69	254.16	28.73	0.20	28.93	1.01	255.61	1.48		1	100	1.00	1.00	255.6	0.74	Infin.	0.790	**Non-Liq.**	6.1	41.9	5.0	46.9	**0.00**
58.56	17.85	178.95	2.44	1.36	17.14	130	3.755	2.247	0.671	1.38	0.60	0.64	106.62	13.46	1.18	14.64	1.09	107.97	1.98		1	80	1.28	1.00	137.9	0.74	0.324	0.786	**0.30**	5.1	21.1	5.5	26.6	**1.11**
59.06	18.00	132.42	2.66	2.01	12.68	130	3.787	2.264	0.667	2.04	0.66	0.61	74.44	10.09	2.06	12.15	1.20	75.74	2.21		1	65	1.70	1.00	128.6	0.80	0.278	0.782	**0.28**	4.7	16.2	5.5	21.7	**1.41**
59.55	18.15	73.36	2.34	3.19	7.02	130	3.819	2.281	0.663	3.29	0.76	0.56	37.46	5.56	3.67	9.23		38.66	2.57		0			1.00		0.86		0.778	**Non-Liq.**	4.0	9.8			**0.00**
60.04	18.30	34.18	1.57	4.59	3.27	130	3.851	2.297	0.659	4.92	0.87	0.51	15.31	2.48	5.57	8.05		16.42	2.98		0			1.00		0.86		0.774	**Non-Liq.**	3.2	5.2			**0.00**
60.53	18.45	39.34	1.00	2.55	3.77	130	3.883	2.314	0.655	2.71	0.81	0.53	18.58	2.75	2.79	5.54		19.74	2.75		0			1.00		0.86		0.770	**Non-Liq.**	3.6	5.5			**0.00**
61.02	18.60	84.69	1.51	1.78	8.11	130	3.915	2.331	0.651	1.83	0.70	0.58	44.92	6.16	1.74	7.90		46.37	2.35		0			1.00		0.85		0.766	**Non-Liq.**	4.4	10.5			**0.00**
61.52	18.75	290.78	2.12	0.73	27.85	130	3.947	2.347	0.647	0.74	0.50	0.67	183.03	20.82	0.31	21.13	1.02	184.52	1.62		1	100	1.00	1.00	184.5	0.73	Infin.	0.762	**Non-Liq.**	5.8	31.7	5.0	36.7	**0.00**
62.01	18.90	211.67	2.32	1.09	20.27	130	3.979	2.364	0.643	1.11	0.56	0.64	125.87	15.49	0.81	16.30	1.05	127.29	1.86		1	87	1.16	1.00	147.3	0.73	0.377	0.759	**0.36**	5.3	23.8	5.5	29.3	**0.90**
62.50	19.05	137.40	3.04	2.21	13.16	130	4.011	2.381	0.640	2.25	0.67	0.58	74.23	10.43	2.31	12.74	1.22	75.54	2.24		1	65	1.78	1.00	134.3	0.78	0.305	0.755	**0.32**	4.6	16.4	5.5	21.9	**1.39**
62.99	19.20	297.65	2.98	1.00	28.50	130	4.043	2.397	0.636	1.01	0.52	0.65	181.99	21.92	0.68	22.60	1.03	183.47	1.72		1	100	1.05	1.00	193.0	0.72	Infin.	0.752	**Non-Liq.**	5.6	32.6	5.0	37.6	**0.00**
63.48	19.35	485.90	3.35	0.69	46.53	130	4.075	2.414	0.633	0.69	0.50	0.66	302.55	35.24	0.26	35.50	1.01	304.06	1.45		1	100	1.00	1.00	304.1	0.72	Infin.	0.748	**Non-Liq.**	6.2	49.4	5.0	54.4	**0.00**
63.98	19.50	560.78	4.37	0.78	53.70	130	4.107	2.430	0.629	0.78	0.50	0.66	348.20	41.46	0.38	41.83	1.01	349.71	1.45		1	100	1.00	1.00	349.7	0.72	Infin.	0.745	**Non-Liq.**	6.2	56.8	5.0	61.8	**0.00**
64.47	19.65	583.39	4.12	0.71	55.87	130	4.139	2.447	0.626	0.71	0.50	0.66	361.05	42.67	0.28	42.95	1.01	362.57	1.41		1	100	1.00	1.00	362.6	0.72	Infin.	0.741	**Non-Liq.**	6.2	58.1	5.0	63.1	**0.00**
64.96	19.80	571.31	3.66	0.64	54.71	130	4.171	2.464	0.622	0.64	0.50	0.66	352.34	41.18	0.19	41.37	1.00	353.87	1.38		1	100	1.00	1.00	353.9	0.71	Infin.	0.738	**Non-Liq.**	6.3	56.2	5.0	61.2	**0.00**
65.45	19.95	432.13	3.66	0.85	41.38	130	4.203	2.480	0.619	0.85	0.50	0.65	265.23	31.58	0.47	32.05	1.01	266.76	1.56		1	100	1.00	1.00	266.8	0.71	Infin.	0.735	**Non-Liq.**	6.0	44.8	5.0	49.8	**0.00**
65.94	20.10	301.47	3.60	1.19	28.87	130	4.235	2.497	0.616	1.20	0.54	0.63	177.73	22.34	0.93	23.27	1.04	179.21	1.78		1	100	1.09	1.00	196.2	0.71	Infin.	0.732	**Non-Liq.**	5.5	32.5	5.0	37.5	**0.00**
66.44	20.25	338.04	3.54	1.05	32.37	130	4.267	2.514	0.613	1.05	0.52	0.64	202.67	24.82	0.73	25.55	1.03	204.19	1.70		1	100	1.04	1.00	212.3	0.71	Infin.	0.729	**Non-Liq.**	5.7	36.0	5.0	41.0	**0.00**
66.93	20.40	318.48	3.41	1.07	30.50	130	4.299	2.530	0.610	1.08	0.53	0.63	188.89	23.31	0.76	24.08	1.03	190.40	1.73		1	100	1.06	1.00	201.6	0.71	Infin.	0.726	**Non-Liq.**	5.6	33.9	5.0	38.9	**0.00**
67.42	20.55	255.65	3.04	1.19	24.48	130	4.331	2.547	0.607	1.20	0.56	0.61	146.83	18.64	0.92	19.56	1.05	148.31	1.84		1	93	1.14	1.00	168.7	0.70	Infin.	0.723	**Non-Liq.**	5.4	27.5	5.0	32.5	**0.00**
67.91	20.70	222.24	2.83	1.28	21.28	130	4.363	2.563	0.604	1.29	0.58	0.60	124.76	16.15	1.04	17.18	1.06	126.22	1.91		1	86	1.20	1.00	151.6	0.70	0.404	0.720	**0.39**	5.3	24.0	5.5	29.5	**0.87**
68.41	20.85	229.85	2.99	1.30	22.01	130	4.395	2.580	0.601	1.32	0.57	0.60	128.71	16.74	1.07	17.81	1.06	130.17	1.91		1	88	1.20	1.00	155.9	0.70	0.432	0.717	**0.42**	5.3	24.7	5.5	30.2	**0.78**
68.90	21.00	192.98	2.78	1.44	18.48	130	4.427	2.597	0.598	1.46	0.60	0.58	104.94	14.01	1.25	15.26		106.37	2.00		0			1.00		0.84		0.714	**Non-Liq.**	5.1	21.0			**0.00**
69.39	21.15	63.94	2.25	3.52	6.12	130	4.459	2.613	0.595	3.67	0.79	0.49	28.35	4.63	4.02	8.66		29.56	2.69		0			1.00		0.83		0.711	**Non-Liq.**	3.7	7.9			**0.00**
69.88	21.30	44.91	1.88	4.20	4.30	130	4.491	2.630	0.593	4.46	0.84	0.46	18.53	3.18	4.91	8.09		19.68	2.89		0			1.00		0.83		0.709	**Non-Liq.**	3.3	5.9			**0.00**
70.37	21.45	43.61	1.30	2.98	4.18	130	4.523	2.647	0.590	3.18	0.82	0.47	18.28	2.97	3.30	6.27		19.46	2.80		0			1.00		0.83		0.706	**Non-Liq.**	3.5	5.5			**0.00**
70.87	21.60	72.22	1.44	1.99	6.92	130	4.555	2.663	0.587	2.07	0.73	0.51	33.52	6.29	1.98	8.27		44.00	2.48		0			1.26		0.83		0.704	**Non-Liq.**	4.1	10.6			**0.00**
71.36	21.75	171.41	1.61	0.94	16.41	130	4.587	2.680	0.585	0.95	0.58	0.59	93.30	14.70	0.58	15.27	1.04	119.85	1.92		1	84	1.21	1.26	144.8	0.69	0.363	0.701	**0.36**	5.2	22.9	5.5	28.4	**1.00**
71.85	21.90	84.20	1.92	2.28	8.06	130	4.619	2.697	0.582	2.35	0.73	0.51	39.07	7.52	2.35	9.87		51.03	2.46		0			1.26		0.83		0.699	**Non-Liq.**	4.2	12.2			**0.00**
72.34	22.05	31.10	1.67	5.37	2.98	130	4.651	2.713	0.580	5.89	0.91	0.43	11.41	2.13	5.95	8.08		12.50	3.13		0			1.00		0.83		0.696	**Non-Liq.**	2.9	4.3			**0.00**
72.83	22.20	27.28	0.91	3.33	2.61	130	4.683	2.730	0.578	3.70	0.88	0.43	10.03	1.74	3.74	5.48		11.15	3.05		0			1.00		0.83		0.694	**Non-Liq.**	3.0	3.7			**0.00**
73.33	22.35	27.12	0.78	2.89	2.60	130	4.715	2.746	0.575	3.22	0.87	0.43	10.00	1.70	3.16	4.86		11.13	3.01		0			1.00		0.83		0.692	**Non-Liq.**	3.1	3.6			**0.00**
73.82	22.50	41.85	0.93	2.21	4.01	130	4.747	2.763	0.573	2.37	0.80	0.46	17.11	2.70	2.26	4.96		18.32	2.75		0			1.00		0.83		0.689	**Non-Liq.**	3.6	5.1			**0.00**
74.31	22.65	46.49	1.22	2.63	4.45	130	4.779	2.780	0.571	2.80	0.80	0.46	19.00	3.10	2.81	5.90		20.21	2.75		0			1.00		0.82		0.687	**Non-Liq.**	3.6	5.6			**0.00**
74.80	22.80	66.68	1.60	2.40	6.39	130	4.811	2.796	0.569	2.51	0.76	0.48	28.93	5.27	2.51	7.77		34.81	2.58		0			1.15		0.82		0.685	**Non-Liq.**	3.9	8.8			**0.00**
75.30	22.95	51.84	1.46	2.81	4.96	130	4.843	2.813	0.566	2.97	0.80	0.46	21.24	3.51	3.04	6.55		22.45	2.73		0			1.00		0.82		0.683	**Non-Liq.**	3.7	6.1			**0.00**
75.79	23.10	45.32	1.27	2.79	4.34	130	4.875	2.830	0.564	2.98	0.81	0.45	18.05	3.01	3.01	6.02		19.26	2.79		0			1.00		0.82		0.681	**Non-Liq.**	3.5	5.4			**0.00**
76.28	23.25	135.32	2.02	1.49	12.96	130	4.906	2.846	0.562	1.52	0.64	0.53	66.24	10.00	1.30	11.30		72.49	2.16		0			1.07		0.82		0.679	**Non-Liq.**	4.8	15.2			**0.00**
76.77	23.40	233.84	2.35	1.01	22.39	130	4.938	2.863	0.560	1.02	0.55	0.58	125.67	17.14	0.66	17.80	1.04	136.31	1.84		1	90	1.14	1.07	155.0	0.67	0.426	0.677	**0.42**	5.4	25.3	5.5	30.8	**0.71**
77.26	23.55	241.19	2.25	0.93	23.10	130	4.970	2.880	0.558	0.95	0.55	0.58	130.44	17.52	0.57	18.09	1.03	141.43	1.81		1	91	1.11	1.07	157.2	0.67	0.441	0.675	**0.44**	5.5	25.9	5.5	31.4	**0.63**
77.76	23.70	211.45	2.67	1.26	20.25	130	5.002	2.896	0.556	1.28	0.59	0.55	109.31	15.77	1.00	16.77	1.06	118.73	1.95		1	84	1.24	1.07	147.5	0.67	0.379	0.673	**0.38**	5.2	22.9	5.5	28.4	**1.00**
78.25	23.85	137.04	3.39	2.47	13.12	130	5.034	2.913	0.555	2.53	0.69	0.50	63.10	10.64	2.58	13.22		69.07	2.33		0			1.07		0.82		0.671	**Non-Liq.**	4.4	15.6			**0.00**
78.74	24.00	55.06	3.04	5.52	5.27	130	5.066	2.929	0.553	5.83	0.85	0.42	20.67	3.96	5.88	9.84		21.83	2.93		0			1.00		0.82		0.670	**Non-Liq.**	3.3	6.7			**0.00**
79.23	24.15	34.43	1.96	5.68	3.30	130	5.098	2.946	0.551	6.22	0.91	0.40	11.76	2.33	5.88	8.21		12.86	3.13		0			1.00		0.81		0.668	**Non-Liq.**	2.9	4.5			**0.00**
79.72	24.30	94.87	2.86	3.01	9.09	130	5.130	2.963	0.549	3.11	0.74	0.47	40.40	7.25	3.28	10.53		44.68	2.53		0			1.07		0.81		0.666	**Non-Liq.**	4.0	11.0			**0.00**
80.22	24.45	203.13	4.29	2.11	19.45	130	5.162	2.979	0.547	2.14	0.64	0.52	97.67	15.87	2.11	17.97	1.13	106.20	2.14		1	79	1.54	1.07	163.6	0.66	Infin.	0.665	**Non-Liq.**	4.8	22.1	5.0	27.1	**0.00**
80.71	24.60	251.18	3.72	1.48	24.05	130	5.194	2.996	0.546	1.50	0.59	0.54	127.52	19.13	1.28	20.41	1.07	138.27	1.95		1	90	1.24	1.07	171.7	0.66	Infin.	0.663	**Non-Liq.**	5.2	26.7	5.0	31.7	**0.00**
81.20	24.75	127.94	3.58	2.80	12.25	130	5.226	3.013	0.544	2.87	0.71	0.48	56.25	9.91	3.00	12.90	1.30	61.72	2.40		1	57	2.32	1.07	143.3	0.73	0.354	0.661	**0.39**	4.3	14.4	5.5	19.9	**1.52**
81.69	24.90	156.64	3.34	2.13	15.00	130	5.258	3.029	0.542	2.17	0.66	0.50	72.20	11.96	2.12	14.08		78.87	2.24		0			1.07		0.81		0.660	**Non-Liq.**	4.6	17.1			**0.00**
82.19	25.05	77.50	2.46	3.18	7.42	130	5.290	3.046	0.541	3.31	0.77	0.44	31.16	5.41	3.48	8.89		32.44	2.63		0			1.00		0.81		0.658	**Non-Liq.**	3.8	8.4			**0.00**
82.68	25.20	37.76	2.07	5.49	3.62	130	5.322	3.062	0.539	5.98	0.90	0.39	12.66	2.55	5.85	8.40		13.77	3.10		0			1.00		0.81		0.657	**Non-Liq.**	2.9	4.7			**0.00**
83.17	25.35	70.47	2.40	3.41	6.75	130	5.354	3.079	0.538	3.57	0.79	0.43	27.48	4.89	3.78	8.67		28.73	2.70		0			1.00		0.81		0.655	**Non-Liq.**	3.7	7.7			**0.00**
83.66	25.50	141.39	3.50	2.48	13.54	130	5.386	3.096	0.536	2.53	0.69	0.48	62.38	10.82	2.57	13.38		68.32	2.33		0			1.07		0.81		0.654	**Non-Liq.**	4.4	15.4			**0.00**
84.15	25.65	255.66	3.47	1.36	24.48	130	5.418	3.112	0.535	1.37	0.58	0.54	128.02	19.08	1.11	20.19	1.06	138.85	1.92		1	90	1.21	1.07	168.3	0.65	Infin.	0.652	**Non-Liq.**	5.2	26.5	5.0	31.5	**0.00**
84.65	25.80	275.10	2.33	0.85	26.34	130	5.450	3.129	0.533	0.86	0.53	0.56	144.94	19.35	0.45	19.80	1.02	157.07	1.74		1	96	1.07	1.07	167.7	0.65	Infin.	0.651	**Non-Liq.**	5.6	28.1	5.0	33.1	**0.00**
85.14	25.95	230.97	1.51	0.65	22.12	130	5.482	3.146	0.532	0.66	0.53	0.56	121.52	15.34	0.20	15.54	1.01	131.99	1.73		1	88	1.06	1.07	139.9	0.65	0.335	0.649	**0.33**	5.6	23.5	4.4	28.0	**1.02**

Depth		Tip Qc	Friction Fs	Friction Ratio	qc	Total Unit Wt.	Total Stress	Eff. Stress		F		Max 1.70		Moss qc1	Moss Δqc	Moss qc_{1mod}	Moss eff			Overide	Liquef. Suscept.	Rel. Dens.			Clean Sand	1.0		Induced M=7.5	**Liquefac. Safety**	Qc1n $N_{1(60)}$	Equiv.	FC Adj.	Equiv.	***Volumetric Strain***
(feet)	(m)	(tsf)	(tsf)	Rf %	MPa	(pcf)	po (tsf)	p'o (tsf)	rd	%	n	Cq	Q	MPa	MPa	MPa	K_C	Qc1n	Ic		(0 or 1)	Dr (%)	K_C	K_H	Qc1n	Kσ	CRR	CSR	**Factor**	Ratio	$N_{1(60)}$	$\Delta N_{1(60)}$	$N_{1(60)cs}$	***(%)***
85.63	26.10	108.66	1.75	1.61	10.41	130	5.514	3.162	0.531	1.66	0.68	0.48	47.44	7.67	1.44	9.11		52.35	2.30		0			1.07		0.80		0.648	**Non-Liq.**	4.5	11.6			**0.00**
86.12	26.25	40.31	1.99	4.92	3.86	130	5.546	3.179	0.529	5.35	0.88	0.38	13.31	2.69	5.73	8.41		14.45	3.05		0			1.00		0.80		0.647	**Non-Liq.**	3.0	4.8			**0.00**
86.61	26.40	34.19	1.69	4.95	3.27	130	5.578	3.196	0.528	5.47	0.90	0.37	10.82	2.22	5.76	7.98		11.93	3.13		0			1.00		0.80		0.646	**Non-Liq.**	2.9	4.1			**0.00**
87.11	26.55	35.86	1.43	3.99	3.43	130	5.610	3.212	0.527	4.39	0.88	0.38	11.64	2.29	4.52	6.80		12.79	3.04		0			1.00		0.80		0.644	**Non-Liq.**	3.0	4.2			**0.00**
87.60	26.70	36.44	1.36	3.72	3.49	130	5.642	3.229	0.525	4.08	0.87	0.38	11.89	2.31	4.16	6.47		13.04	3.01		0			1.00		0.80		0.643	**Non-Liq.**	3.1	4.2			**0.00**
88.09	26.85	39.66	1.37	3.45	3.80	130	5.674	3.245	0.524	3.76	0.85	0.38	13.21	2.52	3.81	6.33		14.39	2.96		0			1.00		0.80		0.642	**Non-Liq.**	3.2	4.5			**0.00**
88.58	27.00	36.92	1.35	3.66	3.54	130	5.706	3.262	0.523	4.01	0.87	0.38	11.97	2.33	4.07	6.40		13.13	3.01		0			1.00		0.80		0.641	**Non-Liq.**	3.1	4.2			**0.00**
89.07	27.15	49.79	1.47	2.96	4.77	130	5.738	3.279	0.522	3.17	0.82	0.40	17.47	3.19	3.17	6.37		18.70	2.82		0			1.00		0.80		0.639	**Non-Liq.**	3.5	5.4			**0.00**
89.57	27.30	56.59	1.74	3.08	5.42	130	5.770	3.295	0.520	3.27	0.81	0.40	20.17	3.70	3.33	7.03		21.42	2.77		0			1.00		0.80		0.638	**Non-Liq.**	3.6	6.0			**0.00**
90.06	27.45	51.65	2.09	4.05	4.95	130	5.802	3.312	0.519	4.33	0.84	0.38	17.53	3.44	4.58	8.02		18.73	2.90		0			1.00		0.80		0.637	**Non-Liq.**	3.3	5.6			**0.00**
90.55	27.60	97.61	3.04	3.11	9.35	130	5.834	3.329	0.518	3.22	0.75	0.42	37.73	8.57	3.36	11.93		49.40	2.56		0			1.26		0.80		0.636	**Non-Liq.**	4.0	12.4			**0.00**
91.04	27.75	164.96	3.13	1.89	15.80	130	5.866	3.345	0.517	1.93	0.65	0.47	72.00	14.32	1.80	16.12	1.13	92.92	2.21		1	74	1.68	1.26	156.5	0.63	0.436	0.635	**0.43**	4.7	19.9	5.5	25.4	**1.16**
91.54	27.90	163.70	2.41	1.47	15.68	130	5.898	3.362	0.516	1.50	0.63	0.48	72.99	13.73	1.25	14.98		94.22	2.13		0			1.26		0.79		0.634	**Non-Liq.**	4.8	19.5			**0.00**
92.03	28.05	44.88	1.83	4.07	4.30	130	5.930	3.379	0.515	4.40	0.86	0.37	14.51	2.92	4.59	7.50		15.69	2.97		0			1.00		0.79		0.633	**Non-Liq.**	3.2	4.9			**0.00**
92.52	28.20	44.99	1.39	3.09	4.31	130	5.962	3.395	0.513	3.34	0.83	0.38	14.88	2.82	3.33	6.15		16.09	2.88		0			1.00		0.79		0.632	**Non-Liq.**	3.4	4.8			**0.00**
93.01	28.35	102.45	2.91	2.84	9.81	130	5.994	3.412	0.512	2.94	0.74	0.42	39.45	7.53	3.00	10.53		43.72	2.52		0			1.07		0.79		0.631	**Non-Liq.**	4.1	10.8			**0.00**
93.50	28.50	182.10	5.00	2.75	17.44	130	6.026	3.428	0.511	2.80	0.68	0.45	75.89	14.00	2.89	16.89	1.21	82.86	2.30		1	69	1.96	1.07	162.5	0.70	Infin.	0.630	**Non-Liq.**	4.5	18.5	5.0	23.5	**0.00**
94.00	28.65	239.08	4.77	2.00	22.89	130	6.058	3.445	0.510	2.02	0.63	0.48	106.49	18.08	1.92	20.00	1.11	115.75	2.10		1	83	1.46	1.07	168.5	0.62	Infin.	0.629	**Non-Liq.**	4.9	23.7	5.0	28.7	**0.00**
94.49	28.80	234.82	3.45	1.47	22.49	130	6.090	3.462	0.509	1.49	0.60	0.49	107.65	17.04	1.24	18.28	1.07	117.06	2.00		1	83	1.30	1.07	152.5	0.62	0.410	0.628	**0.41**	5.1	23.0	5.5	28.5	**1.00**
94.98	28.95	139.06	2.89	2.08	13.32	130	6.122	3.478	0.508	2.13	0.68	0.44	57.01	10.07	2.02	12.10		62.65	2.31		0			1.07		0.79		0.627	**Non-Liq.**	4.5	14.0			**0.00**
95.47	29.10	42.38	2.50	5.89	4.06	130	6.154	3.495	0.507	6.42	0.90	0.34	12.57	2.81	5.77	8.58		13.70	3.12		0			1.00		0.79		0.626	**Non-Liq.**	2.9	4.7			**0.00**
95.96	29.25	30.60	1.64	5.36	2.93	130	6.186	3.512	0.506	6.05	0.93	0.33	8.41	1.90	5.77	7.67		9.50	3.24		0			1.00		0.79		0.625	**Non-Liq.**	2.7	3.6			**0.00**
96.46	29.40	31.37	1.06	3.39	3.00	130	6.218	3.528	0.505	3.82	0.89	0.34	9.04	1.85	3.70	5.55		10.19	3.09		0			1.00		0.79		0.624	**Non-Liq.**	2.9	3.5			**0.00**
96.95	29.55	81.74	1.53	1.87	7.83	130	6.250	3.545	0.504	1.95	0.73	0.41	30.66	5.48	1.75	7.23		34.34	2.49		0			1.07		0.79		0.623	**Non-Liq.**	4.1	8.3			**0.00**
97.44	29.70	204.37	2.29	1.12	19.57	130	6.282	3.562	0.503	1.14	0.59	0.49	92.89	13.98	0.79	14.77	1.06	101.29	1.97		1	77	1.26	1.07	128.0	0.62	0.275	0.622	**0.27**	5.1	19.7	5.5	25.2	**1.17**
97.93	29.85	179.88	2.29	1.27	17.23	130	6.314	3.578	0.502	1.30	0.61	0.47	78.96	12.37	0.99	13.36	1.08	86.32	2.06		1	71	1.39	1.07	119.9	0.61	0.240	0.621	**0.24**	5.0	17.4	5.5	22.9	**1.31**
98.43	30.00	141.80	2.64	1.86	13.58	130	6.346	3.595	0.501	1.91	0.67	0.44	57.54	10.05	1.74	11.78	1.17	63.25	2.27		1	58	1.87	1.07	118.3	0.69	0.234	0.620	**0.26**	4.5	13.9	5.5	19.4	**1.55**
98.92	30.15	97.87	3.16	3.23	9.37	130	6.378	3.611	0.501	3.35	0.76	0.39	35.15	7.15	3.49	10.64		39.11	2.60		0			1.07		0.78		0.619	**Non-Liq.**	3.9	10.0			**0.00**
99.41	30.30	57.55	2.81	4.88	5.51	130	6.410	3.628	0.500	5.20	0.85	0.35	17.89	3.86	5.59	9.45		19.09	2.94		0			1.00		0.78		0.619	**Non-Liq.**	3.2	5.9			**0.00**
99.90	30.45	43.66	1.99	4.57	4.18	130	6.442	3.645	0.500	4.98	0.87	0.34	12.82	2.79	5.20	7.99		13.99	3.04		0			1.00		0.78		0.619	**Non-Liq.**	3.0	4.6			**0.00**
100.39	30.60	32.33	1.17	3.62	3.10	130	6.474	3.661	0.500	4.08	0.89	0.33	8.96	1.90	3.99	5.89		10.10	3.11		0			1.00		0.78		0.619	**Non-Liq.**	2.9	3.5			**0.00**
100.89	30.75	29.82	0.85	2.84	2.86	130	6.506	3.678	0.500	3.24	0.88	0.33	8.22	1.67	2.99	4.66		9.38	3.09		0			1.00		0.78		0.620	**Non-Liq.**	3.0	3.2			**0.00**
101.38	30.90	29.50	0.84	2.86	2.82	130	6.538	3.695	0.500	3.26	0.89	0.33	8.06	1.65	3.01	4.66		9.22	3.09		0			1.00		0.78		0.620	**Non-Liq.**	2.9	3.1			**0.00**
101.87	31.05	33.75	0.95	2.82	3.23	130	6.570	3.711	0.500	3.17	0.87	0.34	9.56	1.93	2.97	4.90		10.74	3.03		0			1.00		0.78		0.620	**Non-Liq.**	3.1	3.5			**0.00**
102.36	31.20	61.68	1.61	2.61	5.91	130	6.602	3.728	0.500	2.78	0.79	0.37	20.26	3.83	2.70	6.53		21.57	2.73		0			1.00		0.78		0.620	**Non-Liq.**	3.7	5.9			**0.00**
102.85	31.35	306.89	3.49	1.14	29.39	130	6.634	3.744	0.500	1.15	0.55	0.50	142.47	20.10	0.81	20.92		144.77	1.84		0			1.00		0.78		0.621	**Non-Liq.**	5.4	26.8			**0.00**
103.35	31.50	352.28	4.83	1.37	33.73	130	6.666	3.761	0.500	1.38	0.56	0.49	162.33	23.85	1.11	24.96	1.05	164.08	1.85		1	97	1.15	1.00	188.5	0.60	Infin.	0.621	**Non-Liq.**	5.4	30.6	5.0	35.6	**0.00**

EARTH SYSTEMS - EVALUATION OF LIQUEFACTION POTENTIAL AND INDUCED GROUND SUBSIDENCE

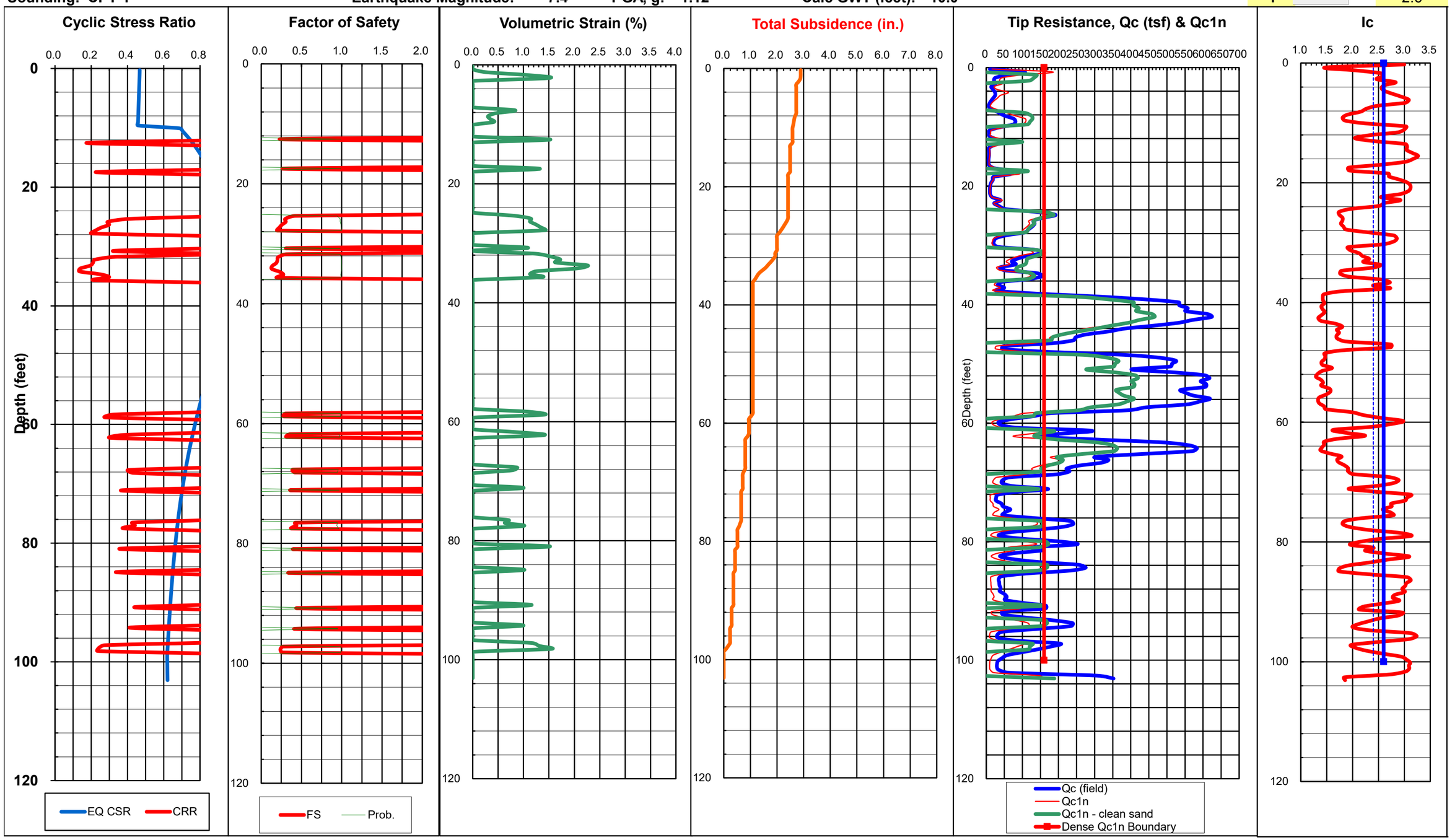
499 Linden Avenue **Project No: 306184-001**

Method Used: 1 1998 NCEER (Robertson & Wride)

Settlement Analysis using Tokimatsu & Seed (1987), clean sand Qc1n/N1(60) ratio =5

Plot **1** Limiting Ic: 2.6

Sounding: CPT-1 **Earthquake Magnitude: 7.4** **PGA, g: 1.12** **Calc GWT (feet): 10.0**



Total Thickness of Liquefiable Layers: 17.2 feet

Estimated Total Ground Subsidence (Settlement): 2.9 inches

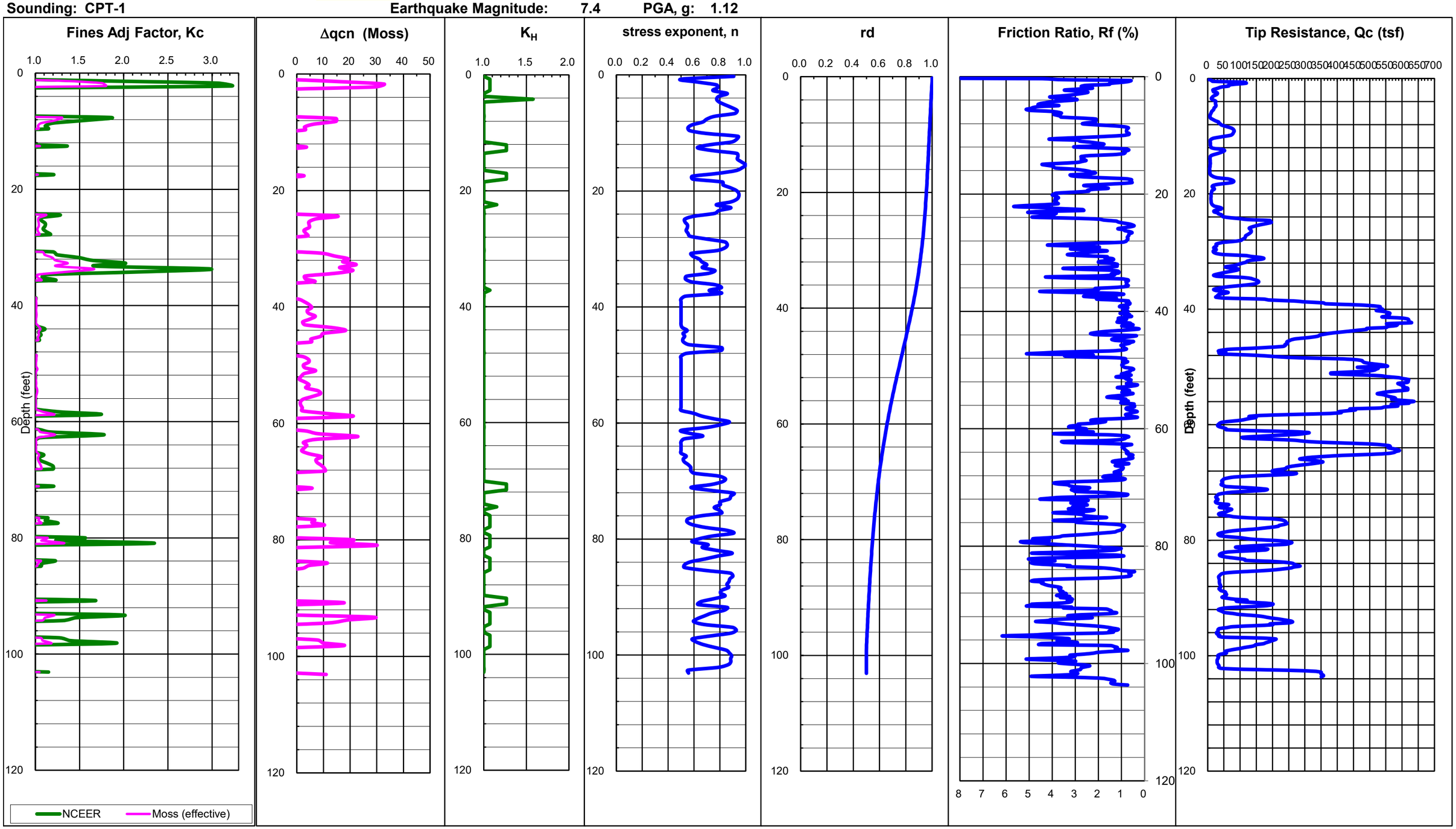
EARTH SYSTEMS - EVALUATION OF LIQUEFACTION POTENTIAL AND INDUCED GROUND SUBSIDENCE

3 avg increment =0.15m Qc1n/N1(60): 5

Ignore 1st/last increment into sand/silt soils: 0

Method Used: 1998 NCEER (Robertson & Wride)

Sounding: CPT-1 **Earthquake Magnitude: 7.4** **PGA, g: 1.12**



CPT-LIQUEFY.XLS - A SPREADSHEET FOR EMPIRICAL ESTIMATION OF LIQUEFACTION POTENTIAL USING CPT DATA

Developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Project: 499 Linden Avenue
Job No: 306184-001
Date: 8/9/2023
Sounding: CPT-2

Liquefaction Analysis using 1998 NCEER (Robertson & Wride) method
Settlement Analysis using Tokimatsu & Seed (1987), clean sand Qc1n/N1(60) ratio =5

Total Liquefied Thickness (feet): **10.3**
Total Induced Subsidence (inches): **2.1**

EARTHQUAKE INFORMATION:

Magnitude: 7.4 (7.5)
PGA, g: 1.115 (1.08)
MSF: 1.03
GWT, feet: 10.0
Calc GWT, feet: 10.0

Plot: 2
Method Used: 1 (1998 NCEER (Robertson & Wride))
Averaging Increment: 3 (0.15 m)
Induced CSR (M=7.5) = 0.65*PGA*(po/p'o)*rd/MSF
Clean Sand Qc1n = C_Q*K_C*K_H*Qc
SF = $CRR_{7.5}$*Kσ/CSR

Ignore 1st/last increment into sand/silt soils: 1 (yes)
Ignore/remediate upper: 0.0 m
Unit Weight of unsaturated soils: 115 pcf
Unit Weight of saturated soils: 130 pcf
Limiting Ic for liquefiable soils: 2.60
Limiting Ic for K_H: 2.6

Use Moss @ P_L: 15%
Use Tokimatsu & Seed (0) or Ishihara &Yoshmine (1): 0
Required SF: 1.30
Max $\Delta N_{1(60)}$ - post liquefied: 5.5
Max $\Delta N_{1(60)}$ - non liquefied: 5.0
Min SF of Liquefiable Layers: 0.13
Avg SF of Liquefiable Layers: 0.24

Depth (feet)	(m)	Tip Qc (tsf)	Friction Fs (tsf)	Friction Ratio Rf %	qc MPa	Total Unit Wt. (pcf)	Total Stress po (tsf)	Eff. Stress p'o (tsf)	rd	F %	n	Max 1.70 Cq	Q	Moss qc1 MPa	Moss Δqc MPa	Moss qc_{1mod} MPa	Moss eff K_C	Qc1n	Ic	Override	Liquef. Suscept. (0 or 1)	Rel. Dens. Dr (%)	K_C	K_H	Clean Sand Qc1n	1.0 Kσ	CRR	Induced M=7.5 CSR	Liquefac. Safety Factor	Qc1n $N_{1(60)}$ Ratio	Equiv. $N_{1(60)}$	FC Adj. $\Delta N_{1(60)}$	Equiv. $N_{1(60)cs}$	*Volumetric Strain (%)*
0.49	0.15	6.05	0.26	4.32	0.58	115	0.028	0.028	1.000	4.34	0.94	1.70	9.68	0.99	4.47	5.46		9.73	3.10		0			1.00		1.00		0.467	Non-Liq.	2.9	3.3			0.00
0.98	0.30	59.92	0.43	0.72	5.74	115	0.057	0.057	1.000	0.72	0.56	1.70	96.19	9.79	0.25	10.04		96.64	1.83		0			1.00		1.00		0.467	Non-Liq.	5.4	17.9			0.00
1.48	0.45	58.82	1.36	2.31	5.63	115	0.085	0.085	0.999	2.31	0.66	1.70	94.38	9.58	2.12	11.69	1.22	94.51	2.18		1	74	1.62	1.00	152.7	1.00	0.411	0.466	Non-Liq.	4.7	20.0	5.0	25.0	0.26
1.97	0.60	56.75	1.88	3.31	5.43	115	0.113	0.113	0.997	3.32	0.70	1.70	91.00	9.24	3.29	12.53	1.36	91.19	2.31		1	73	1.97	1.00	179.2	1.00	Infin.	0.466	Non-Liq.	4.5	20.3	5.0	25.3	0.25
2.46	0.75	55.10	1.93	3.51	5.28	115	0.141	0.141	0.996	3.52	0.71	1.70	88.31	8.97	3.52	12.49	1.39	88.53	2.33		1	72	2.06	1.00	182.2	1.00	Infin.	0.465	Non-Liq.	4.4	20.0	5.0	25.0	0.27
2.95	0.90	37.78	1.30	3.45	3.62	115	0.170	0.170	0.995	3.46	0.74	1.70	60.44	6.15	3.44	9.60	1.56	60.71	2.44		1	56	2.48	1.00	150.4	1.00	0.396	0.465	Non-Liq.	4.2	14.4	5.0	19.4	0.58
3.44	1.05	40.31	0.90	2.23	3.86	115	0.198	0.198	0.994	2.24	0.69	1.70	64.45	6.56	2.02	8.58	1.31	64.77	2.29		1	59	1.90	1.00	123.2	1.00	0.254	0.464	Non-Liq.	4.5	14.3	5.0	19.3	0.59
3.94	1.20	39.38	0.92	2.33	3.77	115	0.226	0.226	0.993	2.34	0.70	1.70	62.92	6.41	2.14	8.55	1.33	63.28	2.31		1	58	1.97	1.00	124.6	1.00	0.260	0.464	Non-Liq.	4.5	14.1	5.0	19.1	0.61
4.43	1.35	39.44	0.99	2.50	3.78	115	0.255	0.255	0.992	2.52	0.71	1.70	62.96	6.42	2.34	8.76	1.36	63.37	2.33		1	58	2.04	1.00	129.4	1.00	0.282	0.463	Non-Liq.	4.4	14.3	5.0	19.3	0.60
4.92	1.50	36.44	0.82	2.24	3.49	115	0.283	0.283	0.990	2.26	0.70	1.70	58.09	5.93	2.03	7.96	1.34	58.55	2.32		1	55	2.02	1.00	118.1	1.00	0.233	0.463	Non-Liq.	4.5	13.1	5.0	18.1	0.72
5.41	1.65	44.33	0.77	1.75	4.24	115	0.311	0.311	0.989	1.76	0.66	1.70	70.72	7.20	1.45	8.65	1.20	71.22	2.18		1	63	1.63	1.00	116.1	1.00	0.225	0.462	Non-Liq.	4.7	15.1	5.0	20.1	0.54
5.91	1.80	61.18	0.67	1.10	5.86	115	0.340	0.340	0.988	1.10	0.59	1.70	97.75	9.81	0.69	10.50	1.07	98.30	1.94		1	76	1.23	1.00	121.3	1.00	0.246	0.461	Non-Liq.	5.2	18.9	5.0	23.9	0.33
6.40	1.95	57.75	0.40	0.69	5.53	115	0.368	0.368	0.987	0.69	0.56	1.70	92.20	9.40	0.22	9.62	1.02	92.79	1.84		1	74	1.14	1.00	105.6	1.00	0.190	0.461	Non-Liq.	5.4	17.2	3.9	21.1	0.47
6.89	2.10	38.92	0.47	1.21	3.73	115	0.396	0.396	0.986	1.22	0.65	1.70	61.91	6.09	0.83	6.92		62.54	2.13		0			1.00		1.00		0.460	Non-Liq.	4.8	12.9			0.00
7.38	2.25	14.66	0.66	4.51	1.40	130	0.428	0.428	0.985	4.65	0.87	1.70	22.87	2.24	4.67	6.92		23.56	2.83		0			1.00		1.00		0.460	Non-Liq.	3.5	6.8			0.00
7.87	2.40	10.15	0.65	6.40	0.97	130	0.460	0.460	0.984	6.71	0.94	1.70	15.57	1.58	5.24	6.82		16.31	3.06		0			1.00		1.00		0.459	Non-Liq.	3.0	5.4			0.00
8.37	2.55	10.50	0.48	4.57	1.01	130	0.492	0.492	0.983	4.79	0.91	1.70	16.08	1.60	4.73	6.33		16.87	2.96		0			1.00		1.00		0.459	Non-Liq.	3.2	5.2			0.00
8.86	2.70	13.91	0.46	3.34	1.33	130	0.524	0.524	0.982	3.47	0.86	1.70	21.50	1.98	3.31	5.29		22.35	2.77		0			1.00		1.00		0.458	Non-Liq.	3.6	6.2			0.00
9.35	2.85	33.68	0.56	1.66	3.23	130	0.556	0.556	0.981	1.69	0.71	1.58	49.40	6.17	1.35	7.52		70.67	2.29		0			1.41		1.00		0.458	Non-Liq.	4.5	15.7			0.00
9.84	3.00	34.24	0.52	1.53	3.28	130	0.588	0.588	0.979	1.56	0.70	1.51	48.09	6.14	1.20	7.34		68.84	2.28		0			1.41		1.00		0.457	Non-Liq.	4.5	15.2			0.00
10.33	3.15	18.23	0.48	2.63	1.75	130	0.620	0.617	0.978	2.72	0.82	1.55	25.86	2.32	2.80	5.13		26.77	2.64		0			1.00		1.00		0.688	Non-Liq.	3.8	7.0			0.00
10.83	3.30	9.44	0.51	5.37	0.90	130	0.652	0.634	0.977	5.76	0.95	1.63	13.54	1.24	5.97	7.21		14.51	3.06		0			1.00		1.00		0.704	Non-Liq.	3.0	4.8			0.00
11.32	3.45	7.66	0.41	5.38	0.73	130	0.684	0.651	0.976	5.88	0.98	1.61	10.65	1.03	6.01	7.03		11.64	3.15		0			1.00		1.00		0.719	Non-Liq.	2.8	4.1			0.00
11.81	3.60	11.83	0.33	2.82	1.13	130	0.716	0.667	0.975	2.99	0.88	1.50	15.81	1.51	3.12	4.63		16.75	2.83		0			1.00		1.00		0.733	Non-Liq.	3.5	4.9			0.00
12.30	3.75	38.21	0.43	1.12	3.66	130	0.748	0.684	0.974	1.14	0.68	1.34	47.64	4.91	0.83	5.74		51.97	2.20		0			1.07		1.00		0.747	Non-Liq.	4.7	11.1			0.00
12.80	3.90	58.40	0.36	0.61	5.59	130	0.780	0.700	0.973	0.62	0.59	1.27	69.48	7.52	0.15	7.67	1.02	75.34	1.92		1	65	1.21	1.07	90.8	1.00	0.150	0.759	**0.20**	5.2	14.4	3.8	18.2	**1.67**
13.29	4.05	58.10	0.30	0.52	5.56	130	0.812	0.717	0.972	0.53	0.58	1.25	67.91	7.47	0.03	7.50	1.00	73.66	1.89		1	64	1.18	1.07	86.9	1.00	0.141	0.771	**0.18**	5.3	13.9	3.5	17.4	**1.74**
13.78	4.20	50.09	0.37	0.74	4.80	130	0.844	0.734	0.971	0.75	0.62	1.25	58.54	6.26	0.33	6.59	1.05	63.65	2.02		1	58	1.33	1.07	84.9	1.00	0.137	0.783	**0.17**	5.0	12.6	4.3	17.0	**1.77**
14.27	4.35	26.46	0.32	1.22	2.53	130	0.876	0.750	0.970	1.26	0.73	1.28	31.22	3.29	0.99	4.28		34.42	2.38		0			1.07		1.00		0.793	Non-Liq.	4.3	7.9			0.00
14.76	4.50	8.03	0.31	3.88	0.77	130	0.908	0.767	0.969	4.29	0.96	1.36	9.34	0.97	4.66	5.63		10.33	3.11		0			1.00		1.00		0.804	Non-Liq.	2.9	3.5			0.00
15.26	4.65	6.13	0.27	4.43	0.59	130	0.940	0.784	0.968	5.08	1.00	1.35	6.82	0.75	5.43	6.17		7.82	3.26		0			1.00		1.00		0.813	Non-Liq.	2.6	3.0			0.00
15.75	4.80	7.20	0.21	2.85	0.69	130	0.972	0.800	0.967	3.21	0.95	1.30	7.88	0.86	3.26	4.11		8.87	3.10		0			1.00		1.00		0.823	Non-Liq.	2.9	3.0			0.00
16.24	4.95	8.24	0.26	3.20	0.79	130	1.004	0.817	0.966	3.56	0.94	1.28	8.96	0.95	3.76	4.71		9.95	3.08		0			1.00		1.00		0.831	Non-Liq.	3.0	3.3			0.00
16.73	5.10	8.35	0.36	4.34	0.80	130	1.036	0.834	0.965	4.82	0.97	1.26	8.94	0.94	5.35	6.29		9.93	3.16		0			1.00		1.00		0.840	Non-Liq.	2.8	3.5			0.00
17.22	5.25	8.23	0.34	4.17	0.79	130	1.068	0.850	0.964	4.65	0.97	1.24	8.62	0.92	5.12	6.04		9.61	3.16		0			1.00		1.00		0.848	Non-Liq.	2.8	3.4			0.00
17.72	5.40	13.02	0.42	3.24	1.25	130	1.100	0.867	0.962	3.48	0.89	1.19	13.72	1.40	3.84	5.24		14.70	2.92		0			1.00		1.00		0.856	Non-Liq.	3.3	4.5			0.00
18.21	5.55	49.62	0.75	1.52	4.75	130	1.132	0.883	0.961	1.54	0.69	1.13	52.13	5.92	1.43	7.35		61.17	2.25		0			1.15		1.00		0.863	Non-Liq.	4.6	13.3			0.00
18.70	5.70	82.32	0.80	0.97	7.88	130	1.164	0.900	0.960	0.98	0.60	1.10	84.76	9.75	0.66	10.41	1.07	98.78	1.96		1	76	1.25	1.15	123.7	1.00	0.256	0.870	**0.29**	5.2	19.1	5.5	24.6	**1.23**
19.19	5.85	90.70	0.61	0.67	8.69	130	1.196	0.917	0.959	0.68	0.56	1.08	91.96	10.73	0.24	10.97	1.02	107.08	1.84		1	80	1.13	1.15	121.5	1.00	0.247	0.876	**0.28**	5.4	19.8	4.5	24.3	**1.25**
19.69	6.00	62.40	0.53	0.85	5.98	130	1.228	0.933	0.958	0.87	0.62	1.08	62.79	7.32	0.50	7.82		73.47	2.03		0			1.15		1.00		0.883	Non-Liq.	5.0	14.6			0.00
20.18	6.15	20.17	0.62	3.06	1.93	130	1.260	0.950	0.956	3.21	0.84	1.10	19.89	2.04	3.62	5.66		20.88	2.77		0			1.00		1.00		0.889	Non-Liq.	3.6	5.8			0.00
20.67	6.30	20.97	0.57	2.71	2.01	130	1.292	0.967	0.955	2.84	0.83	1.08	20.38	2.10	3.13	5.23		21.37	2.73		0			1.00		1.00		0.894	Non-Liq.	3.7	5.9			0.00
21.16	6.45	12.30	0.38	3.11	1.18	130	1.324	0.983	0.954	3.38	0.90	1.07	11.43	1.23	3.71	4.94		12.43	2.98		0			1.00		1.00		0.900	Non-Liq.	3.2	3.9			0.00
21.65	6.60	10.87	0.45	4.15	1.04	130	1.356	1.000	0.952	4.57	0.94	1.05	9.84	1.08	5.18	6.26		10.84	3.11		0			1.00		1.00		0.905	Non-Liq.	2.9	3.7			0.00
22.15	6.75	9.17	0.43	4.71	0.88	130	1.388	1.017	0.951	5.30	0.98	1.04	8.01	0.90	5.99	6.89		9.01	3.22		0			1.00		1.00		0.910	Non-Liq.	2.7	3.3			0.00
22.64	6.90	8.45	0.26	3.05	0.81	130	1.420	1.033	0.950	3.47	0.95	1.02	7.17	0.82	3.63	4.45		8.17	3.15		0			1.00		1.00		0.914	Non-Liq.	2.8	2.9			0.00
23.13	7.05	15.08	0.38	2.54	1.44	130	1.452	1.050	0.948	2.73	0.87	1.01	13.35	1.45	2.91	4.36		14.35	2.87		0			1.00		1.00		0.918	Non-Liq.	3.4	4.2			0.00

Depth		Tip Qc	Friction Fs	Friction Ratio	qc	Total Unit Wt.	Total Stress	Eff. Stress				Max 1.70		Moss qc1	Moss Δqc	Moss qc_{1mod}	Moss eff			Overide	Liquef. Suscept.	Rel. Dens.			Clean Sand	1.0		Induced M=7.5	Liquefac. Safety	Qc1n $N_{1(60)}$	Equiv.	FC Adj.	Equiv.	Volumetric Strain
(feet)	(m)	(tsf)	(tsf)	Rf %	MPa	(pcf)	po (tsf)	p'o (tsf)	rd	%	n	Cq	Q	MPa	MPa	MPa	K_C	Qc1n	Ic		(0 or 1)	Dr (%)	K_C	K_H	Qc1n	Kσ	CRR	CSR	Factor	Ratio	$N_{1(60)}$	$ΔN_{1(60)}$	$N_{1(60)cs}$	(%)
23.62	7.20	73.21	1.47	2.01	7.01	130	1.484	1.066	0.946	2.04	0.68	0.99	67.82	7.02	2.15	9.17		69.08	2.24		0			1.00		1.00		0.922	**Non-Liq.**	4.6	15.0			**0.00**
24.11	7.35	105.07	2.61	2.49	10.06	130	1.516	1.083	0.945	2.51	0.67	0.98	96.76	9.99	2.84	12.83	1.28	97.77	2.20		1	76	1.66	1.00	162.3	0.99	Infin.	0.926	**Non-Liq.**	4.7	20.8	5.0	25.8	**0.00**
24.61	7.50	160.85	2.67	1.66	15.40	130	1.548	1.100	0.943	1.67	0.59	0.98	147.58	15.22	1.66	16.88	1.11	148.60	1.94		1	93	1.23	1.00	183.1	0.98	Infin.	0.930	**Non-Liq.**	5.2	28.6	5.0	33.6	**0.00**
25.10	7.65	128.23	2.12	1.65	12.28	130	1.580	1.116	0.941	1.67	0.61	0.97	116.27	12.07	1.66	13.72	1.14	117.29	2.01		1	83	1.32	1.00	154.6	0.98	0.423	0.933	**0.44**	5.1	23.2	5.5	28.7	**1.01**
25.59	7.80	124.10	1.40	1.12	11.88	130	1.612	1.133	0.940	1.13	0.58	0.96	111.70	11.58	0.90	12.48	1.08	112.73	1.91		1	82	1.20	1.00	135.1	0.97	0.309	0.936	**0.32**	5.3	21.4	5.5	26.9	**1.11**
26.08	7.95	115.11	1.21	1.06	11.02	130	1.644	1.150	0.938	1.07	0.58	0.95	102.62	10.67	0.80	11.47	1.07	103.65	1.92		1	78	1.21	1.00	125.2	0.97	0.263	0.939	**0.27**	5.2	19.8	5.3	25.0	**1.22**
26.57	8.10	122.40	1.21	0.99	11.72	130	1.676	1.166	0.936	1.00	0.57	0.95	108.38	11.28	0.70	11.98	1.06	109.42	1.88		1	81	1.17	1.00	128.4	0.96	0.277	0.942	**0.28**	5.3	20.6	5.1	25.7	**1.18**
27.07	8.25	129.64	0.93	0.71	12.41	130	1.708	1.183	0.934	0.72	0.54	0.94	114.31	11.82	0.31	12.13	1.03	115.36	1.78		1	83	1.09	1.00	125.7	0.96	0.265	0.945	**0.27**	5.5	20.9	4.2	25.1	**1.21**
27.56	8.40	115.92	0.78	0.67	11.10	130	1.740	1.200	0.932	0.68	0.55	0.93	101.22	10.48	0.25	10.73	1.02	102.28	1.80		1	78	1.11	1.00	113.4	0.95	0.216	0.947	**0.22**	5.5	18.7	4.0	22.7	**1.37**
28.05	8.55	81.76	1.10	1.35	7.83	130	1.772	1.216	0.930	1.37	0.64	0.91	69.62	7.41	1.22	8.63	1.16	70.67	2.12		1	62	1.49	1.00	105.2	0.96	0.188	0.949	**0.19**	4.9	14.6	5.5	20.1	**1.55**
28.54	8.70	95.86	1.31	1.37	9.18	130	1.804	1.233	0.928	1.39	0.63	0.91	81.26	8.67	1.25	9.92	1.14	82.31	2.07		1	69	1.41	1.00	115.7	0.96	0.224	0.951	**0.22**	4.9	16.7	5.5	22.2	**1.40**
29.04	8.85	97.51	1.06	1.09	9.34	130	1.836	1.249	0.925	1.11	0.61	0.90	82.24	8.73	0.85	9.59	1.10	83.31	2.00		1	69	1.30	1.00	108.7	0.95	0.199	0.952	**0.20**	5.1	16.4	5.3	21.7	**1.43**
29.53	9.00	87.33	0.81	0.92	8.36	130	1.868	1.266	0.923	0.94	0.61	0.90	72.96	7.73	0.61	8.34		74.03	2.00		0			1.00		0.96		0.954	**Non-Liq.**	5.1	14.6			**0.00**
30.02	9.15	27.26	0.78	2.85	2.61	130	1.900	1.283	0.920	2.99	0.82	0.85	20.96	2.40	3.39	5.79		21.99	2.74		0			1.00		0.96		0.955	**Non-Liq.**	3.6	6.0			**0.00**
30.51	9.30	17.35	0.66	3.80	1.66	130	1.932	1.299	0.918	4.11	0.90	0.83	12.61	1.50	4.77	6.27		13.63	3.00		0			1.00		0.96		0.956	**Non-Liq.**	3.1	4.3			**0.00**
31.00	9.45	14.49	0.37	2.54	1.39	130	1.964	1.316	0.915	2.79	0.89	0.82	10.26	1.22	2.94	4.16		11.28	2.97		0			1.00		0.96		0.957	**Non-Liq.**	3.2	3.5			**0.00**
31.50	9.60	19.90	0.44	2.21	1.91	130	1.996	1.333	0.913	2.37	0.84	0.82	14.45	1.68	2.46	4.15		15.49	2.81		0			1.00		0.95		0.957	**Non-Liq.**	3.5	4.4			**0.00**
31.99	9.75	71.98	0.99	1.37	6.89	130	2.028	1.349	0.910	1.40	0.66	0.85	56.83	6.27	1.26	7.53		58.14	2.19		0			1.00		0.95		0.958	**Non-Liq.**	4.7	12.4			**0.00**
32.48	9.90	122.51	1.59	1.30	11.73	130	2.060	1.366	0.907	1.31	0.60	0.86	98.15	10.71	1.15	11.86	1.11	99.25	1.99		1	77	1.29	1.00	128.2	0.90	0.276	0.958	**0.26**	5.1	19.5	5.5	25.0	**1.22**
32.97	10.05	98.56	1.24	1.26	9.44	130	2.092	1.382	0.904	1.28	0.62	0.85	77.75	8.52	1.10	9.62	1.13	78.85	2.06		1	67	1.39	1.00	109.6	0.92	0.203	0.958	**0.20**	5.0	15.9	5.5	21.4	**1.46**
33.46	10.20	42.87	1.02	2.38	4.11	130	2.124	1.399	0.901	2.46	0.76	0.81	31.66	3.67	2.72	6.39	1.74	32.73	2.54		1	30	3.01	1.00	98.4	0.95	0.169	0.958	**0.17**	4.0	8.1	5.5	13.6	**2.14**
33.96	10.35	62.33	1.37	2.19	5.97	130	2.156	1.416	0.898	2.24	0.72	0.81	46.70	5.37	2.44	7.81	1.45	47.79	2.39		1	46	2.27	1.00	108.5	0.94	0.199	0.957	**0.20**	4.3	11.1	5.5	16.6	**1.84**
34.45	10.50	98.45	1.03	1.05	9.43	130	2.188	1.432	0.894	1.06	0.61	0.83	76.22	8.33	0.79	9.13	1.10	77.35	2.02		1	66	1.33	1.00	102.5	0.91	0.180	0.957	**0.17**	5.0	15.3	5.2	20.5	**1.52**
34.94	10.65	85.23	0.64	0.75	8.16	130	2.219	1.449	0.891	0.76	0.60	0.83	65.56	7.03	0.35	7.39	1.05	66.70	1.99		1	60	1.28	1.00	85.5	0.91	0.138	0.956	**0.13**	5.1	13.0	4.0	17.1	**1.79**
35.43	10.80	56.11	0.60	1.08	5.37	130	2.251	1.466	0.888	1.11	0.67	0.80	41.46	4.61	0.83	5.45		42.57	2.24		0			1.00		0.94		0.955	**Non-Liq.**	4.6	9.2			**0.00**
35.93	10.95	16.92	0.49	2.90	1.62	130	2.283	1.482	0.884	3.18	0.89	0.74	10.81	1.35	3.47	4.82		11.85	2.98		0			1.00		0.93		0.954	**Non-Liq.**	3.2	3.8			**0.00**
36.42	11.10	20.62	0.46	2.24	1.97	130	2.315	1.499	0.880	2.42	0.85	0.74	13.46	1.64	2.51	4.15		14.51	2.84		0			1.00		0.93		0.953	**Non-Liq.**	3.4	4.2			**0.00**
36.91	11.25	55.10	0.56	1.01	5.28	130	2.347	1.516	0.877	1.04	0.67	0.78	39.75	5.62	0.74	6.36		51.68	2.24		0			1.26		0.93		0.951	**Non-Liq.**	4.6	11.2			**0.00**
37.40	11.40	20.83	0.62	2.96	2.00	130	2.379	1.532	0.873	3.20	0.87	0.73	13.23	1.66	3.55	5.21		14.28	2.91		0			1.00		0.93		0.949	**Non-Liq.**	3.3	4.3			**0.00**
37.89	11.55	26.90	0.54	2.00	2.58	130	2.411	1.549	0.869	2.13	0.81	0.73	17.61	2.14	2.17	4.30		18.69	2.71		0			1.00		0.93		0.948	**Non-Liq.**	3.7	5.1			**0.00**
38.39	11.70	24.93	0.41	1.66	2.39	130	2.443	1.565	0.865	1.77	0.80	0.73	16.12	1.94	1.67	3.61		17.20	2.70		0			1.00		0.92		0.946	**Non-Liq.**	3.7	4.6			**0.00**
38.88	11.85	138.26	0.75	0.54	13.24	130	2.475	1.582	0.861	0.55	0.53	0.81	104.44	10.97	0.06	11.03		106.05	1.74		0			1.00		0.92		0.943	**Non-Liq.**	5.6	19.0			**0.00**
39.37	12.00	331.21	2.21	0.67	31.72	130	2.507	1.599	0.857	0.67	0.50	0.81	253.44	27.24	0.24	27.48	1.01	254.67	1.49		1	100	1.00	1.00	254.7	0.85	Infin.	0.941	**Non-Liq.**	6.1	41.9	5.0	46.9	**0.00**
39.86	12.15	384.56	3.31	0.86	36.83	130	2.539	1.615	0.852	0.86	0.50	0.81	292.93	32.12	0.52	32.64	1.02	294.16	1.53		1	100	1.00	1.00	294.2	0.84	Infin.	0.939	**Non-Liq.**	6.0	49.0	5.0	54.0	**0.00**
40.35	12.30	491.51	3.80	0.77	47.07	130	2.571	1.632	0.848	0.78	0.50	0.81	372.81	40.96	0.39	41.36	1.01	374.05	1.43		1	100	1.00	1.00	374.0	0.84	Infin.	0.936	**Non-Liq.**	6.2	60.3	5.0	65.3	**0.00**
40.85	12.45	540.55	5.02	0.93	51.76	130	2.603	1.649	0.843	0.93	0.50	0.80	408.05	45.48	0.61	46.09	1.01	409.29	1.47		1	100	1.00	1.00	409.3	0.84	Infin.	0.933	**Non-Liq.**	6.1	66.8	5.0	71.8	**0.00**
41.34	12.60	548.54	4.46	0.81	52.53	130	2.635	1.665	0.839	0.82	0.50	0.80	412.01	45.70	0.45	46.15	1.01	413.27	1.42		1	100	1.00	1.00	413.3	0.83	Infin.	0.930	**Non-Liq.**	6.2	66.4	5.0	71.4	**0.00**
41.83	12.75	558.19	4.43	0.79	53.45	130	2.667	1.682	0.834	0.80	0.50	0.79	417.19	46.32	0.42	46.74	1.01	418.45	1.41		1	100	1.00	1.00	418.5	0.83	Infin.	0.927	**Non-Liq.**	6.2	67.0	5.0	72.0	**0.00**
42.32	12.90	574.94	5.79	1.01	55.06	130	2.699	1.699	0.830	1.01	0.50	0.79	427.62	48.25	0.72	48.98	1.02	428.89	1.48		1	100	1.00	1.00	428.9	0.83	Infin.	0.924	**Non-Liq.**	6.1	70.4	5.0	75.4	**0.00**
42.81	13.05	584.95	6.00	1.03	56.01	130	2.731	1.715	0.825	1.03	0.50	0.79	432.96	49.03	0.75	49.78	1.02	434.23	1.49		1	100	1.00	1.00	434.2	0.82	Infin.	0.920	**Non-Liq.**	6.1	71.4	5.0	76.4	**0.00**
43.31	13.20	559.18	5.54	0.99	53.55	130	2.763	1.732	0.820	0.99	0.50	0.78	411.83	46.59	0.70	47.29	1.02	413.11	1.49		1	100	1.00	1.00	413.1	0.82	Infin.	0.917	**Non-Liq.**	6.1	67.9	5.0	72.9	**0.00**
43.80	13.35	486.31	4.50	0.93	46.57	130	2.795	1.748	0.816	0.93	0.50	0.78	356.27	40.08	0.61	40.69	1.02	357.56	1.50		1	100	1.00	1.00	357.6	0.82	Infin.	0.913	**Non-Liq.**	6.1	59.0	5.0	64.0	**0.00**
44.29	13.50	419.24	5.52	1.32	40.15	130	2.827	1.765	0.811	1.32	0.51	0.77	304.36	35.01	1.16	36.18	1.03	305.64	1.67		1	100	1.01	1.00	310.0	0.81	Infin.	0.910	**Non-Liq.**	5.7	53.3	5.0	58.3	**0.00**
44.78	13.65	367.47	6.97	1.90	35.19	130	2.859	1.782	0.806	1.90	0.56	0.75	258.64	31.08	1.98	33.07	1.06	259.90	1.84		1	100	1.13	1.00	294.5	0.81	Infin.	0.906	**Non-Liq.**	5.4	48.1	5.0	53.1	**0.00**
45.28	13.80	367.03	4.46	1.21	35.15	130	2.891	1.798	0.801	1.22	0.51	0.76	263.35	30.23	1.01	31.24	1.03	264.64	1.68		1	100	1.02	1.00	270.3	0.81	Infin.	0.902	**Non-Liq.**	5.7	46.3	5.0	51.3	**0.00**
45.77	13.95	325.61	3.01	0.93	31.18	130	2.923	1.815	0.796	0.93	0.50	0.76	233.67	26.17	0.60	26.77	1.02	234.98	1.62		1	100	1.00	1.00	235.0	0.81	Infin.	0.898	**Non-Liq.**	5.8	40.3	5.0	45.3	**0.00**
46.26	14.10	264.83	2.84	1.07	25.36	130	2.955	1.832	0.791	1.08	0.53	0.75	186.13	21.27	0.81	22.08	1.04	187.43	1.74		1	100	1.06	1.00	199.0	0.80	Infin.	0.894	**Non-Liq.**	5.6	33.5	5.0	38.5	**0.00**
46.75	14.25	221.98	1.92	0.86	21.26	130	2.987	1.848	0.786	0.87	0.52	0.75	155.28	17.37	0.51	17.88	1.03	156.58	1.73		1	95	1.06	1.00	165.3	0.80	Infin.	0.890	**Non-Liq.**	5.6	27.9	5.0	32.9	**0.00**
47.24	14.40	276.28	1.81	0.66	26.46	130	3.019	1.865	0.781	0.66	0.50	0.75	195.36	21.28	0.22	21.50	1.01	196.69	1.57		1	100	1.00	1.00	196.7	0.80	Infin.	0.886	**Non-Liq.**	5.9	33.2	5.0	38.2	**0.00**
47.74	14.55	117.61	2.46	2.09	11.26	130	3.051	1.881	0.776	2.12	0.67	0.68	74.53	9.45	2.25	11.69	1.24	75.75	2.22		1	65	1.73	1.00	130.9	0.84	0.288	0.881	**0.28**	4.6	16.3	5.5	21.8	**1.42**
48.23	14.70	285.50	3.26	1.14	27.34	130	3.083	1.898	0.771	1.15	0.53	0.73	196.86	22.84	0.91	23.75	1.04	198.18	1.74		1	100	1.06	1.00	210.8	0.79	Infin.	0.877	**Non-Liq.**	5.6	35.4	5.0	40.4	**0.00**
48.72	14.85	502.97	5.02	1.00	48.16	130	3.115	1.915	0.766	1.00	0.50	0.74	352.03	40.61	0.70	41.31	1.02	353.38	1.53		1	100	1.00	1.00	353.4	0.79	Infin.	0.873	**Non-Liq.**	6.0	58.9	5.0	63.9	**0.00**
49.21	15.00	500.11	4.81	0.96	47.89	130	3.147	1.931	0.761	0.97	0.50	0.74	348.50	40.16	0.65	40.81	1.02	349.85	1.52		1	100	1.00	1.00	349.9	0.79	Infin.	0.868	**Non-Liq.**	6.0	58.1	5.0	63.1	**0.00**
49.70	15.15	488.03	3.08	0.63	46.73	130	3.179	1.948	0.756	0.63	0.50	0.74	338.59	37.77	0.18	37.96	1.00	339.94	1.39		1	100	1.00	1.00	339.9	0.78	Infin.	0.864	**Non-Liq.**	6.3	54.1	5.0	59.1	**0.00**
50.20	15.30	471.52	3.38	0.72	45.15	130	3.211	1.965	0.751	0.72	0.50	0.73	325.68	36.74	0.30	37.04	1.01	327.05	1.44		1	100	1.00	1.00	327.0	0.78	Infin.	0.860	**Non-Liq.**	6.2	53.0	5.0	58.0	**0.00**
50.69	15.45	455.38	3.58	0.79	43.61	130	3.243	1.981	0.746	0.79	0.50	0.73	313.16	35.60	0.40	36.00	1.01	314.53	1.48		1	100	1.00	1.00	314.5	0.78	Infin.	0.855	**Non-Liq.**	6.1	51.6	5.0	56.6	**0.00**
51.18	15.60	465.65	3.71	0.80	44.59	130	3.275	1.998	0.741	0.80	0.50	0.73	318.90	36.38	0.41	36.79	1.01	320.28	1.48		1	100	1.00	1.00	320.3	0.78	Infin.	0.851	**Non-Liq.**	6.1	52.5	5.0	57.5	**0.00**
51.67	15.75	452.54	5.07	1.12	43.34	130	3.307	2.015	0.736	1.13	0.50	0.72	308.59	36.17	0.87	37.04	1.02	309.97	1.61		1	100	1.00	1.00	310.0	0.77	Infin.	0.846	**Non-Liq.**	5.9	53.0	5.0	58.0	**0.00**
52.17	15.90	421.52	5.58	1.32	40.36	130	3.339	2.031	0.731	1.33	0.51	0.72	283.75	33.93	1.15	35.08	1.03	285.12	1.69		1	100	1.03	1.00	293.1	0.77	Infin.	0.842	**Non-Liq.**	5.7	50.0	5.0	55.0	**0.00**
52.66	16.05	399.98	3.48	0.87	38.30	130	3.371	2.048	0.726	0.88	0.50	0.72	270.35	31.03	0.52	31.55	1.02	271.74	1.56		1	100	1.00	1.00	271.7	0.77	Infin.	0.837	**Non-Liq.**	5.9	45.7	5.0	50.7	**0.00**
53.15	16.20	427.11	3.67	0.86	40.90	130	3.403	2.064	0.721	0.86	0.50	0.72	287.60	33.11	0.50	33.61	1.02	289.00	1.54		1	100	1.00	1.00	289.0	0.77	Infin.	0.833	**Non-Liq.**	6.0	48.3	5.0	53.3	**0.00**
53.64	16.35	490.83	4.61	0.94	47.00	130	3.435	2.081	0.716	0.94	0.50	0.71	329.38	38.47	0.61	39.08	1.02	330.78	1.53		1	100	1.00	1.00	330.8	0.76	Infin.	0.828	**Non-Liq.**	6.0	55.1	5.0	60.1	**0.00**
54.13	16.50	559.66	4.46	0.80	53.59	130	3.467	2.098	0.712	0.80	0.50	0.71	374.26	43.39	0.41	43.80	1.01	375.67	1.44		1	100	1.00	1.00	375.7	0.76	Infin.	0.824	**Non-Liq.**	6.2	60.8	5.0	65.8	**0.00**

Depth		Tip Qc	Friction Fs	Friction Ratio	qc	Total Unit Wt.	Total Stress	Eff. Stress		F		Max 1.70		Moss qc1	Moss Δqc	Moss qc_{1mod}	Moss eff			Overide	Liquef. Suscept.	Rel. Dens.			Clean Sand	1.0		Induced M=7.5	**Liquefac. Safety**	Qc1n $N_{1(60)}$	Equiv.	FC Adj.	Equiv.	***Volumetric Strain***
(feet)	(m)	(tsf)	(tsf)	Rf %	MPa	(pcf)	po (tsf)	p'o (tsf)	rd	%	n	Cq	Q	MPa	MPa	MPa	K_C	Qc1n	Ic		(0 or 1)	Dr (%)	K_C	K_H	Qc1n	Kσ	CRR	CSR	**Factor**	Ratio	$N_{1(60)}$	$ΔN_{1(60)}$	$N_{1(60)cs}$	***(%)***
54.63	16.65	502.14	4.65	0.93	48.09	130	3.499	2.114	0.707	0.93	0.50	0.71	334.32	39.16	0.59	39.75	1.02	335.73	1.52		1	100	1.00	1.00	335.7	0.76	Infin.	0.819	**Non-Liq.**	6.0	55.7	5.0	60.7	**0.00**

EARTH SYSTEMS - EVALUATION OF LIQUEFACTION POTENTIAL AND INDUCED GROUND SUBSIDENCE

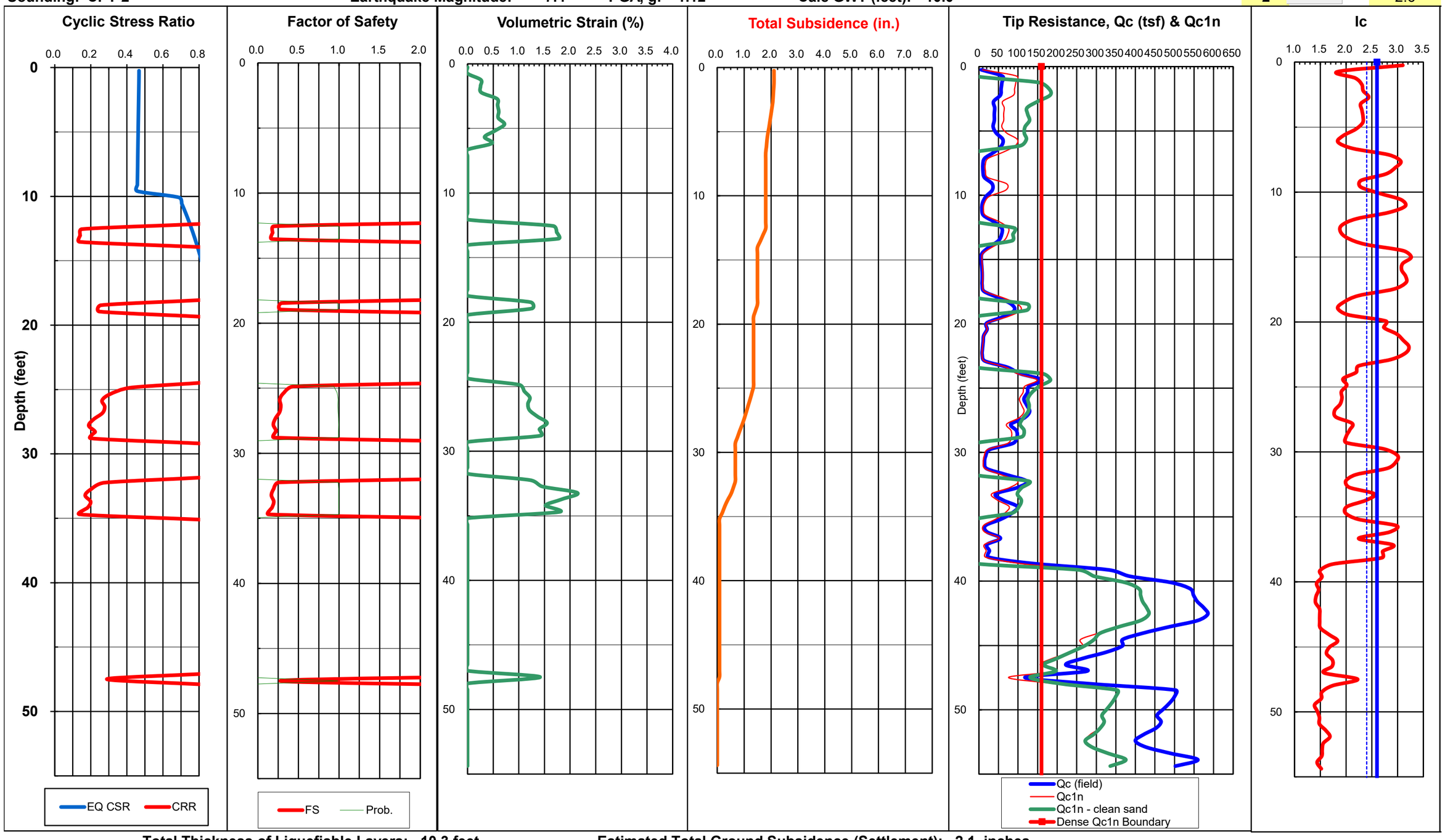
499 Linden Avenue **Project No: 306184-001**

Method Used: 1 1998 NCEER (Robertson & Wride)

Settlement Analysis using Tokimatsu & Seed (1987), clean sand Qc1n/N1(60) ratio =5

Plot **2** Limiting Ic: 2.6

Sounding: CPT-2 **Earthquake Magnitude: 7.4** **PGA, g: 1.12** **Calc GWT (feet): 10.0**



Total Thickness of Liquefiable Layers: 10.3 feet **Estimated Total Ground Subsidence (Settlement): 2.1 inches**

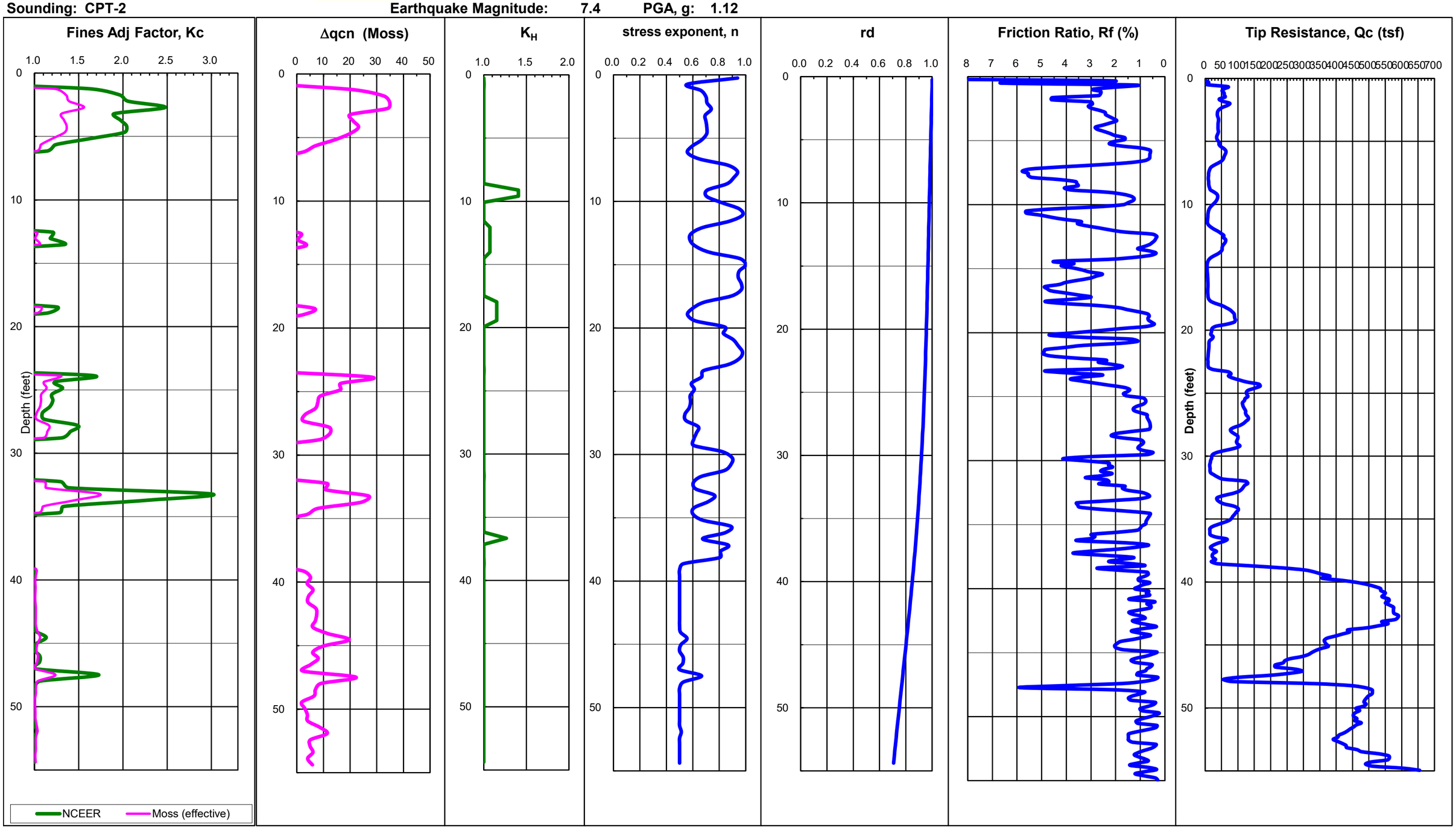
EARTH SYSTEMS - EVALUATION OF LIQUEFACTION POTENTIAL AND INDUCED GROUND SUBSIDENCE

3 avg increment =0.15m Qc1n/N1(60): 5

Ignore 1st/last increment into sand/silt soils: 0

Method Used: 1998 NCEER (Robertson & Wride)

Sounding: CPT-2 **Earthquake Magnitude: 7.4** **PGA, g: 1.12**



CPT-LIQUEFY.XLS - A SPREADSHEET FOR EMPIRICAL ESTIMATION OF LIQUEFACTION POTENTIAL USING CPT DATA

Developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Project: 499 Linden Avenue
Job No: 306184-001
Date: 8/9/2023
Sounding: CPT-2A

Liquefaction Analysis using 1998 NCEER (Robertson & Wride) method
Settlement Analysis using Tokimatsu & Seed (1987), clean sand Qc1n/N1(60) ratio =5

Plot: 3

EARTHQUAKE INFORMATION:

Magnitude: 7.4 (7.5)
PGA, g: 1.115 (1.08)
MSF: 1.03
GWT, feet: 10.0
Calc GWT, feet: 10.0

Method Used: 1 — 1998 NCEER (Robertson & Wride)
Averaging Increment: 3 — 0.15 m
Induced CSR (M=7.5) = 0.65*PGA*(po/p'o)*rd/MSF
Clean Sand Qc1n = C_Q*K_C*K_H*Qc
SF = $CRR_{7.5}$*Kσ/CSR

Ignore 1st/last increment into sand/silt soils: 1 yes
Ignore/remediate upper: 0.0 m
Unit Weight of unsaturated soils: 115 pcf
Unit Weight of saturated soils: 130 pcf
Limiting Ic for liquefiable soils: 2.60 — Limiting Ic for K_H: 2.6

Use Moss @ P_L: 15%
Use Tokimatsu & Seed (0) or Ishihara &Yoshmine (1): 0
Required SF: 1.30 — Max $\Delta N_{1(60)}$ - post liquefied: 5.5
Min SF of Liquefiable Layers: 0.15 — Max $\Delta N_{1(60)}$ - non liquefied: 5.0
Avg SF of Liquefiable Layers: 0.24

Total Liquefied Thickness (feet): 9.4
Total Induced Subsidence (inches): 2.2

Depth (feet)	(m)	Tip Qc (tsf)	Friction Fs (tsf)	Friction Ratio Rf %	qc MPa	Total Unit Wt. (pcf)	Total Stress po (tsf)	Eff. Stress p'o (tsf)	rd	F %	n	Max 1.70 Cq	Q	Moss qc1 MPa	Moss Δqc MPa	Moss qc_{1mod} MPa	Moss eff K_C	Qc1n	Ic	Override	Liquef. Suscept. (0 or 1)	Rel. Dens. Dr (%)	K_C	K_H	Clean Sand Qc1n	1.0 Kσ	CRR	Induced M=7.5 CSR	Liquefac. Safety Factor	Qc1n $N_{1(60)}$ Ratio	Equiv. $N_{1(60)}$	FC Adj. $\Delta N_{1(60)}$	Equiv. $N_{1(60)cs}$	*Volumetric Strain (%)*
0.49	0.15	13.99	0.56	4.01	1.34	115	0.028	0.028	1.000	4.02	0.85	1.70	22.43	2.28	4.11	6.39		22.48	2.80		0			1.00		1.00		0.467	Non-Liq.	3.5	6.4			0.00
0.98	0.30	70.66	0.66	0.93	6.77	115	0.057	0.057	1.000	0.93	0.56	1.70	113.45	11.55	0.51	12.05		113.96	1.85		0			1.00		1.00		0.467	Non-Liq.	5.4	21.2			0.00
1.48	0.45	72.32	1.83	2.53	6.93	115	0.085	0.085	0.999	2.53	0.65	1.70	116.07	11.77	2.37	14.14	1.20	116.21	2.15		1	83	1.55	1.00	179.7	1.00	Infin.	0.466	Non-Liq.	4.8	24.2	5.0	29.2	0.16
1.97	0.60	51.35	1.95	3.80	4.92	115	0.113	0.113	0.997	3.80	0.72	1.70	82.33	8.36	3.85	12.21	1.46	82.51	2.38		1	69	2.23	1.00	183.7	1.00	Infin.	0.466	Non-Liq.	4.3	19.0	5.0	24.0	0.30
2.46	0.75	47.92	1.74	3.63	4.59	115	0.141	0.141	0.996	3.64	0.72	1.70	76.77	7.80	3.66	11.46	1.47	77.00	2.38		1	66	2.25	1.00	173.2	1.00	Infin.	0.465	Non-Liq.	4.3	17.8	5.0	22.8	0.35
2.95	0.90	28.48	1.11	3.88	2.73	115	0.170	0.170	0.995	3.91	0.78	1.70	45.49	4.64	3.95	8.59	1.85	45.76	2.56		1	44	3.10	1.00	142.1	1.00	0.347	0.465	Non-Liq.	4.0	11.5	5.0	16.5	0.95
3.44	1.05	23.09	0.50	2.16	2.21	115	0.198	0.198	0.994	2.18	0.75	1.70	36.79	3.76	1.94	5.70	1.52	37.11	2.46		1	36	2.58	1.00	95.6	1.00	0.161	0.464	Non-Liq.	4.2	8.9	5.0	13.9	1.63
3.94	1.20	20.94	0.36	1.71	2.01	115	0.226	0.226	0.993	1.73	0.74	1.70	33.28	3.41	1.41	4.82	1.41	33.65	2.43		1	32	2.45	1.00	82.4	1.00	0.132	0.464	Non-Liq.	4.2	7.9	5.0	12.9	2.04
4.43	1.35	22.60	0.43	1.89	2.16	115	0.255	0.255	0.992	1.91	0.74	1.70	35.91	3.68	1.62	5.30	1.44	36.32	2.43		1	35	2.45	1.00	89.1	1.00	0.146	0.463	Non-Liq.	4.2	8.6	5.0	13.6	1.75
4.92	1.50	33.35	0.87	2.62	3.19	115	0.283	0.283	0.990	2.64	0.73	1.70	53.13	5.43	2.48	7.91	1.46	53.59	2.40		1	51	2.30	1.00	123.1	1.00	0.253	0.463	Non-Liq.	4.3	12.4	5.0	17.4	0.81
5.41	1.65	51.73	1.03	2.00	4.95	115	0.311	0.311	0.989	2.01	0.66	1.70	82.62	8.03	1.75	9.78	1.22	83.12	2.18		1	69	1.61	1.00	133.6	1.00	0.302	0.462	Non-Liq.	4.7	17.5	5.0	22.5	0.39
5.91	1.80	61.52	0.65	1.06	5.89	115	0.340	0.340	0.988	1.07	0.59	1.70	98.31	9.90	0.66	10.56	1.07	98.86	1.93		1	76	1.22	1.00	120.9	1.00	0.245	0.461	Non-Liq.	5.2	19.0	5.0	24.0	0.33
6.40	1.95	52.29	0.51	0.98	5.01	115	0.368	0.368	0.987	0.99	0.60	1.70	83.42	8.40	0.56	8.96	1.07	84.01	1.97		1	70	1.26	1.00	105.9	1.00	0.191	0.461	Non-Liq.	5.1	16.3	4.9	21.2	0.47
6.89	2.10	23.88	0.68	2.86	2.29	115	0.396	0.396	0.986	2.91	0.77	1.70	37.73	3.62	2.75	6.37		38.37	2.53		0			1.00		1.00		0.460	Non-Liq.	4.0	9.5			0.00
7.38	2.25	11.46	0.70	6.12	1.10	130	0.428	0.428	0.985	6.36	0.92	1.70	17.73	1.81	5.24	7.05		18.42	3.00		0			1.00		1.00		0.460	Non-Liq.	3.1	5.9			0.00
7.87	2.40	9.32	0.50	5.41	0.89	130	0.460	0.460	0.984	5.69	0.93	1.70	14.23	1.50	5.24	6.74		14.97	3.04		0			1.00		1.00		0.459	Non-Liq.	3.0	4.9			0.00
8.37	2.55	11.22	0.40	3.52	1.07	130	0.492	0.492	0.983	3.68	0.88	1.70	17.23	1.72	3.52	5.24		18.02	2.86		0			1.00		1.00		0.459	Non-Liq.	3.4	5.3			0.00
8.86	2.70	15.02	0.47	3.16	1.44	130	0.524	0.524	0.982	3.27	0.84	1.70	23.30	2.12	3.09	5.21		24.14	2.73		0			1.00		1.00		0.458	Non-Liq.	3.7	6.6			0.00
9.35	2.85	25.17	0.61	2.43	2.41	130	0.556	0.556	0.981	2.49	0.77	1.64	38.19	4.61	2.25	6.86		54.94	2.49		0			1.41		1.00		0.458	Non-Liq.	4.1	13.3			0.00
9.84	3.00	26.91	0.63	2.33	2.58	130	0.588	0.588	0.979	2.38	0.76	1.57	38.95	4.78	2.12	6.91		56.02	2.47		0			1.41		1.00		0.457	Non-Liq.	4.2	13.4			0.00
10.33	3.15	14.12	0.55	3.93	1.35	130	0.620	0.617	0.978	4.11	0.88	1.60	20.48	1.81	4.52	6.33		21.42	2.83		0			1.00		1.00		0.688	Non-Liq.	3.5	6.2			0.00
10.83	3.30	8.50	0.50	5.89	0.81	130	0.652	0.634	0.977	6.37	0.97	1.64	12.22	1.13	5.97	7.10		13.20	3.13		0			1.00		1.00		0.704	Non-Liq.	2.9	4.6			0.00
11.32	3.45	7.51	0.36	4.73	0.72	130	0.684	0.651	0.976	5.18	0.97	1.60	10.38	1.02	5.64	6.66		11.37	3.12		0			1.00		1.00		0.719	Non-Liq.	2.9	3.9			0.00
11.81	3.60	8.94	0.22	2.44	0.86	130	0.716	0.667	0.975	2.63	0.90	1.51	11.84	1.19	2.60	3.80		12.80	2.90		0			1.00		1.00		0.733	Non-Liq.	3.3	3.9			0.00
12.30	3.75	31.50	0.34	1.09	3.02	130	0.748	0.684	0.974	1.12	0.70	1.35	39.46	4.42	0.80	5.21		46.49	2.26		0			1.15		1.00		0.747	Non-Liq.	4.6	10.2			0.00
12.80	3.90	52.71	0.39	0.74	5.05	130	0.780	0.700	0.973	0.75	0.61	1.29	63.27	7.25	0.33	7.58	1.05	73.91	2.00		1	64	1.30	1.15	95.8	1.00	0.162	0.759	**0.21**	5.1	14.5	4.6	19.2	1.59
13.29	4.05	47.75	0.33	0.69	4.57	130	0.812	0.717	0.972	0.70	0.62	1.27	56.57	6.55	0.26	6.81	1.04	66.20	2.02		1	60	1.33	1.15	87.9	1.00	0.143	0.771	**0.19**	5.0	13.1	4.5	17.6	1.72
13.78	4.20	27.08	0.42	1.54	2.59	130	0.844	0.734	0.971	1.59	0.74	1.31	32.68	3.62	1.43	5.05		38.72	2.42		0			1.15		1.00		0.783	Non-Liq.	4.3	9.1			0.00
14.27	4.35	9.65	0.38	3.95	0.92	130	0.876	0.750	0.970	4.28	0.93	1.38	11.59	1.15	4.73	5.88		12.57	3.04		0			1.00		1.00		0.793	Non-Liq.	3.1	4.1			0.00
14.76	4.50	6.05	0.21	3.45	0.58	130	0.908	0.767	0.969	3.95	0.98	1.37	6.85	0.76	4.06	4.82		7.85	3.20		0			1.00		1.00		0.804	Non-Liq.	2.7	2.9			0.00
15.26	4.65	5.57	0.12	2.14	0.53	130	0.940	0.784	0.968	2.49	0.96	1.34	6.05	0.70	2.26	2.96		7.04	3.14		0			1.00		1.00		0.813	Non-Liq.	2.9	2.5			0.00
15.75	4.80	6.09	0.10	1.60	0.58	130	0.972	0.800	0.967	1.84	0.94	1.30	6.49	0.75	1.52	2.27		7.47	3.04		0			1.00		1.00		0.823	Non-Liq.	3.0	2.5			0.00
16.24	4.95	7.30	0.16	2.20	0.70	130	1.004	0.817	0.966	2.47	0.93	1.27	7.80	0.86	2.36	3.22		8.78	3.04		0			1.00		1.00		0.831	Non-Liq.	3.0	2.9			0.00
16.73	5.10	8.36	0.25	2.99	0.80	130	1.036	0.834	0.965	3.33	0.94	1.25	8.89	0.95	3.48	4.43		9.88	3.06		0			1.00		1.00		0.840	Non-Liq.	3.0	3.3			0.00
17.22	5.25	10.96	0.34	3.13	1.05	130	1.068	0.850	0.964	3.39	0.91	1.22	11.65	1.21	3.67	4.88		12.63	2.97		0			1.00		1.00		0.848	Non-Liq.	3.2	4.0			0.00
17.72	5.40	22.67	0.53	2.33	2.17	130	1.100	0.867	0.962	2.43	0.80	1.17	24.19	2.40	2.57	4.97		25.15	2.63		0			1.00		1.00		0.856	Non-Liq.	3.8	6.5			0.00
18.21	5.55	71.75	0.59	0.83	6.87	130	1.132	0.883	0.961	0.84	0.60	1.11	74.62	8.63	0.46	9.09		87.08	1.96		0			1.15		1.00		0.863	Non-Liq.	5.2	16.9			0.00
18.70	5.70	90.74	0.51	0.56	8.69	130	1.164	0.900	0.960	0.57	0.55	1.09	92.76	10.88	0.09	10.97	1.01	107.98	1.79		1	80	1.10	1.15	118.9	1.00	0.236	0.870	**0.27**	5.5	19.7	4.1	23.8	1.28
19.19	5.85	92.84	0.52	0.56	8.89	130	1.196	0.917	0.959	0.56	0.54	1.08	93.93	11.03	0.08	11.11	1.01	109.34	1.78		1	81	1.10	1.15	119.7	1.00	0.240	0.876	**0.27**	5.5	19.9	4.1	23.9	1.27
19.69	6.00	52.05	0.47	0.90	4.98	130	1.228	0.933	0.958	0.92	0.64	1.08	52.38	6.12	0.57	6.69		61.48	2.11		0			1.15		1.00		0.883	Non-Liq.	4.9	12.6			0.00
20.18	6.15	14.81	0.32	2.17	1.42	130	1.260	0.950	0.956	2.32	0.85	1.10	14.36	1.51	2.36	3.87		15.35	2.80		0			1.00		1.00		0.889	Non-Liq.	3.5	4.4			0.00
20.67	6.30	11.77	0.25	2.12	1.13	130	1.292	0.967	0.955	2.32	0.88	1.08	11.06	1.20	2.30	3.50		12.05	2.90		0			1.00		1.00		0.894	Non-Liq.	3.3	3.6			0.00
21.16	6.45	10.85	0.35	3.23	1.04	130	1.324	0.983	0.954	3.55	0.92	1.07	9.98	1.09	3.87	4.96		10.97	3.04		0			1.00		1.00		0.900	Non-Liq.	3.1	3.6			0.00
21.65	6.60	9.94	0.43	4.32	0.95	130	1.356	1.000	0.952	4.81	0.96	1.06	8.92	0.99	5.44	6.42		9.91	3.16		0			1.00		1.00		0.905	Non-Liq.	2.8	3.5			0.00
22.15	6.75	9.02	0.36	4.01	0.86	130	1.388	1.017	0.951	4.52	0.97	1.04	7.87	0.89	5.00	5.89		8.86	3.18		0			1.00		1.00		0.910	Non-Liq.	2.8	3.2			0.00
22.64	6.90	8.67	0.26	3.00	0.83	130	1.420	1.033	0.950	3.41	0.95	1.02	7.39	0.84	3.57	4.41		8.39	3.14		0			1.00		1.00		0.914	Non-Liq.	2.9	2.9			0.00
23.13	7.05	23.73	0.60	2.53	2.27	130	1.452	1.050	0.948	2.64	0.82	1.01	21.58	2.28	2.89	5.17		22.58	2.69		0			1.00		1.00		0.918	Non-Liq.	3.7	6.1			0.00

Depth		Tip Qc	Friction Fs	Friction Ratio	qc	Total Unit Wt.	Total Stress	Eff. Stress				Max 1.70		Moss qc1	Moss Δqc	Moss qc_{1mod}	Moss eff			Overide	Liquef. Suscept.	Rel. Dens.			Clean Sand	1.0		Induced M=7.5	Liquefac. Safety	Qc1n $N_{1(60)}$	Equiv.	FC Adj.	Equiv.	Volumetric Strain
(feet)	(m)	(tsf)	(tsf)	Rf %	MPa	(pcf)	po (tsf)	p'o (tsf)	rd	%	n	Cq	Q	MPa	MPa	MPa	K_C	Qc1n	Ic		(0 or 1)	Dr (%)	K_C	K_H	Qc1n	Kσ	CRR	CSR	Factor	Ratio	$N_{1(60)}$	$ΔN_{1(60)}$	$N_{1(60)cs}$	(%)
23.62	7.20	74.87	1.75	2.34	7.17	130	1.484	1.066	0.946	2.38	0.69	0.99	69.38	7.18	2.63	9.81		70.64	2.28		0			1.00		1.00		0.922	**Non-Liq.**	4.5	15.6			**0.00**
24.11	7.35	130.03	2.64	2.03	12.45	130	1.516	1.083	0.945	2.05	0.63	0.99	120.10	12.36	2.19	14.56	1.18	121.11	2.07		1	85	1.40	1.00	169.6	0.99	Infin.	0.926	**Non-Liq.**	4.9	24.5	5.0	29.5	**0.00**
24.61	7.50	128.85	2.61	2.02	12.34	130	1.548	1.100	0.943	2.04	0.63	0.98	117.85	12.20	2.18	14.38	1.18	118.86	2.07		1	84	1.41	1.00	167.3	0.98	Infin.	0.930	**Non-Liq.**	4.9	24.1	5.0	29.1	**0.00**
25.10	7.65	121.72	1.95	1.60	11.66	130	1.580	1.116	0.941	1.62	0.61	0.97	110.30	11.45	1.58	13.03	1.14	111.32	2.02		1	81	1.33	1.00	147.7	0.98	0.380	0.933	**0.40**	5.0	22.1	5.5	27.6	**1.07**
25.59	7.80	118.18	1.44	1.22	11.32	130	1.612	1.133	0.940	1.23	0.59	0.96	106.24	11.04	1.03	12.07	1.09	107.27	1.95		1	80	1.24	1.00	132.9	0.97	0.298	0.936	**0.31**	5.2	20.7	5.5	26.2	**1.15**
26.08	7.95	121.64	1.26	1.03	11.65	130	1.644	1.150	0.938	1.04	0.58	0.95	108.56	11.28	0.77	12.04	1.07	109.60	1.89		1	81	1.18	1.00	129.8	0.97	0.283	0.939	**0.29**	5.3	20.7	5.2	26.0	**1.16**
26.57	8.10	118.04	1.08	0.91	11.30	130	1.676	1.166	0.936	0.92	0.57	0.95	104.51	10.86	0.59	11.45	1.05	105.55	1.87		1	79	1.16	1.00	122.9	0.96	0.253	0.942	**0.26**	5.3	19.8	4.8	24.6	**1.24**
27.07	8.25	113.45	0.91	0.80	10.86	130	1.708	1.183	0.934	0.81	0.56	0.94	99.64	10.35	0.43	10.79	1.04	100.69	1.85		1	77	1.15	1.00	115.7	0.96	0.224	0.945	**0.23**	5.4	18.8	4.4	23.1	**1.34**
27.56	8.40	95.80	0.84	0.88	9.17	130	1.740	1.200	0.932	0.89	0.59	0.93	83.04	8.69	0.54	9.23	1.06	84.09	1.94		1	70	1.23	1.00	103.5	0.96	0.183	0.947	**0.19**	5.2	16.2	4.5	20.7	**1.50**
28.05	8.55	67.90	1.00	1.48	6.50	130	1.772	1.216	0.930	1.51	0.67	0.91	57.42	6.15	1.41	7.56	1.23	58.47	2.21		1	55	1.69	1.00	98.8	0.96	0.170	0.949	**0.17**	4.7	12.5	5.5	18.0	**1.71**
28.54	8.70	71.73	0.99	1.38	6.87	130	1.804	1.233	0.928	1.40	0.66	0.90	60.26	6.46	1.26	7.72	1.20	61.31	2.17		1	57	1.60	1.00	98.3	0.96	0.168	0.951	**0.17**	4.7	12.9	5.5	18.4	**1.68**
29.04	8.85	66.05	0.82	1.24	6.33	130	1.836	1.249	0.925	1.27	0.66	0.90	54.90	5.89	1.07	6.97		55.95	2.18		0			1.00		0.97		0.952	**Non-Liq.**	4.7	11.8			**0.00**
29.53	9.00	30.54	0.71	2.32	2.92	130	1.868	1.266	0.923	2.42	0.79	0.87	24.00	2.70	2.62	5.32		25.03	2.63		0			1.00		0.96		0.954	**Non-Liq.**	3.8	6.5			**0.00**
30.02	9.15	16.35	0.49	2.98	1.57	130	1.900	1.283	0.920	3.24	0.89	0.84	12.01	1.41	3.58	4.99		13.03	2.95		0			1.00		0.96		0.955	**Non-Liq.**	3.2	4.0			**0.00**
30.51	9.30	13.42	0.30	2.23	1.28	130	1.932	1.299	0.918	2.47	0.89	0.83	9.54	1.13	2.50	3.63		10.56	2.97		0			1.00		0.96		0.956	**Non-Liq.**	3.2	3.3			**0.00**
31.00	9.45	15.58	0.36	2.30	1.49	130	1.964	1.316	0.915	2.51	0.87	0.83	11.14	1.31	2.60	3.91		12.17	2.91		0			1.00		0.96		0.957	**Non-Liq.**	3.3	3.7			**0.00**
31.50	9.60	85.17	0.79	0.93	8.16	130	1.996	1.333	0.913	0.94	0.61	0.87	68.80	7.40	0.62	8.02		70.16	2.02		0			1.00		0.95		0.957	**Non-Liq.**	5.0	13.9			**0.00**
31.99	9.75	148.17	1.60	1.08	14.19	130	2.028	1.349	0.910	1.09	0.57	0.87	120.86	12.99	0.84	13.83	1.06	121.97	1.87		1	85	1.16	1.00	142.1	0.91	0.347	0.958	**0.33**	5.3	22.9	5.5	28.4	**1.03**
32.48	9.90	103.17	1.64	1.59	9.88	130	2.060	1.366	0.907	1.61	0.64	0.85	81.75	9.04	1.57	10.61	1.17	82.85	2.11		1	69	1.48	1.00	122.3	0.93	0.250	0.958	**0.24**	4.9	17.0	5.5	22.5	**1.38**
32.97	10.05	48.98	1.18	2.42	4.69	130	2.092	1.382	0.904	2.49	0.75	0.82	36.81	4.24	2.77	7.00	1.65	37.87	2.50		1	37	2.75	1.00	104.3	0.95	0.186	0.958	**0.18**	4.1	9.2	5.5	14.7	**2.02**
33.46	10.20	49.69	1.26	2.54	4.76	130	2.124	1.399	0.901	2.62	0.75	0.81	36.97	4.29	2.95	7.24	1.69	38.04	2.51		1	37	2.82	1.00	107.2	0.95	0.195	0.958	**0.19**	4.1	9.3	5.5	14.8	**2.01**
33.96	10.35	97.30	1.13	1.16	9.32	130	2.156	1.416	0.898	1.18	0.62	0.83	75.66	8.31	0.96	9.27	1.12	76.78	2.05		1	66	1.37	1.00	105.3	0.92	0.188	0.957	**0.18**	5.0	15.4	5.5	20.9	**1.49**
34.45	10.50	88.24	0.82	0.92	8.45	130	2.188	1.432	0.894	0.94	0.61	0.83	68.17	7.40	0.61	8.02	1.08	69.29	2.02		1	62	1.33	1.00	92.4	0.91	0.153	0.957	**0.15**	5.0	13.8	4.7	18.5	**1.68**
34.94	10.65	43.16	0.83	1.92	4.13	130	2.219	1.449	0.891	1.99	0.75	0.79	31.16	3.62	2.05	5.67		32.24	2.49		0			1.00		0.94		0.956	**Non-Liq.**	4.1	7.8			**0.00**
35.43	10.80	16.46	0.71	4.34	1.58	130	2.251	1.466	0.888	4.76	0.92	0.74	10.49	1.34	5.53	6.87		11.51	3.10		0			1.00		0.94		0.955	**Non-Liq.**	2.9	3.9			**0.00**
35.93	10.95	58.96	0.63	1.08	5.65	130	2.283	1.482	0.884	1.10	0.67	0.80	43.35	6.80	0.83	7.63		62.56	2.23		0			1.41		0.93		0.954	**Non-Liq.**	4.6	13.5			**0.00**
36.42	11.10	92.23	0.80	0.86	8.83	130	2.315	1.499	0.880	0.88	0.60	0.81	69.47	10.65	0.52	11.18		99.35	2.00		0			1.41		0.93		0.953	**Non-Liq.**	5.1	19.6			**0.00**
36.91	11.25	37.48	0.90	2.39	3.59	130	2.347	1.516	0.877	2.49	0.78	0.75	25.65	3.09	2.73	5.82		26.73	2.62		0			1.00		0.93		0.951	**Non-Liq.**	3.9	6.9			**0.00**
37.40	11.40	33.79	0.91	2.69	3.24	130	2.379	1.532	0.873	2.82	0.81	0.74	22.63	2.77	3.16	5.93		23.70	2.70		0			1.00		0.93		0.949	**Non-Liq.**	3.7	6.4			**0.00**
37.89	11.55	34.65	0.77	2.23	3.32	130	2.411	1.549	0.869	2.33	0.79	0.74	23.17	2.81	2.49	5.30		24.26	2.64		0			1.00		0.93		0.948	**Non-Liq.**	3.8	6.3			**0.00**
38.39	11.70	35.84	0.69	1.94	3.43	130	2.443	1.565	0.865	2.02	0.77	0.74	23.93	2.89	2.07	4.96		25.11	2.59		0			1.00		0.92		0.946	**Non-Liq.**	3.9	6.4			**0.00**
38.88	11.85	219.29	1.33	0.61	21.00	130	2.475	1.582	0.861	0.61	0.50	0.82	168.27	17.77	0.15	17.93	1.01	169.50	1.60		1	99	1.00	1.00	169.5	0.85	Infin.	0.943	**Non-Liq.**	5.9	28.9	5.0	33.9	**0.00**
39.37	12.00	357.86	3.08	0.86	34.27	130	2.507	1.599	0.857	0.87	0.50	0.81	273.93	29.93	0.52	30.45	1.02	275.16	1.55		1	100	1.00	1.00	275.2	0.85	Infin.	0.941	**Non-Liq.**	6.0	46.2	5.0	51.2	**0.00**
39.86	12.15	441.03	4.33	0.98	42.23	130	2.539	1.615	0.852	0.99	0.50	0.81	336.12	37.24	0.69	37.93	1.02	337.36	1.54		1	100	1.00	1.00	337.4	0.84	Infin.	0.939	**Non-Liq.**	6.0	56.3	5.0	61.3	**0.00**
40.35	12.30	507.79	4.40	0.87	48.63	130	2.571	1.632	0.848	0.87	0.50	0.81	385.20	42.62	0.53	43.15	1.01	386.44	1.46		1	100	1.00	1.00	386.4	0.84	Infin.	0.936	**Non-Liq.**	6.1	62.9	5.0	67.9	**0.00**
40.85	12.45	539.61	3.81	0.71	51.67	130	2.603	1.649	0.843	0.71	0.50	0.80	407.33	44.70	0.29	45.00	1.01	408.58	1.37		1	100	1.00	1.00	408.6	0.84	Infin.	0.933	**Non-Liq.**	6.3	64.8	5.0	69.8	**0.00**
41.34	12.60	557.25	4.51	0.81	53.36	130	2.635	1.665	0.839	0.81	0.50	0.80	418.57	46.43	0.44	46.88	1.01	419.82	1.41		1	100	1.00	1.00	419.8	0.83	Infin.	0.930	**Non-Liq.**	6.2	67.4	5.0	72.4	**0.00**
41.83	12.75	541.17	5.35	0.99	51.82	130	2.667	1.682	0.834	0.99	0.50	0.79	404.43	45.42	0.70	46.12	1.02	405.69	1.49		1	100	1.00	1.00	405.7	0.83	Infin.	0.927	**Non-Liq.**	6.1	66.8	5.0	71.8	**0.00**
42.32	12.90	495.58	5.65	1.14	47.46	130	2.699	1.699	0.830	1.14	0.50	0.79	368.42	41.70	0.91	42.61	1.02	369.69	1.57		1	100	1.00	1.00	369.7	0.83	Infin.	0.924	**Non-Liq.**	5.9	62.3	5.0	67.3	**0.00**
42.81	13.05	405.56	4.32	1.07	38.84	130	2.731	1.715	0.825	1.07	0.50	0.79	299.79	33.71	0.81	34.52	1.02	301.07	1.60		1	100	1.00	1.00	301.1	0.82	Infin.	0.920	**Non-Liq.**	5.9	51.3	5.0	56.3	**0.00**
43.31	13.20	294.44	3.39	1.15	28.20	130	2.763	1.732	0.820	1.16	0.52	0.77	213.90	24.26	0.93	25.19	1.04	215.17	1.72		1	100	1.05	1.00	225.7	0.82	Infin.	0.917	**Non-Liq.**	5.6	38.2	5.0	43.2	**0.00**
43.80	13.35	270.66	3.20	1.18	25.92	130	2.795	1.748	0.816	1.19	0.53	0.77	194.53	22.21	0.97	23.18	1.04	195.79	1.75		1	100	1.07	1.00	210.2	0.82	Infin.	0.913	**Non-Liq.**	5.6	35.2	5.0	40.2	**0.00**
44.29	13.50	268.86	2.73	1.02	25.75	130	2.827	1.765	0.811	1.02	0.52	0.77	193.55	21.79	0.73	22.52	1.03	194.83	1.71		1	100	1.04	1.00	203.1	0.81	Infin.	0.910	**Non-Liq.**	5.7	34.4	5.0	39.4	**0.00**
44.78	13.65	242.72	3.56	1.47	23.24	130	2.859	1.782	0.806	1.48	0.56	0.75	169.75	19.98	1.37	21.36	1.07	171.00	1.86		1	99	1.16	1.00	197.5	0.81	Infin.	0.906	**Non-Liq.**	5.4	31.9	5.0	36.9	**0.00**
45.28	13.80	113.41	2.67	2.35	10.86	130	2.891	1.798	0.801	2.39	0.68	0.70	73.61	9.28	2.63	11.92	1.28	74.79	2.26		1	65	1.84	1.00	137.5	0.85	0.322	0.902	**0.30**	4.6	16.4	5.5	21.9	**1.41**
45.77	13.95	403.41	3.36	0.83	38.63	130	2.923	1.815	0.796	0.84	0.50	0.76	289.81	32.43	0.47	32.91	1.01	291.12	1.52		1	100	1.00	1.00	291.1	0.81	Infin.	0.898	**Non-Liq.**	6.0	48.4	5.0	53.4	**0.00**
46.26	14.10	421.53	4.48	1.06	40.37	130	2.955	1.832	0.791	1.07	0.50	0.76	301.49	34.41	0.80	35.21	1.02	302.81	1.59		1	100	1.00	1.00	302.8	0.80	Infin.	0.894	**Non-Liq.**	5.9	51.5	5.0	56.5	**0.00**
46.75	14.25	408.16	4.15	1.02	39.09	130	2.987	1.848	0.786	1.02	0.50	0.76	290.56	33.09	0.73	33.82	1.02	291.88	1.59		1	100	1.00	1.00	291.9	0.80	Infin.	0.890	**Non-Liq.**	5.9	49.6	5.0	54.6	**0.00**
47.24	14.40	399.81	4.45	1.11	38.29	130	3.019	1.865	0.781	1.12	0.50	0.75	283.31	32.50	0.87	33.37	1.03	284.64	1.63		1	100	1.00	1.00	284.6	0.80	Infin.	0.886	**Non-Liq.**	5.8	49.0	5.0	54.0	**0.00**
47.74	14.55	498.09	3.65	0.73	47.70	130	3.051	1.881	0.776	0.74	0.50	0.75	351.70	39.52	0.33	39.85	1.01	353.03	1.43		1	100	1.00	1.00	353.0	0.79	Infin.	0.881	**Non-Liq.**	6.2	56.9	5.0	61.9	**0.00**
48.23	14.70	582.47	4.45	0.76	55.78	130	3.083	1.898	0.771	0.77	0.50	0.75	409.69	46.50	0.37	46.87	1.01	411.03	1.40		1	100	1.00	1.00	411.0	0.79	Infin.	0.877	**Non-Liq.**	6.3	65.7	5.0	70.7	**0.00**
48.72	14.85	586.34	4.54	0.77	56.15	130	3.115	1.915	0.766	0.78	0.50	0.74	410.61	46.74	0.39	47.12	1.01	411.96	1.40		1	100	1.00	1.00	412.0	0.79	Infin.	0.873	**Non-Liq.**	6.3	65.9	5.0	70.9	**0.00**
49.21	15.00	612.04	3.44	0.56	58.61	130	3.147	1.931	0.761	0.56	0.50	0.74	426.80	47.48	0.09	47.56	1.00	428.16	1.28		1	100	1.00	1.00	428.2	0.79	Infin.	0.868	**Non-Liq.**	5.5	77.4	5.0	82.4	**0.00**
49.70	15.15	518.00	3.38	0.65	49.60	130	3.179	1.948	0.756	0.65	0.50	0.74	359.46	40.31	0.21	40.52	1.01	360.82	1.38		1	100	1.00	1.00	360.8	0.78	Infin.	0.864	**Non-Liq.**	6.3	57.4	5.0	62.4	**0.00**
50.20	15.30	481.90	4.57	0.95	46.15	130	3.211	1.965	0.751	0.95	0.50	0.73	332.89	38.41	0.63	39.04	1.02	334.25	1.53		1	100	1.00	1.00	334.3	0.78	Infin.	0.860	**Non-Liq.**	6.0	55.7	5.0	60.7	**0.00**
50.69	15.45	493.83	4.14	0.84	47.29	130	3.243	1.981	0.746	0.84	0.50	0.73	339.71	38.93	0.47	39.41	1.01	341.08	1.48		1	100	1.00	1.00	341.1	0.78	Infin.	0.855	**Non-Liq.**	6.1	55.9	5.0	60.9	**0.00**
51.18	15.60	489.43	3.31	0.68	46.87	130	3.275	1.998	0.741	0.68	0.50	0.73	335.26	37.79	0.25	38.03	1.01	336.63	1.41		1	100	1.00	1.00	336.6	0.78	Infin.	0.851	**Non-Liq.**	6.2	54.0	5.0	59.0	**0.00**
51.67	15.75	474.70	5.28	1.11	45.46	130	3.307	2.015	0.736	1.12	0.50	0.72	323.77	37.99	0.86	38.85	1.02	325.15	1.59		1	100	1.00	1.00	325.1	0.77	Infin.	0.846	**Non-Liq.**	5.9	55.3	5.0	60.3	**0.00**
52.17	15.90	469.53	4.42	0.94	44.96	130	3.339	2.031	0.731	0.95	0.50	0.72	318.90	37.00	0.62	37.62	1.02	320.29	1.54		1	100	1.00	1.00	320.3	0.77	Infin.	0.842	**Non-Liq.**	6.0	53.5	5.0	58.5	**0.00**
52.66	16.05	455.06	3.88	0.85	43.58	130	3.371	2.048	0.726	0.86	0.50	0.72	307.77	35.44	0.49	35.93	1.01	309.16	1.51		1	100	1.00	1.00	309.2	0.77	Infin.	0.837	**Non-Liq.**	6.0	51.2	5.0	56.2	**0.00**
53.15	16.20	462.25	4.48	0.97	44.27	130	3.403	2.064	0.721	0.97	0.50	0.72	311.38	36.31	0.65	36.97	1.02	312.78	1.55		1	100	1.00	1.00	312.8	0.77	Infin.	0.833	**Non-Liq.**	6.0	52.5	5.0	57.5	**0.00**
53.64	16.35	506.27	4.57	0.90	48.48	130	3.435	2.081	0.716	0.91	0.50	0.71	339.78	39.60	0.56	40.16	1.01	341.19	1.51		1	100	1.00	1.00	341.2	0.76	Infin.	0.828	**Non-Liq.**	6.0	56.4	5.0	61.4	**0.00**
54.13	16.50	429.34	4.37	1.02	41.11	130	3.467	2.098	0.712	1.02	0.50	0.71	286.79	33.60	0.72	34.32	1.02	288.20	1.59		1	100	1.00	1.00	288.2	0.76	Infin.	0.824	**Non-Liq.**	5.9	49.0	5.0	54.0	**0.00**

Depth		Tip Qc	Friction Fs	Friction Ratio	qc	Total Unit Wt.	Total Stress	Eff. Stress		F		Max 1.70		Moss qc1	Moss Δqc	Moss qc_{1mod}	Moss eff			Overide	Liquef. Suscept.	Rel. Dens.			Clean Sand	1.0		Induced M=7.5	**Liquefac. Safety**	Qc1n $N_{1(60)}$	Equiv.	FC Adj.	Equiv.	***Volumetric Strain***
(feet)	(m)	(tsf)	(tsf)	Rf %	MPa	(pcf)	po (tsf)	p'o (tsf)	rd	%	n	Cq	Q	MPa	MPa	MPa	K_C	Qc1n	Ic		(0 or 1)	Dr (%)	K_C	K_H	Qc1n	Kσ	CRR	CSR	**Factor**	Ratio	$N_{1(60)}$	$\Delta N_{1(60)}$	$N_{1(60)cs}$	***(%)***
54.63	16.65	480.96	3.75	0.78	46.06	130	3.499	2.114	0.707	0.78	0.50	0.71	320.16	36.88	0.39	37.27	1.01	321.57	1.47		1	100	1.00	1.00	321.6	0.76	Infin.	0.819	**Non-Liq.**	6.1	52.6	5.0	57.6	**0.00**

EARTH SYSTEMS - EVALUATION OF LIQUEFACTION POTENTIAL AND INDUCED GROUND SUBSIDENCE

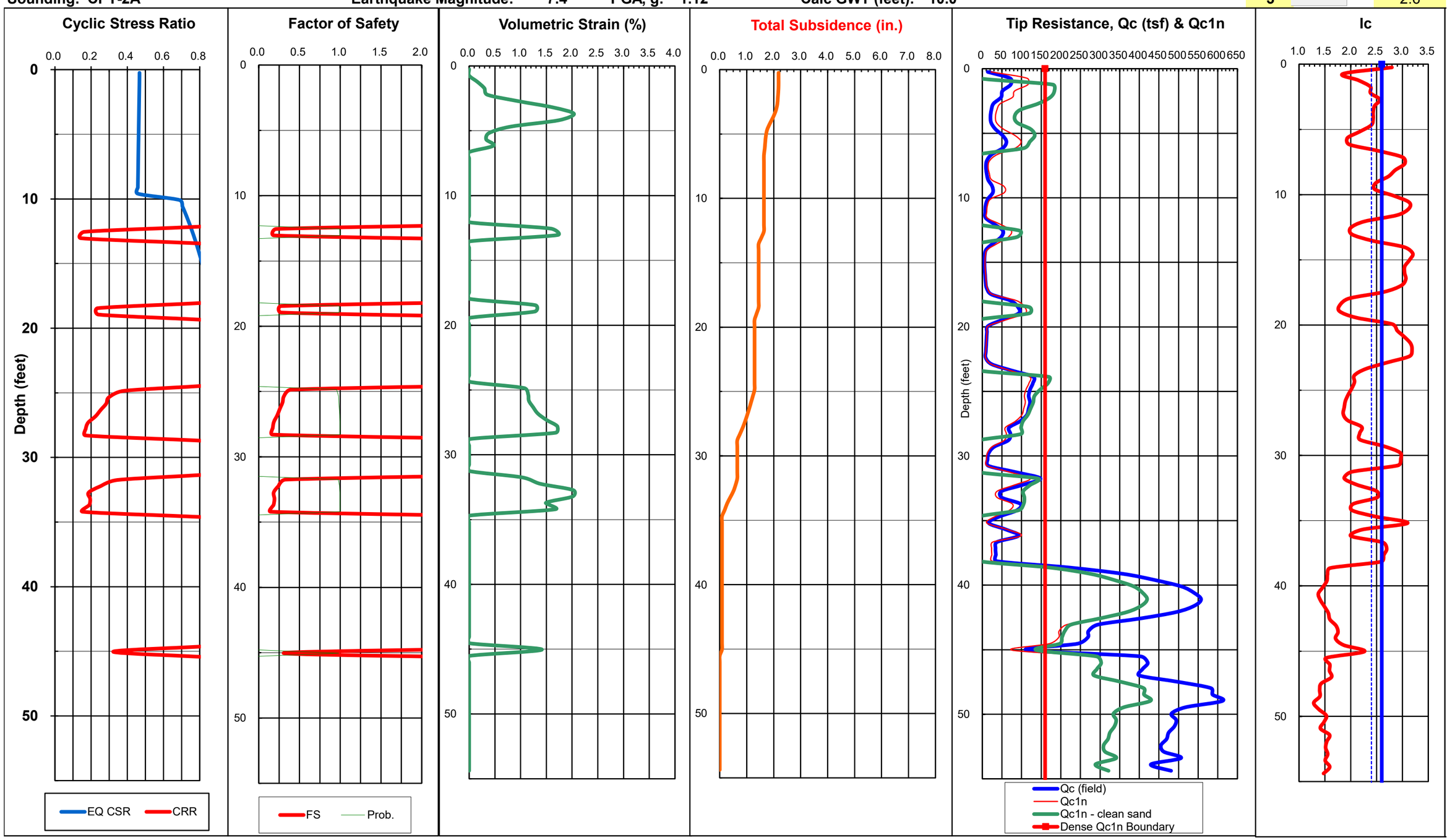
499 Linden Avenue **Project No: 306184-001**

Method Used: 1 1998 NCEER (Robertson & Wride)

Settlement Analysis using Tokimatsu & Seed (1987), clean sand Qc1n/N1(60) ratio =5

Plot **3** Limiting Ic: 2.6

Sounding: CPT-2A **Earthquake Magnitude: 7.4** **PGA, g: 1.12** **Calc GWT (feet): 10.0**



Total Thickness of Liquefiable Layers: 9.4 feet

Estimated Total Ground Subsidence (Settlement): 2.2 inches

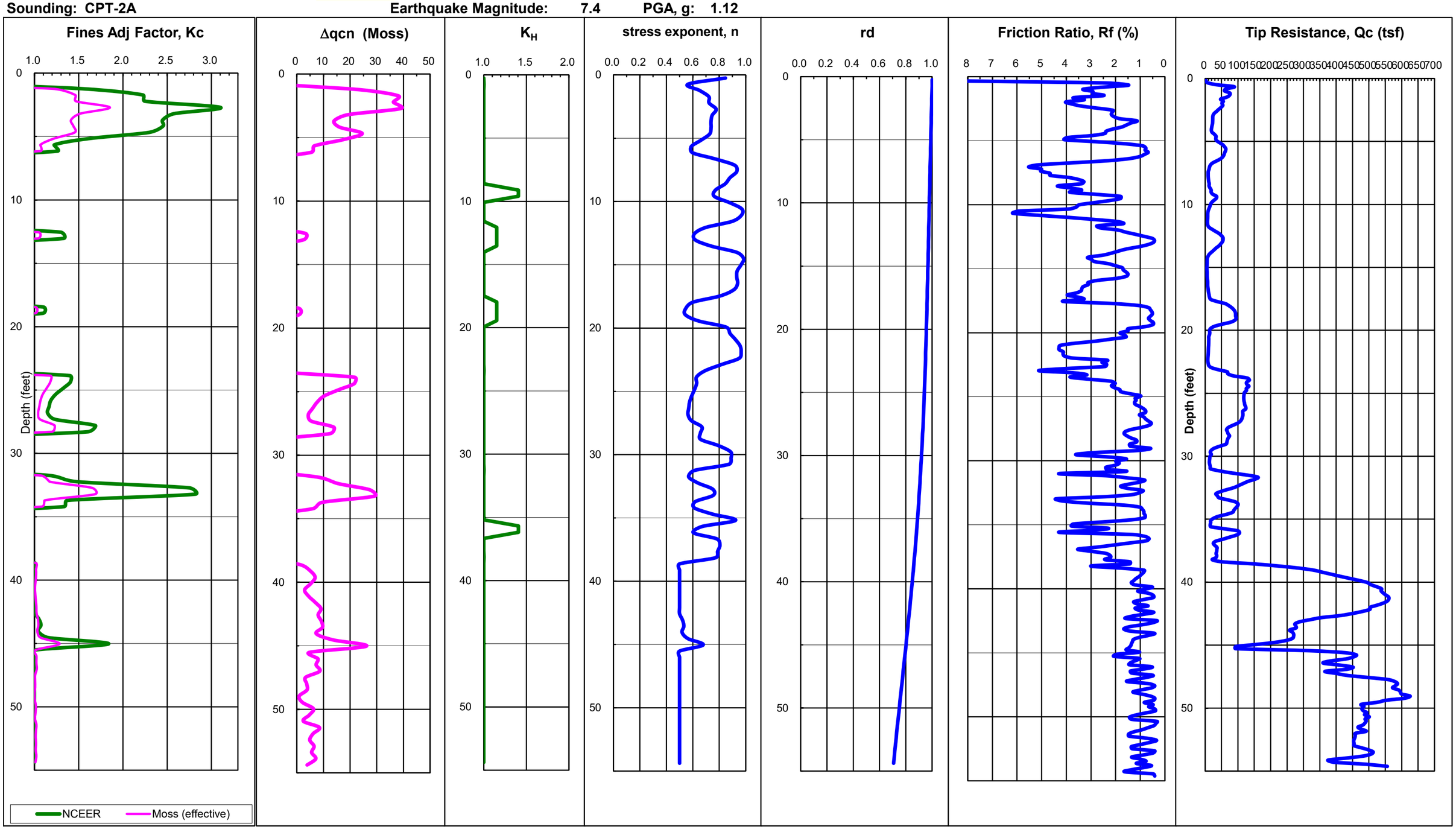
EARTH SYSTEMS - EVALUATION OF LIQUEFACTION POTENTIAL AND INDUCED GROUND SUBSIDENCE

3 avg increment =0.15m Qc1n/N1(60): 5

Ignore 1st/last increment into sand/silt soils: 0

Method Used: 1998 NCEER (Robertson & Wride)

Sounding: CPT-2A **Earthquake Magnitude: 7.4** **PGA, g: 1.12**



Job Number: 306184-001
Job Name: 499 Linden Avenue
CPT Number: CPT-1
Date: October 5, 2023
Calculated By: ML

Prediction of Liquefaction Induced Lateral Spreading with Ground Slope Conditions

Based on Data Published in the ASCE Journal of Geotechnicial and Geoenvironmental Engineering December 2002
(Bartlett and Youd 2002)

Variables Used in Calculation Defined

Earthquake Magnitude (M)
Horizontal Distance to Nearest Seismic Energy Source, km (R)
Percent Slope (S)
Cumulative Thickness in Meters of Saturated Cohesionless Sediments with SPT $(N1)_{60}$ Values <= 15 (T_{15})
Average Fines Content in Percent (F_{15})
Mean Grain size in milimeters ($D50_{15}$)

$$\text{Log } D_H = -16.213 + 1.532M - 1.406\text{Log}(R + 10^{(0.89M - 5.64)}) - 0.012R + 0.338\text{Log}S + 0.540\text{Log}T_{15} + 3.413\text{Log}(100 - F_{15}) - 0.795\text{Log}(D50_{15} + 0.1\text{mm})$$

Requirements and Limitations Used to Develop this Model

Soils must be Liquefiable
Saturated Cohesionless Sediments with SPT $(N1)_{60}$ less than 15
Earthquake Magnitude (M) must be between 6 and 8
Percent Slope (S) must be between 0.1% and 6%
Cumulative Thickness (T15) must be between 1 and 15 meters
Depth to top of Liquefied layer must be between 1 and 10 meters
Distance to Fault Rupture (R_{eq}) must be determined using Figure 10 if soft soils are present.
F_{15} and $D50_{15}$ must be within bounds shown in Fig. 5.
If R or R_{eq} < 0.5 km use 0.5; otherwise use R or R_{eq}.

Input Values	
M = 7.4	
R = 4	km
S = 0.1	%
T_{15} = 1.2	m
F_{15} = 30	%
$D50_{15}$ = 1.5	mm

Horizontal Ground Displacement in meters (D_H) = 0.23
Horizontal Ground Displacement in feet (D_H) = 0.7

Displacements should be between 0.1 and 6 meters and should be multiplied by a FOS of 2 for a conservative estimate. Any displacement greater than 6 meters is outside of the data set used in the analysis and may not be an accurate estimate.

Job Number: 306184-001
Job Name: 499 Linden Avenue
CPT Number: CPT-2
Date: October 5, 2023
Calculated By: ML

Prediction of Liquefaction Induced Lateral Spreading with Ground Slope Conditions

Based on Data Published in the ASCE Journal of Geotechnicial and Geoenvironmental Engineering December 2002
(Bartlett and Youd 2002)

Variables Used in Calculation Defined

Earthquake Magnitude (M)
Horizontal Distance to Nearest Seismic Energy Source, km (R)
Percent Slope (S)
Cumulative Thickness in Meters of Saturated Cohesionless Sediments with SPT $(N1)_{60}$ Values <= 15 (T_{15})
Average Fines Content in Percent (F_{15})
Mean Grain size in milimeters ($D50_{15}$)

$$\text{Log } D_H = -16.213 + 1.532M - 1.406\text{Log}(R + 10^{(0.89M - 5.64)}) - 0.012R + 0.338\text{Log}S + 0.540\text{Log}T_{15} + 3.413\text{Log}(100 - F_{15}) - 0.795\text{Log}(D50_{15} + 0.1\text{mm})$$

Requirements and Limitations Used to Develop this Model

Soils must be Liquefiable
Saturated Cohesionless Sediments with SPT $(N1)_{60}$ less than 15
Earthquake Magnitude (M) must be between 6 and 8
Percent Slope (S) must be between 0.1% and 6%
Cumulative Thickness (T15) must be between 1 and 15 meters
Depth to top of Liquefied layer must be between 1 and 10 meters
Distance to Fault Rupture (R_{eq}) must be determined using Figure 10 if soft soils are present.
F_{15} and $D50_{15}$ must be within bounds shown in Fig. 5.
If R or R_{eq} < 0.5 km use 0.5; otherwise use R or R_{eq}.

Input Values	
M = 7.4	
R = 4	km
S = 0.1	%
T_{15} = 1.05	m
F_{15} = 30	%
$D50_{15}$ = 1.5	mm

Horizontal Ground Displacement in meters (D_H) = 0.21
Horizontal Ground Displacement in feet (D_H) = 0.7

Displacements should be between 0.1 and 6 meters and should be multiplied by a FOS of 2 for a conservative estimate. Any displacement greater than 6 meters is outside of the data set used in the analysis and may not be an accurate estimate.

Job Number: 306184-001
Job Name: 499 Linden Avenue
CPT Number: CPT-2A
Date: October 5, 2023
Calculated By: ML

Prediction of Liquefaction Induced Lateral Spreading with Ground Slope Conditions

Based on Data Published in the ASCE Journal of Geotechnicial and Geoenvironmental Engineering December 2002
(Bartlett and Youd 2002)

Variables Used in Calculation Defined

Earthquake Magnitude (M)
Horizontal Distance to Nearest Seismic Energy Source, km (R)
Percent Slope (S)
Cumulative Thickness in Meters of Saturated Cohesionless Sediments with SPT $(N1)_{60}$ Values <= 15 (T_{15})
Average Fines Content in Percent (F_{15})
Mean Grain size in milimeters ($D50_{15}$)

$$\text{Log } D_H = -16.213 + 1.532M - 1.406\text{Log}(R + 10^{(0.89M - 5.64)}) - 0.012R + 0.338\text{Log}S + 0.540\text{Log}T_{15} + 3.413\text{Log}(100 - F_{15}) - 0.795\text{Log}(D50_{15} + 0.1\text{mm})$$

Requirements and Limitations Used to Develop this Model

Soils must be Liquefiable
Saturated Cohesionless Sediments with SPT $(N1)_{60}$ less than 15
Earthquake Magnitude (M) must be between 6 and 8
Percent Slope (S) must be between 0.1% and 6%
Cumulative Thickness (T15) must be between 1 and 15 meters
Depth to top of Liquefied layer must be between 1 and 10 meters
Distance to Fault Rupture (R_{eq}) must be determined using Figure 10 if soft soils are present.
F_{15} and $D50_{15}$ must be within bounds shown in Fig. 5.
If R or R_{eq} < 0.5 km use 0.5; otherwise use R or R_{eq}.

Input Values	
M = 7.4	
R = 4	km
S = 0.1	%
T_{15} = 1.05	m
F_{15} = 30	%
$D50_{15}$ = 1.5	mm

Horizontal Ground Displacement in meters (D_H) = 0.21
Horizontal Ground Displacement in feet (D_H) = 0.7

Displacements should be between 0.1 and 6 meters and should be multiplied by a FOS of 2 for a conservative estimate. Any displacement greater than 6 meters is outside of the data set used in the analysis and may not be an accurate estimate.

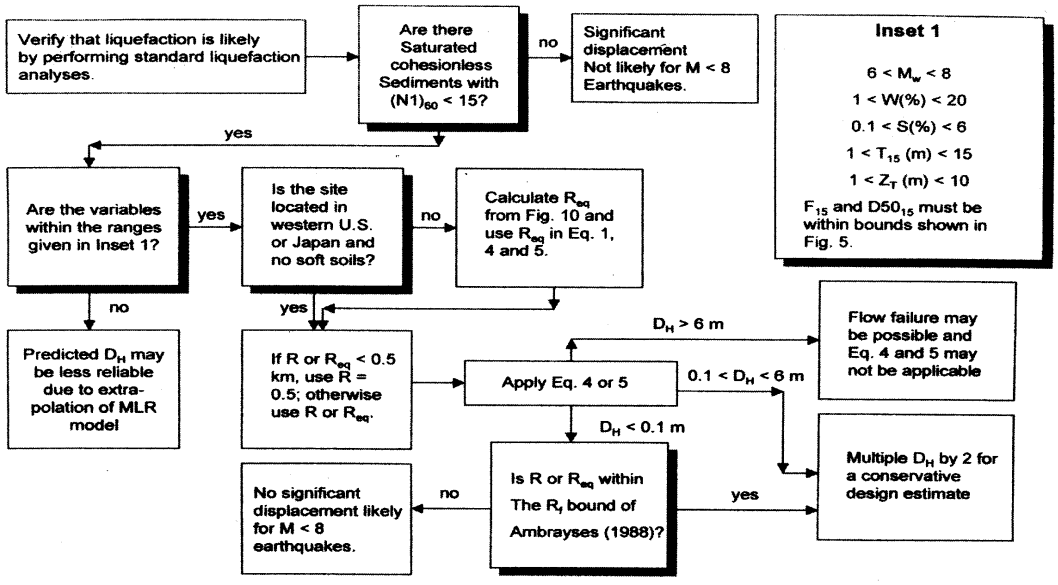


Fig. 9. Flow chart [for application of Eq. (6)]

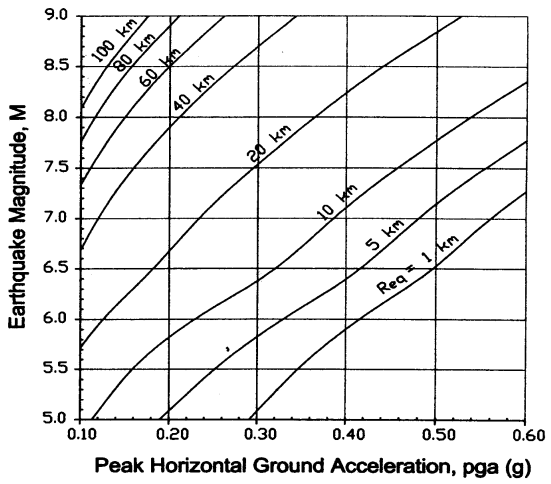


Fig. 10. Graph for determining equivalent source distance, R_{eq}, from magnitude, M, and peak acceleration, a_{max} (revised from Bartlett and Youd 1992, 1995). The above curves are the averages of pga from three different attenuation relations: Abrahamson and Silva (1997); Boore et al. (1997); and Campbell (1997). For the Abrahamson and Silva (1997) relation, the following parameters were used in the regression equation: a) R equals the distance to the fault rupture, b) fault type was set to "otherwise", c) HW=hanging wall factor was set to 1, which implies that sites are found on the hanging wall, d) site classification was set to 1 for deep soil sites. For the Boore, Joyner and Fumal (1997) relation, the following parameters were used in the regression equation: a) R is the closest horizontal distance (km) to a vertical projection of fault rupture surface (km), b) Vs in the upper 30 meters was set to 270 m/s, which is the mid range for a medium stiff soil (site class D), c) fault type was set to "fault mechanism not specified." For the Campbell (1997) relation, the following parameters were used in the regression equation: a) R is the closest distance to the seismogenic rupture surface (km), b) fault style factor was set to "otherwise", c) soft rock and hard rock site factors were set to "otherwise", which implies a stiff soil site.

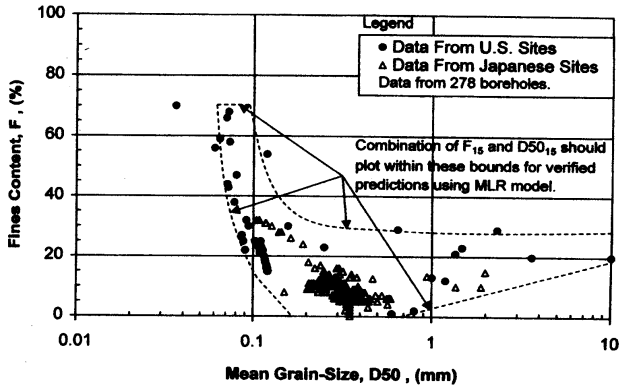


Fig. 5. Compiled grain-size data with ranges of F_{15} and $D50_{15}$ [for which Eq. (6) is applicable]

APPENDIX F

Infiltration Testing Results

INFILTRATION RATE BY THE BOREHOLE PERCOLATION TEST METHOD

This workbook calculates an adjusted infiltration rate from a borehole percolation test. The percolation rate is adjusted for sidewall area according to the Porchet method, and then re-adjusted for the effect of the gravel placed in annulus between the borehole wall and a pipe placed in the borehole by a method presented in Caltrans Test 750.

Project Name	499 Linden
Project Number	306184-001
Test Hole No.	IT-1
Tester	A. Luna
Pre-Soak Date	8/8/23
Test Date	8/9/23

Test Hole Radius, r (inches)	4.5
Total Depth of Test Hole, D_T (feet)	2.00
Inside Diameter of Pipe, I (inches)	2.00
Outside Diameter of Pipe, O (inches)	2.38
Pipe Stick-Up (feet)	0.00
Porosity of Gravel, n	0.41
Porosity Correction Factor, C	0.43
Factor of Safety (FOS), F	N/A

Interval No.	Delta Time, Δt (min.)	Initial Depth to Water from TOP, D_o (ft.)	Final Depth to Water from TOP, D_f (ft.)	Initial Water Height, H_o (in.)	Final Water Height, H_f (in.)	Change in Water Height, ΔH (in.)	Perc Rate, (in/hr)	Infiltration Rate (in./hr.)	Corrected Infiltration Rate (in/hr)
1	21.00	0.00	2.00	24.00	0.00	24.00	68.57	10.83	4.66
2	26.00	0.00	2.00	24.00	0.00	24.00	55.38	8.74	3.77
3	29.00	0.00	2.00	24.00	0.00	24.00	49.66	7.84	3.38
4	32.00	0.00	2.00	24.00	0.00	24.00	45.00	7.11	3.06
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INFILTRATION RATE BY THE BOREHOLE PERCOLATION TEST METHOD

This workbook calculates an adjusted infiltration rate from a borehole percolation test. The percolation rate is adjusted for sidewall area according to the Porchet method, and then re-adjusted for the effect of the gravel placed in annulus between the borehole wall and a pipe placed in the borehole by a method presented in Caltrans Test 750.

Project Name	499 Linden
Project Number	306184-001
Test Hole No.	IT-2
Tester	A. Luna
Pre-Soak Date	8/8/23
Test Date	8/9/23

Test Hole Radius, r (inches)	4.5
Total Depth of Test Hole, D_T (feet)	4.74
Inside Diameter of Pipe, I (inches)	2.00
Outside Diameter of Pipe, O (inches)	2.38
Pipe Stick-Up (feet)	0.01
Porosity of Gravel, n	0.41
Porosity Correction Factor, C	0.43
Factor of Safety (FOS), F	N/A

Interval No.	Delta Time, Δt (min.)	Initial Depth to Water from TOP, D_o (ft.)	Final Depth to Water from TOP, D_f (ft.)	Initial Water Height, H_o (in.)	Final Water Height, H_f (in.)	Change in Water Height, ΔH (in.)	Perc Rate, (in/hr)	Infiltration Rate (in./hr.)	Corrected Infiltration Rate (in/hr)
1	11.00	2.75	4.75	24.00	0.00	24.00	130.91	20.67	8.90
2	18.00	2.75	4.75	24.00	0.00	24.00	80.00	12.63	5.44
3	21.00	2.75	4.75	24.00	0.00	24.00	68.57	10.83	4.66
4	21.00	2.75	4.75	24.00	0.00	24.00	68.57	10.83	4.66
5	22.00	2.75	4.75	24.00	0.00	24.00	65.45	10.33	4.45
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INFILTRATION RATE BY THE BOREHOLE PERCOLATION TEST METHOD

This workbook calculates an adjusted infiltration rate from a borehole percolation test. The percolation rate is adjusted for sidewall area according to the Porchet method, and then re-adjusted for the effect of the gravel placed in annulus between the borehole wall and a pipe placed in the borehole by a method presented in Caltrans Test 750.

Project Name	499 Linden
Project Number	306184-001
Test Hole No.	IT-3
Tester	A. Luna
Pre-Soak Date	8/8/23
Test Date	8/9/23

Test Hole Radius, r (inches)	4.5
Total Depth of Test Hole, D_T (feet)	2.05
Inside Diameter of Pipe, I (inches)	2.00
Outside Diameter of Pipe, O (inches)	2.38
Pipe Stick-Up (feet)	0.00
Porosity of Gravel, n	0.41
Porosity Correction Factor, C	0.43
Factor of Safety (FOS), F	N/A

Interval No.	Delta Time, Δt (min.)	Initial Depth to Water from TOP, D_o (ft.)	Final Depth to Water from TOP, D_f (ft.)	Initial Water Height, H_o (in.)	Final Water Height, H_f (in.)	Change in Water Height, ΔH (in.)	Perc Rate, (in/hr)	Infiltration Rate (in./hr.)	Corrected Infiltration Rate (in/hr)
1	30.00	0.05	0.85	24.00	14.40	9.60	19.20	2.01	0.87
2	30.00	0.05	0.79	24.00	15.12	8.88	17.76	1.83	0.79
3	30.00	0.05	0.71	24.00	16.08	7.92	15.84	1.60	0.69
4	30.00	0.05	0.69	24.00	16.32	7.68	15.36	1.54	0.66
5	30.00	0.05	0.66	24.00	16.68	7.32	14.64	1.46	0.63
6	30.00	0.05	0.69	24.00	16.32	7.68	15.36	1.54	0.66
7	30.00	0.05	0.69	24.00	16.32	7.68	15.36	1.54	0.66
8	30.00	0.05	0.67	24.00	16.56	7.44	14.88	1.49	0.64
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INFILTRATION RATE BY THE BOREHOLE PERCOLATION TEST METHOD

This workbook calculates an adjusted infiltration rate from a borehole percolation test. The percolation rate is adjusted for sidewall area according to the Porchet method, and then re-adjusted for the effect of the gravel placed in annulus between the borehole wall and a pipe placed in the borehole by a method presented in Caltrans Test 750.

Project Name	499 Linden
Project Number	306184-001
Test Hole No.	IT-4
Tester	A. Luna
Pre-Soak Date	8/8/23
Test Date	8/9/23

Test Hole Radius, r (inches)	4.5
Total Depth of Test Hole, D_T (feet)	4.95
Inside Diameter of Pipe, I (inches)	2.00
Outside Diameter of Pipe, O (inches)	2.38
Pipe Stick-Up (feet)	0.00
Porosity of Gravel, n	0.41
Porosity Correction Factor, C	0.43
Factor of Safety (FOS), F	N/A

Interval No.	Delta Time, Δt (min.)	Initial Depth to Water from TOP, D_o (ft.)	Final Depth to Water from TOP, D_f (ft.)	Initial Water Height, H_o (in.)	Final Water Height, H_f (in.)	Change in Water Height, ΔH (in.)	Perc Rate, (in/hr)	Infiltration Rate (in./hr.)	Corrected Infiltration Rate (in/hr)
1	30.00	2.95	3.31	24.00	19.68	4.32	8.64	0.81	0.35
2	30.00	2.95	3.18	24.00	21.24	2.76	5.52	0.50	0.22
3	30.00	2.95	3.02	24.00	23.16	0.84	1.68	0.15	0.06
4	30.00	2.95	3.02	24.00	23.16	0.84	1.68	0.15	0.06
5	30.00	2.95	3.05	24.00	22.80	1.20	2.40	0.21	0.09
6	30.00	2.95	3.05	24.00	22.80	1.20	2.40	0.21	0.09
7	30.00	2.95	3.04	24.00	22.92	1.08	2.16	0.19	0.08
8	30.00	2.95	3.03	24.00	23.04	0.96	1.92	0.17	0.07
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INFILTRATION RATE BY THE BOREHOLE PERCOLATION TEST METHOD

This workbook calculates an adjusted infiltration rate from a borehole percolation test. The percolation rate is adjusted for sidewall area according to the Porchet method, and then re-adjusted for the effect of the gravel placed in annulus between the borehole wall and a pipe placed in the borehole by a method presented in Caltrans Test 750.

Project Name	499 Linden
Project Number	306184-001
Test Hole No.	IT-5
Tester	A. Luna
Pre-Soak Date	8/9/23
Test Date	8/10/23

Test Hole Radius, r (inches)	4.5
Total Depth of Test Hole, D_T (feet)	2.00
Inside Diameter of Pipe, I (inches)	2.00
Outside Diameter of Pipe, O (inches)	2.38
Pipe Stick-Up (feet)	0.00
Porosity of Gravel, n	0.41
Porosity Correction Factor, C	0.43
Factor of Safety (FOS), F	N/A

Interval No.	Delta Time, Δt (min.)	Initial Depth to Water from TOP, D_o (ft.)	Final Depth to Water from TOP, D_f (ft.)	Initial Water Height, H_o (in.)	Final Water Height, H_f (in.)	Change in Water Height, ΔH (in.)	Perc Rate, (in/hr)	Infiltration Rate (in./hr.)	Corrected Infiltration Rate (in/hr)
1	60.00	0.00	1.18	24.00	9.84	14.16	14.16	1.66	0.72
2	60.00	0.00	1.03	24.00	11.64	12.36	12.36	1.39	0.60
3	60.00	0.00	1.00	24.00	12.00	12.00	12.00	1.33	0.57
4	60.00	0.00	0.97	24.00	12.36	11.64	11.64	1.28	0.55
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INFILTRATION RATE BY THE BOREHOLE PERCOLATION TEST METHOD

This workbook calculates an adjusted infiltration rate from a borehole percolation test. The percolation rate is adjusted for sidewall area according to the Porchet method, and then re-adjusted for the effect of the gravel placed in annulus between the borehole wall and a pipe placed in the borehole by a method presented in Caltrans Test 750.

Project Name	499 Linden
Project Number	306184-001
Test Hole No.	IT-6
Tester	A. Luna
Pre-Soak Date	8/9/23
Test Date	8/10/23

Test Hole Radius, r (inches)	4.5
Total Depth of Test Hole, D_T (feet)	4.65
Inside Diameter of Pipe, I (inches)	2.00
Outside Diameter of Pipe, O (inches)	2.38
Pipe Stick-Up (feet)	0.40
Porosity of Gravel, n	0.41
Porosity Correction Factor, C	0.43
Factor of Safety (FOS), F	N/A

Interval No.	Delta Time, Δt (min.)	Initial Depth to Water from TOP, D_o (ft.)	Final Depth to Water from TOP, D_f (ft.)	Initial Water Height, H_o (in.)	Final Water Height, H_f (in.)	Change in Water Height, ΔH (in.)	Perc Rate, (in/hr)	Infiltration Rate (in./hr.)	Corrected Infiltration Rate (in/hr)
1	60.00	3.04	3.09	24.12	23.52	0.60	0.60	0.05	0.02
2	60.00	3.05	3.10	24.00	23.40	0.60	0.60	0.05	0.02
3	60.00	3.05	3.10	24.00	23.40	0.60	0.60	0.05	0.02
4	60.00	3.05	3.09	24.00	23.52	0.48	0.48	0.04	0.02
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Appendix F

Review of Previous ESA, Remediation, and Regulatory Closure

CAMPBELL·GEO, INC.
ENGINEERING GEOLOGY · HYDROLOGY · GEOENVIRONMENTAL SERVICES

Review of Previous Environmental Site Assessment, Remediation, and Regulatory Closure

Former Orchard Services Property
399 Linden Avenue
(portion of APN 004-105-015)
Carpinteria, California

March 22, 2013

Prepared for:

City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013

Attn: Mr. Matthew Roberts,
Director of Parks and Recreation

Prepared by:

CAMPBELL·GEO, INC.

327-A EAST HALEY STREET SANTA BARBARA, CALIFORNIA 93101-1712
TELEPHONE: (805) 965-5003 FACSIMILE: (805) 963-5371

CAMPBELL·GEO, INC.
ENGINEERING GEOLOGY · HYDROLOGY · GEOENVIRONMENTAL SERVICES

March 22, 2013

City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013

Attention: Matthew Roberts
Director, Parks and Recreation

Subject: Review of Previous Environmental Site Assessment, Remediation, and Regulatory Closure
Former Orchard Services Property
399 Linden Avenue, Carpinteria, California

Dear Matt:

INTRODUCTION

Pursuant to our proposal dated February 1, 2013, we are pleased to present this letter with a review of the previous investigation and regulatory closure at the 399 Linden Avenue site. The site is an approximately 1.4-acre portion of Santa Barbara County Assessor's parcel number 004-105-015. It is a vacant field located northwest of Linden Avenue, southwest of the Union Pacific Railroad tracks and southeast of Holly Avenue. Residential properties and a dirt parking lot for "The Spot" hamburger stand are located on the southwest side of the site. A complete copy of the entire regulatory "LUFT" file provided to Campbell·Geo in 2012 by the County of Santa Barbara Fire Department, Fire Prevention Division (FPD), is attached to this letter report (Appendix C). The agency file for 399 Linden Avenue pertains to the Orchard Services facility, a Leaking Underground Fuel Tank (LUFT) site which was assessed, remediated, and then granted regulatory closure by FPD in 1996 (LUFT Site #50119). We have completed the following tasks:

(1) Provided a brief site history and a summary of previous environmental site investigations and remedial actions as contained in documents and reports we have obtained from SBCFPD.

(2) Provided a summary of site land use since the LUFT site was closed relevant to hazardous material or petroleum use/storage.

(3) Conducted a site walk-through to summarize and document current land use.

327-A EAST HALEY STREET SANTA BARBARA CALIFORNIA 93101-1712
TELEPHONE: (805) 965-5003 FACSIMILE: (805) 963-5371

HISTORICAL SUMMARY

Historical aerial photographs and Sanborn Fire Insurance Company maps were reviewed to evaluate early site history of the property. Copies of the maps and aerial photographs are included in Appendix B.

The 1916 Sanborn map does not show the subject site, but does show a main railroad line and two track sidings, including one adjacent to the 399 Linden site. The 1929 Sanborn map shows no structures on the site except a pair of "S.P.Co.W.TKS" at "EL. 20' on Wood PLFMS." We interpret these to be water tanks on platforms, probably used to service steam engine locomotives. An additional structure "Tool Ho." is an apparent tool shed and is located adjacent to the water tanks. All three were located roughly halfway between Linden and Elm Avenues and approximately 100 feet south of the railroad tracks.

In the 1929 and 1938 aerial photographs, those structures are possibly visible, although it is not possible to be certain due to the photographic scale and quality. The rest of the site does appear to be vacant in those 1929 and 1938 photographs. In the 1947 aerial photograph, structures in the approximate location of the subsequently identified Orchard Services business are visible. In the 1956, 1967, and 1975 photographs, those two structures are more clearly visible, but the rest of the site is vacant or occupied by an access road and/or parking for Orchard Services. The buildings are still onsite in the 1989 photograph, but are no longer visible in 1994, when the site appears to be vacant. The 2005 aerial photograph also shows a vacant site.

The underground storage tanks (USTs) were reportedly installed at the site in the 1940s, based on data in the county file. In response to a request from the County of Santa Barbara in February 1990, Southern Pacific Environmental Services (SPEvS) removed three fuel USTs from the site. Based on the County of Santa Barbara's Case Closure Summary (February 1996), a 250-gallon tank and two 1,000-gallon tanks were removed. Petroleum hydrocarbons detected in confirmation soil samples beneath the USTs indicated that further investigation was required, as directed in a March 27, 1990 letter from the County to SPEvS.

SPEvS performed soil remediation activities at the site consisting of at least two stages of excavation and subsequent soil sample analysis. The county's case closure summary indicates that, between 1990 and 1992, a total of 514 cubic yards of soil was removed from the site. SPEvS indicated that laboratory analysis of nine confirmation soil samples taken after the final excavation demonstrated that no additional removal was necessary.[1] However, the county's case closure summary states that "one small area along the railroad tracks contained TPH as stoddard solvent at 2,800 ppm." That sample appears to have been collected at a depth of 10 feet from the north side of the soil excavation in 1991.

Three 2-inch diameter groundwater monitoring wells were installed to test groundwater for the presence of gasoline near the former USTs. The wells were sampled three times (December 11, 1991, March 31, 1992, and January 11, 1996) and analyzed for BTEX and TPH as gasoline, diesel, and stoddard solvent in accordance with EPA Methods 8240 and 8015 - modified respectively. TPH and BTEX compounds were not detected in any of the samples during either sampling event conducted in 1991 and 1992.[2][3][4] In 1996, only BTEX was analyzed in groundwater and was not detected in any sample.[5]

In a letter to the county dated April 28, 1992, SPEvS recommended that the UST site could be closed based on the soil and groundwater sampling results. After completing the third round of sampling (as the RWQCB subsequently requested), site closure was granted in a letter dated March 4, 1996 from the County of Santa Barbara. Well abandonment was summarized in a May 8, 1996 report by Terranext.

---

1 SP Environmental Systems, Inc., July 15, 1991. Additional Site Investigation and Remediation Report, Southern Pacific Transportation Company, Orchard Services.

2 Industrial Compliance, January 8, 1992, Fourth Quarter 1991 Groundwater Sampling Results, 399 Linden Avenue, Carpinteria, California.

3 Industrial Compliance, April 28, 1992, First Quarter 1992 Groundwater Sampling Results and Soil Disposal Report, 399 Linden Avenue, Carpinteria, California.

4 Letter from Industrial Compliance regarding Groundwater Sampling Analytical Results, to Environmental Health Services Department, Santa Barbara County, dated March 8, 1993.

5 Terranext, February 20, 1996, Report for Groundwater Monitoring at the Former Orchard Services site, 399 Linden Avenue, Carpinteria, California.

A preliminary site assessment report for railroad owned properties in this area, including the 399 Linden site, was conducted in 1999.[6] That report indicated that an approximately 6-cubic yard wood chip waste pile was observed at the site and that "automobile parking encroachment" was occurring. At that time, much of the site was unfenced and was vacant.

Comments on Former LUFT Site

The site assessment conducted between 1991 and 1996 appear to have been adequate with respect to groundwater contamination. Groundwater samples collected on three occasions from three wells at the LUFT site in 1991, 1992, and 1996 did not exhibit analyzed contaminants in excess of county cleanup levels, based on reports prepared by the railroad's consultants. The county issued a letter of no further action for the LUFT site on March 4, 1996. That document confirming site closure is included in the SBCFPD file in Appendix C.

Residual soil contamination could exist on the subject property, based on the data from the northern limit of the soil excavation. A scaled site map (dated 7/12/91) prepared by SPEvS shows the northern edge of the soil excavation extending to within 20 feet of the railroad tracks. However, the absence of groundwater contamination in three sampling events and the closure of the LUFT site granted by the county in 1996 indicate that severe residual soil contamination near the former USTs is unlikely to be present.

In general, our recent discussions with FPD staff confirms that agency is very reluctant to re-open previously investigated and closed sites in the absence of new data that indicate soil or groundwater contamination is present in higher concentrations and more widespread than previously determined.

---

6 Geomatrix Consultants, Inc., July 20, 1999, Preliminary Site Assessment Report, Carpinteria Sale Properties.

Land Use Since 1996

The land use appears to be essentially unchanged since 1996, based on historical aerial photographs and our general knowledge of the site. The site is and has been vacant since that time, based on available information. The 1999 Geomatrix report notes "automobile parking encroachment" and a wood chip pile at the unfenced site at that time.

Current Site Reconnaissance

In February and March 2013, Campbell·Geo conducted reconnaissance level site visits. Our visits included walking the site. We documented site conditions in the photographs attached as Appendix A.

We noted no use or storage of petroleum or hazardous chemicals. Small garden plots were observed adjacent to neighboring residential properties, as shown in the photographs. One vehicle was parked adjacent to a residence west of Elm Avenue. A marker for an underground communications utility (MCI Marker No. 3805) was noted near the western side of the site. Presumably, that utility runs the length of the site, parallel to the UPRR tracks. A black chain link fence is located roughly 20 feet south of the center of the tracks and runs parallel to the tracks on the north side of the subject site.

CONCLUSIONS

After underground fuel tank removal, site assessment, and remediation by soil removal, the site was granted regulatory closure for the underground tank issue in 1996 (LUFT Site #50119). There is some residual soil contamination indicated between the former Orchard Services USTs and the UPRR tracks, but possibly at a distance of less than 20 feet south of the tracks.

Given the site history with previous adjacent railroad sidings, older historic railroad structures, and the assumed chemical storage associated with the Orchard Services business, undetected chemical contamination could exist at the site, outside of the area excavated in the early 1992.

Based on our site visit in February 2013 and our review of the documents described above, there is no data of which we are aware for the 399 Linden Avenue property since the sites was closed by FPD that indicates soil or groundwater contamination has changed since the agency provided regulatory closure in 1996.

Based on investigations conducted in 2012 at other sites in the county by Campbell·Geo (including the Fifth Street and Holly Avenue site north of the UPRR tracks), where contaminants were identified in excess of FPD investigation levels from soil borings drilled on behalf of new property owners, FPD has confirmed in writing that the new data at those sites did not justify opening or re-opening a regulatory file. FPD provided concurrence with our recommendation that, in the event of future site development where soil was removed from the ground, a qualified environmental professional shall be on site to "verify that no additional contaminants of concern are identified that are above the levels already found at the site." Where contaminated soil/groundwater was found at those sites, a simple handling plan would be developed in the future if new construction is planned that would include soil removal or groundwater pumping. Soils generated that are stained or odoriferous could be profiled by sampling and lab analysis for appropriate offsite disposal. Water generated by deep excavation could be treated and discharged, typically with a temporary Sanitary District sewer discharge permit.

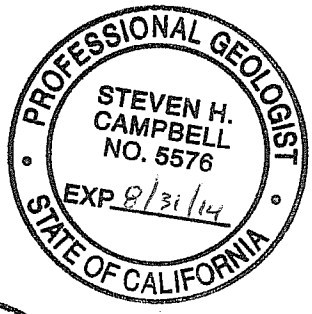
If buildings are constructed over areas of contaminated soil or groundwater, there is a potential for migration of volatile chemicals into indoor air breathing spaces. However, mitigation with a vapor barrier can be included in the building design. A vapor barrier is not technically complicated and does not necessarily increase construction costs significantly. One simple form of a barrier consists of a subslab heavy polyethylene sheet, sealed at utility entry points and other features, some of which are already part of the California Building Code for moisture-proofing and HVAC design in standard construction.

LIMITATIONS

This report, as specifically requested, is not a Phase I Environmental Site Assessment as defined by ASTM guidelines. We can provide no warranty that all sources of hazardous materials or waste have been identified on or near the property. Asbestos, lead paint, and radon issues have not been evaluated. The property value has not been compared to the purchase price. Land title records have not been evaluated for the existence of environmental liens or other issues affecting the property. Geologic hazards have not been evaluated.

This report was prepared for the sole and exclusive use of the City of Carpinteria.

Please contact me if you have any further questions.







Sincerely,
Campbell·Geo, Inc.

Steven H. Campbell
Professional Geologist
State of California, #5576
Certified Engineering Geologist
State of California, #1729
Certified Hydrogeologist
State of California, #82

Attachments: Appendices A, B, C

Clients\City of Caprinteria\399 Linden Avenue\Letters\ L1.doc

APPENDIX A

Photographs - Site Reconnaissance
2013

SITE RECONNAISSANCE
399 Linden Avenue, Carpinteria, California
February 2013



View of site to northwest



View to south of eastern portion of site

SITE RECONNAISSANCE
399 Linden Avenue, Carpinteria, California
February 2013



View to west of central portion of site



View to northwest of garden plots; central portion of site

SITE RECONNAISSANCE
399 Linden Avenue, Carpinteria, California
February 2013



Approximate location of previous UST removal and soil remediation; view to southwest



Approximate location of previous UST removal and soil remediation; view to northeast

SITE RECONNAISSANCE
399 Linden Avenue, Carpinteria, California
March 2013



View to southeast of western portion of site at Holly Avenue



View to east of west side of site; MCI utility marker is in left center of photograph

SITE RECONNAISSANCE
399 Linden Avenue, Carpinteria, California
March 2013



View of site west of Elm Avenue



View to west of site from Amtrak train station platform

APPENDIX B

Historical Sanborn Maps and
Aerial Photographs

Holly Ave.
APN 004-105-015
Carpinteria, CA 93013

Inquiry Number: 3316338.3
May 04, 2012

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

5/04/12

Site Name:
Holly Ave.
APN 004-105-015
Carpinteria, CA 93013

EDR Inquiry # 3316338.3

Client Name:
Campbell Geo Inc.
327A East Haley Street
Santa Barbara, CA 93101-1712

Contact: Adam Ginsburg

EDR® Environmental Data Resources Inc

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Campbell Geo Inc. were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Holly Ave.
Address: APN 004-105-015
City, State, Zip: Carpinteria, CA 93013
Cross Street:
P.O. # Holly Ave
Project: City of Carpinteria
Certification # 063F-42E6-A4BD

Maps Provided:

1929
1916

Sanborn® Library search results
Certification # 063F-42E6-A4BD

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

Campbell Geo Inc. (the client) is permitted to make up to THREE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

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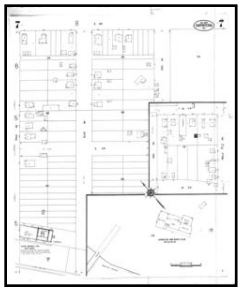
Sanborn Sheet Thumbnails

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1929 Source Sheets



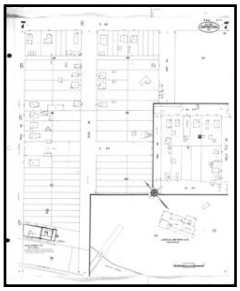
Volume 1, Sheet 2



Volume 1, Sheet 7



Volume 1, Sheet 2



Volume 1, Sheet 7

1916 Source Sheets



Volume 1, Sheet 1

1929 Certified Sanborn Map



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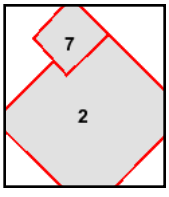
Certification # 063F-42E6-A4BD

Site Name:	Holly Ave.
Address:	APN 004-105-015
City, ST, ZIP:	Carpinteria CA 93013
Client:	Campbell Geo Inc.
EDR Inquiry:	3316338.3
Order Date:	5/4/2012 2:28:00 PM
Certification #	063F-42E6-A4BD
Copyright:	1929

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.





Volume 1, Sheet 2
Volume 1, Sheet 7
Volume 1, Sheet 2
Volume 1, Sheet 7

0 Feet 150 300 600

N

1916 Certified Sanborn Map

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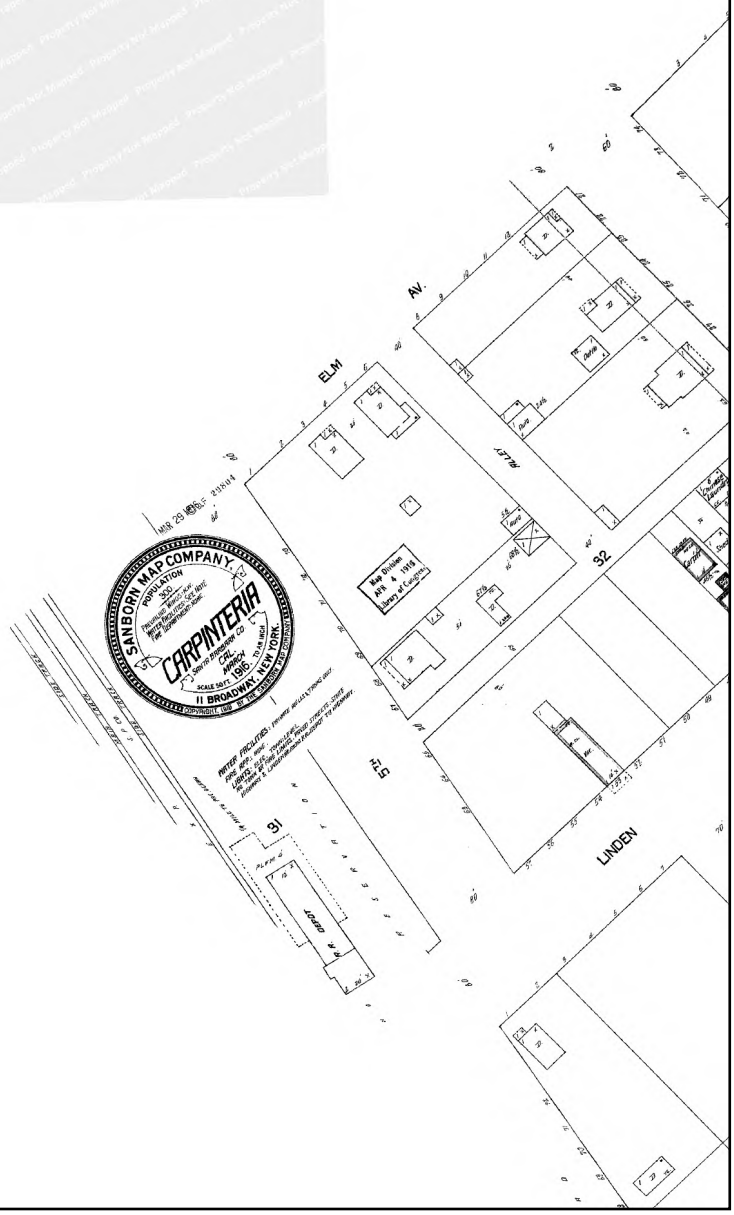
Certification # 063F-42E6-A4BD

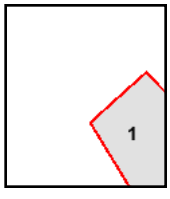


Site Name: Holly Ave.
Address: APN 004-105-015
City, ST, ZIP: Carpinteria CA 93013
Client: Campbell Geo Inc.
EDR Inquiry: 3316338.3
Order Date: 5/4/2012 2:28:00 PM
Certification # 063F-42E6-A4BD
Copyright: 1916

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

0 Feet 150 300 600





Volume 1, Sheet 1

N

Holly Ave.
APN 004-105-015
Carpinteria, CA 93013

Inquiry Number: 3316338.5
May 08, 2012

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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Date EDR Searched Historical Sources:

Aerial Photography May 08, 2012

Target Property:

APN 004-105-015

Carpinteria, CA 93013

Year	Scale	Details	Source
1929	Aerial Photograph. Scale: 1"=500'	Flight Year: 1929	Fairchild
1938	Aerial Photograph. Scale: 1"=666'	Flight Year: 1938	Fairchild
1947	Aerial Photograph. Scale: 1"=666'	Flight Year: 1947	Tubis
1956	Aerial Photograph. Scale: 1"=266'	Flight Year: 1956	Mark Hurd
1967	Aerial Photograph. Scale: 1"=166'	Flight Year: 1967	Mark Hurd
1975	Aerial Photograph. Scale: 1"=333'	Flight Year: 1975	Mark Hurd
1989	Aerial Photograph. Scale: 1"=666'	Flight Year: 1989	USGS
1994	Aerial Photograph. Scale: 1"=500'	/Composite DOQQ - acquisition dates: 1994	EDR
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR


INQUIRY #: 3316338.5
YEAR: 1929
= 500'
N



INQUIRY #: 3316338.5

YEAR: 1938

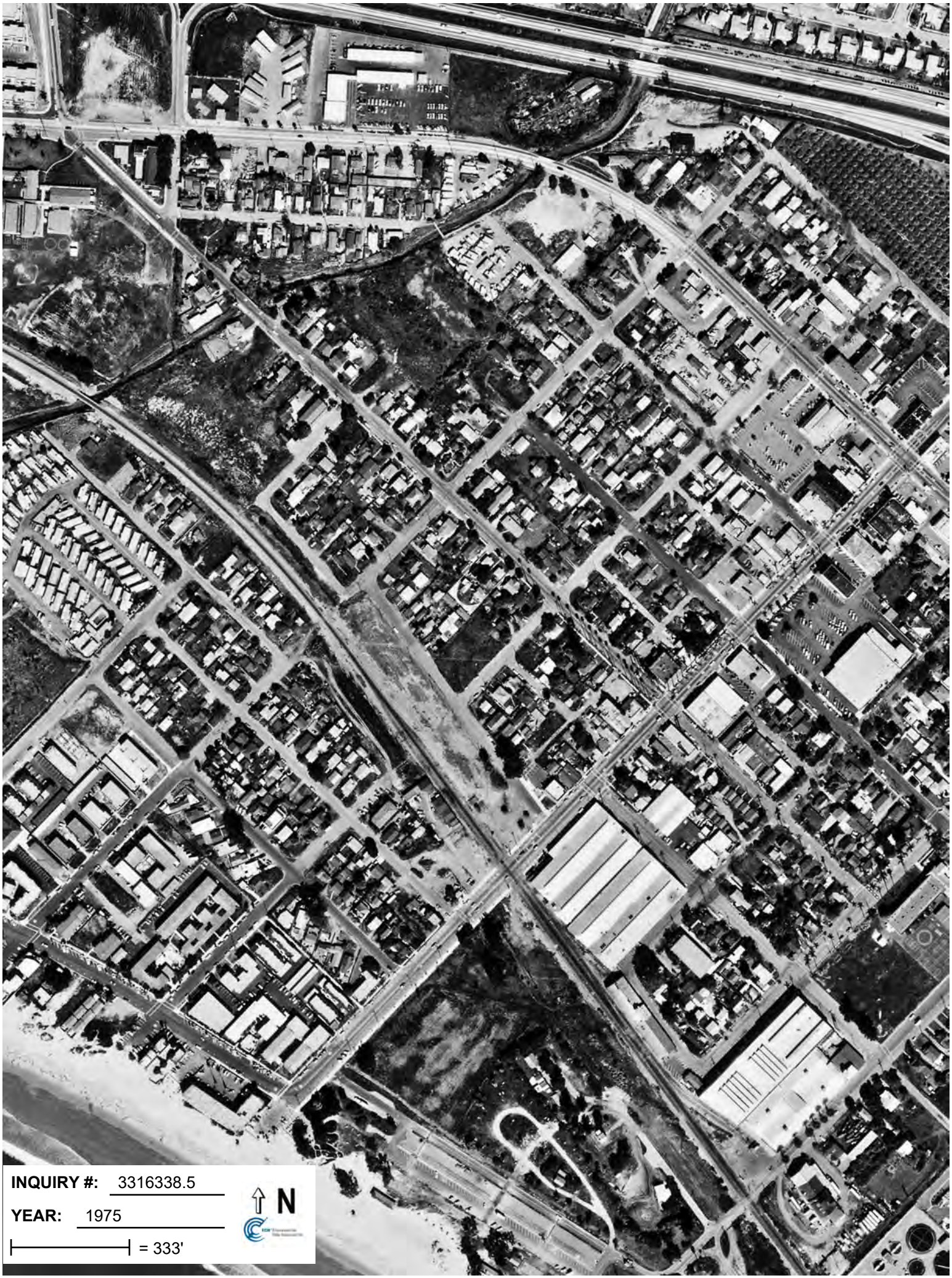
= 666'

N


INQUIRY #: 3316338.5
YEAR: 1947
= 666'
N


INQUIRY #: 3316338.5
YEAR: 1956
= 266'
N


INQUIRY #: 3316338.5
YEAR: 1967
= 166'
N


INQUIRY #: 3316338.5
YEAR: 1975
= 333'
N


INQUIRY #: 3316338.5
YEAR: 1989
= 666'
N


INQUIRY #: 3316338.5
YEAR: 1994
= 500'
N


INQUIRY #: 3316338.5
YEAR: 2005
= 500'
N

APPENDIX C

SBCFPD LUFT File and
1999 Geomatrix Phase I Report
(both on the attached CD)

SANTA BARBARA COUNTY FIRE DEPARTMENT
Certified Unified Program Agency, Fire Prevention Division
1430 Mission Drive, Solvang, CA 93463

FILE REVIEW REQUEST · 5/8/12 10 AM Chuck Rae

DATE:	5/3/12	PHONE:	805 965 5003	FAX:	
REQUESTOR'S NAME:	Adam Ginsburg				
AGENCY / AFFILIATION:	Campbell Geo Inc.				
ADDRESS:	327 E. Haley St. #A				
CITY, STATE AND ZIP:	Santa Barbara, CA 93101				
EMAIL ADDRESS:	adam@campbellgeo.com				

REQUESTED SITE ADDRESSES

SITE ID # (If Known)	SITE ADDRESS / NAME OF BUSINESS
	APN 004-105-015, no known Street address.
	399 Linden Ave, Carpinteria, CA 93013, LUFT: [redacted] 50119 (Just LUFT files)

FILES REQUESTED:

☐ BUSINESS PLAN (Includes Cal-ARP) ☒ HAZARDOUS WASTE ☒ UNDERGROUND STORAGE TANKS

☒ LUFT ☒ SMU ☐ Other_____

Instructions for Review: 5/4/12 SPOKE W/ STEVE, FILE IS READY (BH) SOMEONE WILL CALL BACK TO MAKE AN APPT.

1. Information or documents must not be removed from the files.
2. You may request photocopies from administrative staff (limit of 20 copies). Please note: There is a fee for photocopies.
3. Fax copy of completed File Review Request to (805) 686-8183.
4. There is no fee assessed for reviewing the program files.
5. Limited to 6 sites per review.
6. Please allow up to 2 weeks for your requested files to be ready for review, depending upon volume of requests.
7. If you have questions, please call (805) 686-8170.

I certify that I will comply with the aforementioned file review procedures and that no documents will be removed from the file(s) reviewed.

Adam Ginsburg — APPLICANT SIGNATURE — 5/3/12 — DATE

CUPA Representative Findings: ☐ No CUPA Records Found ☐ Records Available for Review

CUPA Representative Signature: [signature]

File Review Request Form Revised 07-14-2011

DISCLAIMER

FROM: FIRE PREVENTION DIVISION

SUBJECT: Closed Files That Were Scanned in 2006

This is A Disclaimer For Our Closed Files That Were Scanned in 2006.

These files were out of our control during the scanning process. Therefore, there is the possibility that:

- They are not in chronological order
- Documents may not be in correct section according to the Table of Contents
- Etc.

LUFT/SMU PROGRAM
File Volume 1:*
TABLE OF CONTENTS

SECTION 1

Master Billing Record (MBR)
Applications
Fee Statements
State Form B
Notice of Reimbursements (NOR's)

SECTION 2

Final Closure Summary
Inspection Reports
Notice of Violations (NOV)
Complaint Investigation Reports (CIR) Unauthorized Release Forms (URF's)
File Review Requests

SECTION 3

General Correspondence

SECTION 4

General Correspondence Continued

SECTION 5

Tank Tests/Lab Tests/Test Reports
Chain of Custody
Diagrams
Drawings
Maps
Photo Essays
Draft Closure Summary
Notes

SECTION 6

Confidential Information

* Bound reports or other information not in Volume 1 will be located in subsequent volumes.

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. MW 2
Date Work Began 4-17-96, Ended 4-17-96 No. 459456
Local Permit Agency S. B. County Health Department
Permit No. 206 Permit Date 206

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	5	BACK FILLED WITH NATIVE FILL.
5	20	VOLCLAY BENTONITE GROUT TREMIED INTO BORE HOLE FROM BOTTOM TO SURFACE
		T.D. 20 feet BSG
		Note: Casing removed via drill out and as any original backfill material unsuitable grout placement from the bottom of borehole back to surface. Upon completion the temporary 2" dia. PVC piezometer pipes were filled with neat slurry.

TOTAL DEPTH OF BORING 20 (Feet)
TOTAL DEPTH OF COMPLETED WELL ___ (Feet)

WELL OWNER

Name Southern Pacific Transportation Co.
Mailing Address One Market Plaza
San Francisco CA 94105
CITY STATE ZIP

WELL LOCATION

Address 399 Linden Ave
City CARPINTERIA CA
County SANTA BARBARA
APN Book ___ Page ___ Parcel 003-044-027
Township ___ Range ___ Section ___
Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH
SEE ATTACHED FIGURE 1
399 Linden Ave.
Grn. Label
P.1 of 3
Sec. VI
WEST EAST
SOUTH
Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
X DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USE(S) (✓)

___ MONITORING
WATER SUPPLY
___ Domestic
___ Public
___ Irrigation
___ Industrial
___ "TEST WELL"
___ CATHODIC PROTECTION
___ OTHER (Specify)

DRILLING METHOD ___ FLUID ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD* ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	CASING(S) TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL/GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

DEPTH FROM SURFACE Ft.	to Ft.	ANNULAR MATERIAL TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Aspen Environmental Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
25647 Production Rd "W" Hunt Bch. Ca. 92649
ADDRESS CITY STATE ZIP
Signed [signature] (WELL DRILLER/AUTHORIZED REPRESENTATIVE) 5-6-96 (DATE SIGNED) 561117 (C-57 LICENSE NUMBER)

DWR 188 REV. 7-90 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

www.lawcopyinc.com

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA

WELL COMPLETION REPORT

Refer to Instruction Pamphlet

No. 459453

DWR USE ONLY — DO NOT FILL IN

STATE WELL NO./STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

Owner's Well No. MW3

Date Work Began 4-17-96, Ended 4-17-96

Local Permit Agency S. B. Envir. Health Division

Permit No. 207 Permit Date 207 4/11/96

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	5	Backfill w. Rh native soil
5	20	Volclay bentonite grout pumped into borehole from bottom back to 5' below surface
		T.D 20 feet BSG
		note: Casing removed with bucket all casing and gravel backfill materials. Borehole annular seal was pumped from bottom of bore hole back to 5' below surface.

TOTAL DEPTH OF BORING 20 (Feet)

TOTAL DEPTH OF COMPLETED WELL ___ (Feet)

WELL OWNER

Name Southern Pacific Transportation Co.

Mailing Address One Market Plaza

SAN FRANCISCO CA 94105

CITY STATE ZIP

WELL LOCATION

Address 399 Linden Ave

City Carpenteria, CA

County SANTA BARBARA

APN Book ___ Page ___ Parcel 003-044-027

Township ___ Range ___ Section ___

Latitude ___ DEG. ___ MIN. ___ SEC. NORTH

Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH

SEE ATTACHED FIGURE 1

WEST EAST

SOUTH

Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc.
PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL

MODIFICATION/REPAIR

___ Deepen

___ Other (Specify)

X DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USE(S) (✓)

___ MONITORING

WATER SUPPLY

___ Domestic

___ Public

___ Irrigation

___ Industrial

___ "TEST WELL"

___ CATHODIC PROTECTION

___ OTHER (Specify)

DRILLING METHOD ___ FLUID ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___

ESTIMATED YIELD* ___ (GPM) & TEST TYPE ___

TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)

* *May not be representative of a well's long-term yield.*

CASING(S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL/GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE: CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)

___ Geologic Log

___ Well Construction Diagram

___ Geophysical Log(s)

___ Soil/Water Chemical Analyses

___ Other ___

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Opes Environmental Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS 15661 Producer Ln. "W" Huntington Beach CITY STATE ZIP 92649

Signed ___ (WELL DRILLER/AUTHORIZED REPRESENTATIVE) DATE SIGNED 5-6-96

561117 C-57 LICENSE NUMBER

DWR 188 REV. 7-90

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

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File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 459451

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. MW-1
Date Work Began 4-17-96, Ended 4-17-96
Local Permit Agency S.B. Env. Health Division
Permit No. 205 Permit Date 205 4/11/96

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	5	Backfilled with native Fill.
5	20	Validay bentonite grout Tremied into borehole.
		T.D 20 feet BSG
		NOTE: APEX removed via drill out all casing & orginal backfill material. Subsequently a bentonite cement mixture was positioned from the bottom of the borehole up to within 5 feet of surface grade. The remaining borehole was filled with native.

TOTAL DEPTH OF BORING 20 (Feet)
TOTAL DEPTH OF COMPLETED WELL ___ (Feet)

WELL OWNER

Name Southern Pacific Transp. Co.
Mailing Address 1 Market Plaza
CITY S.F. San Francisco STATE Ca ZIP 94105

WELL LOCATION

Address 399 Linden Ave
City Carpinteria, Ca
County Santa Barbara
APN Book ___ Page ___ Parcel 003-044-027
Township ___ Range ___ Section ___
Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH

NORTH
SEE ATTACHED FIGURE 1
WEST EAST
SOUTH
Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc.
PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
X DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USE(S) (✓)

___ MONITORING
WATER SUPPLY
___ Domestic
___ Public
___ Irrigation
___ Industrial
___ "TEST WELL"
___ CATHODIC PROTECTION
___ OTHER (Specify)

DRILLING METHOD ___ FLUID ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD* ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

CASING(S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL/GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)

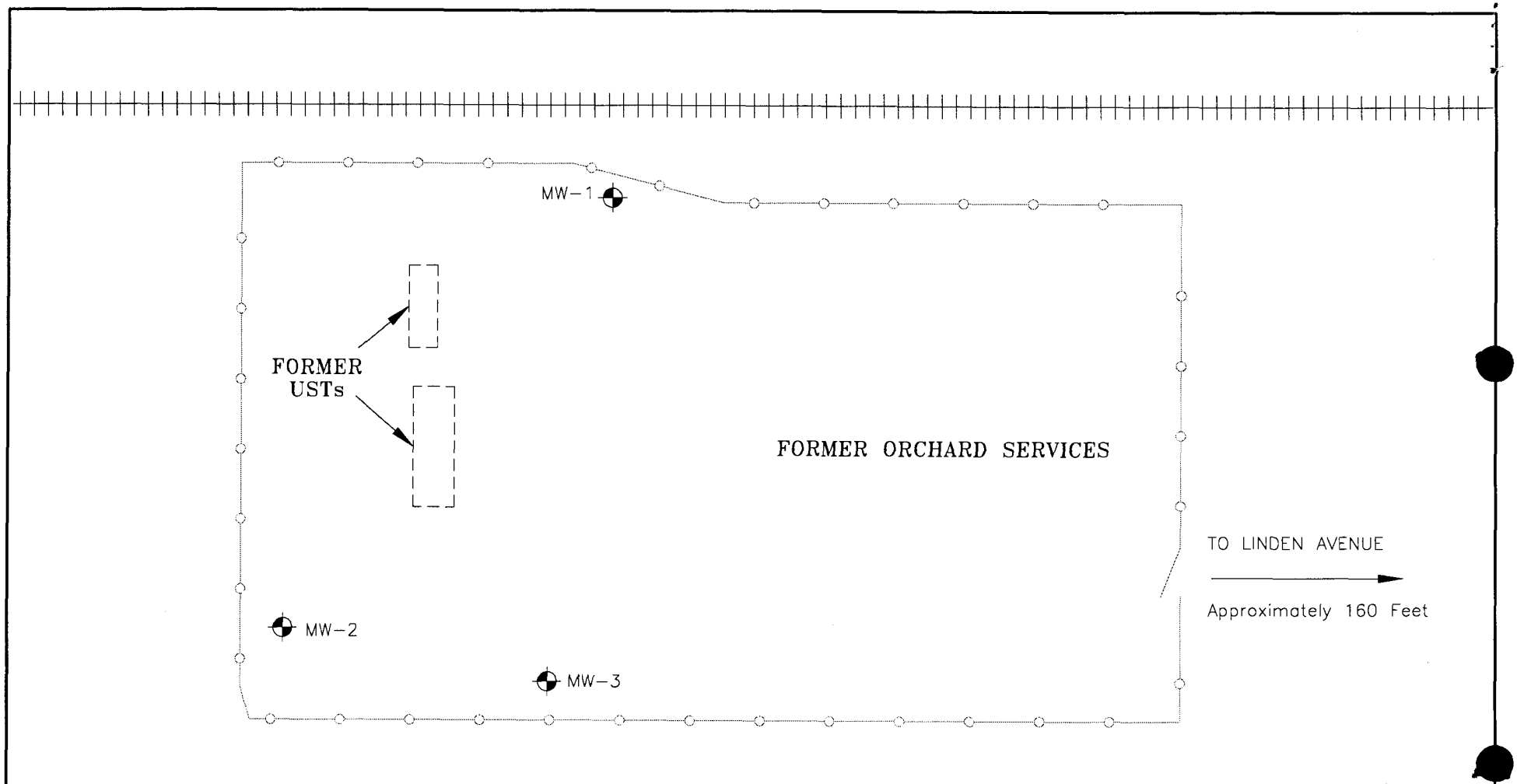
___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.
NAME APEX Environmental Drilling (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 15665 Producer Ln CITY H.B STATE Ca ZIP 92649
Signed ___ (WELL DRILLER/AUTHORIZED REPRESENTATIVE) DATE SIGNED 5-6-96 C-57 LICENSE NUMBER 561117

DWR 188 REV. 7-90 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

CONFIDENTIAL NOT FOR PUBLIC INSPECTION WATER CODE SECTION 13752



LEGEND

MW-2 Monitoring Well

Railroad Tracks

Fence

0 15' 30'
APPROXIMATE SCALE (FEET)

PROJ.# 05201913-02	PAGE#
SCALE: AS SHOWN	DRAWN BY: T.T.
FILE NO. FIG1.DWG	DESIGNED BY:
DATE: 5/7/96	APPROVED BY: P.S.

TerraNext

FIGURE 1
SITE MAP
FORMER ORCHARD SERVICES SITE
SOUTHERN PACIFIC TRANSPORTATION COMPANY
399 LINDEN AVENUE
CARPINTERIA, CALIFORNIA

www.lawcopyinc.com

* LUFT/SMU PROGRAM MASTER BILLING AND COMPUTER ENTRY RECORD *

[X] LUFT or [ ] SMU ACTION: [ ] Add [ ] Change [X] Closure [ ] Deleted [ ] Inactive [ ] Regional Board [ ] Billing

Comments: FILE COPY

LUFT/SMU ROUTING (Initial, Date and enter sequence #)

[X] Specialist RE [ ] Supervisor _____ [ ] Data Entry _____ [ ] Other _____

APN#

PRIORITY CODE:

SITE ID: 50119 SITE NAME: Orchard Service/SP Railroad

ADDRESS>STREET #: 399 STREET NAME: Linden Ave

CITY: Carpinteria CA STATE/ZIP: 93013 EMPLOYEE ID #: 6318

FUNDING: SUBSTANCE: PETROLEUM?

DATE REPORTED: DATE CONFIRMED:

CASE TYPE: CONTRACT STATUS: DATE EMERGENCY RESPONSE:

RP SEARCH: DATE BEGIN: DATE END:

PRELIM ASSESSMENT: DATE BEGIN: DATE END:

REMEDIAL INVESTIGATION: DATE BEGIN: DATE END:

REMEDIAL ACTION: DATE BEGIN: DATE END:

POST REMEDIAL ACTION MONITORING: DATE BEGIN: DATE END:

ENFORCEMENT ACTION TAKEN?: TYPE: DATE ACTION TAKEN:

LUFT CAT: RAP: DATE FINAL RAP APPROVED:

CASE CLOSED: DATE CASE CLOSED: DATE EXCAVATION STARTED:

REMEDIAL ACTIONS TAKEN: B Fontes 5/13/96 DATE TIME EXTEND NOTIFY:

MULTIPLE RPs # _____ DATE OF LAST ENTRY: 5/14/96 Entered By: CR

1. RP NAME: _____
   RP COMPANY: _____
   ADDRESS>STREET#: _____
   STREET NAME: _____
   CITY: _____
   STATE/ZIP: _____

2. RP NAME: _____
   RP COMPANY: _____
   ADDRESS>STREET #: _____
   STREET NAME: _____
   CITY: _____
   STATE/ZIP: _____

3. RP NAME: _____
   RP COMPANY: _____
   ADDRESS>STREET#: _____
   STREET NAME: _____
   CITY: _____
   STATE/ZIP: _____

4. RP NAME: _____
   RP COMPANY: _____
   ADDRESS>STREET #: _____
   STREET NAME: _____
   CITY: _____
   STATE/ZIP: _____

FUNDING -> S-STATE F-FEDERAL
SUBSTANCE -> CODE FROM STATE SUBSTANCE LIST

CASE TYPE -> S-SOIL ONLY G-GROUNDWATER AFFECTED
D-DRINKING WATER WELLS CONTAMINATED U-UNDEFINED

CONTRACT STATUS -> CODE 1-8 BASED ON CONTRACT TASKS

RP SEARCH -> S-RP IDENTIFIED AND SOLVENT
I-RP IDENTIFIED BUT INSOLVENT
R-RP IDENTIFIED BUT RECALCITRANT

PRELIM ASSESS, REMEDIAL INVESTIGATION -> U-UNDERWAY C-COMPLETED

REMEDIAL ACTION -> U-UNDERWAY C-COMPLETED I-INTERIM

POST REMEDIAL ACTION MONITORING -> Y-REQUIRED BUT NOT UNDERWAY
N-NOT REQUIRED U-UNDERWAY
C-COMPLETED

ENFORCEMENT TYPE -> USE CODES 1-6 FROM STATE ENFORCEMENT LIST

RAP -> U-UNDERWAY C-COMPLETED

CASE CLOSED -> Y-CASE CLOSED
R-REFFERRED TO REGIONAL BOARD
C-REGIONAL BOARD CONCURRENCE FOR CLOSURE
L-LOCAL OPTION PROGRAM

REMEDIAL ACTIONS TAKEN -> ENTER UP TO SEVEN 2 LETTER CODES FROM LIST

ENFORCEMENT ACTION TYPES

1. ACTION TAKEN BY RP IN RESPONSE TO LOCALLY ISSUED REQUEST (NOTICE OF REIMBURSEMENT) TO BEGIN INVESTIGATING AND CLEANUP.
2. LOCALY ISSUED WARNING LETTER OR NOTICE OF VIOLATION, FOLLOW-UP TO NOTICE OF REIMBURSEMENT.
3. FORMAL ACTION BY LOCAL AGENCY.
4. REGIONAL BOARD ISSUED WARNING LETTER.
5. FORMAL ACTION BY REGIONAL BOARD OR EXECUTIVE OFFICER.
6. COURT INJUNCTION.

REMEDIAL ACTION CODES

CODE	DESCRIPTION
CD	CAP SITE - INSTALL HORIZONTAL IMPERMEABLE LAYER TO REDUCE RAINFALL INFILTRATION.
CB	CONTAINMENT BARRIER - INSTALL VERTICAL DIKE TO BLOCK HORIZONTAL MOVEMENT OF CONTAMINANT.
CA	VATE AND DISPOSE - REMOVE CONTAMINATED SOIL AND DISPOSE IN APPROVED SITE.
ET	EXCAVATE AND TREAT - REMOVE CONTAMINATED SOIL AND TREAT (INCLUDES SPREADING OR LAND FARMING).
FP	REMOVE FREE PRODUCT - REMOVE FLOATING PRODUCT FROM WATER TABLE.
GT	PUMP AND TREAT GROUNDWATER - GENERALLY EMPLOYED TO REMOVE DISSOLVED CONTAMINANTS.
IT	ENHANCED BIODEGRADATION - USE OF ANY AVAILABLE TECHNOLOGY TO PROMOTE BACTERIAL DECOMPOSITION OF CONTAMINANTS.
RS	REPLACE SUPPLY - PROVIDE ALTERNATIVE WATER SUPPLY TO AFFECTED PARTIES.
HU	TREATMENT AT HOOKUP - INSTALL WATER TREATMENT DEVICES AT EACH DWELLING OR OTHER PLACE OF USE.
NA	NO ACTION REQUIRED - INCIDENT IS MINOR, REQUIRING NO REMEDIAL ACTION.
VS	VENT SOIL - BORE HOLES IN SOIL TO ALLOW VOLATILIZATION OF CONTAMINANTS.

SUBSTANCE CODES

CODE	DESCRIPTION	CODE	DESCRIPTION
	NOT REPORTED		
01*	AVIATION GASOLINE		
02*	FUEL OILS #1,2,3,4,5,&6		
03*	PETROLEUM EXTENDER OILS		
08	MOTOR OIL	75092	METHYLENE CHLORIDE
09	BOILER OIL	75569	PROPYLENE OXIDE
10	#6 FUEL OIL	78933	METHYL ETHYL KETONE
12	HEATER FUEL	79016	T C E
13	SOLVENTS	87865	PENTACHLOROPHENOL
14	HYDRAULIC OIL	95636	PSEUDOCUMENE
30*	GAS TURBINE FUEL OILS	106423	XYLENE
32	WASTE WATER	107062	ETHYLENE DICHLORIDE
41*	MINERAL SPIRITS	108883	TOLUENE
49	PAINT THINNER	109999	TETRAHYDROFURAN
51	OIL & GREASE WASTE	127184	PERCHLOROETHYLENE
52	DRY CLEANING SOLVENTS	610399	DINITROTOLUENES
55	ALKYLETHOXYETHANOL	1313991	NICKEL OXIDE
61	WATER AND OIL MIX	1336363	P C B'S
71	LUBRICATING OIL	7439921	LEAD
76	HYDROCARBONS	7440020	NICKEL
77	COOLANT	7440382	ARSENIC
78	ALIPHATIC HYDROCARBONS	7440473	CHROMIUM
80	TRANSMISSION FLUID	7440508	COPPER
84	LACQUER THINNER	8002059	CRUDE OIL
95	INDUSTRIAL LAUNDRY WASTE		(HAZARDOUS)
101	NAPHTA DISTILLATE	8006619*	AUTOMOTIVE GASOLINE
116*	PET. SPIRITS, NAPTHAS	8007452	COAL TAR
122	CUTTING OIL	8008206*	KEROSENE
127	#5 FUEL OIL	8052413*	STODDARD SOLVENT
128	BUNKER FUEL OIL	8052424	ASPHALT
142	CHLORINATED HYDROCARBONS	25037665	POLYESTER RESIN
171	FREON		
172	ALCOHOL		
376	CHROMIC ACID		
12031	UNLEADED GASOLINE		
12032	REGULAR GASOLINE		
12033	PREMIUM GASOLINE		
12034*	DIESEL FUEL OIL & ADDIVITES		
12035*	USED OIL (WASTE OIL)		
12036	MISC. MOTOR VEHICLE FUEL		
12037*	JET FUEL & ADDITIVES		
57125	CYANIDES, SALTS		
64175	ETHYL ALCOHOL		
64197	ACETIC ACID		
67561	METHYL ALCOHOL		
67630	ISOPROPYL ALCOHOL		
67641	ACETONE, ETC.		
67663	CHLOROFORM		
71432	BENZENE		
71556	TRICHLOROETHANE		

LUFT CONTRACT TASKS

TASK 1: CONFIRM RELEASE AND DETERMINE FUNDING SOURCE.
TASK 2: IDENTIFY AND NOTIFY OWNER.
TASK 3: PRELIMINARY SITE ASSESSMENT.
TASK 4: DETERMINE SITE STATUS AND NOTIFY STATE BOARD.
TASK 5: CONDUCT REMEDIAL INVESTIGATION, DEVELOP FEASIBILITY STUDY AND SPECIFICATIONS.
TASK 6: REMEDIAL ACTION.
TASK 7: POST REMEDIAL ACTION MONITORING.
TASK 8: CERTIFICATION.

*TASKS 1-8 DESCRIPTIONS ARE INDICATED ON PAGES 2 OF 15 THRU 7 OF 15 OF THE LUFT CONTRACT.

Permit No. 205
Page 1 of 2 pages

WELL PERMIT APPLICATION

TO: Environmental Health Division
Santa Barbara County Health Care Services

Date 4/10/96

Name of Well Owner Southern Pacific Transportation Company

Mailing Address One Market Plaza, San Francisco, CA 94105 415-541-2557
Street, P.O. City State Zip Code Telephone

Well Site Location: Vicinity Map Attached ☑ (Check)

Assessor's Parcel No. 003-044-027 Street Address 399 Linden Ave, Carpenteria

Township ____ Range ____ Section ____ Rancho Pueblo LAND

Name of Well Driller APEX ENVIRONMENTAL DRILLING

Company Name APEX ENVIRONMENTAL DRILLING CA 92649

Business Address 15661 PRODUCER LN., Suite N, Huntington Beach Date of Work

Contractor's License No. C57-561117 Start 4/17/96 Finish 4/17/96

OTHER WATER SOURCE: Public ☐ Private ☐ None ☒

Permit Type (Check)		Well Use (Check)		Drilling Method (Check)	
Construction	☐	Domestic	☐	Rotary	☐
Repair/Modification	☐	Agriculture	☐	Cable	☐
Destruction	☑	Cathodic	☐	Other	☑ Hollow Stem Auger
Inactivation	☐	Test	☑		

Proposed Depth 19 ft.
Well Bore Diam 8 in.

Casing Information
Type: Steel ☐ PVC ☑ Other ☐ ____
Wall/Gage 40 in.
Diameter 2 in.
Annular Seal Depth 5 ft.

Sealing Material (Check)
Neat Cement ☑ Clay ☐
Cement Grout ☐ Concrete ☐

Additional Work Description: ____

For Department Use Only
Application Disposition:
Approved ☐
Denied ☐
Comments ____

I hereby agree to comply with all regulations of the County of Santa Barbara pertaining to well construction, repair, modification, destruction and inactivation. The property owner, well driller, or agent will furnish County Health Care Services a complete well log upon completion of well construction.

Signed Richard D Allen Applicant 4/11/96

No fee LUFT Site # 50119

$____ Fee paid on ____

Receipt No. ____

PAID BY: ____

Name Barbara A. Fontes

Date April 11, 1996

S.B. ☐ Sol. ☐
S.M. ☐ Lom ☐

WHEN SIGNED BY HEALTH CARE SERVICES, THIS APPLICATION IS A PERMIT. HEALTH OFFICER SHALL BE NOTIFIED PRIOR TO ALL SEALING OPERATIONS. NOTE: PERMIT EXPIRES ONE YEAR FROM DATE ISSUED.

H-96 Rev. 6-84

Permit No. 206
Page 1 of 2 pages

WELL PERMIT APPLICATION

TO: Environmental Health Division
Santa Barbara County Health Care Services

Date 4/10/96

Name of Well Owner Southern Pacific Transportation Company

Mailing Address One Market Plaza (Street, P.O.) San Francisco (City) CA (State) 94105 (Zip Code) 415-541-2557 (Telephone)

Well Site Location: Vicinity Map Attached ☑ (Check)

Assessor's Parcel No. 003-044-027 Street Address 399 Linden Ave, Carpenteria

Township ____ Range ____ Section ____ Rancho Pueblo LAND

Name of Well Driller APEX ENVIRONMENTAL DRILLING

Company Name APEX ENVIRONMENTAL DRILLING CA 92649

Business Address 15661 PRODUCER LN., SUITE N, HUNTINGTON BEACH Date of Work

Contractor's License No. C57-561177 Start 4/17/96 Finish 4/17/96

OTHER WATER SOURCE: Public ☐ Private ☐ None ☒

Permit Type (Check)		Well Use (Check)		Drilling Method (Check)	
Construction	☐	Domestic	☐	Rotary	☐
Repair/Modification	☐	Agriculture	☐	Cable	☐
Destruction	☑	Cathodic	☐	Other	☑ Hollow Stem Auger
Inactivation	☐	~~Test~~	☑		

Proposed Depth 19 ft.
Well Bore Diam 8 in.

Casing Information
Type: Steel ☐ PVC ☑ Other ☐ ____
Wall/Gage 40 in.
Diameter 2 in.
Annular Seal Depth 5 ft.

Sealing Material (Check)
Neat Cement ☑ Clay ☐
Cement Grout ☐ Concrete ☐

Additional Work Description: ____

For Department Use Only
Application Disposition:
Approved ☐
Denied ☐
Comments ____

I hereby agree to comply with all regulations of the County of Santa Barbara pertaining to well construction, repair, modification, destruction and inactivation. The property owner, well driller, or agent will furnish County Health Care Services a complete well log upon completion of well construction.

Signed Richard D Allen (Applicant) 4/11/96

No Fee LUFT Site # 50119

$____ Fee paid on ____

Receipt No. ____

PAID BY: ____

Name Barbara A. Fontes

Date April 11, 1996

S.B. ☐ Sol. ☐
S.M. ☐ Lom ☐

WHEN SIGNED BY HEALTH CARE SERVICES, THIS APPLICATION IS A PERMIT. HEALTH OFFICER SHALL BE NOTIFIED PRIOR TO ALL SEALING OPERATIONS. NOTE: PERMIT EXPIRES ONE YEAR FROM DATE ISSUED.

H-96 Rev. 6-84

Permit No. 207
Page 1 of 2 pages

WELL PERMIT APPLICATION

TO: Environmental Health Division
Santa Barbara County Health Care Services

Date 4/10/96

Name of Well Owner Southern Pacific Transportation Company

Mailing Address One Market Plaza (Street, P.O.) San Francisco (City) CA (State) 94105 (Zip Code) 415-541-2557 (Telephone)

Well Site Location: Vicinity Map Attached ☑ (Check)

Assessor's Parcel No. 003-044-027 Street Address 399 Linden Ave, Carpenteria

Township ____ Range ____ Section ____ Rancho Pueblo LAND

Name of Well Driller APEX ENVIRONMENTAL DRILLING

Company Name APEX ENVIRONMENTAL DRILLING CA 92649

Business Address 15661 PRODUCER LN., Suite N, HUNTINGTON Beach Date of Work

Contractor's License No. C57-561177 Start 4/17/96 Finish 4/17/96

OTHER WATER SOURCE: Public ☐ Private ☐ None ☒

Permit Type (Check)		Well Use (Check)		Drilling Method (Check)	
Construction	☐	Domestic	☐	Rotary	☐
Repair/Modification	☐	Agriculture	☐	Cable	☐
Destruction	☑	Cathodic	☐	Other	☑ Hollow Stem Auger
Inactivation	☐	~~Test~~	☑		

Proposed Depth 19 ft.

Well Bore Diam 8 in.

Casing Information

Type: Steel ☐ PVC ☑ Other ☐ ____

Wall/Gage 40 in.

Diameter 2 in.

Annular Seal Depth 5 ft.

Sealing Material (Check)

Neat Cement ☑ Clay ☐

Cement Grout ☐ Concrete ☐

Additional Work Description: ____

For Department Use Only

Application Disposition:

Approved ☐

Denied ☐

Comments ____

I hereby agree to comply with all regulations of the County of Santa Barbara pertaining to well construction, repair, modification, destruction and inactivation. The property owner, well driller, or agent will furnish County Health Care Services a complete well log upon completion of well construction.

Signed Richard D Allen (Applicant) 4/11/96

No Fee LUFT Site # 50119

$____ Fee paid on ____

Receipt No. ____

PAID BY: ____

Barbara A. Fontes (Name)

April 11, 1996 (Date)

S.B. ☐ Sol. ☐ S.M. ☐ Lom ☐

WHEN SIGNED BY HEALTH CARE SERVICES, THIS APPLICATION IS A PERMIT. HEALTH OFFICER SHALL BE NOTIFIED PRIOR TO ALL SEALING OPERATIONS. NOTE: PERMIT EXPIRES ONE YEAR FROM DATE ISSUED.

H-96 Rev. 6-84

TerraNext
11235 Knott Avenue, Suite B Cypress, CA 90630

Tuesday

FAX TRANSMITTAL COVER

From ~~COMPANY NAME~~: Barbara A Fontes
Hydrogeologist

CONTACT NAME: _____

FAX NUMBER: (805) 681-5553

TO → ~~SENDER'S NAME~~: Richard Allen

DESCRIPTION: Permit For abandonment of monitoring wells and site location map for 399 Linden Carpenteria, CA

PROJECT NO. 052-01913-02-34000

NUMBER OF PAGES (INCLUDING COVER): 3

DATE SENT: 4-11-96 TIME SENT: 9:00

HARD COPY TO FOLLOW IN THE MAIL: ( ) YES ( ) NO

IF THERE ARE ANY PROBLEMS WITH THIS TRANSMISSION, PLEASE CALL: (714) 890-9133 IMMEDIATELY.

Telephone: 714 890-9133 Facsimile: 714 890-1973 www.terranext.com

LUFT PROGRAM
MASTER COMPUTOR ENTRY RECORD
UNDERGROUND STORAGE TANK CLEANUP SITE

SITE ID: 5011A SITE NAME: Orchard Service/SP Railroad RANK:

ADDRESS>STREET NUMBER: 399 STREET: Linden Ave

CITY: Carpinteria, CA STATE/ZIP: 93013 EMPLOYEE ASSIGNED: 6311 ~~6314~~

FUNDING: F FEDERAL EXEMPT? N SUBSTANCE: 8006619 7439921 PETROLEUM? Y

DATE REPORTED: 2-16-90 DATE CONFIRMED: 3-26-90 CATEGORY: R

CASE TYPE: G CONTRACT STATUS: 3 DATE EMERGENCY RESPONSE:

RP SEARCH	:5	DATE BEGIN: 2-20-90	DATE END: 2-20-90
PRELIM ASSESSMENT	:	DATE BEGIN: 7/14/90	DATE END:
REMEDIAL INVESTIG.	:	DATE BEGIN: 7/24/90	DATE END:
REMEDIAL ACTION	:	DATE BEGIN:	DATE END:
POST REMED MONITOR	:	DATE BEGIN:	DATE END:

ENFORCEMENT ACTION TAKEN ? TYPE: DATE ACTION TAKEN:

UNDERGROUND STORAGE TANK CLEANUP SITE - SCREEN #2

LUFT CAT: 2 RAP: U DATE FINAL RAP APPROVED: 10/3/90

CASE CLOSED: DATE CASE CLOSED:

DATE EXCAVATION STARTED: 2-15-90

REMEDIAL ACTIONS TAKEN: DATE TIME EXTEND NOTIF:

RP CONTRACT NAME: Mr Joh Moe RP COST:

RP COMPANY NAME: Southern Pacific Railroad

ADDRESS>STREET NUMBER: 1 STREET: Market Plaza, Rm 1007

CITY: San Francisco, CA STATE/ZIPCODE: 94105

COMMENT:

AUTHORIZED BY: DATE:

COMPUTER ENTRY BY: ENTERED JAN 2 1991 DATE:

LP29

FUNDING -> S=STATE F=FEDERAL

SUBSTANCE -> CODE FROM STATE SUBSTANCE LIST

CATEGORY -> R=RESPONSIBILITY PARTY CASE S=STATE OR LOCAL LEAD

CASE TYPE -> S=SOIL ONLY G=GROUND WATER AFFECTED
D=DRINKING WATER WELLS CONTAMINATED U=UNDEFINED

CONTRACT STATUS -> CODE 1-9 BASED ON CONTRACT TASKS.

RP SEARCH -> S=RP IDENTIFIED AND SOLVENT I=RP IDENTIFIED BUT INSOLVENT R=RP IDENTIFIED BUT RECALCITRANT N=NO RP IDENTIFIED.

PRELIM ASSESS, REMEDIAL INVESTIGATION -> U=UNDERWAY C=COMPLETED I=INTERIM

POST REMEDIAL ACTION MONITORING -> Y=REQUIRED , BUT NOT UNDERWAY N=NOT REQUIRED U=UNDERWAY C=COMPLETED

ENFORCEMENT TYPE -> USE CODES 1-6 FROM STATE ENFORCEMENT LIST.

RAP -> U=UNDERWAY C=COMPLETED

CASE CLOSED -> Y=CASE CLOSED AND REFERRED TO R=REGIONAL BOARD

REMEDIAL ACTIONS TAKEN -> ENTER UP TO SEVEN 2 LETTER CODES FROM LIST.

SUBSTANCE CODES

CODE	DESCRIPTION	CODE	DESCRIPTION
	NOT REPORTED		
08	MOTOR OIL	75092	METHYLENE CHLORIDE
09	BOILER OIL	75569	PROPYLENE OXIDE
10	#6 FUEL OIL	78933	METHYL ETHYL KETONES
12	HEATER FUEL	79016	T C E
13	SOLVENTS	87865	PENTACHLOROPHENL
14	HYDRAULIC OIL	95636	PSEUDOCUMENE
30	#4 FUEL OIL	106423	XYLENE
32	WASTE WATER	107062	ETHYLENE DICHLORIDE
41	MINERAL SPIRITS	108883	TOLUENE
49	PAINT THINNER	109999	TETRAHYDROFURAN
51	OIL & GREASE WASTE	127184	PERCHLORETHYLENE
52	DRY CLEANING SOLVENTS	610399	DINITROTOLUENES
55	ALKYLETHOXYETHANOL	1313991	NICKEL OXIDE
61	WATER & OIL MIX	1336363	P C B 'S
71	LUBRICATING OIL	7439921	LEAD
76	HYDROCARBONS	7440020	NICKEL
77	COOLANT	7440382	ARSENIC
78	ALIPHATIC HYDROCARBONS	7440473	CHROMIUM
80	TRANSMISSION FLUID	7440508	COPPER
84	LACQUER THINNER	8002059	CRUDE OIL (HAZARDOUS)
95	INDUSTRIAL LAUNDRY WSTE	8006619	GASOLINE
101	NAPTHA DISTILLATE	8007452	COAL TAR
116	V.M.& P.NAPTHA	8008206	KEROSENE
122	CUTTING OIL	8052413	STODDARD SOLVENT
127	#5 FUEL OIL	8052424	ASPHALT
128	BUNKER FUEL OIL	25037665	POLYESTER RESIN
142	CHLORINATED HYDROCARBONS		
171	FREON		
172	ALCOHOL		
376	CHROMIC ACID		
12031	UNLEADED GASOLINE		
12032	REGULAR GASOLINE		
12033	PREMIUM GASOLINE		
12034	DIESEL		
12035	WASTE OIL		
12036	MISCELLANEOUS MOTOR VEHICLE FUEL		
12037	JET FUEL		
57125	CYANIDES, SALTS		
64175	ETHYL ALCOHOL		
64197	ACETOC ACID		
67561	METHYL ALCOHOL		
67630	ISOPROPYL ALCOHOL		
67641	ACETONE, ETC.		
67663	CHLOROFORM		
71432	BENZENE		
71556	TRICHLOROETHANE		

LP22

ENFORCEMENT ACTION TYPES

1. ACTION TAKEN BY RESPONSIBLE PARTY IN RESPONSE TO LOCALLY ISSUED REQUEST TO BEGIN INVESTIGATION AND CLEANUP.
2. LOCALLY ISSUED WARNING LETTER OR NOTICE OF VIOLATION.
3. RESERVED.
4. STATE ISSUED CONSENT ORDER(ENFORCEABLE AGREEMENT).
5. STATE ISSUED REMEDIAL ACTION ORDER.
6. COURT INJUNCTION.

REMEDIAL ACTION CODES

CODE	DESCRIPTION
C D	CAP SITE - INSTALL HORIZONTAL IMPERMEABLE LAYER TO REDUCE RAINFALL INFILTRATION.
C B	CONTAINMENT BARRIER - INSTALL VERTICAL DIKE TO BLOCK HORIZONTAL MOVEMENT OF CONTAINMENT.
E D	EXCAVATE AND DISPOSE - REMOVE CONTAMINATED SOIL AND DISPOSE IN APPROVED SITE.
E T	EXCAVATE AND TREAT - REMOVE CONTAMINATED SOIL AN TREAT (INCLUDES SPREADING OR LAND FARMING).
F P	REMOVE FREE PRODUCT - REMOVE FLOATING PRODUCT FROM WATER TABLE.
G T	PUMP AND TREAT GROUND WATER - GENERALLY EMPLOYED TO REMOVE DISSOLVED CONTAMINANTS.
I T	ENHANCED BIODEGRADATION - USE OF ANY AVAILABLE TECHNOLOGY TO PROMOTE BACTERIAL DECOMPOSITION OF CONTAMINANTS.
R S	REPLACE SUPPLY - PROVIDE ALTERNATIVE WATER SUPPLY TO AFFECTED PARTIES.
H U	TREATMENT AT HOOKUP - INSTALL WATER TREATMENT DEVICES AT EACH DWELLING OR OTHER PLACE OF USE.
N A	NO ACTION REQUIRED - INCIDENT IS MINOR,REQUIRING NO REMEDIAL ACTION.
V S	VENT SOIL - BORE HOLES IN SOIL TO ALLOW VOLATILIZATION OF CONTAMINANTS.

CONTRACT STATUS
LUFT CONTRACT TASKS

TASK 1 : CONFIRM RELEASE AND DETERMINE FUNDING SOURCE.

TASK 2 : IDENTIFY AND NOTIFY OWNER.

TASK 3 : PRELIMINARY SITE ASSESSMENT.

TASK 4 : DETERMINE SITE STATUS AND NOTIFY STATE BOARD.

TASK 5 : CONDUCT REMEDIAL INVESTIGATION,DEVELOP FEASIBILITY STUDY AND SPECIFICATIONS.

TASK 6 : TASK 6 HAS BEEN DELETED.

TASK 7 : REMEDIAL ACTION.

TASK 8 : POST REMEDIAL ACTION MONITORING.

TASK 9 : CERTIFICATION.

*TASKS 1-9 DESCRIPTIONS ARE INDICATED ON PAGES 2 OF 19 THRU 6 OF 19 OF THE LUFT CONTRACT.

COUNTY OF SANTA BARBARA
Leaking Underground Fuel Tank Program
5540 Ekwill, Suite B
Santa Barbara, Ca. 93111
(805) 681-5200

Notice of Reimbursement
When Federal Funds are Used

Site Code: 50119
Site Name: Orchard Service/So. Pac. RR
Address: 399 Linden Avenue
Carpinteria, CA 93013

Date First Rpt.: 02/16/90
Substance: 8006619
Petroleum: Y
Closed: -

The following information has been provided to:

Company Name: So. Pac. Railroad

Contact Name: Mr. John Moe
1 Market Plaza,Rm 1007
San Francisco, CA 94105

Company Name: -0-

Contact Name: -0-
-0- -0-
-0- -0-

For County Use: (Reference Above RP Changes)
Added ____ Deleted ____ Added ____ Deleted ____
Reasons:

Whereas the federal Petroleum Leaking Underground Storage Tank Trust Fund provides funding to pay the local and state agency administrative and oversight costs associated with the cleanup of releases from underground storage tanks; and Whereas the Legislature has authorized funds to pay the local and state agency administrative and oversight costs associated with the cleanup of releases from underground storage tanks; and Whereas the direct and indirect costs of overseeing removal or remedial action at the above site are funded, in whole or in part, from the federal Trust Fund: and Whereas the above individual(s) or entity(ies) have been identified as the party or parties responsible for investigation and cleanup of the above site; YOU ARE HEREBY NOTIFIED that pursuant to Title 42 of the United States Code, Section 6991b(h)(6) and Section 25360 of the the Health and Safety Code, the above Responsible Party or Parties shall reimburse the State Water Resources Control Board not more than 150 % of the total amount of site specific oversight cost actually incurred while overseeing the cleanup of the above underground storage tank site, and the above Responsible Party or Parties shall make full payment of such costs within 30 days of receipt of a detailed invoice from the State Water Resources Control Board.

Richard A. Stedman
LUFT Program Supervisor

Date 01/15/91

BRANCH OFFICE
500 West Foster Rd.
Santa Maria, CA 93455
(805) 934-6223

FILE COPY

LUFT PROGRAM
MASTER COMPUTOR ENTRY RECORD
UNDERGROUND STORAGE TANK CLEANUP SITE

SITE ID: 50119 SITE NAME: Orchard Service/SP Railroad RANK: 6311

ADDRESS>STREET NUMBER: 399 STREET: Linden Ave

CITY: Carpinteria, CA STATE/ZIP: 93013 EMPLOYEE ASSIGNED: ~~6314~~

FUNDING: F FEDERAL EXEMPT? N SUBSTANCE: 8006619 7439921 PETROLEUM? Y

DATE REPORTED: 2-16-90 DATE CONFIRMED: 3-26-90 CATEGORY: R

CASE TYPE: G CONTRACT STATUS: 7 DATE EMERGENCY RESPONSE:

RP SEARCH	:S	DATE BEGIN: 2-20-90	DATE END: 2-20-90
PRELIM ASSESSMENT	:QC	DATE BEGIN: 7/14/90	DATE END: 10/22/90
REMEDIAL INVESTIG.	:QC	DATE BEGIN: 7/24/90	DATE END:
REMEDIAL ACTION	: U	DATE BEGIN: 12-20-90	DATE END:
POST REMED MONITOR	:	DATE BEGIN:	DATE END:

ENFORCEMENT ACTION TAKEN ? TYPE: DATE ACTION TAKEN:

UNDERGROUND STORAGE TANK CLEANUP SITE - SCREEN #2

LUFT CAT: 2 RAP: U DATE FINAL RAP APPROVED: 10/3/90

CASE CLOSED: DATE CASE CLOSED:

DATE EXCAVATION STARTED: 2-15-90

REMEDIAL ACTIONS TAKEN: DATE TIME EXTEND NOTIF:

RP CONTRACT NAME: Mr Joh Moe RP COST:

RP COMPANY NAME: Southern Pacific Railroad

ADDRESS>STREET NUMBER: 1 STREET: Market Plaza, Rm 1007

CITY: San Francisco, CA STATE/ZIPCODE: 94105

COMMENT:

AUTHORIZED BY: DATE:

COMPUTER ENTRY BY: ENTERED JAN 2 1991 DATE:
LP29

COUNTY OF SANTA BARBARA
Leaking Underground Fuel Tank Program
5540 Ekwill, Suite B
Santa Barbara, Ca. 93111
(805) 681-5200

Notice of Reimbursement
When Federal Funds are Used

Responsible Party: Mr. John Moe
Company Name: So. Pac. Railroad
Address: 1 Market Plaza,Rm 1007
San Francisco, CA 94105

Site Code: 50119
Site Name: Orchard Service/So. Pac.
Address: 399 Linden Avenue
Carpinteria, CA 93013

Date First Reported: 02/16/90 Substance: 8006619 Petroleum: Y

Whereas the federal Petroleum Leaking Underground Storage Tank Trust Fund provides funding to pay the local and state agency administrative and oversight costs associated with the cleanup of releases from underground storage tanks; and Whereas the direct and indirect costs of overseeing removal or remedial action at the above site are funded, in whole or in part, from the federal Trust Fund; and Whereas the above individual(s) or entity(ies) have been identified as the party or parties responsible for investigation and cleanup of the above site; YOU ARE HEREBY NOTIFIED that pursuant to Title 42 subdivision (h) of Section 699 (b) of the United States Code, the above Responsible Party Parties shall reimburse the State Water Resources Control Board for all direct and indirect costs incurred by any and all state and local agencies while over seeing the cleanup of the above underground storage tank site, and the above Responsible Party or Parties shall make full payment of such costs within 30 30 days of receipt of a detailed invoice from the State Water Resources Control Board.

Richard A. Stedman
LUFT Program Supervisor

Date 06/15/90

BRANCH OFFICE
500 West Forster Rd.
Santa Maria, CA 93455
(805) 934-6223

Permit No. _____

Page 1 of 2 pages

WELL PERMIT APPLICATION

TO: Environmental Health Division
Santa Barbara County Health Care Services

Date 10 / 29 / 90

Name of Well Owner SPTCo. - REAL ESTATE

Mailing Address 1200 Corporate Center Dr. Suite 100 Monterey Pk. CA. 91754
Street, P.O. | City | State | Zip Code | Telephone (213) 720-6923

Well Site Location: Vicinity Map Attached ☐ (Check)

Assessor's Parcel No. ~~144~~ 003-363-05-9 Street Address 399 Linden Ave.

Township T4N Range R25W Section 32 Rancho _____

Name of Well Driller Bylick Drilling

Company Name 591 S Walnut St.

Business Address La Habra CA 90631

Contractor's License No. 306291 - C - 57 - 5C - 61

Date of Work
Start 10/31/90 Finish 11/2/90

OTHER WATER SOURCE: Public ☐ Private ☐ None ☐

Permit Type (Check)		Well Use (Check)		Drilling Method (Check)	
Construction	☑	Domestic	☐	Rotary	☐
Repair/Modification	☐	Agriculture	☐	Cable	☐
Destruction	☐	Cathodic	☐	Other	☑ Hollowstem
Inactivation	☐	Test	☐		

Proposed Depth 25 ft.

Well Bore Diam 10 in.

Casing Information

Sch. 40 PVC

Type: Steel ☐ PVC ☐ Other ☑ steel outer casing

Wall/Gage _____ in.

Diameter 2 in.

Annular Seal Depth 9 ft.

Sealing Material (Check)

Neat Cement ☐ Clay ☐

Cement Grout ☑ Concrete ☐

Additional Work Description: _____

For Department Use Only

Application Disposition:

Approved ☐

Denied ☐

Comments _____

I hereby agree to comply with all regulations of the County of Santa Barbara pertaining to well construction, repair, modification, destruction and inactivation. The property owner, well driller, or agent will furnish County Health Care Services a complete well log upon completion of well construction.

Signed _____ Applicant 10/29/90

$ 0 Fee paid on Left

Receipt No. _____

Name Phil Reynolds

Date 10-31-90

S.B. ☐ Sol. ☐

S.M. ☐ Lom ☐

WHEN SIGNED BY HEALTH CARE SERVICES, THIS APPLICATION IS A PERMIT. HEALTH OFFICER SHALL BE NOTIFIED PRIOR TO ALL SEALING OPERATIONS. NOTE: PERMIT EXPIRES ONE YEAR FROM DATE ISSUED.

H-96 Rev. 6-84

www.lawcopyinc.com

Permit No. _____

Page 1 of 2 pages

WELL PERMIT APPLICATION

TO: Environmental Health Division
Santa Barbara County Health Care Services

Date 10/29/90

Name of Well Owner S.D.T. Co. - Rialsmite

Mailing Address 1100 Corporate Center Dr. Suite 100 Monterey Pk. CA. 91754
Street, P.O. City State Zip Code Telephone (213) 780-6923

Well Site Location: Vicinity Map Attached ☐ (Check)

Assessor's Parcel No. 003-363-05-9 Street Address 399 Linden Ave

Township T4N Range R25W Section 32 Rancho _____

Name of Well Driller Bayluck Drilling

Company Name 591 S. Walnut St.

Business Address La Habra CA 90631 Date of Work

Contractor's License No. 306391-C-57-SC-61 Start 10/31/90 Finish 11/2/90

OTHER WATER SOURCE: Public ☐ Private ☐ None ☐

Permit Type (Check)		Well Use (Check)		Drilling Method (Check)	
Construction	☑	Domestic	☐	Rotary	☐
Repair/Modification	☐	Agriculture	☐	Cable	☐
Destruction	☐	Cathodic	☐	Other	☐ Hollowstem
Inactivation	☐	Test	☐		

Proposed Depth 25 ft.

Well Bore Diam 10 in.

Casing Information

sch 40 PVC

Type: Steel ☐ PVC ☐ Other ☑ steel outer casing

Wall/Gage _____ in.

Diameter 2 in.

Annular Seal Depth 9 ft.

Sealing Material (Check)

Neat Cement ☐ Clay ☐

Cement Grout ☑ Concrete ☐

Additional Work Description: _____

For Department Use Only

Application Disposition:

Approved ☐

Denied ☐

Comments _____

I hereby agree to comply with all regulations of the County of Santa Barbara pertaining to well construction, repair, modification, destruction and inactivation. The property owner, well driller, or agent will furnish County Health Care Services a complete well log upon completion of well construction.

Signed _____ Applicant 10/29/90

$ 0 Fee paid on 2 NOV

Receipt No. _____

Name Rif Reynolds

Date 10-31-90

S.B. ☐ Sol. ☐

S.M. ☐ Lom ☐

WHEN SIGNED BY HEALTH CARE SERVICES, THIS APPLICATION IS A PERMIT. HEALTH OFFICER SHALL BE NOTIFIED PRIOR TO ALL SEALING OPERATIONS. NOTE: PERMIT EXPIRES ONE YEAR FROM DATE ISSUED.

H-96 Rev. 6-84

www.lawcopyinc.com

Permit No. _____

Page 1 of 2 pages

WELL PERMIT APPLICATION

TO: Environmental Health Division
Santa Barbara County Health Care Services

Date 10 / 29 / 90

Name of Well Owner S.P.T.Co. - Real Estate

Mailing Address 1200 Corporate Center Dr. Suite 100. Monterey Pk Ca 91754
Street, P.O. City State Zip Code Telephone (213) 780-6923

Well Site Location: Vicinity Map Attached ☒ (Check)

Assessor's Parcel No. 003 - 363 - 05 - 9 Street Address 399 Linden Ave.

Township T 4 N Range R 25 W Section 32 Rancho _____

Name of Well Driller Bylick Drilling

Company Name 591 S. Walnut St.

Business Address La Habra, CA. 90631

Contractor's License No. 306291 - C - 57 SC-61 Start 10/31/90 Finish 11/2/90

OTHER WATER SOURCE: Public ☐ Private ☐ None ☐

Permit Type (Check)		Well Use (Check)		Drilling Method (Check)	
Construction	☒	Domestic	☐	Rotary	☐
Repair/Modification	☐	Agriculture	☐	Cable	☐
Destruction	☐	Cathodic	☐	Other	☐ Hollowstem
Inactivation	☐	Test	☐		

Proposed Depth 25' ft.

Well Bore Diam 10 in.

Casing Information

Sch. 40 PVC

Type: Steel ☐ PVC ☒ Other ☒ Steel outer casing to 10'

Wall/Gage _____ in.

Diameter 2 in.

Annular Seal Depth 9 ft.

Sealing Material (Check)

Neat Cement ☐ Clay ☐

Cement Grout ☒ Concrete ☐

Additional Work Description: _____

For Department Use Only

Application Disposition:

Approved ☐

Denied ☐

Comments _____

I hereby agree to comply with all regulations of the County of Santa Barbara pertaining to well construction, repair, modification, destruction and inactivation. The property owner, well driller, or agent will furnish County Health Care Services a complete well log upon completion of well construction.

Signed _____ Applicant 10/29/90

$ 0 Fee paid on LUFT

Receipt No. _____

Name Lil Reynolds

Date 10-31-90

S.B. ☐ Sol. ☐

S.M. ☐ Lom ☐

WHEN SIGNED BY HEALTH CARE SERVICES, THIS APPLICATION IS A PERMIT. HEALTH OFFICER SHALL BE NOTIFIED PRIOR TO ALL SEALING OPERATIONS. NOTE: PERMIT EXPIRES ONE YEAR FROM DATE ISSUED.

H-96 Rev. 6-84

Permit No. _____

Page 1 of 2 pages

WELL PERMIT APPLICATION

TO: Environmental Health Division
Santa Barbara County Health Care Services

Date 10/29/90

Name of Well Owner SPT Co - Renkemite

Mailing Address 1200 Corporate Center Dr Suite 100 Monterey Pk CA
Street, P.O. City State Zip Code Telephone

Well Site Location: Vicinity Map Attached ☐ (Check)

Assessor's Parcel No. 003 303 05 9 Street Address 399 Linden Ave

Township T4N Range R 25 W Section 32 Rancho _____

Name of Well Driller _____

Company Name _____

Business Address _____ Date of Work

Contractor's License No. _____ Start 10/31/90 Finish 10/31/90

OTHER WATER SOURCE: Public ☐ Private ☐ None ☐

Permit Type (Check)		Well Use (Check)		Drilling Method (Check)	
Construction	☐	Domestic	☐	Rotary	☐
Repair/Modification	☐	Agriculture	☐	Cable	☐
Destruction	☑	Cathodic	☐	Other	☐ _____
Inactivation	☐	Test	☐		

Proposed Depth _____ ft.

Well Bore Diam _____ in.

Casing Information

Type: Steel ☐ PVC ☐ Other ☐ _____

Wall/Gage _____ in.

Diameter _____ in.

Annular Seal Depth _____ ft.

Sealing Material (Check)

Neat Cement ☐ Clay ☐

Cement Grout ☐ Concrete ☐

Additional Work Description: _____

For Department Use Only

Application Disposition:

Approved ☐

Denied ☐

Comments _____

I hereby agree to comply with all regulations of the County of Santa Barbara pertaining to well construction, repair, modification, destruction and inactivation. The property owner, well driller, or agent will furnish County Health Care Services a complete well log upon completion of well construction.

Signed _____ 10/29/90
Applicant

$ 0 Fee paid on LOFT

Receipt No. _____

Name Leif Reynolds

Date

S.B. ☐ Sol. ☐

S.M. ☐ Lom ☐

WHEN SIGNED BY HEALTH CARE SERVICES, THIS APPLICATION IS A PERMIT. HEALTH OFFICER SHALL BE NOTIFIED PRIOR TO ALL SEALING OPERATIONS. NOTE: PERMIT EXPIRES ONE YEAR FROM DATE ISSUED.

H-96 Rev. 6-84

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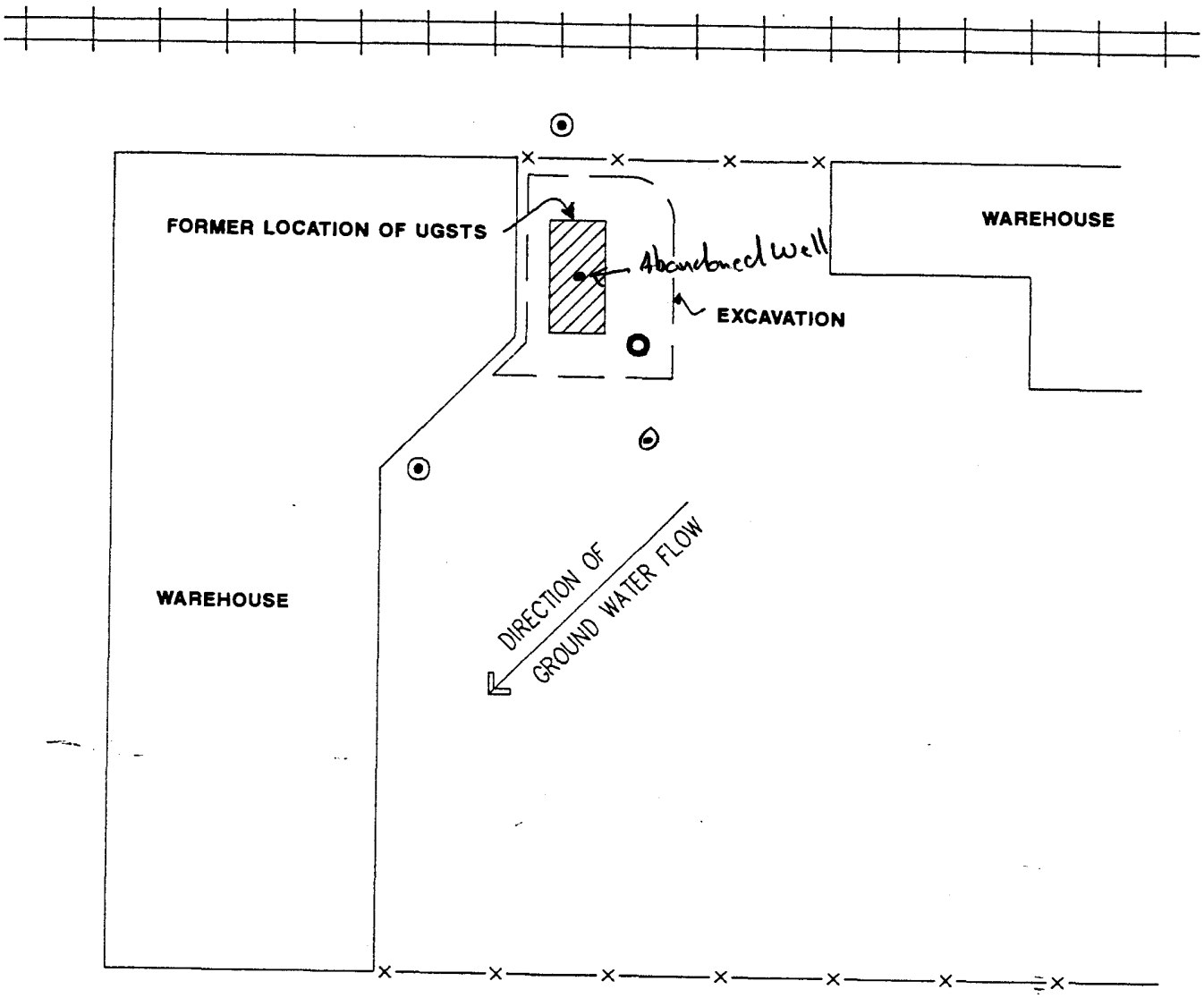

SP ENVIRONMENTAL SYSTEMS		PROPOSED MONITORING WELL LOCATIONS	FIGURE
PROJECT NO. 05149	DATE: 9-17-90		
DRAWN BY: EG	CHECKED BY:		NTS SCALE

COUNTY OF SANTA BARBARA
PROTECTION SERVICES DIVISION
Hazardous Materials Unit

2125 S. Centerpointe Pkwy. #333, Santa Maria, CA 93455 (805) 346-8477 FAX (805) 346-8485
4410 Cathedral Oaks Road, Santa Barbara, CA 93110 (805) 681-5500 FAX (805) 681-5553

March 4, 1996

FILE COPY

Mr. John Moe
Southern Pacific Railroad
One Market Plaza, Room 1007
San Francisco, CA 94105

Dear Mr. Moe:

RE: Closure Request for Southern Pacific Transportation Company Property
399 Linden Avenue, Carpinteria, California
LUFT Site #50119

This letter confirms the completion of site investigation and remedial action at the above site. Providing the information submitted to the Santa Barbara County Protection Services Division, Hazardous Materials Unit was accurate and representative of existing conditions, it is our position that no further remedial action is required at this time. The following actions must be taken to gain site closure:

☐ The vapor extraction wells must be properly abandoned.

☐ Following the abandonment of the vapor extraction well(s) please submit a brief report summarizing the effectiveness of this work and the abandonment procedures. A final site closure letter will be sent.

☐ All drums must be properly labeled, manifested (or equiv.) and transported to an appropriate disposal facility. If the material is hazardous, this must be completed within 90 days.

☑ All groundwater monitoring wells must be properly abandoned. Prior to abandonment, permits must be obtained from the County and the City. The County will then notify the Regional Water Quality Control Board so that they can issue the site closure letter.

☐ An inspector from the County must be present to verify this site work. Please call at least forty-eight (48) hours in advance to schedule an appointment.

☐ Open excavations and/or construction debris may pose a health hazard. This should be mitigated or at a minimum, public access should be restricted by a fence.

☐ Other site specific requirements.

If you have any questions or comments regarding this matter, please contact me at (805) 346-8285.

Very truly yours,

Barbara A. Fontes

Barbara A. Fontes
Hydrogeologist
SMU/LUFT Program

BF:ck
50119.pre

Enclosure

pc: Richard Aleshire, RWQCB
Richard Evans, Protection Services Division
Ana Nathe, Industrial Compliance

CASE CLOSURE SUMMARY

Leaking Underground Fuel Storage Tank Program

I. Agency Information

Date: February 29, 1996

Agency Name: Santa Barbara County LUFT Program	Address: 4410 Cathedral Oaks Road
City/State/Zip: Santa Barbara, CA 93110	Phone: (805) 681-4046
Responsible staff person: Richard Evans	Title: Hazardous Material Specialist

II. Case Information

Site facility name: Orchard Services 1 SPT C Property		
Site facility address: 399 Linden, Carpinteria, CA		
RB LUSTIS Case #:	Local Case #: 50119	LOP Case #:50119
URF filing date:	SWEEPS #:	
Responsible Parties:	**Addresses:**	**Phone #:**
Southern Pacific Railroad	One Market Plaza, Room 1007	916 369-8971
% Mr. John Moe	San Francisco, CA 94105	

Tank #	Size in Gal.	Contents	Closed in-Place/Removed?	Date
1	250	Gasoline	Removed	02/1990
2	1,000	Gasoline	Removed	02/1990
3	1,000 gal	Gasoline	Removed	10/1990

III. Release and Site Characterization Information

Cause and type of release: Stoddard solvent - over fill. Tanks had no holes.		
Site characterization complete? ☑ Yes ☐ No	Date approved by oversight agency: 05/13/92	
Monitoring Wells Installed? ☑ Yes ☐ No	Number: 4	Proper screened interval? ☑ Yes ☐ No
Highest GW depth below ground surface: 19	Low depth:19	Flow Direction: South Westerly & South
Most Sensitive current use: None		
Are drinking water wells affected? ☐ Yes ☑ No	Aquifer Name: Carpinteria GW Basin	
Is surface water affected? ☐ Yes ☑ No	Nearest/affected SW Name: None	
Off-site beneficial use impacts (addresses/locations): None		
Reports(s) on file? ☑ Yes ☐ No	Where is report(s) filed? EHS Goleta Office	

Treatment and Disposal of Affected Material

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination	Date
Tank	250 & 1,000 gal		02/15-16/90
Free Product	10 gallons	Gibson Oil	02/14-16/90
Soil	150 cubic yards	Ventura Sanitation District	04/01/92
Soil	25 cubic yards	Forward Inc. Stockton, CA	1990
Soil	320 cubic yards	McKittrick - Liquid Waste Management	10/31/90
Soil	19 cubic yards	Ventura Sanitation District	04/9/92

CASE CLOSURE SUMMARY

Leaking Underground Fuel Storage Tank Program

III. Release and Site Characterization Information (Continued)

Maximum Documented Contaminant Concentrations--Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppm)		Contaminant	Soil (ppm)		Water (ppm)	
	Before	After	Before	After		Before	After	Before	After
TPH (Gas)	70	ND	.077	.160	Xylene	.72	ND	<.0005	ND
TPH (Diesel)	NA	NA	<050	ND	Ethylbenzene	2.8	ND	<.0005	ND
Benzene	.10	ND	<.0005	ND	Oil & Grease				
Toluene	.59	ND	<.0005	ND	Sol. Pb Heavy Metals	0.74	0.74	NA	NA
TPH Stod Solvent	3,800	2,800	ND	ND	C4 - C12 Other	470	—	NA	NA

Comments (Depth of Remediation, etc.): 514 cubic yards of soil treated and non-treated were excavated. Only one small area along the railroad tracks contained TPH as stod solvent at 2800 ppm. groundwater test results show that groundwater has not been impacted. Groundwater is under confined conditions and non-detect.

IV. Closure

Does completed corrective action protect existing beneficial uses per the RB Basin Plan? ☑ Yes ☐ No

Does completed corrective action protect potential beneficial uses per the RB Basin Plan? ☑ Yes ☐ No

Does corrective action protect public health for current land use? ☑ Yes ☐ No

Site management requirements:

Should corrective action be reviewed if land use changes? ☐ Yes ☑ No

Monitoring Wells Decommissioned: ☑ Yes ☐ No | Number Decommissioned: 4 | Number Retained:

List enforcement actions taken: None

List enforcement actions rescinded: None

V. Local Agency Representative Data

Name: Steven C. Dastic | Title: Hazardous Material Specialist Supervisor

Signature: Steven C. Dastic | Date: 3/5/96

VI. RWQCB Notification

Date Submitted to RB: *	RB Response:	
RWQCB Staff Name:	Title:	Date:

VII. Additional Comments, etc.

* Case closure summary is not required to be submitted to the RWQCB. This is a soil only case/per our interagency agreement.

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file.

cls50119.tab

PUBLIC RECORD REVIEW AGREEMENT

Request to access files shall be in writing to the
Hazardous Materials Unit File Review Coordinator
195 West Highway 246 Suite 102 Buellton, CA 93427 FAX (805) 686-8183

Requestors Name Marla Dailey Agency / Affiliation Buyer

Address 1010 Arcaya St. S.B. CA 93101 963-4949
(Number) (Street) (City) (State) (ZIP) (Phone Number)

SITE ADDRESS/NAME OF BUSINESS	APN/SITE I.D. #
*Primary File	
399 Linden Ave	50119

*REQUEST LETTER/FAX SHALL RESIDE IN PRIMARY FILE ABOVE.

Files Requested: GEN ☐ UST ☐ LUFT ☐ SMU ☐ Other ☐
Business Plan information requires a submittal of a Community-Right-to-Know form

RESPONSIBILITY STATEMENT

I have read and understand the Public Records Review Guidelines on the back of this page and agree to abide by them.

RYAN HAMILTON (PRINT NAME) _____ (SIGNATURE) 4/13/04 (DATE)

FOR COUNTY USE BELOW THIS LINE

Letter attached: YES ☐ No ☐ Business/Property Owner ☐ Agent of Business/Property Owner ☐

ACTION	DATE	INITIAL	NOTES
REQUEST RECEIVED	2-23 04	RB	
SUPERVISOR REVIEW	2/25/04	KS	
ACKNOWLEDGE	3-24 04	RB	will talk to R.G. ??
CONTACT #1	3-11 04	RB	on Vac w/ 22nd
CONTACT #.2			
CONTACT #.3			
IDENTIFICATION			PHOTO ID ie. Drivers license, Identification card, Student ID, etc.

Number of Copies ____ @ $.52 = $ _____ Date _____ Receipt Number _____

FIRE DEPARTMENT
County of Santa Barbara
Fire Prevention Division

Public Record Review Guidelines

To protect the records and your right to review them, please follow these "Guidelines for Public Record Review." You are asked to sign the agreement on the back of this page, stating that you have read and agree to comply with these directions.

AN APPOINTMENT MUST BE ARRANGED TO REVIEW PUBLIC RECORDS IN ADVANCE

Any person may request access to public records (excluding privileged legal or trade secret information) of this agency by fax or mail. A request will reasonably describe an identifiable record or information to be produced. A request will be processed as soon as possible, taking into consideration staff availability. Upon receipt of a written request, the File Review Coordinator will contact you and coordinate a time and date for the review. Making an appointment will insure files will be available for your review, saving your time as well as ours. In the interest of fairness, there may be a limit of the number of files per request. Due to the number of requests that are generated by our office on a weekly basis, it may be seven (7) to ten (10) days for a request to be processed, based on staff availability.

WHAT TO DO WHEN YOU ARRIVE

The File Review Coordinator will ensure that you have read and signed this Public Record Review form prior to reviewing any files. **You MUST provide photo identification before given access to the requested files.** You will be provided with a pencil for notes, and paper clips to indicate pages you wish to have copied.

- No pens are allowed near the files
- Do not remove pages or mark on the public records.
- Altering or removing documents is an offense punishable by law
- No records will be permitted to leave this office

IF YOU WOULD LIKE COPIES OF PUBLIC RECORDS

If you wish to have a limited number of pages copied, this office will attempt to meet your needs for a nominal fee of **$.52** a sheet. For copying beyond this, you will need to contact a bonded copying company. The copying company of your choice will then schedule at time with the File Review Coordinator to come to this office and copy your documents.

REV. 9/18/2003

Mr. Paul Bailey
Buellton, CA
FAX 805 686-8183

RE: LUFT File #50119

Hello Mr. Bailey,

I would like to make arrangements to see your files regarding LUFT Site #50119 owned by Union Pacific Railroad. Don Caldwell of theirReal Estate Division referred me.

The Railroad would like to sell this Carpinteria property, and we are considering a purchase, but first need further background information.

Thank you for your attention.

Marla Daily
1010 Anacapa Street
Santa Barbara, CA 93101
805 963-4949

FAX 805 963-9433
email: scifmail@west.net

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Sylvia Lending

PUBLIC RECORD REVIEW AGREEMENT

FAXED Sylvia 7/6

Requests to access records will be made in writing to the Hazardous Materials Unit and will be conducted during office hours.

Requestors Name: William Maranis Agency/Affiliation : GeoMatrix

Address Fresno

(Number: Street: City: St.: ZIP:) (Phone Number)

Site Address/Name of Business	• Assessors Parcel No. • Site I.D. No.
See attached	

Request For: Generator File ☐ UST Files ☐ LUFT Files ☐ SMU Files ☐ All Haz. Mat. Files ☐

RESPONSIBILITY STATEMENT
(This does not apply for "List Request")

I have read and understand the Public Records Review Guidelines on the back of this page and agree to abide by them.

Jeffrey A. Anston (Print Name of Person Reviewing Record(s)) (Signature) 7/6/99 (Date)

For County Use Below This Line

Letter Attached: Yes ☐ No ☐ Business/Property Owner ☐ Agent of Business/Property Owner ☐

	DATE	ACTION	SIGNATURE/NOTES
1	6/26/99	REQUEST RECEIVED	CR
2	6/28/99	ACKNOWLEDGE RECEIPT	Re - wants file review in S.B.
3	6/28/99	SUPERVISOR REVIEW	Rite Hale
4	7/1/99	REQUESTOR CONTACTED	Scheduled
		REQUESTOR CONTACTED	
5	7/6/99	REVIEWED FILE	Sylvia

NOTE: 1. Request received by Clerical Staff 2. Requester notified that request was received 3. Supervisor reviewed request. 4. Clerical Staff contacted Requestor to arrange time and date of file review 5. Requestor completed reviewing files

Date and Time Scheduled for Review : 7/6/99 afternoon

*Number of Copies Requested:*_____ *@ $.35 = $*_____ *Postage Fee*_____ *= $*_____

*Amount Paid $*_____ *on*_____ *Receipt Number*_____

Rev. 3/96 *(Previous Editions Are Obsolete)*

FAX

GEOMATRIX

from **Geomatrix Consultants, Inc.**

2444 Main Street, Suite 215
Fresno, CA 93721
www.geomatrix.com

Date: 6/25/99

Number of pages including cover sheet:

To: Carey Kluy

From: William Aravanis

Phone 805-346-8485

Fax Phone

CC:

Phone **559-264-2535**

Fax Phone **559-264-7431**

REMARKS:

☐ Hard copy to follow ☒ Urgent ☐ For your review ☐ Reply ASAP ☐ Please comment

I need to do a review of files for the attached 6 sites if you have any. When is the soonest time that I can do that?

WTA

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Environmental File Review
Carpinteria, California

	Site Name	Site Address	
2	Orchard Services	399 Linden Avenue	LUFT 50119
2	Carpinteria Motor Transport	411 Palm Avenue 410 Palm	LUFT 50039
–	Carpinteria Lumber	915 Elm Avenue	
4	Fortunato Chevron	4991 Carpinteria Avenue	LUFT 502271 + 50227
17	Exxon/Hondo (McDonalds)	1115 Casitas Pass Road	LUFT 51211
	Arco Station #1980	1116 Casitas Pass Road	LUFT 51686

6/28/99

He has requested to view the files in S.B. on July 6th in morning if possible.

Casey

TOTAL P.02

SOIL SAMPLE RESULTS BEFORE CLEANUP

ORCHARD SERVICES

Results of Soil Sampling Performed [redacted]

(All Results in mg/kg)

Before soil Samples

Sample No.	Location	TTLC Lead	BTEX		TPH	
OS-1	9', West	19	benzene toluene ethylbenzene xylene	.10 .59 .52 .72	gas stod solvent	40 300
OS-2	Stockpile fill	28	benzene toluene ethylbenzene xylene	- .009 .010 .025	gas stod solvent	<.5 5.9
OS-3	Stockpile sandy	120*	benzene toluene ethylbenzene xylene	.05 .04 1.0 .20**	gas stod solvent	70 400
OS-4	4', East	21	benzene toluene ethylbenzene xylene	.01 .04 .13 .05	gas stod solvent	8 85

* STLC value for this sample was 0.74 mg/liter

** Non detectable for all other analytes in EPA Method 8240

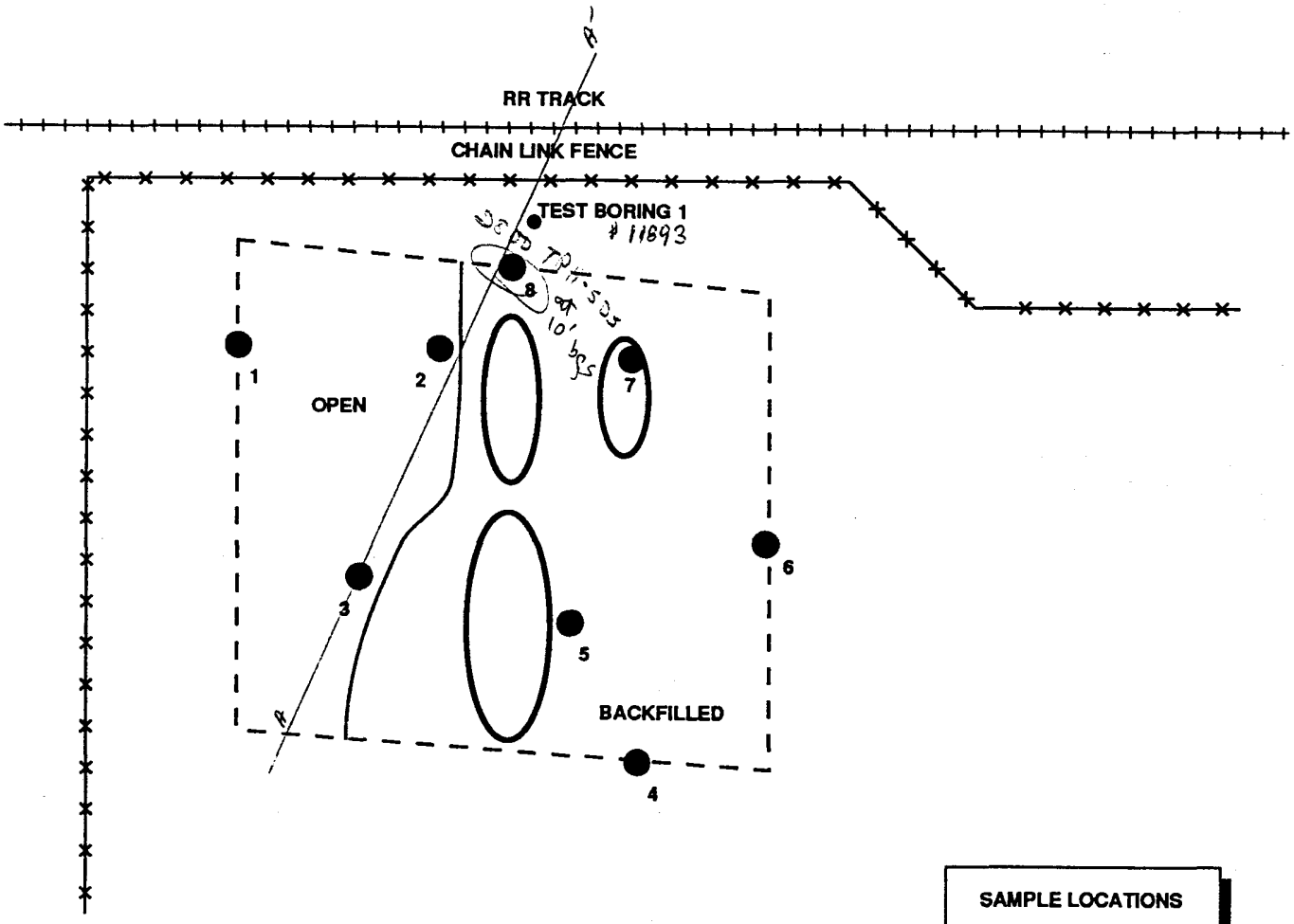
Performed [redacted]

(All Results in mg/kg)

Sample No.	Location	TTLC Lead	BTEX		TPH	
11062	10' depth, northwest corner of excavation	na*	benzene toluene ethylbenzene xylene	<0.005 0.015 0.005 0.016	gas stod solvent	<1 <1
11061	8' depth, east end of excavation	na*	benzene toluene ethylbenzene xylene	0.06 0.33 2.8 0.30	gas stod solvent	<50 3800
11060	Stockpile Soil	14 ✓	benzene toluene ethylbenzene xylene	<0.05 0.33 0.35 0.86	gas stod solvent	<50 400
11059	Stockpile Soil	26 ✓	benzene toluene ethylbenzene xylene	<0.05 <0.05 0.61 <0.05	gas stod solvent	<50 900

Additional soil Sampling

North



SAMPLE LOCATIONS

1 = 11881
2 = 11882
3 = 11883
4 = 11884
5 = 11885
6 = 11886
7 = 11887
8 = 11888

LEGEND

FORMER UST LOCATION

SAMPLE LOCATION

SP ENVIRONMENTAL SYSTEMS, INC.	SAMPLE LOCATIONS ORCHARD SERVICES CARPINTERIA, CALIFORNIA SOUTHERN PACIFIC TRANSPORTATION CO.	FIGURE 2
PROJECT NO: 05149 [redacted]		N.T.S. SCALE
DRAWN BY: PD / CHECKED BY: DCG		

TABLE 3

ORCHARD SERVICES

Analytical Results of Soil Samples Collected from the Tank Excavation Performed [redacted]

(All results in mg/kg)

Sample Number	Location in Excavation	BTEX		TPH	
1 11881	Northwest Sidewall 11' Deep	Benzene Toluene Ethylbenzene Xylenes	<0.005 <0.005 <0.005 0.010	Gasoline, Diesel Stoddard Solvent	<1
2 11882	Northwest Bottom 10' Deep	Benzene Toluene Ethylbenzene Xylenes	<0.005 <0.005 <0.005 0.005	Gasoline, Diesel Stoddard Solvent	<1
3 11883	South Bottom, Center 10' Deep	Benzene Toluene Ethylbenzene Xylenes	<0.005 <0.005 <0.005 <0.005	Gasoline, Diesel Stoddard Solvent	<1
4 11884	South Wall 10' Deep	Benzene Toluene Ethylbenzene Xylenes	<0.005 <0.005 <0.005 0.016	Gasoline, Diesel Stoddard Solvent	<1
5 11885	Southeast Bottom 11' Deep	Benzene Toluene Ethylbenzene Xylenes	<0.005 <0.005 <0.005 <0.005	Stoddard Solvent	7
6 11886	Southeast Wall 8' Deep	Benzene Toluene Ethylbenzene Xylenes	<0.005 <0.005 <0.005 0.008	Gasoline, Diesel Stoddard Solvent	<1
7 11887	Northeast Bottom, Center 10' Deep	Benzene Toluene Ethylbenzene Xylenes	<0.005 <0.005 <0.005 <0.005	Gasoline, Diesel Stoddard Solvent	<1
8 11888	North Wall 10' Deep	Benzene Toluene Ethylbenzene Xylenes	0.018 0.019 0.090 0.021	Stoddard Solvent	2800
TP-1 11893	Test Boring	Benzene Toluene Ethylbenzene Xylenes	<0.005 <0.005 <0.005 <0.015	Gasoline	<10

Adjacent to rail Road Tracks —

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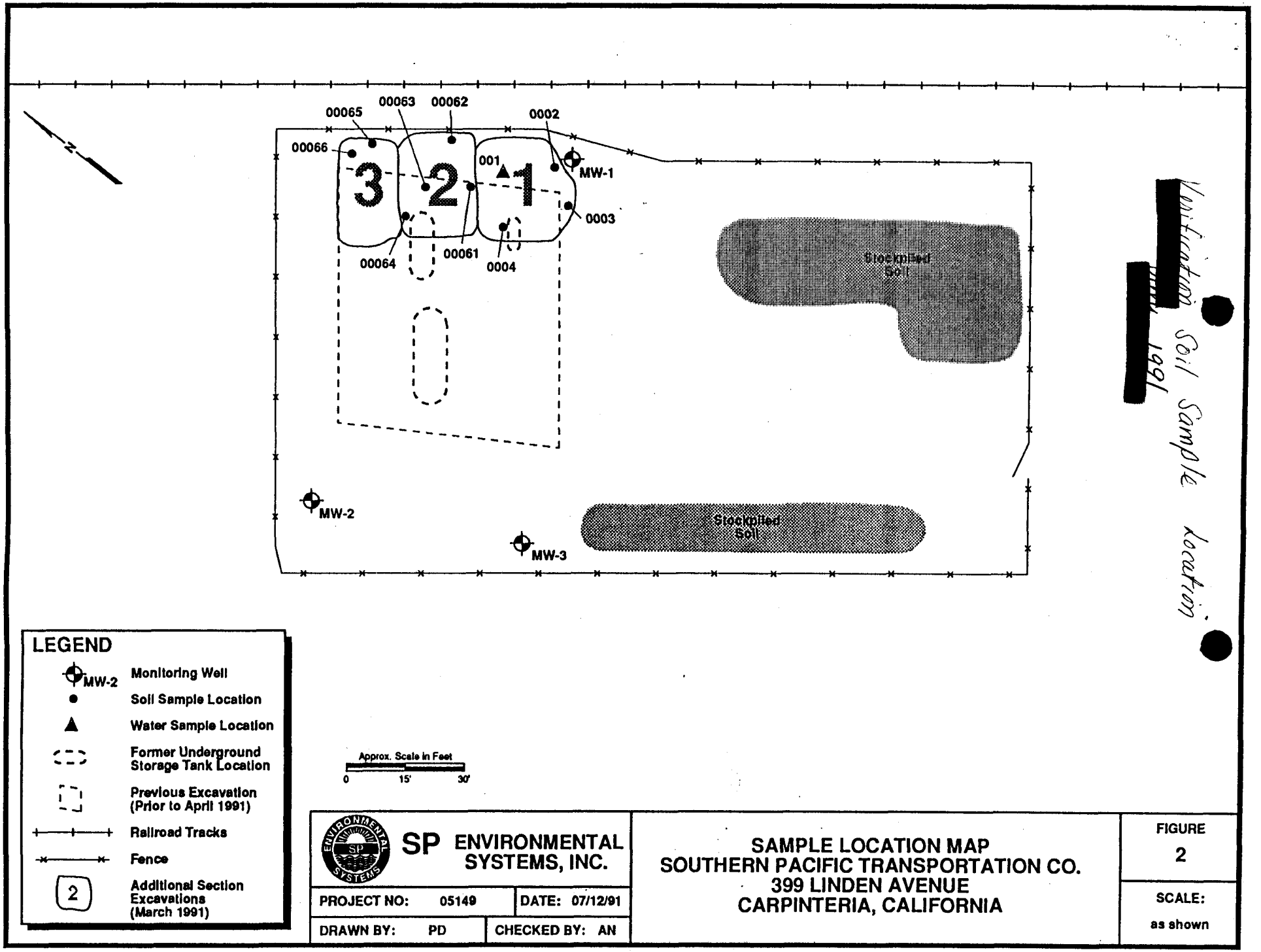
VERIFICATION SOIL SAMPLES AFTER CLEANUP



05149 Fig 2/disc 24/Soil Rem Fig1 0791

SP ENVIRONMENTAL SYSTEMS, INC.

PROJECT NO: 05149	DATE: 07/12/91
DRAWN BY: PD	CHECKED BY: AN

SAMPLE LOCATION MAP
SOUTHERN PACIFIC TRANSPORTATION CO.
399 LINDEN AVENUE
CARPINTERIA, CALIFORNIA

FIGURE 2

SCALE: as shown

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Verification Samples

Table 1
Summary of Soil and Water Sample Analytical Results
Southern Pacific Transportation Company
Orchard Services
399 Linden Avenue
Carpinteria, California
SPEvS Project No. 05149

(All results shown are in parts per million)

July - 1991

Sample Number	Sample[1] Location	Sample[2] Depth	Sample Matrix	BTEX AND TPH WITH FUEL IDENTIFICATION[3]				
				Benzene	Toluene	Ethylbenzene	Xylenes	TPH
0002	East Side	18'	soil	<0.005	<0.005	<0.005	<0.005	<1
0003	East Side	18'	soil	<0.005	<0.005	<0.005	<0.005	<1
0004	South Side	17'	soil	<0.005	<0.005	<0.005	<0.005	<1
00061	East Side	9.5'	soil	<0.005	<0.005	<0.005	<0.005	<1
00062	Northeast Side	11'	soil	<0.005	<0.005	<0.005	<0.005	<1
00063	Bottom Center	16'	soil	<0.005	<0.005	<0.005	<0.005	<1
00064	West Side	16'	soil	<0.005	<0.005	<0.005	<0.005	<1
00065	North Side	9'	soil	<0.005	0.013	<0.005	0.019	<1
00066	North side	13'	soil	<0.005	0.012	<0.005	0.016	<1
0001	East Side	18'	water	<0.05	<0.05	<0.05	<0.05	620[4]

1 Sample locations are depicted on Figure 2.

2 Sample depth denotes distance in feet below ground surface.

3 BTEX and TPH with fuel identification analyzed by gas chromatography/mass spectroscopy (GC/MS) for TPH (Modified 8240) as cited in CAL-LUFT. p. A18 (Oct. 1989), extracted by EPA Method 5020 - Purge and Trap.

4 620 ppm TPH reported as Stoddard Solvent.

< Denotes analyte not detected at or above the detection limit listed.

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GROUNDWATER SAMPLES RESULTS AFTER TANK PULL

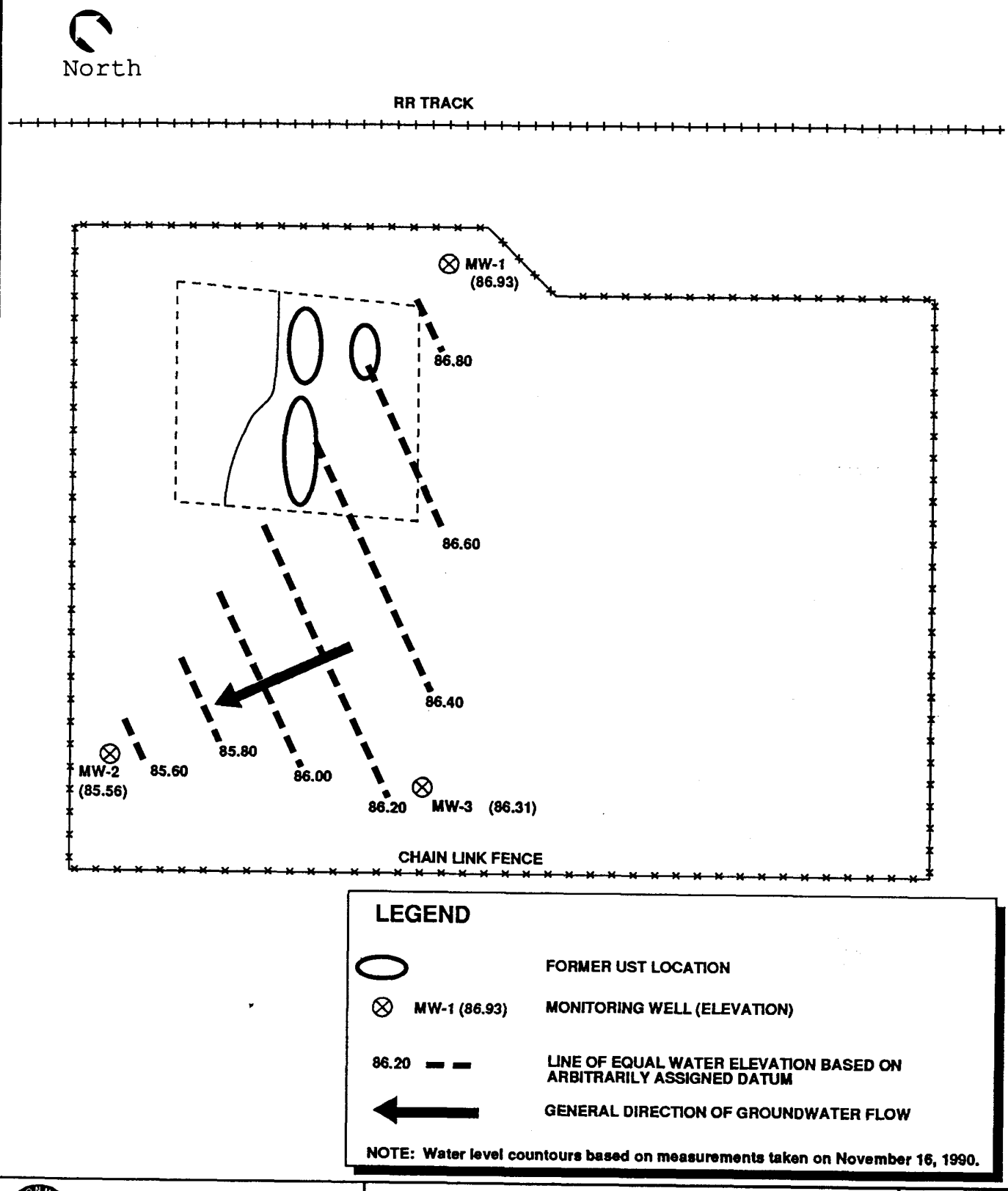
ORCHARD SERVICES

Results of Groundwater Analyses for
Total Petroleum Hydrocarbons (ug/l)
Performed [redacted]

Sample Location	Date	Kerosene	Diesel	Gasoline
W1	10/27/89	ND (0.5)	ND (0.5)	ND (50)
W2	10/27/89	ND (0.5)	ND (0.5)	77
W3	10/27/89	ND (0.5)	ND (0.5)	ND (50)
W4	10/27/89	ND (0.5)	ND (0.5)	ND (50)

[redacted]
(All results in ug/1)

Sample Location	BTEX		TPH	
MW-1	Benzene Toluene Ethylbenzene Xylenes	<0.5 <0.5 <0.5 <0.5	Gasoline, Diesel Stoddard Solvent	<50
MW-2	Benzene Toluene Ethylbenzene Xylenes	<0.5 <0.5 <0.5 <0.5	Gasoline, Diesel Stoddard Solvent	<50
MW-3	Benzene Toluene Ethylbenzene Xylenes	<0.5 <0.5 <0.5 <0.5	Gasoline, Diesel Stoddard Solvent	<50



SP ENVIRONMENTAL SYSTEMS, INC.

PROJECT NO: 05149	DATE: 11/16/90
DRAWN BY: PD	CHECKED BY: DCG

POTENTIOMETRIC SURFACE MAP
ORCHARD SERVICES
CARPINTERIA, CALIFORNIA
SOUTHERN PACIFIC TRANSPORTATION CO.

FIGURE 3

N.T.S.
SCALE

GROUNDWATER SAMPLE RESULTS TWO YEARS AFTER CLEANUP

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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Newport Beach, CA • Valparaiso, IN • Westbrook, ME

Santa Barbara Division
751 S. Kellogg, Goleta, California 93117

(805) 964-7838
FAX (805) 967-4386

CLIENT: Todd Hook
Industrial Compliance
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Lab Number : GF-1048-1
Project : 05149 399 Linden, Carpenteria
Analyzed : 04/09/92
Analyzed by: MM
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
17666 Well #1	Groundwater	Evelyn Ransom	03/31/92	04/01/92

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
TOTAL PURGEABLE PETROLEUM HYDROCARBONS				1,2
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND	
Total Petroleum Hydrocarbons (Stoddard)		50.	ND	
Percent Surrogate Recovery			79.	

Santa Barbara Division Lab Certifications: CAELAP #1204; L.A.Co.CSD#10186
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) EXTRACTED by EPA 5030 (purge-and-trap)
(2) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)

1992 Water Samples

RECEIVED
APR 15 1992
INDUSTRIAL COMPLIANCE

04/09/92
MSD1
MC/jaj/mcc
HP-040992

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

COAST - TO - COAST ANALYTICAL SERVICES

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Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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Newport Beach, CA • Valparaiso, IN • Westbrook, ME

Santa Barbara Division
751 S. Kellogg, Goleta, California 93117

(805) 964-7838
FAX (805) 967-4386

CLIENT: Todd Hook
Industrial Compliance
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Lab Number : GF-1048-2
Project : 05149 399 Linden, Carpenteria
Analyzed : 04/09/92
Analyzed by: MM
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
17667 Well #2	Groundwater	Evelyn Ransom	03/31/92	04/01/92

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
TOTAL PURGEABLE PETROLEUM HYDROCARBONS				1,2
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND	
Total Petroleum Hydrocarbons (Stoddard)		50.	ND	
Percent Surrogate Recovery			82.	

Santa Barbara Division Lab Certifications: CAELAP #1204; L.A.Co.CSD#10186
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) EXTRACTED by EPA 5030 (purge-and-trap)
(2) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)

04/09/92
MSD1
MC/jaj/mcc
HP-040992

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

COAST - TO - COAST ANALYTICAL SERVICES

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Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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Newport Beach, CA • Valparaiso, IN • Westbrook, ME

Santa Barbara Division (805) 964-7838
751 S. Kellogg, Goleta, California 93117 FAX (805) 967-4386

CLIENT: Todd Hook
Industrial Compliance
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Lab Number : GF-1048-3
Project : 05149 399 Linden, Carpenteria
Analyzed : 04/09/92
Analyzed by: JJ
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
17668 Well #3	Groundwater	Evelyn Ransom	03/31/92	04/01/92

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
TOTAL PURGEABLE PETROLEUM HYDROCARBONS				1,2
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND	
Total Petroleum Hydrocarbons (Stoddard)		50.	ND	
Percent Surrogate Recovery			80.	

Santa Barbara Division Lab Certifications: CAELAP #1204; L.A.Co.CSD#10186
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) EXTRACTED by EPA 5030 (purge-and-trap)
(2) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)

04/09/92
MSD1
MC/jaj/mcc
HP-040992

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

COAST - TO - COAST ANALYTICAL SERVICES

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Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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Newport Beach, CA • Valparaiso, IN • Westbrook, ME

Santa Barbara Division (805) 964-7838
751 S. Kellogg, Goleta, California 93117 FAX (805) 967-4386

QC Batch ID: HP-040992

CLIENT: Coast-to-Coast Analytical Services, Inc.

Analyzed : 04/09/92
Analyzed by: JJ
Method : As Listed

QC MATRIX SPIKE
REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
MATRIX SPIKE	Aqueous			

CONSTITUENT	ORIGINAL RESULT	SPIKE AMOUNT	RESULT µg/L	%REC	NOTE
TOTAL PURGEABLE PETROLEUM HYDROCARBONS					1,2
Total Petroleum Hydrocarbons (Gasoline)	ND	150.	140.	93.	

Santa Barbara Division Lab Certifications: CAELAP #1204; L.A.Co.CSD#10186
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) EXTRACTED by EPA 5030 (purge-and-trap)
(2) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)

04/09/92
MSD1
MC/jaj/mcc
GF1048-3

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

COAST - TO - COAST ANALYTICAL SERVICES

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751 S. Kellogg, Goleta, California 93117 FAX (805) 967-4386

QC Batch ID: HP-040992

CLIENT: Coast-to-Coast Analytical Services, Inc.

Analyzed : 04/09/92
Analyzed by: JJ
Method : As Listed

QC MATRIX SPIKE
REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
MATRIX SPIKE DUPLICATE	Aqueous			

CONSTITUENT	ORIGINAL RESULT	SPIKE AMOUNT	RESULT µg/L	%REC	%DIFF	NOTE
TOTAL PURGEABLE PETROLEUM HYDROCARBONS						1,2
Total Petroleum Hydrocarbons (Gasoline)	ND	150.	160.	107.	13.	

Santa Barbara Division Lab Certifications: CAELAP #1204; L.A.Co.CSD#10186
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) EXTRACTED by EPA 5030 (purge-and-trap)
(2) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)

04/09/92
MSD1
MC/jaj/mcc
GF1048-3

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

♦ SANTA BARBARA COUNTY ♦
♦ ENVIRONMENTAL HEALTH SERVICES ♦
♦ SMU/LUFT PROGRAM ♦
♦ SITE INVESTIGATION REPORT ♦

Site Name: Southern Pacific
Site Location: 399 LINDEN
Site # : 50119 Contact: SCOTT TERRANOEA Phone: (714) 590 5133
Consultant: TERRINEXT
Drillers: —

Date: 1/11/96
Arrived: 8:00
Departed: _____

Depth to GW: 9.5' BGS
Type of substance released: DIESEL
Field Screening Equipment:
Consultant: E.C. METER SMU/LUFT: e
Purpose of Site Visit: Witness groundwater sampling

Samples Collected:
X Water ___ Soil

Analyses:
EPA method 602

Lab: THERMAL

FIELD OBSERVATIONS / COMMENTS:

Photos: Yes ☐ No ☒

Met with Mr. Terranoea on site. According to Mr. Terranoea the three monitoring wells on site will be purged of approximately 3 well volumes before sampling. Once the wells are purged they are allowed to recover at least 80% and checked with an EC meter before sampling. He stated there was no field indication of free product or odor. Samples are taken with a disposible bailer, transfer to 40 ml vials and placed in a cooler with ~~Notice~~ Blue-ice. The samples will be picked-up by the lab on 1/12/96.

Follow-up Items: Submittal of lab analysis

Investigated By: Richard Evans Date: 1/11/96

Copy Received By : [signature] Date: 1-11-96

EHS-6 1-94

♦ SANTA BARBARA COUNTY ♦
♦ ENVIRONMENTAL HEALTH SERVICES ♦
♦ SMU/LUFT PROGRAM ♦
♦ SITE INVESTIGATION REPORT ♦

Site Name: Southern Pacific
Site Location: 399 LINDEN
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Consultant: E.C. METER SMU/LUFT: —
Purpose of Site Visit: Witness groundwater sampling

Samples Collected:
X Water ___ Soil

Analyses:
EPA method 602

Lab: THERMAL

FIELD OBSERVATIONS / COMMENTS:

Photos: Yes ☐ No ☒

Met with Mr. Terranoea on site. According to Mr. Terranoea the three monitoring wells on site will be purged of approximately 3 well volumes before sampling. Once the wells are purged they are allowed to recover at least 80% and checked with an EC meter before sampling. He stated there was no field indication of free product or odor. Samples are taken with a disposable bailer, transfer to 40 ml vials and placed in a cooler with ~~Notice~~ Blue-ice. The samples will be picked-up by the lab on 1/12/96.

Follow-up Items: Submittal of lab analysis

Investigated By: Richard Evans Date: 1/11/96

Copy Received By : [signature] Date: 1-11-96

EHS-6 1-94

County of Santa Barbara
Health Care Services - LUFT Program
Site Investigation Report

Site Name: Orchard Sites
Site Location: 399 Linden, Carp.
Site No:
Person Contacted: Brigitte Lievens
Consultant Firm: SP Environmental

Date: 4/30/91
Arrival:
Departure:
Phone:
Phone:

Estimated depth to groundwater: ~10 ft
Type of hazardous substance released: gas, poss Stoddard
Field Screening Equipment:
- Consultant: supposedly HNU (not used)
- LUFT:

Purpose of Inspection: To witness sampling @ excavation

RP Samples Taken
X H_2O X Soil

Analysis: EPA 8240 BTEX TPH for Stoddard
24 hr TAT

RP Laboratory:

LUFT Samples Taken
___ H_2O ___ Soil

Analysis:

Field Observations / Comments:

Excavation quite large (see map). Soil very sandy and slumping extensively. Excavation was very difficult; backhoe having difficulty w/ maintaining a stabile footing. Excavation bottom at 18'. Ms. Lievens stated that based on visual observation and smell she had dug down that far. She requested bottom and side sampling at this point to be able to fill in part of the pit to

Investigated By: Deanna Cummings Date:

dig at the north wall, where she suspected contamination went under the railroad tracks. After conferring with Kate Sulka, I agreed. Samples taken as shown on attached map.

County of Santa Barbara
Health Care Services - LUFT Program
Site Investigation Report

Site Name: Orchard Svcs
Site Location: 399 Linden, Carp
Site No:
Person Contacted: Brigitte Lievens
Consultant Firm: SP Environmental

Date: 5/1/91
Arrival:
Departure:
Phone:
Phone:

Estimated depth to groundwater: ~10 ft
Type of hazardous substance released: gas, poss Stoddard
Field Screening Equipment:
- Consultant PID
- LUFT

Purpose of Inspection:
To witness sampling at excavation.

RP Samples Taken
___ H_2O _X_ Soil

Analysis:
EPA 8240 BTEX
TPH for Stoddard
24 hr TAT

RP Laboratory:

LUFT Samples Taken
___ H_2O ___ Soil

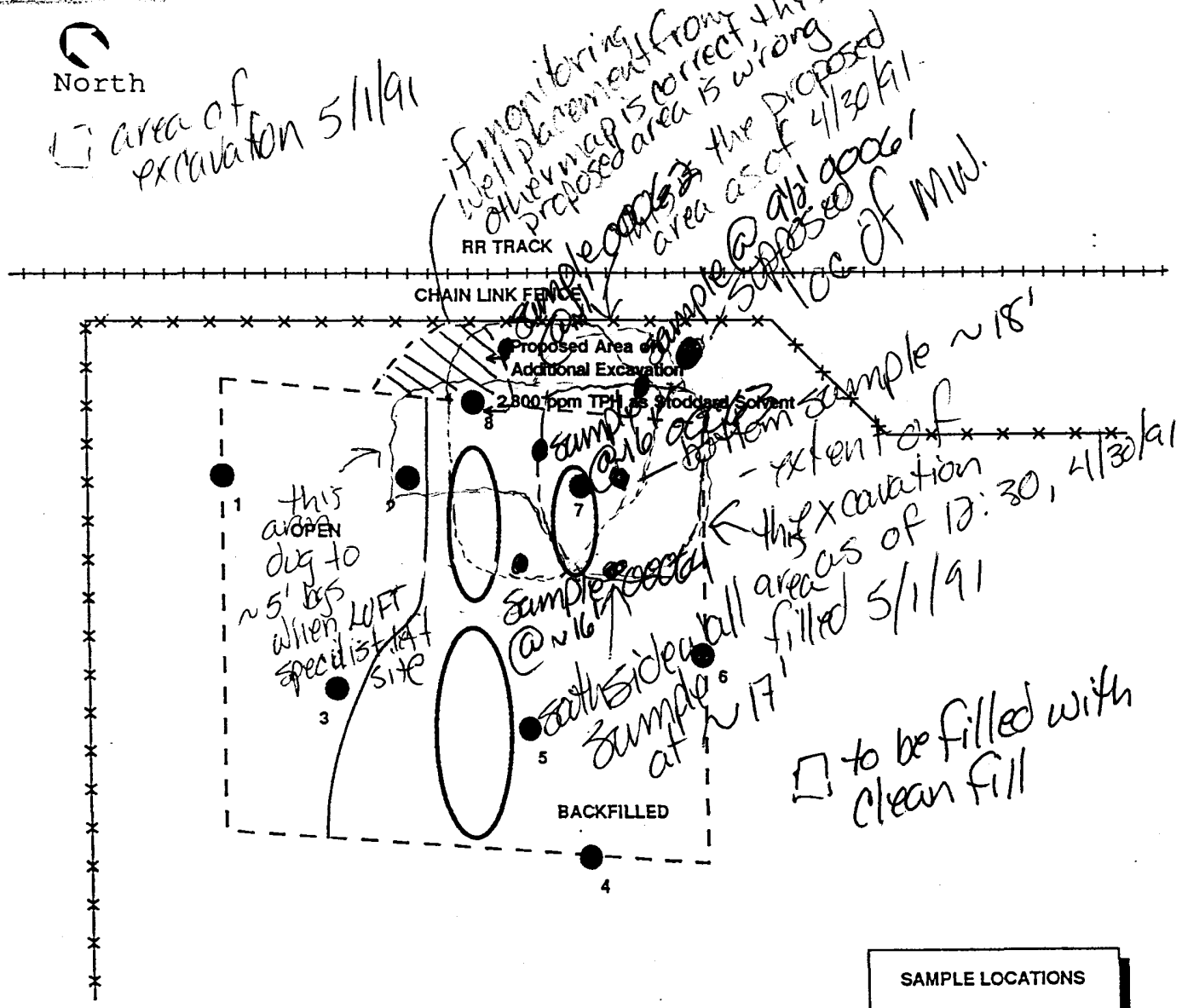
Analysis:

Field Observations / Comments:

The pit had been further excavated to extent shown on map. Once again slumping was a problem; samples were taken as shown on attached map. Yesterdays' soil anal. results were ND, according to Lievens. She said they weren't finished excavating and did not want to sample west wall. She requested filling in south end of pit to

Investigated By: _____ Date: _____

be able to easily reach more of north wall and east wall. I agreed, provided they were able to get at north wall where Brigitte had taken a PID reading of 1000ppm approx 2ft to left of monitoring well and 4ft from fence, to a depth of seven. Her only other reading was 3ppm at the northeast corner.



SAMPLE LOCATIONS

1 = 11881
2 = 11882
3 = 11883
4 = 11884
5 = 11885
6 = 11886
7 = 11887
8 = 11888

LEGEND

FORMER UST LOCATION

SAMPLE LOCATION

SP ENVIRONMENTAL SYSTEMS, INC.	SITE MAP SOUTHERN PACIFIC TRANSPORTATION CO. 399 LINDEN AVENUE CARPINTERIA, CALIFORNIA	FIGURE 2
PROJECT NO: 05149 / DATE: 11/16/90		N.T.S. SCALE
DRAWN BY: PD / CHECKED BY: DCG		

05149 Fig 2/Disc 1/FNL REM RPT 11-90

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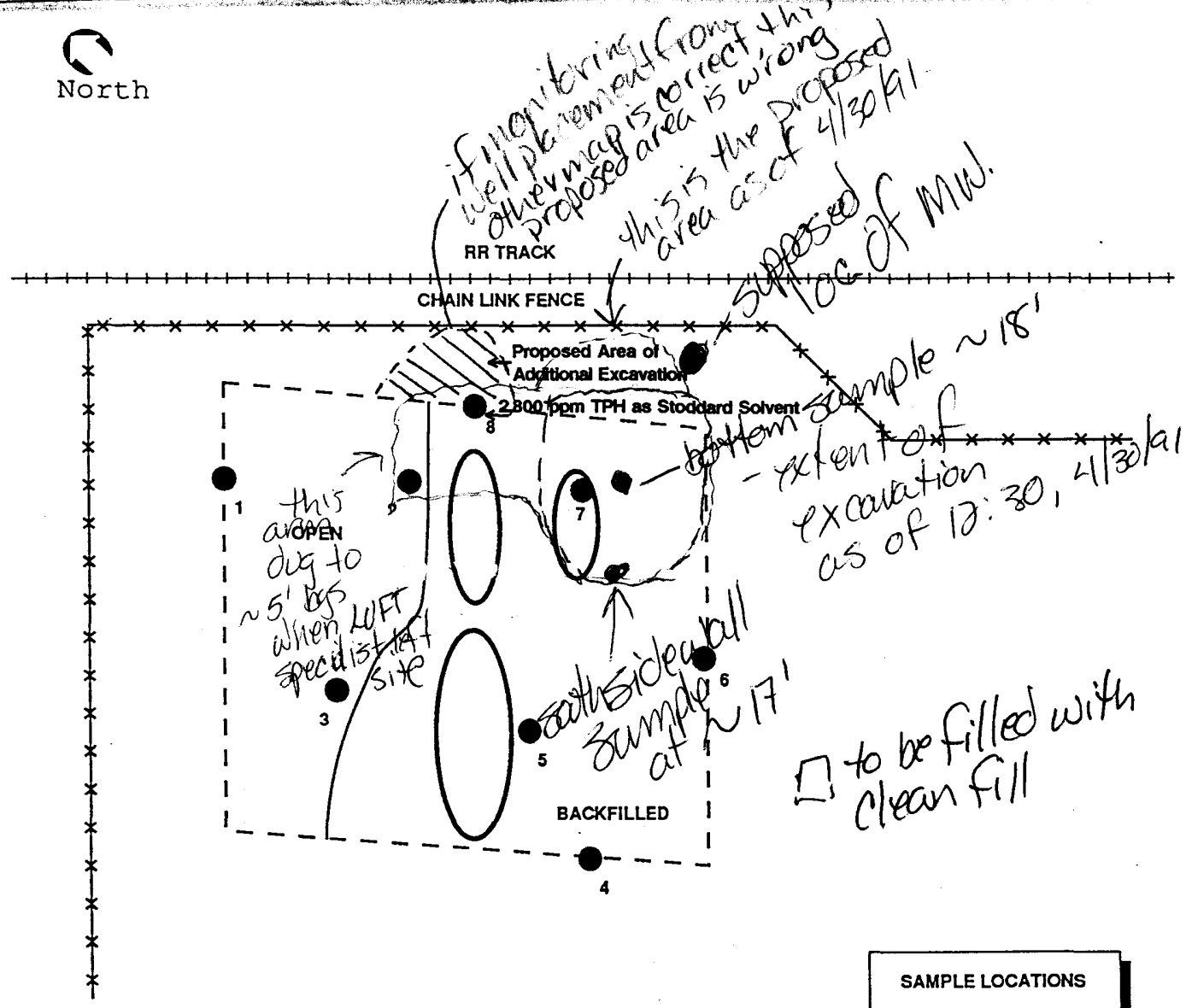


SP ENVIRONMENTAL SYSTEMS, INC.		SITE MAP SOUTHERN PACIFIC TRANSPORTATION CO. 399 LINDEN AVENUE CARPINTERIA, CALIFORNIA	FIGURE 2
PROJECT NO: 05149	DATE: 11/16/90		N.T.S. SCALE
DRAWN BY: PD	CHECKED BY: DCG		

05149 Fig 2/Disc 1/FNL REM RPT 11-90

www.lawcopyinc.com

(916) 369-8971
NETWORK (916) 449-1890
FAX (916) 369-837(

ANA NATHE
PROJECT GEOLOGIST

SP ENVIRONMENTAL SYSTEMS INC.
9719 LINCOLN VILLAGE DR., SUITE 310
SACRAMENTO, CA 95827

County of S.B.
Environmental Health Department • LUFT Program

SITE INSPECTION REPORT

Site Name: Overland Services
Site Location: 399 Lindin
SITE NO: 50119
Person Contacted: Ana Nathe - Bridget Lievens
Consultant Firm: SP Environmental

Date: Oct 31, 1990
Arrival: 8:30 2:00
Departure: 11:30 2:30
Phone:
Phone:

LUFT

Estimated depth to groundwater: 11'

Type of hazardous substance released:
Gasoline

Field Screening Equipment:
- Consultant
- LUFT
Microtip PID

Purpose of Inspection:
To oversee excavation, sampling activities

RP Samples Taken
____ H_2O 8 Soil

Analysis:
8260 mod

RP Laboratory:
CCAS

LUFT Samples Taken
____ H_2O ____ Soil

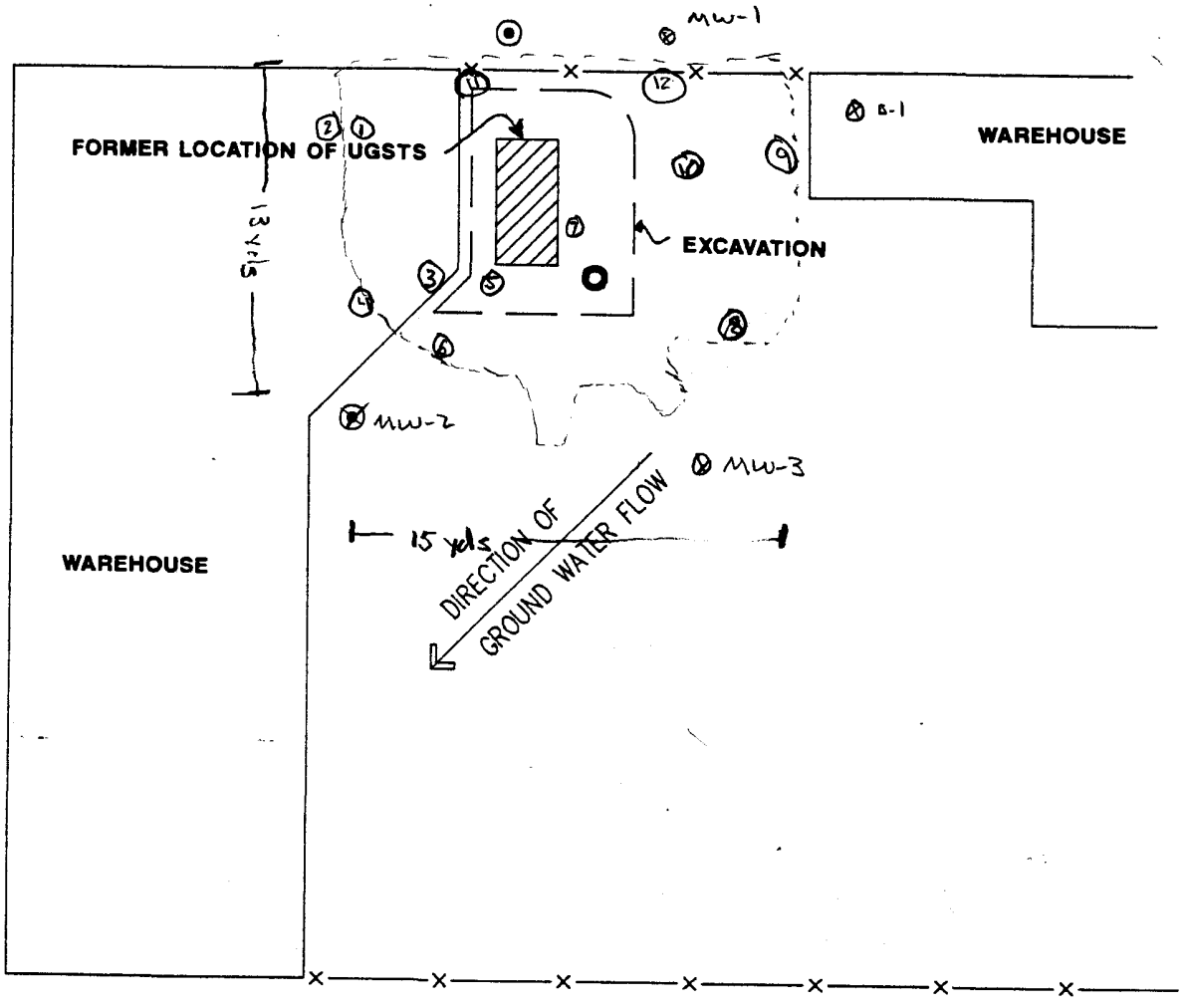
Analysis:

Field Observations / Comments:

Eight soil samples were taken in the pit. All samples are being run in a 24 hr TAT by Coast to Coast Analytical. In addition, the three wells were started and the prior well in the excavation was destroyed by filling it with concrete.

Investigated By: Leif Reynolds

Date: Oct 31, 1990



1) 0 ppm bottom NW corner bottom 10'
* 2) 0 ppm wall (11881) 8'
* 3) 60 ppm, stuff 0 on bottom (11882)
4) 0 side wall
* 5) 300 bottom (11883)
* 6) 30 side wall 8' (11884)
* 7) 2000 bottom, sand (11885) 9'? 4 side wall 4 bottom
* 8) 110 side wall 7' (11886)
9) 2 side wall 8'
* 10) 1000 bottom, sand (11887)
* 11) 2500 side wall (11888)
12) sidewall 220 ppm - no sample, probably bet

N

⊙ PROPOSED WELL LOCATIONS

● EXISTING WELL LOCATIONS

SP ENVIRONMENTAL SYSTEMS		PROPOSED MONITORING WELL LOCATIONS	FIGURE
PROJECT NO. 05149	DATE: 9-17-90		
DRAWN BY: EG	CHECKED BY:		NTS SCALE

10/31
9:30
Zollings

County of Santa Barbara
Environmental Health Department. LUFT Program
SITE INSPECTION REPORT

Site Name: Southern Pacific RR Site# 50119 Date: 10/30/90
Site Location: 399 Linden Ave Arrival: 10:00 - 11:30
Departure: 2:10 -

Person Contacted: Anna Withe (916) 369-8971 Phone: (916) 369-8971
Consultant Firm: Brigette Lievens Phone:
Mail Address: S.P. Environmental

Estimated depth to groundwater:
Type of hazardous substance released:

Field Screening Equipment:
-Consultant

-LUFT
Microtip PID

Purpose of Inspection:

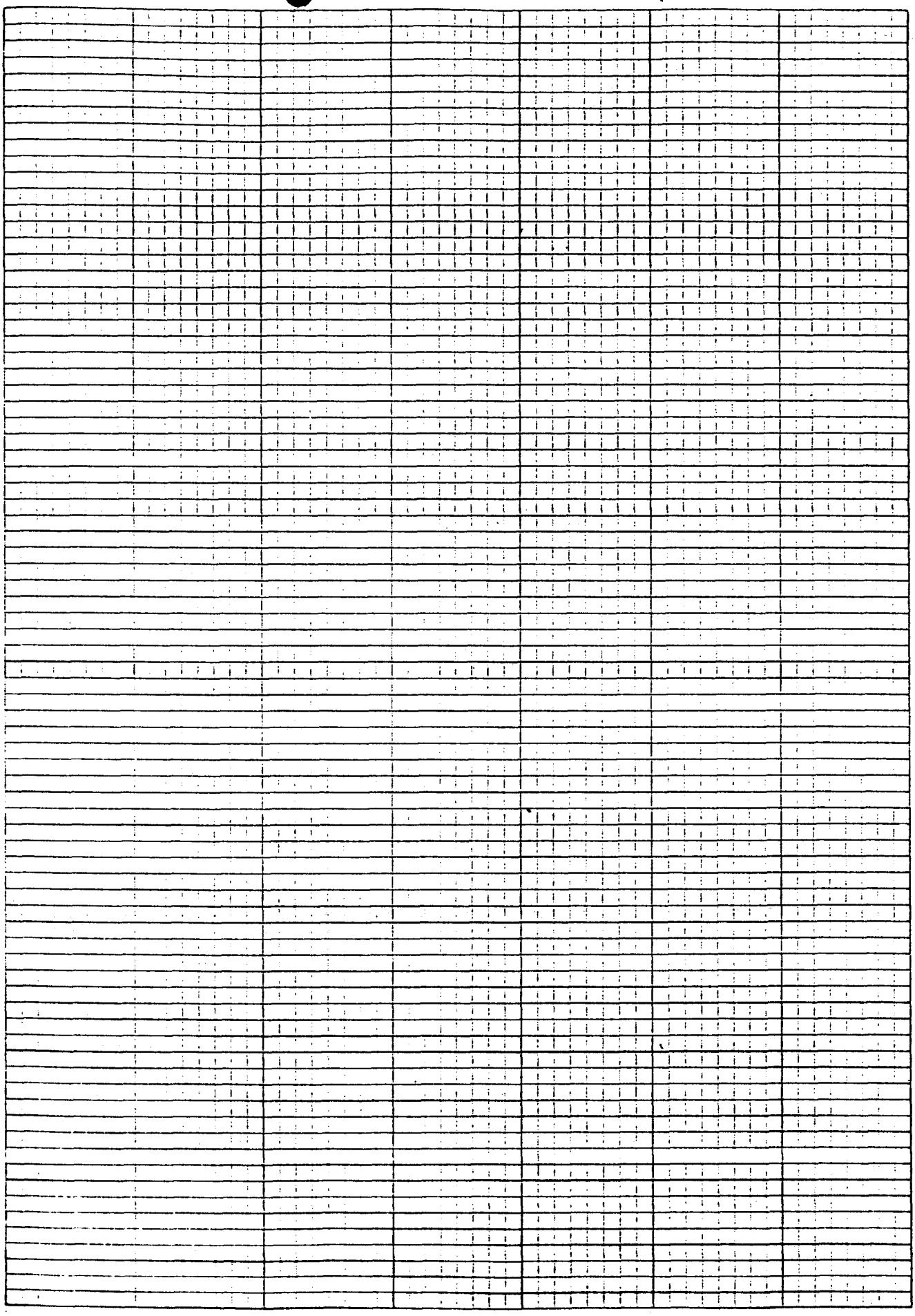
RP Samples Taken
___H2O___SOIL
Analysis:

RP Laboratory:

LUFT Samples Taken
___H2O___Soil
Analysis:

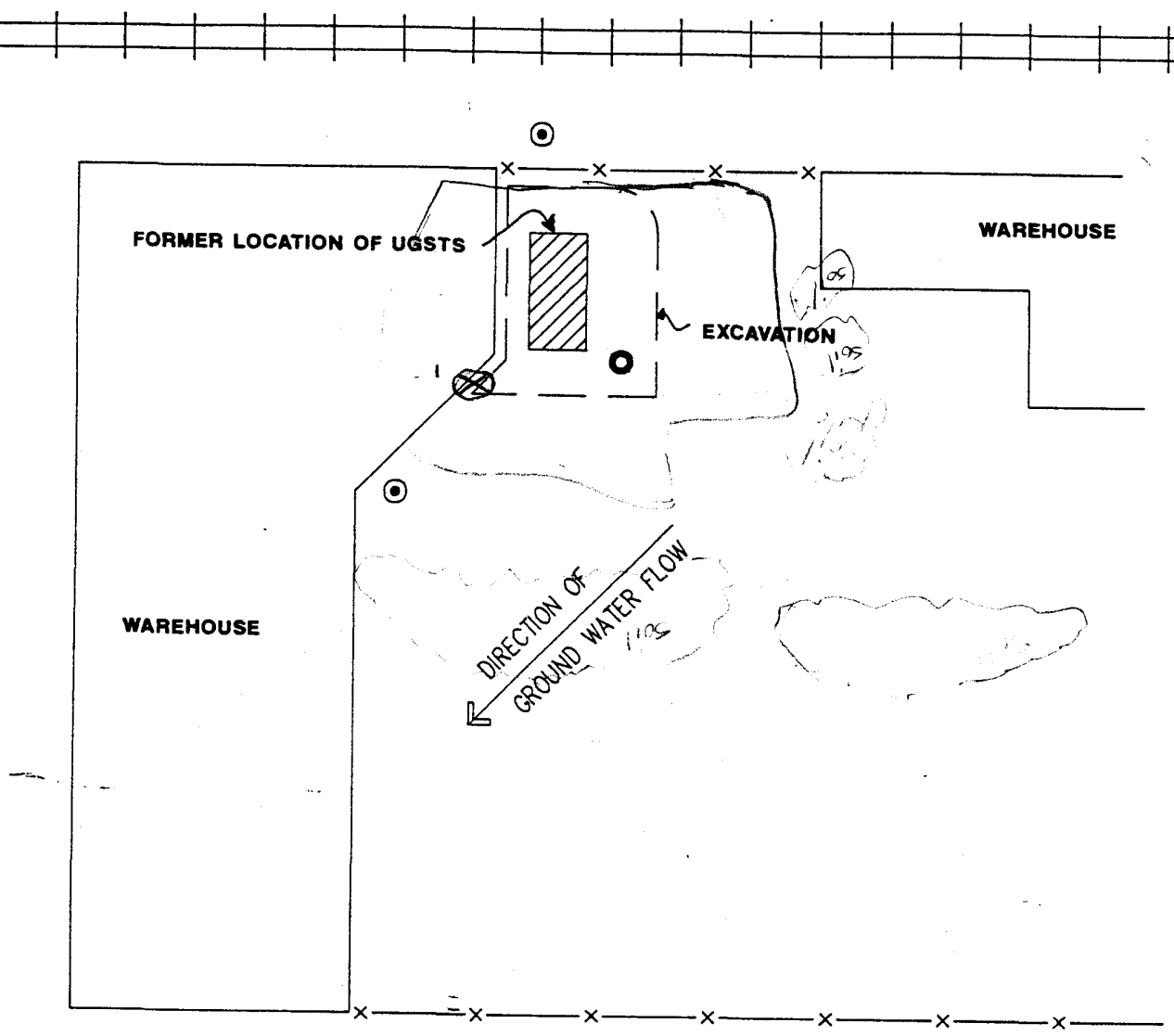
* PID reading from tank uncovered 10-29 is 37.ppm
Field Observations/Comments:
Contaminated soil sent to Mchittrick 10-29-90 -5 trucks - look for 5 manifests.
#1 - floor - 10' depth - 700 ppm

Investigated By: Date: 10/30/90
A:\INSPECT-8/90



K&E 8 X 8 TO THE INCH • 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

46 0542



SP ENVIRONMENTAL SYSTEMS		FIGURE
PROJECT NO. 05149	DATE: 9-17-90	
DRAWN BY: EG	CHECKED BY:	NTS SCALE

PROPOSED MONITORING WELL LOCATIONS

County of S.B.
Environmental Health Department • LUFT Program

SITE INSPECTION REPORT

Site Name: Southern Pacific Railroad
Date: 10-29-90
Site Location: 399 Linden
Arrival: 3:00
SITE NO: 50119
Departure: 4:00
Person Contacted: Brigitte Lievens
Phone:
Consultant Firm: SP Environmental
Phone:

DRAFT

RP Samples Taken
_____ H_2O _____ Soil

Analysis:

Estimated depth to groundwater: 10'

Type of hazardous substance released:
Gasoline

Field Screening Equipment:
- Consultant
H-nu PID
- LUFT

RP Laboratory:

Purpose of Inspection:
Site visit to oversee excavation and monitoring well activities

LUFT Samples Taken
_____ H_2O _____ Soil

Analysis:

Field Observations / Comments:

Kate Sulka and myself visited the site and met with Brigitte Lievens. She informed us they had been working at the site since Thursday but could not reach LUFT. There were trenches dug around the pit to try to determine the extent of contamination. Brigitte field screened the soil to tell her when she had

Investigated By: Leif Reynolds
Date: 10-29-90

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got out of the contamination. At that time, she proceeded to excavate approximately 350 yards of soil. I will visit the site on 10/30/90 to field screen and sample the sides and the bottom of the pit. In the process of the excavation, a 280 gallon tank was discovered. It is on site and will be hauled as hazardous if I get vapor readings from it tomorrow.

(916) 369-8971
NETWORK (916) 449-1890
FAX (916) 369-8370

BRIGITTE LIEVENS
TECHNICIAN

SP ENVIRONMENTAL SYSTEMS INC.
9719 LINCOLN VILLAGE DR., SUITE 310
SACRAMENTO, CA 95827

County of S.B.
Environmental Health Department • LUFT Program

SITE INSPECTION REPORT

Site Name: Orchard Services/So Pac. RR
Site Location: 399 Linclin
SITE NO:
Person Contacted: Elizabeth Gillis
Consultant Firm: SP Environmental Systems

Date: 7-24-90
Arrival: 8:15 1hr drive
Departure: 9:15
Phone: 3:15-5:00
Phone: 1hr drive

Estimated depth to groundwater: 10'

Type of hazardous substance released: Gasoline

Field Screening Equipment:
- Consultant: —
- LUFT: Microtip PID

Purpose of Inspection: To observe samples and dig out.

RP Samples Taken
____ H_2O __X__ Soil

Analysis:
8015
8020

RP Laboratory:
CCAS

LUFT Samples Taken
____ H_2O ____ Soil

Analysis:

Field Observations / Comments:

Elizabeth excavated approximately 150 yds of soil and did not get to the limits of the excavation. There was a sand lense from 5' to 8' bgs that was giving Microtip Readings of 1500 to 1800 ppm. She took three soil samples, one of the hot stuff, one of the soils pile, and one of the "clean lense" found in the pit (see drawing on opposite side). She was going to meet with Paul and Richard on 7-25-90 to discuss further excavation. Approximately 150 cubic yards of soil has been excavated and stockpiled on site.

Investigated By:

Date:

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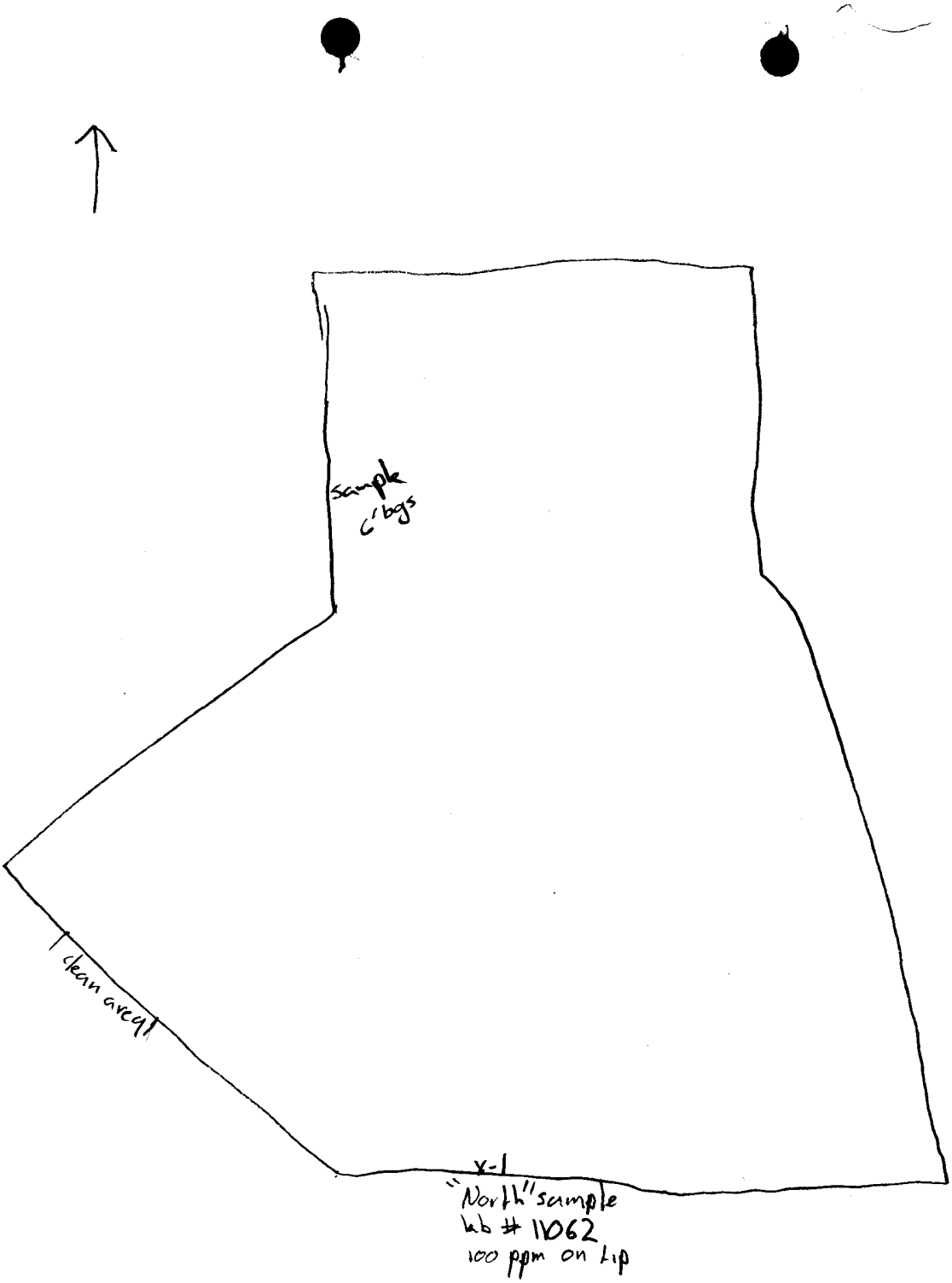
sample
6' bgs
clean area
X-1
"North" sample
lab # 11062
100 ppm on Lip

150

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY ☐ YES ☒ NO

HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? ☐ YES ☒ NO

FOR LOCAL AGENCY USE ONLY
I HEREBY CERTIFY THAT I AM A DESIGNATED GOVERNMENT EMPLOYEE AND THAT I HAVE REPORTED THIS INFORMATION TO LOCAL OFFICIALS PURSUANT TO SECTION 25180.7 OF THE HEALTH AND SAFTY CODE.
SIGNED [signature] DATE 6/1/90

REPORT DATE: 05/29/90 CASE #: ATS 1826

REPORTED BY
NAME OF INDIVIDUAL FILING REPORT: Leif Reynolds
PHONE: (805) 681-5200
SIGNATURE: Leif Reynolds
REPRESENTING: ☐ OWNER/OPERATOR ☐ REGIONAL BOARD ☒ LOCAL AGENCY ☐ OTHER
COMPANY OR AGENCY NAME: Environmental Health HCS
ADDRESS: 5540 Ekwill STREET CITY Santa Barbara STATE CA ZIP 93111

RESPONSIBLE PARTY
NAME: S.P. Environmental Systems ☐ UNKNOWN
CONTACT PERSON: Elizabeth Gillis
PHONE: (916) 369-8971
ADDRESS: 9719 Lincoln Village Drive, Ste. 310 STREET CITY Sacramento, STATE CA ZIP 93013

SITE LOCATION
FACILITY NAME (IF APPLICABLE): Orchard Services
OPERATOR: Chuck McNeil
PHONE: (805) 684-4796
ADDRESS: 399 Linden Ave. STREET Carpinteria, CITY CA COUNTY SB ZIP 93013
CROSS STREET:

IMPLEMENTING AGENCIES
LOCAL AGENCY AGENCY NAME: Env. Health/S.B. Co. LUFT Program
CONTACT PERSON: Leif Reynolds
PHONE: (805) 681-5200
REGIONAL BOARD: Central Coast Region
CONTACT PERSON: Mike Thomas
PHONE: (805) 549-3147

SUBSTANCES INVOLVED
(1) NAME: Gasoline — QUANTITY LOST (GALLONS): ☒ UNKNOWN
(2) Stoddard Solvent — ☒ UNKNOWN

DISCOVERY/ABATEMENT
DATE DISCOVERED: 02/15/90
HOW DISCOVERED: ☐ INVENTORY CONTROL ☐ SUBSURFACE MONITORING ☐ NUISANCE CONDITIONS ☐ TANK TEST ☒ TANK REMOVAL ☐ OTHER
DATE DISCHARGE BEGAN: ☒ UNKNOWN
HAS DISCHARGE BEEN STOPPED? ☒ YES ☐ NO IF YES, DATE 02/16/90
METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY): ☒ REMOVE CONTENTS ☐ REPLACE TANK ☒ CLOSE TANK ☐ REPAIR TANK ☐ REPAIR PIPING ☐ CHANGE PROCEDURE ☒ OTHER Remove tank

SOURCE/CAUSE
SOURCE OF DISCHARGE: ☐ TANK LEAK ☒ UNKNOWN ☐ PIPING LEAK ☐ OTHER
CAUSE(S): ☐ OVERFILL ☐ RUPTURE/FAILURE ☐ SPILL ☐ CORROSION ☐ UNKNOWN ☐ OTHER

CASE TYPE
CHECK ONE ONLY: ☒ UNDETERMINED ☐ SOIL ONLY ☐ GROUNDWATER ☐ DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)

CURRENT STATUS
CHECK ONE ONLY:
☐ NO ACTION TAKEN ☒ PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED ☐ POLLUTION CHARACTERIZATION
☐ LEAK BEING CONFIRMED ☐ PRELIMINARY SITE ASSESSMENT UNDERWAY ☐ POST CLEANUP MONITORING IN PROGRESS
☐ REMEDIATION PLAN ☐ CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) ☐ CLEANUP UNDERWAY

REMEDIAL ACTION
CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS):
☐ CAP SITE (CD) ☐ EXCAVATE & DISPOSE (ED) ☐ REMOVE FREE PRODUCT (FP) ☐ ENHANCED BIO DEGRADATION (IT)
☐ CONTAINMENT BARRIER (CB) ☐ EXCAVATE & TREAT (ET) ☐ PUMP & TREAT GROUNDWATER (GT) ☐ REPLACE SUPPLY (RS)
☐ VACUUM EXTRACT (VE) ☐ NO ACTION REQUIRED (NA) ☐ TREATMENT AT HOOKUP (HU) ☐ VENT SOIL (VS)
☒ OTHER (OT)

COMMENTS
Site Investigation in progress. No remedial actions taken yet.

Two (2) tank removed 1-250 gal. and 1-1000 gal. approx. age 40

HSC 05 (11/89)

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INSTRUCTIONS

EMERGENCY
Indicate whether emergency response personnel and equipment were involved at any time. If so, a Hazardous Material Incident Report should be filed with the State Office of Emergency Services (OES) at 2800 Meadowview Road, Sacramento, CA 95832. Copies of the OES report form may be obtained at your local underground storage tank permitting agency. Indicate whether the OES report has been filed as of the date of this report.

LOCAL AGENCY ONLY
To avoid duplicate notification pursuant to Health and Safety code Section 25180.7, a designated government employee should sign and date the form in this block. A signature here does not mean that the leak has been determined to pose a significant threat to human health or safety, only that notification procedures have been followed if required.

REPORTED BY
Enter your name, telephone number, and address. Indicate which party you represent and provide company or agency name.

RESPONSIBLE PARTY
Enter name, telephone number, contact person, and address of the party responsible for the leak. The responsible party would normally be the tank owner.

SITE LOCATION
Enter information regarding the tank facility. At a minimum, you must provide the facility name and full address.

IMPLEMENTING AGENCIES
Enter names of the local agency and Regional Water Quality Control Board involved.

SUBSTANCES INVOLVED
Enter the name and quantity lost of the hazardous substance involved. Room is provided for information on two substances if appropriate. If more than two substances leaked, list the two of most concern for cleanup.

DISCOVERY/ABATEMENT
Provide information regarding the discovery and abatement of the leak.

SOURCE/CAUSE
Indicate source(s) of leak. Check box(es) indicating cause of leak.

CASE TYPE
Indicate the case type category for this leak. Check one box only. Case type is based on the most sensitive resource affected. For example, if both soil and ground water have been affected, case type will be "Ground Water". Indicate "Drinking Water" only if one or more municipal or domestic water wells have actually been affected. A "Ground Water" designation does not imply that the affected water cannot be, or is not, used for drinking water, but only that water wells have not yet been affected. It is understood that case type may change upon further investigation.

CURRENT STATUS
Indicate the category which best describes the current status of the case. Check one box only. The response should be relative to the case type. For example, if case type is "Ground Water", then "Current Status" should refer to the status of the ground water investigation or cleanup, as opposed to that of soil. Descriptions of options follow:

No Action Taken - No action has been taken by responsible party beyond initial report of leak.
Leak Being Confirmed - Leak suspected at site, but has not been confirmed.
Preliminary Site Assessment Workplan Submitted - workplan/proposal requested of/submitted by responsible party to determine whether ground water has been, or will be, impacted as a result of the release.
Preliminary Site Assessment Underway - implementation of workplan.
Pollution Characterization - responsible party is in the process of fully defining the extent of contamination in soil and ground water and assessing impacts on surface and/or ground water.
Remediation Plan - remediation plan submitted evaluating long term remediation options. Proposal and implementation schedule for appropriate remediation options also submitted.
Cleanup Underway - implementation of remediation plan.
Post Cleanup Monitoring in Progress - periodic ground water or other monitoring at site, as necessary, to verify and/or evaluate effectiveness of remedial activities.
Case Closed - regional board and local agency in concurrence that no further work is necessary at the site.

IMPORTANT: THE INFORMATION PROVIDED ON THIS FORM IS INTENDED FOR GENERAL STATISTICAL PURPOSES ONLY AND IS NOT TO BE CONSTRUED AS REPRESENTING THE OFFICIAL POSITION OF ANY GOVERNMENTAL AGENCY

REMEDIAL ACTION
Indicate which action have been used to cleanup or remediate the leak. Descriptions of options follow:

Cap Site - install horizontal impermeable layer to reduce rainfall infiltration.
Containment Barrier - install vertical dike to block horizontal movement of contaminant.
Excavate and Dispose - remove contaminated soil and dispose in approved site.
Excavate and Treat - remove contaminated soil and treat (includes spreading or land farming).
Remove Free Product - remove floating product from water table.
Pump and Treat Groundwater - generally employed to remove dissolved contaminants.
Enhanced Biodegradation - use of any available technology to promote bacterial decomposition of contaminants.
Replace Supply - provide alternative water supply to affected parties.
Treatment at Hookup - install water treatment devices at each dwelling or other place of use.
Vacuum Extract - use pumps or blowers to draw air through soil.
Vent Soil - bore holes in soil to allow volatilization of contaminants.
No Action Required - incident is minor, requiring no remedial action.

COMMENTS - Use this space to elaborate on any aspects of the incident.

SIGNATURE - Sign the form in the space provided.

DISTRIBUTION
If the form is completed by the tank owner or his agent, retain the last copy and forward the remaining copies intact to your local tank permitting agency for distribution.
1. Original - Local Tank Permitting Agency
2. State Water Resources Control Board, Division of Loans and Grants, Underground Storage Tank Program, P.O. Box 944212, Sacramento, CA 94244-2120
3. Regional Water Quality Control Board
4. County Board of Supervisors or designee to receive Proposition 65 notifications.
5. Owner/responsible party.

COUNTY OF SANTA BARBARA • HEALTH CARE SERVICES

315 CAMINO DEL REMEDIO • SANTA BARBARA, CALIFORNIA 93110 • (805) 681-5140

LAWRENCE HART, M.D., F.A.C.P.M.
Director and Health Officer

ABANDONED TANK INSPECTION
REPORT AND OFFICIAL NOTICE

PC# _____
EST# _____
DATE 2/16/90

ESTABLISHMENT NAME Orchard Service (S.P. RR. owner)
SITE ADDRESS 399 Linden Ave CITY Carp. ZIP _____
CONTACT PERSON Elizabeth Gillis TITLE S.P. Engineer
TELEPHONE (916) 369-8971

You are hereby notified that an inspection of your abandoned hazardous substance underground storage tank(s) located at _____ was made on _____ by _____ of the Hazardous Materials Management Unit of the County of Santa Barbara, Department of Health Care Services. The condition found is noted below with the necessary response indicated.

Number of tanks removed 2
Type and capacity of tank(s) 1-250 gal steel & 1-1000 gal steel
Condition of tank(s) Good - slight corrosion, no holes
Approximate age of tank(s) ≈40 yrs

[ ] No holes in tank and no evidence of signicant soil or groundwater contamination detected this date. Excavation may be backfilled.

[ ] The conditions noted below must be reported and corrected in accordance with Chapters 6.5 and 6.7 of the California Health and Safety Code and Santa Barbara County Code.

[ ] Hazardous substance/waste from the tank(s) is ponded in the excavation. Immediately take steps to remove the ponded hazardous liquid from the excavation. This liquid is a hazardous waste that must be properly transported, under manifest, by a licensed hazardous waste hauler to a licensed recycling or disposal facility. Submit copies of completed manifest forms and an Unauthorized Release Report (described below) to the Department of Health Services within 5 working days.

[X] Contaminated soil and/or groundwater is present in the excavation. Determining the extent and impact of this contamination and completing any required clean-up is the responsibility of the tank owner/operator. Within 5 working days, the tank owner/operator or his agent must submit a written Unauthorized Release Report to the Department of Health Services that includes all of the following information that is known at the time of filing the report:

a. List of type, quantity and concentration of hazardous substance released.
b. The extent of the soil or groundwater or surface water contamination due to the release based on the results of all investigations completed at the time the report is submitted.
c. Method of clean-up implemented to date and proposed clean-up actions.
d. Method and location of disposal of the released hazardous substance and any contaminated soils or groundwater or surface water.

Subsequent mitigation actions will be discussed upon review of the submitted Report and consultation with other responsible agencies.

Important Notes:
1. It is the responsibility of the tank owner/operator or his agent to maintain the site in a safe and secure manner.
2. Any contaminated soil/liquid removed from the site must be handled, transported and disposed of or recycled as hazardous waste.
3. Notify the local fire department immediately if a fire or explosion hazard is present.
4. Notify the Regional Water Quality Control Board (549-3147) within 24 hours in the event of an unauthorized release.

RECEIVED BY Elizabeth Gillis
Phone # 916-638-3058

SPECIALIST Bruce Hawley
(805) 964-0808 8:00 a.m.-5:00 p.m.

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COUNTY OF SANTA BARBARA • HEALTH CARE SERVICES

315 CAMINO DEL REMEDIO • SANTA BARBARA, CALIFORNIA 93110 • (805) 964-8848

LAWRENCE HART, M.D., F.A.C.P.M.
Director and Health Officer

ABANDONED TANK INSPECTION REPORT AND OFFICIAL NOTICE

PC# _____
EST# _____
DATE _____

ESTABLISHMENT NAME _____
SITE ADDRESS _____ CITY _____ ZIP _____
CONTACT PERSON _____ TITLE _____
TELEPHONE ( ) _____

You are hereby notified that an inspection of your abandoned hazardous substance underground storage tank(s) located at _____ was made on _____ by _____ of the Hazardous Materials Management Unit of the County of Santa Barbara, Department of Helath Care Services. The condition found is noted below with the necessary response indicated.

Number of tanks removed _____
Type and capacity of tank(s) _____
Condition of tank(s) _____
Approximate age of tank(s) _____

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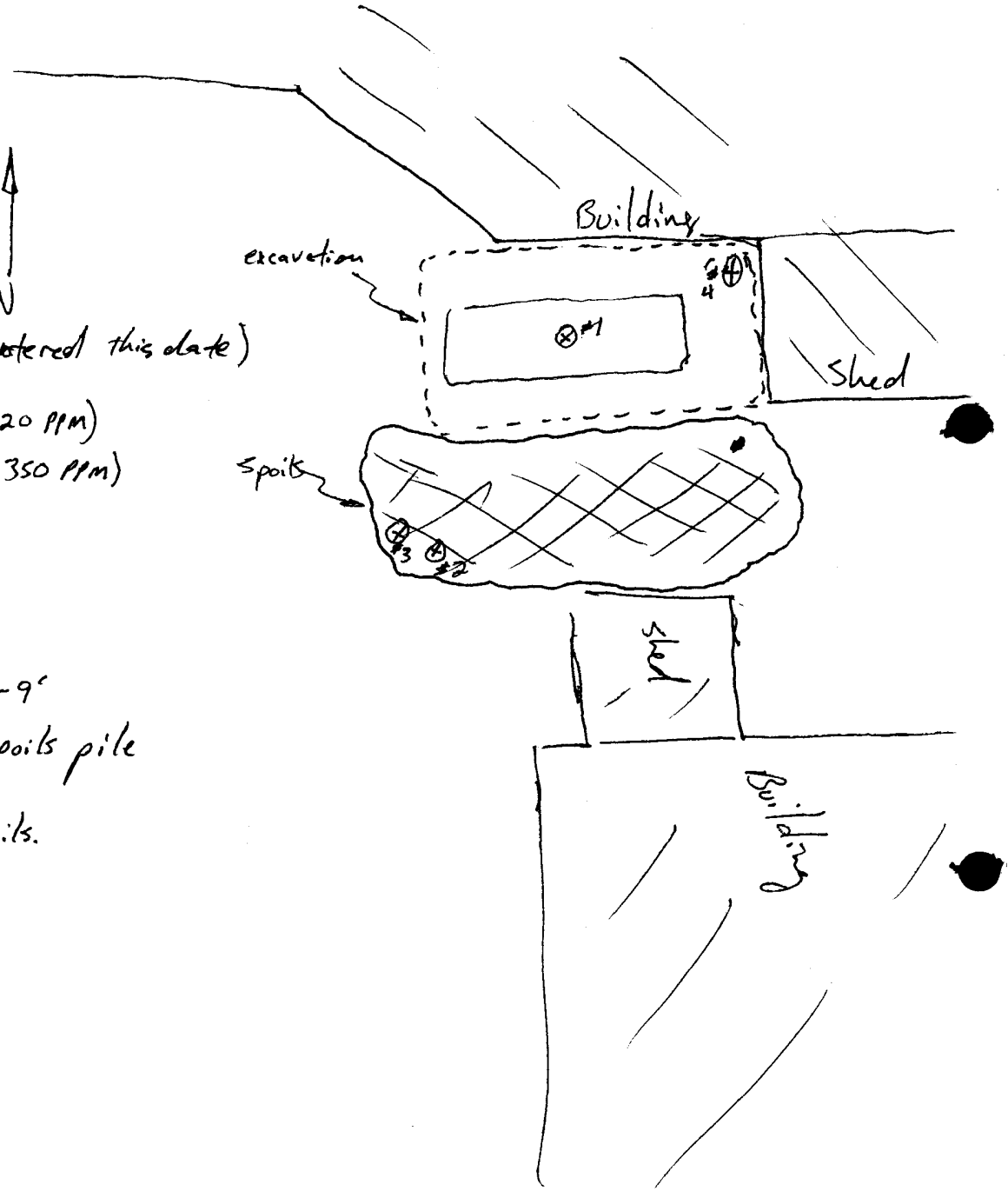
4. Notify the Regional Water Quality Control Board (549-3147) within 24 hours in the event of an unauthorized release.

RECEIVED BY _____ SPECIALIST _____
Phone # _____ (805) 964-8848 8:00 a.m.-5:00 p.m.



Groundwater est. 11-12' (not encountered this date)

Fill Material 0-5' (HNu = 5-20 ppm)
Sandy Soil 5'-9' (HNu 250-350 ppm)
Clay 9'—?

Sample #1 Clay center Bottom of Pit -9'

Sample #2 Upper fill material from spoils pile (black)

Sample #3 Sandy Material from spoils.

Sample #4 End wall excavation 4 ft.

All Samples 8015/8020

Sample #3 include 8240

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COUNTY OF SANTA BARBARA
PROTECTION SERVICES DIVISION
Hazardous Materials Unit

2125 S. Centerpointe Pkwy. #333, Santa Maria, CA 93455 (805) 346-8477 FAX (805) 346-8485
4410 Cathedral Oaks Road, Santa Barbara, CA 93110 (805) 681-5500 FAX (805) 681-5553

FILE COPY

May 13, 1996

Mr. John Moe
Southern Pacific Railroad
One Market Plaza, Room 1007
San Francisco, CA 94105

Dear Mr. Moe:

RE: Southern Pacific Transportation Company Property
399 Linden Avenue, Carpinteria, California
LUFT Site #50119

This letter confirms the completion of site investigation and remedial action for the underground storage tanks formerly at the above described location. Enclosed is the Case Closure Summary for the referenced site for your records.

Based upon the available information, including the current land use, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground storage tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, California Code of Regulations, Division 3, Chapter 16, Section 2721 (e). (If a change in land use is proposed, the owner must promptly notify this agency.)

Please telephone Barbara Fontes at (805) 346-8285 if you have any questions regarding this matter.

Sincerely,

Steven C. Dastic
Hazardous Material Supervisor
SMU/LUFT Program

SD:ck
closures\50119.clr

Enclosure

pc: Janice Paulson, SWRCB
Barbara Fontes, Protection Services Division
Richard Evans, Protection Services Division
Ana Nathe, Industrial Compliance

In association with your local Fire Agency for Hazardous Materials Inspections, Spills & Underground Storage Tanks

COUNTY OF TA BARBARA
DEPARTMENT OF HEALTH SERVICES

Date May 13, 1996

From the desk of:

To:

Please See Me	Please Attend
Prepare Reply -- My Signature	Comment
Prepare Reply -- Your Signature	Keep Me Informed
Necessary Action	For Your Information
Note and Return	For Your File

Remarks:

Brett H Bowyer
R.G. # 5720

EXPIRATION DATE
5/31/96

GH-55 Rev. 4/79

LETTER OF TRANSMITTAL

TerraNext
11235 Knott Avenue, Suite B
Cypress, California 90630
(714) 890-9133
Fax (714) 890-1973

To:
Ms. Barbara A. Fontes
County of Santa Barbara
4410 Cathedral Oaks Road
Santa Barbara, CA 93455

Date:	***TerraNext Project No.:***
5-9-96	*052-01913*
TerraNext Project Name:	
Former Orchard Services Site	
UST Case # 50119	

WE ARE SENDING YOU VIA:

☒ *U.S. Mail* ☐ *Fed-X* ☐ *Hand-delivery* ☐ *Facsimile (# of pages:___including cover sheet)*

ORIGINAL	***COPIES***	***DATE***	***DESCRIPTION***
1		*5-9-96*	*Closure Request Letter*
	1	*4-10-96*	*Well Permits # 205, 206, and 207*
1		*4-11-96*	*Well Completion Reports # 459451, 459453, 459456*

REMARKS: *Please find enclosed a closure letter request submitted by TerraNext, on behalf of the Southern Pacific Transportation Company, for your review. Attached also are a copy of the permits and well completion reports. Could you please send the Owners copy of the well completion report to the TerraNext office referenced above, with the closure letter forwarded to John Moe, Southern Pacific Lines, One Market Plaza, San Francisco, CA # 94105. Thank You.*

cc: _____

TerraNext

By: Patrick A. Schanen

IF ENCLOSURES ARE NOT AS NOTED, PLEASE NOTIFY US AT ONCE.

/u/pschan/letters/transmittal/sb050996

received
APR 22 1996

Permit No. 205
Page 1 of 2 pages

WELL PERMIT APPLICATION

TO: Environmental Health Division
Santa Barbara County Health Care Services

Date 4/10/96

Name of Well Owner Southern Pacific Transportation Company

Mailing Address One Market Plaza, San Francisco, CA 94105 415-541-2557
Street, P.O. City State Zip Code Telephone

Well Site Location: Vicinity Map Attached ☑ (Check)

Assessor's Parcel No. 003-044-027 Street Address 399 Linden Ave, Carpenteria

Township ____ Range ____ Section ____ Rancho Pueblo LAND

Name of Well Driller APEX ENVIRONMENTAL DRILLING

Company Name APEX ENVIRONMENTAL DRILLING

Business Address 15661 PRODUCER LN., Suite N, Huntington Beach CA 92649

Contractor's License No. CSI-56117 Date of Work Start 4/17/96 Finish 4/17/96

OTHER WATER SOURCE: Public ☐ Private ☐ None ☒

Permit Type (Check)		Well Use (Check)		Drilling Method (Check)	
Construction	☐	Domestic	☐	Rotary	☐
Repair/Modification	☐	Agriculture	☐	Cable	☐
Destruction	☑	Cathodic	☐	Other	☑ Hollow Stem Auger
Inactivation	☐	Test	☑		

Proposed Depth 19 ft.
Well Bore Diam 8 in.

Casing Information
Type: Steel ☐ PVC ☑ Other ☐
Wall/Gage 40 in.
Diameter 2 in.
Annular Seal Depth 5 ft.

Sealing Material (Check)
Neat Cement ☑ Clay ☐
Cement Grout ☐ Concrete ☐

Additional Work Description:

For Department Use Only
Application Disposition:
Approved ☐
Denied ☐
Comments

I hereby agree to comply with all regulations of the County of Santa Barbara pertaining to well construction, repair, modification, destruction and inactivation. The property owner, well driller, or agent will furnish County Health Care Services a complete well log upon completion of well construction.

Signed Richard D Allen (Applicant) 4/11/96

No Fee LUFT Site # 50119

$____ Fee paid on ____

Receipt No. ____

PAID BY:

Barbara A. Fontes (Name)

April 11, 1996 (Date)

S.B. ☐ Sol. ☐
S.M. ☐ Lom ☐

WHEN SIGNED BY HEALTH CARE SERVICES, THIS APPLICATION IS A PERMIT. HEALTH OFFICER SHALL BE NOTIFIED PRIOR TO ALL SEALING OPERATIONS. NOTE: PERMIT EXPIRES ONE YEAR FROM DATE ISSUED.

H-96 Rev. 6-94

Permit No. 206

Page 1 of 2 pages

WELL PERMIT APPLICATION

TO: Environmental Health Division
Santa Barbara County Health Care Services

Date 4/10/96

Name of Well Owner Southern Pacific Transportation Company

Mailing Address One Market Plaza (Street, P.O.) San Francisco (City) CA (State) 94105 (Zip Code) 415-541-2557 (Telephone)

Well Site Location: Vicinity Map Attached ☑ (Check)

Assessor's Parcel No. 003-044-027 Street Address 399 Linden Ave, Carpenteria

Township _____ Range _____ Section _____ Rancho Pueblo LAND

Name of Well Driller APEX ENVIRONMENTAL DRILLING

Company Name APEX ENVIRONMENTAL DRILLING CA 92649

Business Address 15661 PRODUCER LN., SUITE N, HUNTINGTON BEACH Date of Work

Contractor's License No. C57-561117 Start 4/17/96 Finish 4/17/96

OTHER WATER SOURCE: Public ☐ Private ☐ None ☒

Permit Type (Check)		Well Use (Check)		Drilling Method (Check)	
Construction	☐	Domestic	☐	Rotary	☐
Repair/Modification	☐	Agriculture	☐	Cable	☐
Destruction	☑	Cathodic	☐	Other	☑ Hollow Stem Auger
Inactivation	☐	Test	☑		

Proposed Depth 19 ft.

Well Bore Diam 8 in.

Casing Information

Type: Steel ☐ PVC ☑ Other ☐ _____

Wall/Gage 40 in.

Diameter 2 in.

Annular Seal Depth 5 ft.

Sealing Material (Check)

Neat Cement ☑ Clay ☐

Cement Grout ☐ Concrete ☐

Additional Work Description: _____

For Department Use Only

Application Disposition:

Approved ☐

Denied ☐

Comments _____

I hereby agree to comply with all regulations of the County of Santa Barbara pertaining to well construction, repair, modification, destruction and inactivation. The property owner, well driller, or agent will furnish County Health Care Services a complete well log upon completion of well construction.

Signed Richard D. Allen (Applicant) 4/11/96

No Fee LUFT Site # 50119

$____ Fee paid on ____/____/____

Receipt No. _____

PAID BY: _____

Barbara A. Fontes (Name)

April 11, 1996 (Date)

S.B. ☐ Sol. ☐

S.M. ☐ Lom ☐

WHEN SIGNED BY HEALTH CARE SERVICES, THIS APPLICATION IS A PERMIT. HEALTH OFFICER SHALL BE NOTIFIED PRIOR TO ALL SEALING OPERATIONS. NOTE: PERMIT EXPIRES ONE YEAR FROM DATE ISSUED.

H-96 Rev. 6-84

Permit No. 207

Page 1 of 2 pages

WELL PERMIT APPLICATION

TO: Environmental Health Division
Santa Barbara County Health Care Services

Date 4/10/96

Name of Well Owner Southern Pacific Transportation Company

Mailing Address One Market Plaza, San Francisco CA 94105 415-541-2557
Street, P.O. City State Zip Code Telephone

Well Site Location: Vicinity Map Attached ☑ (Check)

Assessor's Parcel No. 003-044-027 Street Address 399 Linden Ave, Carpenteria

Township ____ Range ____ Section ____ Rancho Pueblo LAND

Name of Well Driller APEX ENVIRONMENTAL DRILLING

Company Name APEX ENVIRONMENTAL DRILLING CA 92649

Business Address 15661 PRODUCER LN., Suite N, Huntington Beach Date of Work

Contractor's License No. C57-561177 Start 4/17/96 Finish 4/17/96

OTHER WATER SOURCE: Public ☐ Private ☐ None ☒

Permit Type (Check)		Well Use (Check)		Drilling Method (Check)	
Construction	☐	Domestic	☐	Rotary	☐
Repair/Modification	☐	Agriculture	☐	Cable	☐
Destruction	☑	Cathodic	☐	Other	☑ Hollow Stem Auger
Inactivation	☐	~~Test~~	☑		

Proposed Depth 19 ft.

Well Bore Diam 8 in.

Casing Information

Type: Steel ☐ PVC ☑ Other ☐ ____

Wall/Gage 40 in.

Diameter 2 in.

Annular Seal Depth 5 ft.

Sealing Material (Check)

Neat Cement ☑ Clay ☐

Cement Grout ☐ Concrete ☐

Additional Work Description: ____

For Department Use Only

Application Disposition:

Approved ☐

Denied ☐

Comments ____

I hereby agree to comply with all regulations of the County of Santa Barbara pertaining to well construction, repair, modification, destruction and inactivation. The property owner, well driller, or agent will furnish County Health Care Services a complete well log upon completion of well construction.

Signed Richard T. Allin (Applicant) 4/11/96

No Fee LUFT Site # 50119

$____ Fee paid on 1/1

Receipt No. ____

PAID BY: ____

Name Barbara A. Fontes

Date April 11, 1996

S.B. ☐ Sol. ☐

S.M. ☐ Lom ☐

WHEN SIGNED BY HEALTH CARE SERVICES, THIS APPLICATION IS A PERMIT. HEALTH OFFICER SHALL BE NOTIFIED PRIOR TO ALL SEALING OPERATIONS. NOTE: PERMIT EXPIRES ONE YEAR FROM DATE ISSUED.

H-96 Rev. 6-84

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COUNTY OF SANTA BARBARA
PROTECTION SERVICES DIVISION
Hazardous Materials Unit

2125 S. Centerpointe Pkwy. #333, Santa Maria, CA 93455 (805) 346-8477 FAX (805) 346-8485
4410 Cathedral Oaks Road, Santa Barbara, CA 93110 (805) 681-5500 FAX (805) 681-5553

March 4, 1996

Mr. John Moe
Southern Pacific Railroad
One Market Plaza, Room 1007
San Francisco, CA 94105

Dear Mr. Moe:

RE: Closure Request for Southern Pacific Transportation Company Property
399 Linden Avenue, Carpinteria, California
LUFT Site #50119

This letter confirms the completion of site investigation and remedial action at the above site. Providing the information submitted to the Santa Barbara County Protection Services Division, Hazardous Materials Unit was accurate and representative of existing conditions, it is our position that no further remedial action is required at this time. The following actions must be taken to gain site closure:

☐ The vapor extraction wells must be properly abandoned.

☐ Following the abandonment of the vapor extraction well(s) please submit a brief report summarizing the effectiveness of this work and the abandonment procedures. A final site closure letter will be sent.

☐ All drums must be properly labeled, manifested (or equiv.) and transported to an appropriate disposal facility. If the material is hazardous, this must be completed within 90 days.

☑ All groundwater monitoring wells must be properly abandoned. Prior to abandonment, permits must be obtained from the County and the City. The County will then notify the Regional Water Quality Control Board so that they can issue the site closure letter.

☐ An inspector from the County must be present to verify this site work. Please call at least forty-eight (48) hours in advance to schedule an appointment.

☐ Open excavations and/or construction debris may pose a health hazard. This should be mitigated or at a minimum, public access should be restricted by a fence.

☐ Other site specific requirements.

If you have any questions or comments regarding this matter, please contact me at (805) 346-8285.

Very truly yours,

Barbara A. Fontes

Barbara A. Fontes
Hydrogeologist
SMU/LUFT Program

BF:ck
50119.pre

Enclosure

pc: Richard Aleshire, RWQCB
Richard Evans, Protection Services Division
Ana Nathe, Industrial Compliance

2/27/96 Staff Meeting to Discuss Site Status
Attendees: Barbara Fontes/Richard Evans/Kate Sulka

399 Linden 50119
RWQCB Denied closure in 7/95 meeting. They required more gw sampling. SPRR (RP) argued with their requirement, but finally resampled the gw. ND on all monitoring wells.
Therefore, BF is going to process site for closure; and will send letter to RP requiring closure of the monitoring wells and note to the RP that if they dump the clean drums of purge water, they need to notify LUFT in advance of doing so, so that there are no complaints from local people without LUFT being aware of the activity.

208 Salsipuedes (LUFT Site) - Quarantina and Salsipuedes (SMU Site)
Closure to LUFT aspect due to gw not indicating significant levels of hydrocarbons. PNA concerns do exist at the site, however. Property owner is SPRR. SPRR also owns property which is designated as the Quarantina and Salsipuedes SMU site, where PNA's and metal contamination exists. BF to write letters to RP, regarding closure of the LUFT site once the monitoring wells are either abandoned or ownership is transferred to SPRR (notification of transfer is required to be sent to LUFT).
BF also to write a letter to SPRR regarding their assuming responsibility of the monitoring wells for assessing their site.

403 DeLaVina 90060
Old gas station. RP has agreed to over excavate the soil contamination - ok to place a temporary monitoring well in the excavation rather than a permanent well. 2 gw samples of clean sample results, and LUFT will close the site.

200 S. Milpas 51661
Last HA report regarding the station demo indicated that the sample below the hoist was clean, but HA won't sign the report because they feel that there weren't sufficient samples taken (ie., sidewalls) to indicate that the contamination was removed. RE feels confident that the sample was indicative, because it wastaken from the corner/bottom of the pit. Gw is at 6-8'bgs, and the quarterly reports indicate that there is no gw contamination. KS concerned that the gw has been tested for EDC/MTBE. Quarterly report data will be reviewed by BF during her review for closure. RE to forward information to BF for review.

800 Cacique 53220
Need to install monitoring well to determine if contamination has migrated, as it is expected to. Gw is shallow, 6-8'bgs.

22 Salsipuedes 50676
Mtg with RWQCB set up criteria for closure, which were
1 - documentation that site is within the El Estero
2 - resample groundwater with County staff on-site to witness
#1 is done. #2, sampling needs to occur. County did not accept sample. BF to follow up w/letter to RP. RE/KS to review prior to sending.
luft\sulka\notes\feb96

TerraNext 11235 Knott Avenue, Suite B Cypress, CA 90630

May 8, 1996

TerraNext Project No. 052-01913-02

Ms. Barbara A. Fontes
LUFT Program
County of Santa Barbara
Protection Services Division,
Hazardous Materials Unit
4410 Cathedral Oaks Road
Santa Barbara, California 93455

VIA U.S. MAIL

Re: Closure Request
Southern Pacific Transportation Company
Former Orchard Services Site Property
399 Linden Avenue
Carpinteria, California
Santa Barbara County - UST Case # 50119

Dear Ms. Fontes:

TerraNext, on behalf of Southern Pacific Transportation Company (SPTCo), is submitting this closure request for the SPTCo former Orchard Services property site, located at 399 Linden Avenue in Carpinteria, California.

In order to approve closing the Underground Storage Tank Case (Number 50119) for the subject site, groundwater monitoring well abandonment was requested by the County of Santa Barbara Protection Services Division, Hazardous Materials Unit (County) in a letter to SPTCo dated March 4, 1996. SPTCo contracted TerraNext to conduct the well abandonment activities.

Prior to the commencement of field activities, TerraNext obtained all appropriate well abandonment permits (Numbers 205, 206, 207) from the County, and pursuant to permit conditions, representatives of the County were notified at least 48 hours prior to initiating well abandonment activities. (Copies of well permits are attached.)

/u/pschan/report/carpinteria/carpinteria

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The three groundwater monitoring wells on site were removed, in accordance with the State of California water well standards, using a limited access drilling rig equipped with a 10-inch (nominal outside diameter) hollow stem auger to over-drill each well to its construction depth of 19 feet. The PVC piping was then removed intact from all three wells and a neat cement slurry was tremmied through the stem from total depth to 5 feet below ground surface. Native soil fill was then used to backfill the boring to existing grade. (Copies of the monitoring well closure reports are attached.)

It is TerraNext's understanding that the County will notify the Regional Water Quality Control Board, Central Coast Region, so that they can issue the site closure letter. Should you have any questions, please contact Patrick A. Schanen at (714) 890-9133

Sincerely,

TERRANEXT

Patrick Schanen
Project Manager

Brett H. Bowyer, R.G.
Manager, Southern California Operations

PAS:ra

Attachments

cc: Mr. John Moe, SPTCo

SANTA BARBARA COUNTY

HAZARDOUS MATERIAL SMU/LUFT PROGRAM

CONTACT REPORT

DATE: 3/21/96 TIME: 4:15

NAME OF PERSON: John Moe TITLE:

COMPANY OR AGENCY: Southern Pacific Transportation

SITE: SMU ☐ LUFT ☒ ADDRESS: 399 Linden

PHONE: (415) 541-2557 TYPE OF CONTACT: OFFICE ☐ PHONE ☒ FIELD ☐ OTHER:

SUBJECT:

SUMMARY OF DISCUSSION:

A phone call was placed to Mr. Moe to discuss the well abandonment. He stated that he had received the letter stating the site would be closed once the monitoring wells were abandoned. He said that he had started the scheduling of the abandonment today and would let SBCEP know as soon as possible.

R. Evans

REPORTED BY: Richard Evans

close

TerraNext 11235 Knott Avenue, Suite B Cypress, CA 90630

February 20, 1996

TerraNext Project No. 052-01913-02

Mr. John Moe
Southern Pacific Environmental Systems
Southern Pacific Transportation Company
One Market Plaza
San Francisco, California 94105

VIA US MAIL

Re: Report for Groundwater Monitoring at the Former Orchard Services Site
Southern Pacific Transportation Company
399 Linden Avenue
Carpenteria, California
Santa Barbara County UST Case No. 50119

This letter report has been prepared by TerraNext (formerly Industrial Compliance) for Southern Pacific Transportation Company (SPTCo) to present the results of groundwater monitoring activities at the former Orchard Services Site (Site), located at 399 Linden Avenue in Carpenteria, California.

In order to approve closing the Underground Storage Tank (UST) Case (No. 50119) for the Site, a third and final round of groundwater monitoring was requested by the Santa Barbara County Environmental Health Department (County) and the California Regional Water Quality Control Board, Central Coast Region (RWQCB). A description of previous groundwater monitoring efforts at the Site is provided in the following section.

BACKGROUND

The Site is located in the City of Carpenteria on SPTCo property adjacent to the south side of the main railroad line, west of Linden Avenue. A site map is shown on Figure 1. The Site was formerly occupied by Orchard Services. In response to a request from the County, in February 1990, Southern Pacific Environmental Services (SPEvS) removed two fuel USTs from the Site. Petroleum hydrocarbons detected in confirmation soil samples beneath the USTs indicated that further investigation was required[1].

During 1990 and 1991, SPEvS performed soil remediation activities at the Site consisting of two stages of excavation and subsequent soil sample analysis. Laboratory analysis of nine

[1]Letter from Santa Barbara County Health Care Services to Southern Pacific Environmental Systems, dated March 27, 1990.

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confirmation soil samples taken after the final excavation indicated that the impacted soil had been removed and that no additional excavation was necessary[2]. The confirmation soil samples were analyzed for total petroleum hydrocarbons (TPH) in accordance with EPA Method 8015 - modified for diesel, and for benzene, toluene, ethyl benzene and xylenes (BTEX) in accordance with EPA Method 8240. TPH was not detected above the practical quantitation limit (PQL) of 1 milligram per kilogram (mg/kg) in any of the nine confirmation samples. BTEX compounds were not detected above PQLs of 0.005 mg/kg in seven samples; traces of toluene and xylenes (<0.020 mg/kg) were detected in two of the samples.

During the investigation, three 2-inch inside diameter groundwater monitoring wells were installed to test groundwater for the presence of TPH near the former UST. The wells were sampled twice (December 11, 1991 and March 31, 1992) and analyzed for BTEX and TPH as gasoline, diesel, and stoddard solvent in accordance with EPA Methods 8240 and 8015 - modified respectively. TPH was not detected above the PQL of 50 micrograms per liter (μg/l) and BTEX compounds were not detected above the PQLs of 0.5 μg/l in any of the samples during either sampling event[3,4,5].

In a letter to the County dated April 28, 1992, SPEvS recommended that the UST Site could be closed based on the soil and groundwater sampling results. The County agreed to close the Site and requested concurrence on site closure from the RWQCB. The RWQCB subsequently requested a third round of groundwater sampling and testing for BTEX compounds using EPA Method 602. A summary of these activities is provided as follows.

GROUNDWATER MONITORING

Representatives of the RWQCB and the County were notified of TerraNext's intent to sample the wells on January 9, 1996. Groundwater sampling activities were conducted on the three existing monitoring wells at the Site on January 11, 1996. A representative of the County

---

[2]SP Environmental Systems, Inc., July 15, 1991, Additional Site Investigation and Remediation Report, Southern Pacific Transportation Company, Orchard Services.

[3]Industrial Compliance, January 8, 1992, Fourth Quarter 1991 Groundwater Sampling Results, 399 Linden Avenue, Carpenteria, CA.

[4]Industrial Compliance, April 28, 1992, First Quarter 1992 Groundwater Sampling Results and Soil Disposal Report, 399 Linden Avenue, Carpenteria, CA.

[5]Letter from Industrial Compliance regarding Groundwater Sampling Analytical Results, to Environmental Health Services Department, Santa Barbara County, dated March 8, 1993.

visited the Site during the sampling activities. Water levels in all three wells were measured to the nearest 0.01 foot prior to purging. At least three well volumes of water were evacuated from each of the wells by bailing immediately prior to collecting samples. Electrical conductivity, pH, and temperature were monitored in purge water during evacuation procedures. Well purge logs are provided as Attachment 1.

After water levels in the wells recovered to at least 80% of the pre-purged levels, the samples were collected using disposable plastic bailers. One field blank sample and one duplicate sample were collected to meet quality assurance/quality control requirements (QA/QC). The blank sample was collected by placing distilled water into a clean disposable bailer. The water was then transferred to appropriate pre-cleaned bottles as supplied by the analytical laboratory.

The groundwater samples were placed in appropriate, clean containers as supplied by the selected laboratory. All of the bottles were pre-treated with the appropriate preservative by the laboratory, as required by the selected analytical method. The bottles were labeled, placed in sealable plastic bags and chilled on-site in a cooler. Chain-of-Custody forms were completed at the time of sampling and accompanied the samples to the laboratory. Chain-of-custody documents and laboratory reports are provided as Attachment 2.

Groundwater samples were analyzed in accordance with EPA Method 602 for BTEX. In addition, a field blank and field duplicate were collected and analyzed for the target constituents as part of the groundwater sampling QA/QC procedures.

The laboratory reports were reviewed and validated by TerraNext personnel. No data inconsistencies were observed during the data validation effort.

The purge water generating during sampling activities was stored in one 55-gallon capacity drum, for proper disposal following the acquisition of the laboratory results. The results of the third round of groundwater sampling are presented as follows.

RESULTS

Depth to groundwater was measured between 7.95 to 9.27 feet below the top of the well casing reference points on January 11, 1996. Groundwater flow direction was measured as southwest at a gradient of 0.008. Depth to groundwater and groundwater elevation contours are shown on Figure 1.

BTEX was not detected at concentrations greater than the PQL of 0.40 µg/l in any of three samples collected from the groundwater wells.

CONCLUSIONS

No evidence of input to groundwater has been observed due to the former USTs at the Site. Based on the impact results indicating the lack of detectable petroleum hydrocarbons in groundwater nearby and downgradient of the former UST, TerraNext recommends that the UST case be closed by the County and the three monitoring wells be properly destroyed.

CLOSING

TerraNext appreciates the opportunity to provide services to SPTCo for the aforementioned work. Should you have any questions, please do not hesitate to contact either of the undersigned.

Prepared By: Gary J. Halbert Date: 2-20-96

Gary J. Halbert, R.G., C.E.G
Project Manager

Reviewed: Brett H. Bowyer Date: 2-21-96

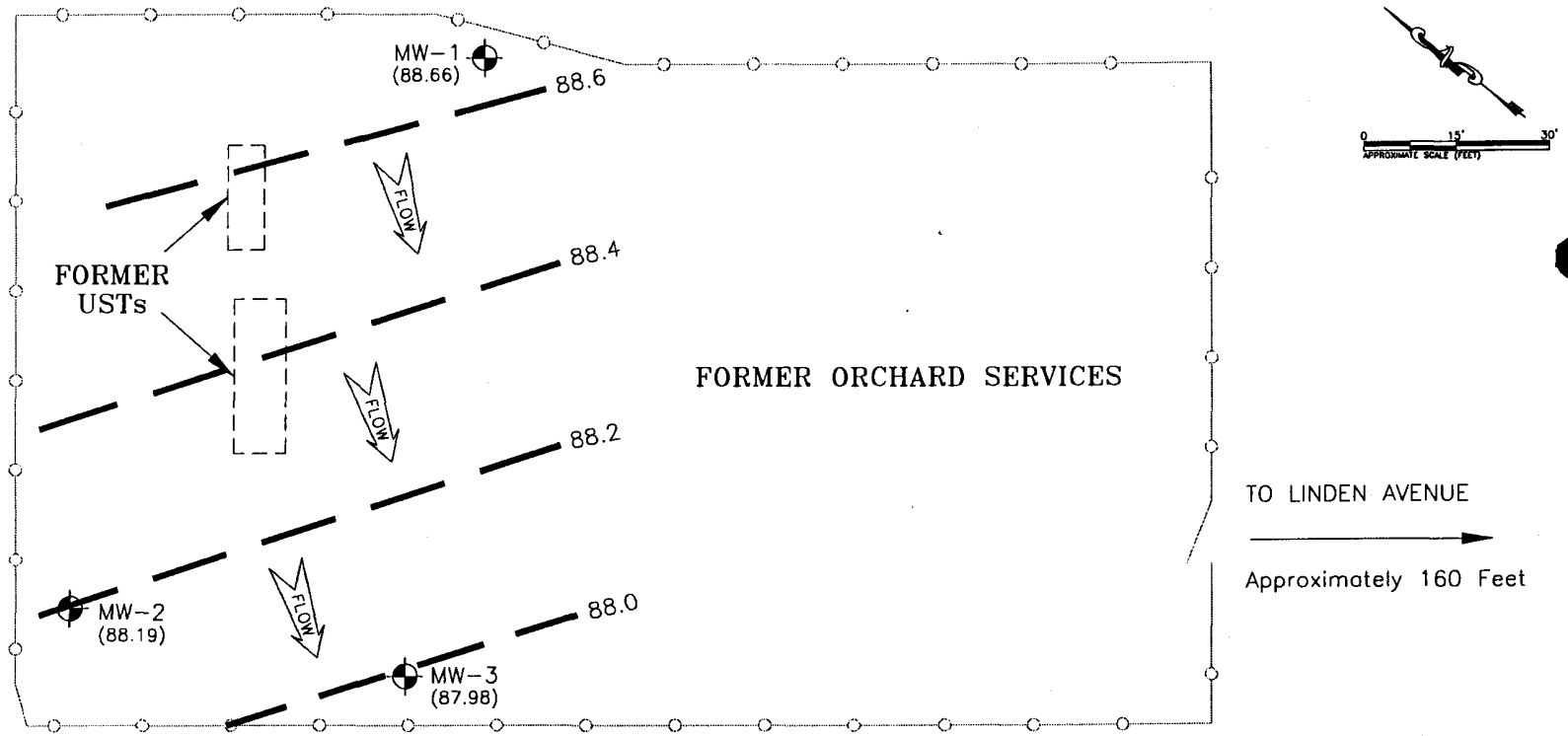
Brett H. Bowyer, R.G.
Manager, Southern California Operations

GJH:da

Attachments Figure 1
Well Purge Logs
Laboratory Reports

cc: Santa Barbara County Fire Department
Hazardous Material/Richard Evans
4410 Cathedral Oaks
Santa Barbara, CA 93110

TerraNext



LEGEND

- MW-2 — Monitoring Well
- (88.19) — Groundwater Elevation 1-11-96
- Groundwater Contour Line
- FLOW — Denotes Direction of Groundwater Flow
- Railroad Tracks
- Fence

Well	Top of Casing Surveyed Elevation (ft msl)	Depth to Water (ft msl)	Calculated Groundwater Elevation (ft msl)
MW-1	97.93	9.27	88.66
MW-2	96.14	7.95	88.19
MW-3	96.56	8.58	87.98

PROJ.# 05201913-02	PAGE#
SCALE: AS SHOWN	DRAWN BY: T.T.
FILE NO. FIG-1.DWG	DESIGNED BY:
DATE: 1/29/96	APPROVED BY: G.H.

TerraNext

FIGURE 1
SITE MAP
WITH GROUNDWATER GRADIENT
SOUTHERN PACIFIC TRANSPORTATION COMPANY
399 LINDEN AVENUE
CARPINTERIA, CALIFORNIA

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Terranext

PURGE CHARACTERIZATION AND SAMPLE LOG

Project Number: 052-01913 Project Name: Carpenteria Date: 1-11-96

Well Number: MW-1 Sampler: Scott Terranova Weather: cool/clear

Military Time 0744	0746	0750	0755	0759	0803	0807							
Gallons Purged	1	1	1	1	1	1							
Purge Rate													
pH	8.50	8.06	7.82	7.69	7.61	7.58							
Conductivity	846	1085	1114	1138	1117	1121							
Temperature (F)	58.3	58.6	58.9	59.3	58.8	59.3							
Salinity (0/00)													
Turbidity	10.51	49.9	14.65	8.60	5.13	4.13							
Color	clear	sl cloudy	clear	clear	clear	clear							
Water Level Casing	9.27					9.64							
Calibration	pH: 7						S.C.:						

Sample #	Quantity	Volume	Type	Preserv.	Analysis	Lab	Sample Equip.	Purge Equip.	Field Comments
052-3270	3	40 mL	H_2O	HCl	BTEX		disposable bailer	disposable bailer	Sampled at 0815
052-3271	3	40 mL	H_2O	HCl	BTEX		disposable bailer	disposable bailer	Field Duplicate 0815
Cleaning:									
Comments:	T.D. 18.74 Trip Blank 052-3272								

Sampler's Signature S Terr

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TerraNext

PURGE CHARACTERIZATION AND SAMPLE LOG

Project Number: 052-01913 Project Name: Carpenteria Date: 1-11-96

Well Number: MW-2 Sampler: Scott Terranova Weather: warm/clear

Military Time 0846	0851	0857	0903	0909	0913	0917	0921						
Gallons Purged	1	1	1	1	1	1	1						
Purge Rate													
pH	7.29	7.30	7.24	7.19	7.18	7.17	7.15						
Conductivity	834	866	946	937	948	925	971						
Temperature (F)	56.7	59.9	60.1	60.5	61.0	61.3	60.9						
Salinity (0/00)													
Turbidity	33.3	58.5	27.6	18.66	10.15	6.51	4.89						
Color	sl cloudy	sl cloudy	sl cloudy	clear	clear	clear	clear						
Water Level Casing	7.95					8.68							
Calibration	pH: 7						S.C.:						

Sample #	Quantity	Volume	Type	Preserv.	Analysis	Lab	Sample Equip.	Purge Equip.	Field Comments
052-3273	3	40 mL	H_20	HCl	BTEX		disposable bailer	disposable bailer	Sampled at 0930
Cleaning:									
Comments:	T.D. 17.62								

Sampler's Signature S Terranova

/u/jkahle/report/01913.gwrpt

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TerraNext

PURGE CHARACTERIZATION AND SAMPLE LOG

Project Number: 052-01913 Project Name: Carpenteria Date: 1-11-96

Well Number: MW-3 Sampler: Scott Terranova Weather: warm/clear

Military Time 0959	1002	1005	1008	1013	1017	1021	1026						
Gallons Purged	1	1	1	1	1	1	1						
Purge Rate													
pH	6.97	6.92	6.87	6.85	6.86	6.83	6.85						
Conductivity	1186	1306	1334	1339	1352	1349	1355						
Temperature (F)	62.1	63.8	63.6	63.4	63.6	63.8	63.9						
Salinity (0/00)													
Turbidity	30.0	24.6	18.69	12.13	8.79	5.25	4.91						
Color	sl cloudy	sl cloudy	sl cloudy	clear	clear	clear	clear						
Water Level Casing	8.58						8.82						
Calibration	pH: 7						S.C.:						

Sample #	Quantity	Volume	Type	Preserv.	Analysis	Lab	Sample Equip.	Purge Equip.	Field Comments
052-3274	3	40 mL	H_20	HCl	BTEX		disposable bailer	disposable bailer	Sampled at 1035
052-3275	3	40 mL	H_20	HCl	BTEX		disposable bailer	disposable bailer	Field Blank at 1045
Cleaning:									
Comments:	T.D. 19.60								

Sampler's Signature S Terranova

/u/jkahle/report/01913.gwrpt

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CHAIN-OF-CUSTODY RECORD

Client: Terranext

Date: 1-11-96

Project Name: Carpinteria

Client Reference #: P.O.# 30342

Project Address: Carpinteria

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 48-96 Hours
- ☒ Normal
- ☐ Mobile Lab

Project Contact (please print): Gary Halbert

Analysis Requested
All analyses and deliverables must be identified (see section 4.8 & 4.9 on reverse)

Page 1 of 1

Lab Use Only
Lab Job # L2955
C.O. #
C.O. #
C.O. #
C.O. #

Sample Condition Upon Receipt:
Chilled ☑ yes ☐ no
Sealed ☒ yes ☐ no

Sample ID	Sample Location	Date	Time	Physical State: Solid (S), Liquid (L), Vapor (V)	BTEX EPA 602	Number of Containers	Container/Comments	Lab Sample Number
052-3270		1-11-96	0815	L	X	3		L2955
3271		"	0815		X	3		-2
3272						2	* Hold Sample	-3
3273		1-11-96	0930		X	3		-4
3274		"	1035		X	3		-5
3275		"	1045		X	3		-6

❶ Relinquished by (signature)*	❷ Received by (signature)	Date	17 Total Number of Containers
Company: TerranexT	Company	Time	
❸ Relinquished by (signature)*	❹ Received by Laboratory (signature): Scah Dino	Date: 1/12/96	
Company	Laboratory Name: TMA SA	Time: 10:05	

Special Instructions: Please Fax Results "ASAP" 714) 890-1973

*See Terms And Conditions (section 2) on reverse **before** signing

TERRA TECH LABO

Corporate Office
1920 E. Deere Ave.
Santa Ana, CA 92705
Tel 714.757.7022 800.377.2322
Fax 714.757.7274

Arizona Office
3902 E. University Drive, Suite 4
Phoenix, Arizona 85034
Tel 602.437.9367 Fax 602.437.9362

www.lawcopyinc.com

TMA
Thermo Analytical

1920 E. Deere Avenue
Santa Ana, CA 92705
(714) 757-7022 Fax: 757-7274
Formerly Terra Tech Labs

received
JAN 18 1996

LABORATORY REPORT

Client:	Terranext	Report Date:	1/17/96
Client Address:	11235 Knott Avenue, Suite B Cypress, California 90630	Lab P.N.:	L2955
		Client P.N.:	30342
		Lab Cert. #:	1155
Contact:	Gary Halbert		
Project Name:	Carpinteria	Date Sampled:	1/11/96
Project Address:	Carpinteria, CA	Date Received:	1/12/96
		Date Analyzed:	1/12/96-1/13/96
		Physical State:	Liquid

Quality Assurance/Quality Control Summary

Parameter (Method)	QC Type	MS Percent Recovery	MSD Percent Recovery	Acceptable Range	Relative Percent Difference	Acceptable Range
Benzene (EPA 8020)	M	99	103	74-121	4	0-10
Toluene (EPA 8020)	M	99	103	72-121	4	0-16
Ethylbenzene (EPA 8020)	M	98	104	72-117	6	0-14
Total Xylenes (EPA 8020)	M	102	109	66-124	7	0-14

M = Matrix Spike / Matrix Spike Duplicate

L = Laboratory Control Sample Spike / Spike Duplicate

Reviewed

Approved

The samples were received by Thermo Analytical in a chilled state, intact and accompanied by the Chain-of-Custody Record.

Acceptance of samples by Thermo Analytical is not an indication of condition upon receipt.

Laboratory Results apply only to the sample matrix analyzed and may not apply to an apparently identical or similar sample.

The Laboratory Report is the property of the client to whom it is addressed.

The Laboratory Results are only a portion of the Laboratory Report.

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LABORATORY RESULTS

Client:	Terranext	Report Date:	1/17/96
Client Address:	11235 Knott Avenue, Suite B Cypress, California 90630	Lab P.N.:	L2955
		Client P.N.:	30342
Project Name:	Carpinteria	Date Sampled:	1/11/96
Project Address:	Carpinteria, CA	Date Analyzed:	1/12/96-1/13/96
		Physical State:	Liquid

Sample ID	Benzene EPA 8020 µg/l	Toluene EPA 8020 µg/l	Ethylbenzene EPA 8020 µg/l	Xylenes, Total EPA 8020 µg/l
052-3270	ND	ND	ND	ND
052-3271	ND	ND	ND	ND
052-3273	ND	ND	ND	ND
052-3274	ND	ND	ND	ND
052-3275	ND	ND	ND	ND
Quantitation Limit µg/l	0.40	0.40	0.40	0.40

ND; Not Detected
The Laboratory Results are only a portion of the Laboratory Report.

TMA
Thermo Analytical

www.lawcopyinc.com

SANTA BARBARA COUNTY

HAZARDOUS MATERIAL SMU/LUFT PROGRAM

CONTACT REPORT

DATE: 11/2/95 TIME: 10:00

NAME OF PERSON: John Moe TITLE:

COMPANY OR AGENCY: Southern Pacific

SITE: SMU ☐ LUFT ☒ ADDRESS: 399 Linden Ave, Carpinteria CA

PHONE: (415) 541-2557 TYPE OF CONTACT: OFFICE ☐ PHONE ☒ FIELD ☐ OTHER:

SUBJECT: Status of Site

SUMMARY OF DISCUSSION: 11/2/95 @ 10:00

A phone call was placed to Mr. Moe concerning the status of the site. LMTC Booth answering machine.

Return call from Mr. Moe. He stated that according to engineering the site required no further action. He stated he would mail SBCEP information concerning the site.

Informed them of the State clean-up fund. Gave them Diana Ramos phone #

REPORTED BY: Richard Evans

Meeting with RWQCB
07/20/95

Attendees:

RA	Richard Aleshire
RE	Richard Evans
BF	Barbara Fontes
KS	Kate Sulka KS

399 Linden - Orchard Services

1 more sampling event of 3 wells and if non-detect, then close the site

Agriturf - 90011 130 Garden Street

RP requested closure
RE looking at remediation
MW 2 - varnish smell
VOC analysis required this last quarter - results not in yet

RA required mineral analysis

RE to write letter to RP saying minerals test to be done to determine cleanup levels

RA No remediation done to date - they need to remediate soil and groundwater (even if groundwater brackish)

RE Wants everything to be consistent in the area

RA/KS Agriturf is a data point to be included in Garden Street extension data

RA Prior to determining anything, need to get VOC/Minerals data

KS Wait for VOC/Minerals data to decide

RA Need this as this is an industrial area and someone else prior to this RP may have used solvents, so need this data to determine cleanup levels

DEWAR - 575 Guadalupe 51214

BF explained 1 well hot, no other MW's hot

RA Need more monitoring

BF RP wants meeting - they think they've done enough

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RA Don't need a meeting, have Dewar talk with me. Levels are 25 x's over MCL's (25 ppm in groundwater)
Lab needs to tighten up on their PQL's as the Benzene DL was .005 ppm for Benzene, which is too high

BF Will talk with RP and let them know to stick with EHS's memo or call RWQCB to confirm what EHS has already required

RA At very least, may reduce sampling to semi-annually

BF Will have RP call RA, after he puts together a closure request

330 State - Work Inc.

BF Found solvents - Phillips is paying for UST remediation - Excavating awaiting final report - solvents not Phillips issue -

KS Solvents may be attributable to Coit Cleaners -

BF Yes, possibly - will determine this once get data that was just sampled for - downgradient was a wing painting facility in the past which may have affected this site (ie they are surrounded by PCE sources)

BF Will refer solvents to RWQCB

Back to Agriturf

RE Showed RA the letter from Perry Russell - RA copied it for reference with closure letter request

Al's Cleaners

RA hasn't reviewed report yet

BF Hopefully this will be a joint site

RA Will review it soon

127 W. Canon Perdido - Opportunity Shop

RE Has required further assessment - RP has refused

BF GTE has solvents in their westerly well- gradient is SE

RE Gradient appears to change

BF Wells too close - GTE gradient is SE

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RA Gradient usually parallel State Street

RE Is asking how far do they assess? and is there a potential he's pulling in someone else's problem?

RA/KS/BF

Yes - Radio Square and/or an old dry cleaner (across Canon Perdido) etc

RA Is he asking for closure?

RE No just why do they need to assess more?

RA There's something to that. Gasoline levels are low - TPH 510 ppb B 1.9 ppb. Keep site on post closure monit and ask RP to justify closure.

Opportunity Shop

RA PCE levels are high and may be from on-site

KS Need to justify with a historical survey, that the PCE is not from the site and or it's current previous uses on-site.

COUNTY OF SANTA BARBARA

OFFICE MEMORANDUM

To Richard Evans Date Jan 26, 1995

From Barbara Fontes In re: Closure Request

LUFT Site # 50119, 399 Lindon

Please have them do another round of sampling to include: TPH, BTEX and minerals.

This would satisfy all RWQCB concerns and we can close if groundwater is still non-detect.

the highlighten sections of the closure summary is for data I couldn't find.

When all is completed give to Carey so that ~~them~~ she can update the closure summary and route this to Steve for his signature.

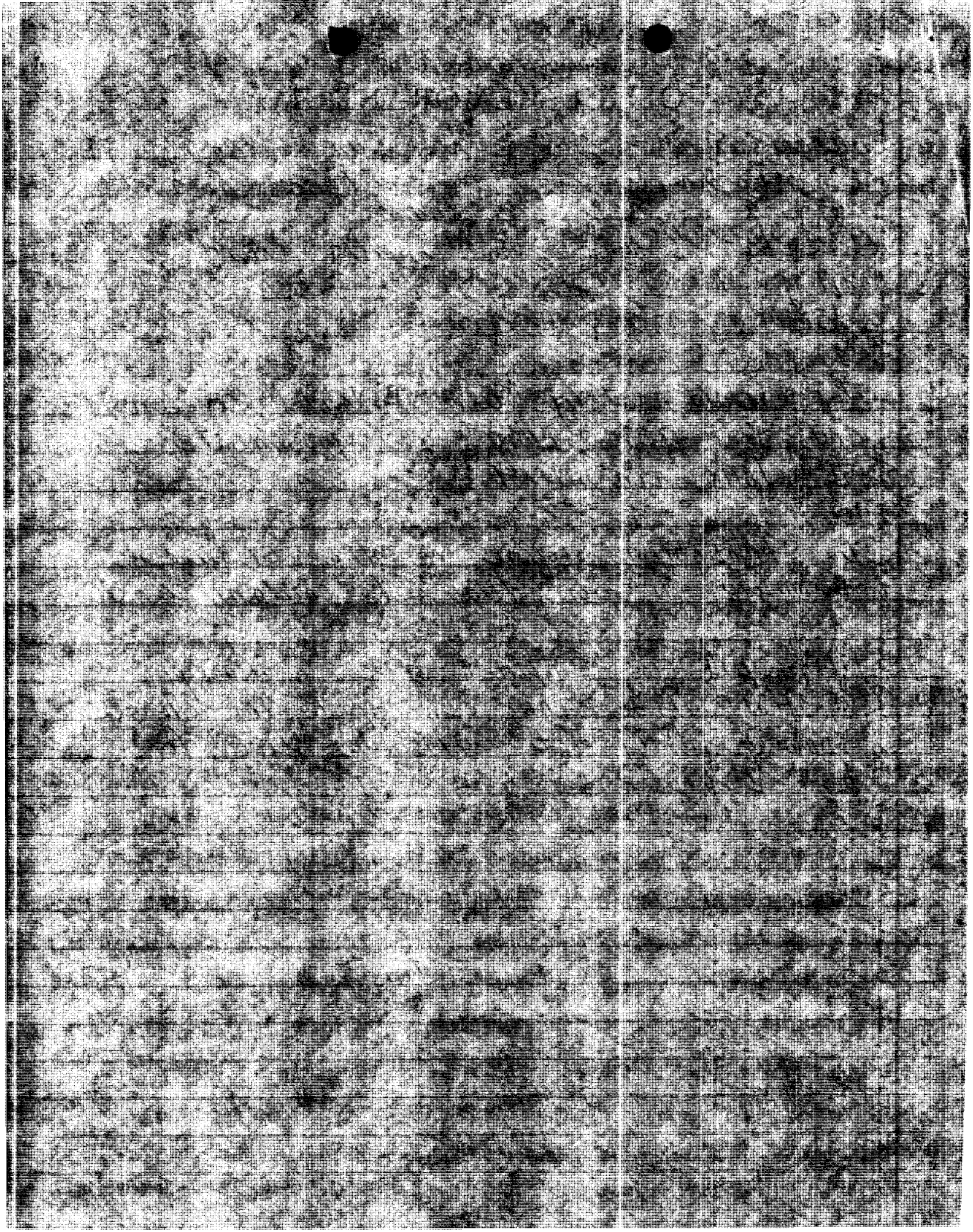
Note Wells need to be abandoned prio to issuance of closure letter.

Fontes

Environmental Health Specialist

EHS-3

(received by)



SANTA BARBARA COUNTY

HAZARDOUS MATERIAL SMU/LUFT PROGRAM

CONTACT REPORT

DATE: 2/18/94 TIME: 12:15

NAME OF PERSON: RICK BATTLE TITLE:

COMPANY OR AGENCY:

SITE: SMU ☐ LUFT ☒ ADDRESS: 399 LINDEN, CARPINTERIA

PHONE: ( ) TYPE OF CONTACT: OFFICE ☐ PHONE ☒ FIELD ☐ OTHER:

SUBJECT:

SUMMARY OF DISCUSSION:

Mr. Battle called requesting information on the status of the site. He stated that he was working for one of the property owners. He was told that the RWQCB did not concur with closure for the site. He was told the site would continued to be required to do quarterly monitoring.

REPORTED BY: Richard Evans

SANTA BARBARA COUNTY

HAZARDOUS MATERIAL SMU/LUFT PROGRAM

CONTACT REPORT

DATE: 2/18/94 TIME: 12:15

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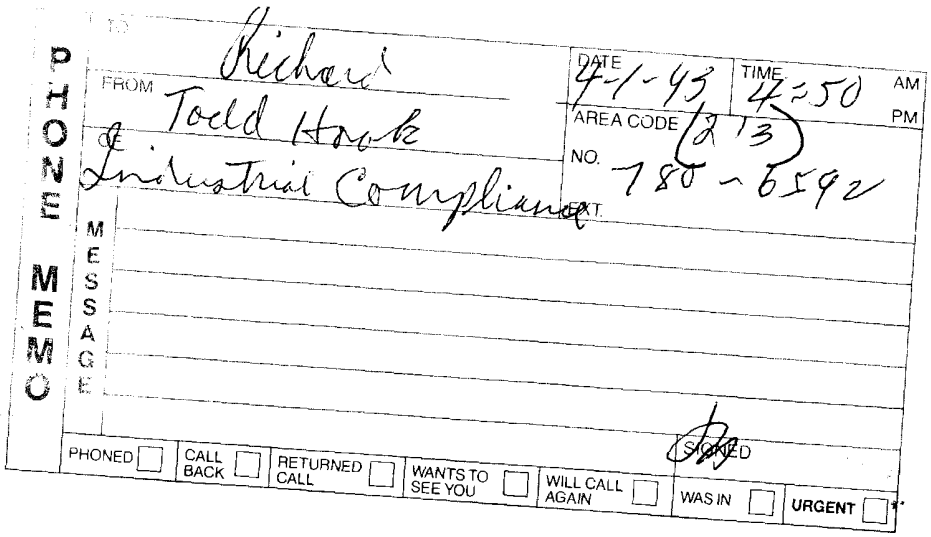
REPORTED BY: Richard Evans



PHONE MEMO

TO Richard

FROM Todd Hoak

DATE 4-1-93

TIME 4:50 AM PM

AREA CODE (213)

NO. 780-6592

OF Industrial Compliance

EXT.

MESSAGE

SIGNED

PHONED | CALL BACK | RETURNED CALL | WANTS TO SEE YOU | WILL CALL AGAIN | WAS IN | URGENT

Rich

Industrial Compliance

1200 Corporate Center Drive, Suite 390 Monterey Park, CA 91754 213/780-6590 FAX 213/780-6589

RECEIVED
MAR 08 1993
Santa Barbara County
Environmental Health Services

March 8, 1993

IC Project No. 052-01913

Mr. John Moore
LUFT Program
Environmental Health Services Department
County of Santa Barbara
120 Cremona Drive, Suite C
Goleta, California 93117

Re: Groundwater Sampling Analytical Results
Southern Pacific Transportation Company
Orchard Services Parcel - 399 Linden Avenue
Carpinteria, California
County UST Site No. 50119

Dear Mr. Moore:

Industrial Compliance (IC), on behalf of Southern Pacific Transportation Company (SPTCo), is submitting the enclosed laboratory analytical reports for groundwater samples collected at the subject site during the fourth quarter of 1991 and the first quarter of 1992. These results are provided in response to questions and comments of the Regional Water Quality Control Board (RWQCB), Central Coast Region, that were transmitted to the Santa Barbara County Environmental Health Services Department (County) in a letter dated December 14, 1992. RWQCB concurrence to close the subject site was requested by the Mr. Richard Evans of the County in a letter dated October 28, 1992.

For these two groundwater sampling events, the County had requested analysis of only total petroleum hydrocarbons as gasoline, diesel, and stoddard solvent; analysis for benzene, toluene, ethylbenzene, and xylenes (BTEX) was not required. Therefore, IC requested analysis of the groundwater samples only for total petroleum hydrocarbons by CAL DHS Draft TPH (modified) and EPA Method 8260, which entails use of a gas chromatograph/mass spectrometer. The laboratory used for analysis of these groundwater samples (Coast to Coast Analytical Services) routinely archives on computer disk the sample chromatograms and mass spectrometer readouts. Pursuant to a request from IC, the laboratory determined the BTEX concentrations in the groundwater samples based on the archived gas chromatograph and mass spectrometer data. As indicated in the enclosed reports, BTEX were not detected at concentrations above the laboratory reporting limit of 0.5 μg/l. These results are consistent with those from previous groundwater samples.

c:\tah\052-1913\sbcehsd2.ltr

In a letter dated March 2, 1993, IC respectfully requested reconsideration of the site for closure without additional groundwater monitoring. SPTCo has verified completion of the corrective action through verification monitoring agreed to by the County, as required under §2727 of Title 23, California Code of Regulations. Confirmation soil sampling of the excavations indicates that the affected soil has been removed. In addition, petroleum constituents have not been detected in any representative samples of groundwater collected from the monitoring wells installed by IC at the site.

If there are any questions or comments regarding this matter, please contact me at your convenience.

Sincerely,

INDUSTRIAL COMPLIANCE

Todd A. Hook, P.E.
Regional Director

TAH

Enclosure

cc: J. C. Moe, SPTCo
D. W. Long, Esq., SPTCo

CARPINTERIA B

Industrial Compliance

1200 Corporate Center Drive, Suite 390 Monterey Park, CA 91754 213/780-6590 FAX 213/780-6589

March 8, 1993

IC Project No. 052-01913

Mr. John Moore
LUFT Program
Environmental Health Services Department
County of Santa Barbara
120 Cremona Drive, Suite C
Goleta, California 93117

Re: Groundwater Sampling Analytical Results
Southern Pacific Transportation Company
Orchard Services Parcel - 399 Linden Avenue
Carpinteria, California
County UST Site No. 50119

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c:\tah\052-1913\sbcehsd2.ltr

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Todd A. Hook, P.E.
Regional Director

TAH

Enclosure

cc: J. C. Moe, SPTCo
D. W. Long, Esq., SPTCo

COAST - TO - COAST ANALYTICAL SERVICES

[illegible]r, Water & Hazardous Waste Sampling, Analysis & [illegible]nsultation
Ce[illegible]ed Hazardous Waste, Chemistry, Bacteriology & Bi[illegible]y Laboratories

San Luis Obispo, CA • Benicia, CA • Camarillo, CA • San Jose, CA • Goleta, CA
Anaheim, CA • Tempe, AZ • Valparaiso, IN • Westbrook, ME • Indianapolis, IN

NorCal Division (San Jose Laboratory)
2059 Junction Ave.

San Jose, CA 95131
(408) 955-9077

CLIENT: Todd Hook
S.P. Environmental Systems
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Lab Number : GE-2588-1
Project : 05149 Carpinteria CA

Analyzed : 12/16/91
Analyzed by: MM
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
13174 Well#2. Groundwater	Groundwater	Mark Barros	12/11/91	12/11/91

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
PURGEABLE AROMATICS (BTEX)				1,2
Benzene	(71432)	0.5	ND	
Toluene	(108883)	0.5	ND	
Ethylbenzene	(100411)	0.5	ND	
Xylenes		0.5	ND	
Percent Surrogate Recovery			100.	

San Jose Lab Certifications: CAELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)
(2) EXTRACTED by EPA 5030 (purge-and-trap)

03/02/93
MSD1
MC/mcc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

COAST - TO - COAST ANALYTICAL SERVICES

[redacted]r, Water & Hazardous Waste Sampling, Analysis [redacted]nsultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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Anaheim, CA • Tempe, AZ • Valparaiso, IN • Westbrook, ME • Indianapolis, IN

NorCal Division (San Jose Laboratory) San Jose, CA 95131
2059 Junction Ave. (408) 955-9077

Lab Number : GE-2588-2
Project : 05149 Carpinteria CA

CLIENT: Todd Hook
S.P. Environmental Systems
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Analyzed : 12/16/91
Analyzed by: MM
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
13178 Well#1. Groundwater	Groundwater	Mark Barros	12/11/91	12/11/91

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
PURGEABLE AROMATICS (BTEX)				1,2
Benzene	(71432)	0.5	ND	
Toluene	(108883)	0.5	ND	
Ethylbenzene	(100411)	0.5	ND	
Xylenes		0.5	ND	
Percent Surrogate Recovery			96.	

San Jose Lab Certifications: CAELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)
(2) EXTRACTED by EPA 5030 (purge-and-trap)

03/02/93
MSD1
MC/mcc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

COAST - TO - COAST ANALYTICAL SERVICES

[redacted]r, Water & Hazardous Waste Sampling, Analysis & [redacted]nsultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

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Anaheim, CA • Tempe, AZ • Valparaiso, IN • Westbrook, ME • Indianapolis, IN

NorCal Division (San Jose Laboratory)
2059 Junction Ave.
San Jose, CA 95131
(408) 955-9077

Lab Number : GE-2588-3
Project : 05149 Carpinteria CA

CLIENT: Todd Hook
S.P. Environmental Systems
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Analyzed : 12/16/91
Analyzed by: MM
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
15542 Well#3. Groundwater	Groundwater	Mark Barros	12/11/91	12/11/91

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
PURGEABLE AROMATICS (BTEX)				1,2
Benzene	(71432)	0.5	ND	
Toluene	(108883)	0.5	ND	
Ethylbenzene	(100411)	0.5	ND	
Xylenes		0.5	ND	
Percent Surrogate Recovery			94.	

San Jose Lab Certifications: CAELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)
(2) EXTRACTED by EPA 5030 (purge-and-trap)

03/02/93
MSD1
MC/mcc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

COAST - TO - COAST ANALYTICAL SERVICES

[redacted], Water & Hazardous Waste Sampling, Analysis & [redacted]sultation
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NorCal Division (San Jose Laboratory)
2059 Junction Ave.
San Jose, CA 95131
(408) 955-9077

CLIENT: Todd Hook
Industrial Compliance
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Lab Number : GF-1048-1
Project : 05149 399 Linden, Carpenteria
Analyzed : 04/09/92
Analyzed by: WH
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
17666 Well #1	Groundwater	Evelyn Ransom	03/31/92	04/01/92

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
PURGEABLE AROMATICS (BTEX)				1,2
Benzene	(71432)	0.5	ND	
Toluene	(108883)	0.5	ND	
Ethylbenzene	(100411)	0.5	ND	
Xylenes		0.5	ND	
Percent Surrogate Recovery			79.	

San Jose Lab Certifications: CAELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)
(2) EXTRACTED by EPA 5030 (purge-and-trap)

03/02/93
MSD1
MC/mcc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

COAST - TO - COAST ANALYTICAL SERVICES

[redacted], Water & Hazardous Waste Sampling, Analysis & [redacted]sultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

San Luis Obispo, CA • Benicia, CA • Camarillo, CA • San Jose, CA • Goleta, CA
Anaheim, CA • Tempe, AZ • Valparaiso, IN • Westbrook, ME • Indianapolis, IN

NorCal Division (San Jose Laboratory) San Jose, CA 95131
2059 Junction Ave. (408) 955-9077

CLIENT: Todd Hook
Industrial Compliance
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Lab Number : GF-1048-2
Project : 05149 399 Linden, Carpenteria
Analyzed : 04/09/92
Analyzed by: MM
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
17667 Well #2	Groundwater	Evelyn Ransom	03/31/92	04/01/92

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
PURGEABLE AROMATICS (BTEX)				1,2
Benzene	(71432)	0.5	ND	
Toluene	(108883)	0.5	ND	
Ethylbenzene	(100411)	0.5	ND	
Xylenes		0.5	ND	
Percent Surrogate Recovery			82.	

San Jose Lab Certifications: CAELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)
(2) EXTRACTED by EPA 5030 (purge-and-trap)

03/02/93
MSD1
MC/mcc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

COAST - TO - COAST ANALYTICAL SERVICES

[redacted], Water & Hazardous Waste Sampling, Analysis [redacted] nsultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bio[redacted]y Laboratories

San Luis Obispo, CA • Benicia, CA • Camarillo, CA • San Jose, CA • Goleta, CA
Anaheim, CA • Tempe, AZ • Valparaiso, IN • Westbrook, ME • Indianapolis, IN

NorCal Division (San Jose Laboratory)
2059 Junction Ave.
San Jose, CA 95131
(408) 955-9077

CLIENT: Todd Hook
Industrial Compliance
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Lab Number : GF-1048-3
Project : 05149 399 Linden, Carpenteria
Analyzed : 04/09/92
Analyzed by: JJ
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
17668 Well #3	Groundwater	Evelyn Ransom	03/31/92	04/01/92

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
PURGEABLE AROMATICS (BTEX)				1,2
Benzene	(71432)	0.5	ND	
Toluene	(108883)	0.5	ND	
Ethylbenzene	(100411)	0.5	ND	
Xylenes		0.5	ND	
Percent Surrogate Recovery			80.	

San Jose Lab Certifications: CAELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)
(2) EXTRACTED by EPA 5030 (purge-and-trap)

03/02/93
MSD1
MC/mcc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

Industrial Compliance
1200 Corporate Center Drive, Suite 390 Monterey Park, CA 91754 213/780-6590 FAX 213/780-6589

March 2, 1993

IC Project No. 052-01913

Mr. John Moore
LUFT Program
Environmental Health Services Department
County of Santa Barbara
120 Cremona Drive, Suite C
Goleta, California 93117

RECEIVED
MAR 03 1993
Santa Barbara County
Environmental Health Services

Re: Response to RWQCB Comments
Southern Pacific Transportation Company
Orchard Services Parcel - 399 Linden Avenue
Carpinteria, California
County UST Site No. 50119

Dear Mr. Moore:

Pursuant to a request from Mr. Richard Evans of the Santa Barbara County Environmental Health Services Department (County), Industrial Compliance (IC), on behalf of Southern Pacific Transportation Company (SPTCo), has prepared this response to questions and comments of the Regional Water Quality Control Board (RWQCB), Central Coast Region, that were transmitted to the County in a letter dated December 14, 1992. Questions and comments of the December 14, 1992, RWQCB are provided below in bold typeface, and IC responses follow each question.

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2. **What is the quality of the ground water encountered at 12 feet bgs? Is this usable ground water in terms of pumping capacity (sustained yield of 200 gallons per day) and water quality (a total dissolved solids concentration of less than 3,000 mg/l or 5,000 μS/cm)?**

The April 28, 1992 report prepared by Industrial Compliance (IC) suggests that ground water may be slightly brackish (based on Conductivity readings shown in their sampling logs). It would be worth collecting a ground water sample and performing a general mineral analyses on it. This would give us a better idea of the quality of the ground water and its potential as a water supply beneficial use.

Although water quality analysis was not performed during previous investigations, specific conductance measurements during well development and purging provide a qualitative indication of the groundwater quality at the site. The average specific conductance of the groundwater measured during all well purging was 950 μS/cm (average of measurements taken during November 1990, December 1991, and April 1992), which is significantly below the limit of 5,000 μS/cm. However, this specific conductance is slightly above the secondary Maximum Contaminant Level (MCL) of 900 μS/cm, but below the recommended upper level of 1,600 μS/cm. The specific conductance appeared to vary throughout the year, with the highest level of 1,220 μS/cm measured in December of 1991, and the lowest level of 640 μS/cm measured in April of 1992. Based on the specific conductance measurements, the total dissolved solids (TDS) level, and possibly chloride concentration, periodically may exceed the respective secondary MCLs.

Based on the rate at which groundwater was removed during well development and purging, the short-term capacity of the water-bearing unit in which the wells

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Based on the information provided above, IC does not consider water quality analysis warranted for this site. These analyses may be warranted if impact to the groundwater were indicated by the groundwater monitoring data. Since the current data indicates that the groundwater is not impacted, the potential for beneficial use of the groundwater has not been impaired, and the quality of the groundwater therefore is not relevant.

3. **We propose you have the responsible party conduct another round of ground water sampling. The sampling should be done after a significant rainfall event and after ground water is at its highest levels (seasonal high ground water). The purpose here is to see if any contamination is flushed out of the vadose zone or the saturated zone. The ground water samples must be analyzed using EPA test method 602, purgable aromatics, so we can check the BTEX concentrations.**

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If additional groundwater monitoring is required, IC does not consider the RWQCB requirement to time groundwater sampling to coincide with the highest groundwater elevation and immediately after a rain event to be warranted. As demonstrated through confirmation sampling in the excavations, which was observed and directed by a representative of the County, soil impacted by operation of the tanks has been removed.

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Sincerely,

INDUSTRIAL COMPLIANCE

Todd A. Hook, P.E.
Regional Director

TAH

cc: J. C. Moe, SPTCo
D. W. Long, Esq., SPTCo

Industrial Compliance

1200 Corporate Center Drive, Suite 390 Monterey Park, CA 91754 213/780-6590 FAX 213/780-6589

March 2, 1993

IC Project No. 052-01913

Mr. John Moore
LUFT Program
Environmental Health Services Department
County of Santa Barbara
120 Cremona Drive, Suite C
Goleta, California 93117

RECEIVED
NOV 06 1995
Santa Barbara County
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Re: Response to RWQCB Comments
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INDUSTRIAL COMPLIANCE

Todd A. Hook, P.E.
Regional Director

TAH

cc: J. C. Moe, SPTCo
D. W. Long, Esq., SPTCo

Industrial Compliance
1200 Corporate Center Drive, Suite 390 Monterey Park, CA 91754 213/780-6590 FAX 213/780-6589

March 2, 1993

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 7

To FRANK DeMARCO	From R. EVANS
Co.	Co.
Dept. RWQCB	Phone # 681-4966
Fax # 543-0397	Fax #

Mr. John Moore
LUFT Program
Environmental Health Services Department
County of Santa Barbara
120 Cremona Drive, Suite C
Goleta, California 93117

RECEIVED
MAR 03 1993
Santa Barbara County
Environmental Health Services

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Orchard Services Parcel - 399 Linden Avenue
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INDUSTRIAL COMPLIANCE

Todd A. Hook, P.E.
Regional Director

TAH

cc: J. C. Moe, SPTCo
D. W. Long, Esq., SPTCo

SANTA BARBARA COUNTY

HAZARDOUS MATERIAL SMU/LUFT PROGRAM

CONTACT REPORT

DATE:_____ TIME:_____

NAME OF PERSON:_____ TITLE:_____

COMPANY OR AGENCY:_____

SITE: SMU ☐ LUFT ☒ ADDRESS: 399 Linden

PHONE: (___)_____ TYPE OF CONTACT: OFFICE ☐ PHONE ☐ FIELD ☐ OTHER:_____

SUBJECT:_____

SUMMARY OF DISCUSSION: Message from Frank De Marco 542-4638
BTXE issue
9CMS

Qualitative not
validated standard
measure BTXE

REPORTED BY: Richard Evans

SANTA BARBARA COUNTY

HAZARDOUS MATERIAL SMU/LUFT PROGRAM

CONTACT REPORT

DATE: 12/22/92 TIME: 4:00

NAME OF PERSON: TODD HOOK TITLE: Project Manager

COMPANY OR AGENCY: Industrial Compliance

SITE: SMU ☐ LUFT ☒ ADDRESS: 399 LINDEN

PHONE: (213)780-6592 TYPE OF CONTACT: OFFICE ☐ PHONE ☒ FIELD ☐ OTHER: _____

SUBJECT: _____

SUMMARY OF DISCUSSION:

Phone call to TODD Hook. LMTCB w/ Secretary

1/7/93 Return call from Mr. Todd Hook of I.C. He stated that he had received the letter from the Central Coast RWQCB and would be responding to the questions. Based on his files he felt that the condems from RWQCB would be clarified without any further action at the site. He stated that he would review his files and respond the week of Jan 18, 1993

REPORTED BY: Richard Evans

STATE OF CALIFORNIA

PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD —
CENTRAL COAST REGION
81 HIGUERA STREET, SUITE 200
SAN LUIS OBISPO, CA 93401-5414
(805) 549-3147

RECEIVED
DEC 15 1992
Santa Barbara County
Environmental Health Services

December 14, 1992

Mr. John Moore, Supervisor
LUFT Program
County of Santa Barbara
Environmental Health Services Department
120 Cremona Drive, Suite C
Goleta, CA 93117

UGT/ORCHARD SERVICES/SOUTHERN PACIFIC RAILROAD, 399 LINDEN AVE., CARPINTERIA

Mr. Richard Evans' letter of October 28, 1992 requests concurrence on site closure for the above site. We have determined closure is inappropriate at this time. Prior to our considering closure for this site, please provide responses to the following:

1. What kind and capacity of tanks were on this site (e.g., gasoline, diesel, both)? How old were the tanks? What was the condition of the tanks when they were pulled/removed (assuming they were removed)? Was there an inventory kept of the fuels added to these tanks? If so, were there any significant losses? answered: Tanks in good condition No holes observed

2. What is the quality of the ground water encountered at 12 feet bgs? Is this usable ground water in terms of pumping capacity (sustained yield of 200 gallons per day) and water quality (a total dissolved solids concentration of less than 3,000 mg/l or 5,000 uS/cm)? appears to be perched based on depth water was encountered (appx 9 ft), and the final water level (12 ft) The April 28, 1992 report prepared by Industrial Compliance (IC) suggests the ground water may be slightly brackish (based on Conductivity readings shown in their sampling logs). It would be worth collecting a ground water sample and performing a general mineral analyses on it. This would give us a better idea of the quality of the ground water and its potential as a water supply beneficial use. This water was not tested for mineral analyses

3. We propose you have the responsible party conduct another round of ground water sampling. The sampling should be done after a significant rainfall event and after ground water is at its highest levels (seasonal high ground water). The purpose here is to see if any contamination is flushed out of the vadose zone or the saturated zone. The ground water samples must be analyzed using EPA test method 602, purgeable aromatics, so we can check the BTEX concentrations.

Request this from RP for closure

We only have two sampling events. If clean we can close base on the fact that all contaminated soil has been removed & gw samples has never shown impact.

include all minerals

BTEX has never been a problem at the site

4. We received the results of only one sampling event, April 1992. What were the results of the first sampling event referenced in the Mr. Evans' October 28 letter? Why was only TPH analyzed? ~~Richard~~ date ~~Where the 1992 Sampling~~

Please direct questions to Frank DeMarco at (805) 542-4638 or Bob Baldridge at (805) 542-4620 between the hours of 8:00 and 10:00 a.m. or 1:00 and 5:00 p.m.

Sincerely,

William R. Leonard

WILLIAM R. LEONARD
Executive Officer

FJD56/Orchard.1tr

c.c. Todd Hook, IC
9719 Lincoln Village Drive, Suite 310
Sacramento, CA 95827

js

STATE OF CALIFORNIA

PETE WILSON, *Governor*

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD —
CENTRAL COAST REGION
81 HIGUERA STREET, SUITE 200
SAN LUIS OBISPO, CA 93401-5414
(805) 549-3147

RECEIVED
DEC 15 1992
Santa Barbara County
Environmental Health Services

December 14, 1992

Mr. John Moore, Supervisor
LUFT Program
County of Santa Barbara
Environmental Health Services Department
120 Cremona Drive, Suite C
Goleta, CA 93117

UGT/ORCHARD SERVICES/SOUTHERN PACIFIC RAILROAD, 399 LINDEN AVE., CARPINTERIA

Mr. Richard Evans' letter of October 28, 1992 requests concurrence on site closure for the above site. We have determined closure is inappropriate at this time. Prior to our considering closure for this site, please provide responses to the following:

1. What kind and capacity of tanks were on this site (e.g., gasoline, diesel, both)? How old were the tanks? What was the condition of the tanks when they were pulled/removed (assuming they were removed)? Was there an inventory kept of the fuels added to these tanks? If so, were there any significant losses?

2. What is the quality of the ground water encountered at 12 feet bgs? Is this usable ground water in terms of pumping capacity (sustained yield of 200 gallons per day) and water quality (a total dissolved solids concentration of less than 3,000 mg/l or 5,000 uS/cm)?

   The April 28, 1992 report prepared by Industrial Compliance (IC) suggests the ground water may be slightly brackish (based on Conductivity readings shown in their sampling logs). It would be worth collecting a ground water sample and performing a general mineral analyses on it. This would give us a better idea of the quality of the ground water and its potential as a water supply beneficial use.

3. We propose you have the responsible party conduct another round of ground water sampling. The sampling should be done after a significant rainfall event and after ground water is at its highest levels (seasonal high ground water). The purpose here is to see if any contamination is flushed out of the vadose zone or the saturated zone. The ground water samples must be analyzed using EPA test method 602, purgeable aromatics, so we can check the BTEX concentrations.

4. We received the results of only one sampling event, April 1992. What were the results of the first sampling event referenced in the Mr. Evans' October 28 letter? Why was only TPH analyzed?

Please direct questions to Frank DeMarco at (805) 542-4638 or Bob Baldridge at (805) 542-4620 between the hours of 8:00 and 10:00 a.m. or 1:00 and 5:00 p.m.

Sincerely,

William R. Leonard

WILLIAM R. LEONARD
Executive Officer

FJD56/Orchard.ltr

c.c. Todd Hook, IC
9719 Lincoln Village Drive, Suite 310
Sacramento, CA 95827

js

COUNTY OF SANTA BARBARA
ENVIRONMENTAL HEALTH SERVICES DEPARTMENT
120 CREMONA DRIVE, SUITE C • GOLETA, CALIFORNIA 93117
PHONE (805) 681-4900 • FAX: (805) 681-4901

GARY W. ERBECK, R.E.H.S., M.P.H.
DIRECTOR

October 28, 1992

Frank DeMarco
Central Coast RWQCB
81 Higuera Street, Suite 200
San Luis Obispo, CA 93401-5414

Dear Mr. DeMarco:

RE: Orchard Services/Southern Pacific Railroad, 399 Linden Ave, Carpinteria, CA
LUFT Site # 50119

Santa Barbara County Environmental Health Services (SBCEHS) Leaking Underground Fuel Tank (LUFT) Program has determined that the site investigation and remedial action at the above site is complete. Prior to site closure concurrence is required from the Regional Water Quality Control Board (RWQCB).

Two consecutive quarterly groundwater sampling events collected from the three onsite monitoring wells did not indicate concentrations of TPH or BTEX above SBCLP cleanup levels. The clay layer observed at 10 ft bgs appears to have prevented the downward migration of hydrocarbons.

Due to the fact that there was an initial indication that groundwater might be contaminated at this site, the RWQCB needs to concur that site closure is applicable. Once the RWQCB has completed their review and ensured that all matters relevant to the groundwater have been addressed, SBCLP will complete closure.

Enclosed is the Industrial Compliance Quarterly Report that summarizes the site activities and analytical results.

If you have any questions or comments regarding this matter, please contact me at (805) 681-4966.

Sincerely,

Richard Evans

Richard Evans
Hazardous Materials Specialist
SMU/LUFT Program

RE:ck;50119.ltr

Enclosure

NORTH COUNTY OFFICES: [ ]2125 S. CENTERPOINTE PARKWAY, SUITE 333 • SANTA MARIA, CALIFORNIA 93455-1430 • PHONE (805) 346-4760 • FAX: (805) 346-8485

hour 5/18/92

COUNTY OF SANTA BARBARA

OFFICE MEMORANDUM

To Richard Evans Date 5/15/92

From Barbara Fontes In re 399 Linden Ave - #50119

Questions - DID they provide calculations for groundwater gradient and did they estimate how much contaminated soil is left-in-place?

1) How deep were the tank bottoms (bgs):

2) How many groundwater sampling events have been non-detect for BTEX + TPH? Two consecutive

3) Why weren't soil samples collected in the yellow high lighted areas which would prove the soil contamination is localize excavated - vanished by Donna

4) Did an Engineer certify that sample couldn't be collected closer to the track. It appears that the track is about 30 ft from the "hot" area.

ORAL messages waste your time and the time of the other person; they often cause annoying interruptions and are apt to be misunderstood or forgotten. *Put it in writing.*

Monitored 2 cons. quarters -

rains - no chang
1/4 mile to Ocean
gradient too small

Page 142 of 350

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County of Santa Barbara
Health Care Services - LUFT Program
Site Investigation Report

Site Name: Orcutt Services

Site Location: 399 Linden, Carpinteria

Site No: 50119

Person Contacted: Evelyn Rawson

Consultant Firm: CC Compliance

Date: 4/1/92

Arrival: 9:00

Departure: 9:25

Phone:

Phone:

Estimated depth to groundwater: 5.6 ft BGS

Type of hazardous substance released: Biodiesel

Field Screening Equipment:

- Consultant: EC meter
- LUFT: MICRO-TIP

Purpose of Inspection:

Observe the removal of the sport pole.

RP Samples Taken
___ H_2O ___ Soil

Analysis:

RP Laboratory:

LUFT Samples Taken
___ H_2O ___ Soil

Analysis:

Field Observations / Comments:

Arrived on site to observed the removal of the sport pole.

HAZARDOUS WASTE HAULER EPA #CAD 982319428

DESAUTELLE & SON, INC.

D & S Trucking

VACUUM TRUCK & ROLL OFF SERVICES
SEMI END DUMP

P.O. BOX 122
OAK VIEW, CA 93022
24 HR. (805) 643-8118

CHUCK DESAUTELLE

Investigated By: Richard Evans Date: 4/1/92

County of Santa Barbara
Health Care Services - LUFT Program
Site Investigation Report

Site Name: ORCHARD SERVICES
Site Location: 399 LINDEN, CARPINTERIA
Site No: 50119
Person Contacted: Evelyn Rawson
Consultant Firm: I.C Compliance

Date: 3/31/92
Arrival: 8:30 - 12:30
Departure: 3:00 - 4:00
Phone:
Phone:

Estimated depth to groundwater: ≈ 5.2 ft BGS
Type of hazardous substance released: Stoddard solvent -
Field Screening Equipment:
- Consultant F.C. meter
- LUFT -

Purpose of Inspection:
Witness G.W sampling and removal of spoils pile

RP Samples Taken
X H_2O ___ Soil
Analysis:

RP Laboratory:
COAST TO COAST

LUFT Samples Taken
___ H_2O ___ Soil
Analysis:

Field Observations / Comments:
Met with Evelyn Rawson of I.C. Compliance to descuss the site activities. Assisted in obtaining a Allen wrench to remove the well covers. Witness the purging & sampling of the monitoring wells. Chuck Desautels was on site representing D&S Trucking, who was transporting the spoils pile to Ventura. The soils were transported per DOT-HAZMAT and the 55 gallon drum waste was allowed to be emptied and properly disposed of.

Investigated By: Richard Evans Date: 3/31/92

COUNTY OF SANTA BARBARA • ENVIRONMENTAL HEALTH SERVICES

5540 EKWILL STREET, SUITE B • SANTA BARBARA, CALIFORNIA 93111 • (805) 681-5200

March 2, 1992

Mr. John Moe
Southern Pacific Railroad
One Market Plaza, Room 1007
San Francisco, CA 94105

Dear Mr. Moe:

RE: Southern Pacific Transporation Company Property
399 Linden Avenue, Carpinteria, CA LUFT # 50119

The Santa Barbara County Environmental Health Services LUFT Program (SBCLP) has received the report dated January 8, 1992, for the above referenced site.

After careful review of this report, we approve your proposal with the following conditions(s):

1) An inspector from SBCLP must be present during site work. Please call forty-eight (48) hours in advance to schedule an appointment.

If you have any questions or comments, please contact me at (805) 681-5200. After March 5, 1992 our new office address will be 120 Cremona Drive, Building C, Goleta, CA 93117.

Sincerely,

Richard Evans
Hazardous Materials Specialist
LUFT Program

RE:lc

pc: Ana Nathe
Industrial Compliance
9719 Lincoln Village Drive, Suite 310
Sacramento, CA 95827

BRANCH OFFICES

500 West Foster Rd.
Santa Maria, CA 93455
(805) 934-6223

751-B East Burton Mesa
Lompoc, CA 93436
(805) 737-7744

SANTA BARBARA COUNTY

HAZARDOUS MATERIAL SMU/LUFT PROGRAM

CONTACT REPORT

DATE: 2/28/92 TIME: 9:21

NAME OF PERSON: Ana Nathe TITLE: Project Manager

COMPANY OR AGENCY: Industrial Compliance

SITE: SMU ☐ LUFT ☒ ADDRESS: 399 Linden, Carpinteria

PHONE: (916) 369-897 TYPE OF CONTACT: OFFICE ☐ PHONE ☒ FIELD ☐ OTHER: _____

SUBJECT: Soil Removal

SUMMARY OF DISCUSSION:

A call was placed to Ana Nathe at Industrial Compliance to inform her that the soil removal would be approved. She stated that she would try to schedule for the week of 3/9/92.

REPORTED BY: Richard Edens

SANTA BARBARA COUNTY

HAZARDOUS MATERIAL SMU/LUFT PROGRAM

CONTACT REPORT

DATE: 2/18/9 TIME: 11:15

NAME OF PERSON: Todd Hook TITLE: Project Manager

COMPANY OR AGENCY: Industrial Compliance

SITE: SMU ☐ LUFT ☐ ADDRESS: 399 Linden

PHONE: (213) 780-6922 TYPE OF CONTACT: OFFICE ☐ PHONE ☒ FIELD ☐ OTHER: _____

SUBJECT: _____

SUMMARY OF DISCUSSION:

Phone call to Mr. Todd Hook to get an update on the RWQCB question for additional information.
LMTCB w/ answering machine

// LMTCB w/ answering machine 2/23/93

// Return call from Mr. Todd Hook - He stated that a letter would be submitted the ~~4~~ week of Feb 22, 1993 to address the RWQCB questions

REPORTED BY: Richard Sears

COUNTY OF SANTA BARBARA

OFFICE MEMORANDUM

To Kate Sulka Date 2/11/92

From Richard Evans In re 399 LINDEN

According to INDUSTRIAL COMPLIANCE the Regional Board will not write a letter stating its approval for the soil treatment. Review of the waste discharge requirements indicates that it is acceptable. With your concurrence I would like to approve the removal of the soil.

R. Evans

Richard:

Looks ok to me - Be sure they fully document all soil removed - K.S.

ORAL messages waste your time and the time of the other person; they often cause annoying interruptions and are apt to be misunderstood or forgotten. *Put it in writing.*

SANTA BARBARA COUNTY

HAZARDOUS MATERIAL SMU/LUFT PROGRAM

CONTACT REPORT

DATE: 2/3/92 TIME: 3:20

NAME OF PERSON: Ana Nathe TITLE: Project Manager

COMPANY OR AGENCY: I C. Compliance

SITE: SMU ☐ LUFT ☒ ADDRESS: 399 LINDEN

PHONE: ( ) TYPE OF CONTACT: OFFICE ☐ PHONE ☒ FIELD ☐ OTHER:

SUBJECT: Disposal of Soils on Site.

SUMMARY OF DISCUSSION:

Return call to Ms Nathe concerning the disposal of the soils on site. She stated that Ven Vojteck had submitted the information approximately two weeks ago. She stated if it was not submitted it would be resubmitted

REPORTED BY: Richard Evans

COUNTY OF SANTA BARBARA

OFFICE MEMORANDUM

To File Date 1/17/92

From Richard Evans In re 399 LINDEN, CARPINTERIA
LUFT Site #5019

Review of the quarterly report did not indicate groundwater contamination.

ORAL messages waste your time and the time of the other person; they often cause annoying interruptions and are apt to be misunderstood or forgotten. *Put it in writing.*

SANTA BARBARA COUNTY

HAZARDOUS MATERIAL SMU/LUFT PROGRAM

CONTACT REPORT

DATE: 1/16/92 TIME: 10:36 Am

NAME OF PERSON: Ana Nathe TITLE: Associate Project Manager

COMPANY OR AGENCY: Industrial Compliance

SITE: SMU ☐ LUFT ☒ ADDRESS: 399 Lenden

PHONE: (916)369-897 TYPE OF CONTACT: OFFICE ☐ PHONE ☒ FIELD ☐ OTHER:

SUBJECT:

SUMMARY OF DISCUSSION:

Message from Ana Nathe of Industrial Compliance requesting a return call.

Return call LMTCB w/ Secretary

Call to Ana Nathe who requested information on when the UST were removed. Her request was for a copy of the Tank Abandonment Application.

REPORTED BY: Richard Evans

Industrial Compliance
9719 Lincoln Village Drive, Suite 310 Sacramento, CA 95827 916/369-8971 FAX 916/369-8370

RECEIVED
JAN 13 1992
Santa Barbara County
Environmental Health Services

January 8, 1992

Mr. Richard Evans
LUFT Program
Santa Barbara County
Environmental Health District
5540 Ekwill Street, Suite B
Santa Barbara, California 93111

SUBJECT: Fourth Quarter 1991 - Groundwater Sampling Results
Southern Pacific Transportation Company Property
399 Linden Avenue
Carpinteria, California
SBCHD Site # 50119
IC Project No. 05149

Dear Mr. Evans:

On behalf of the Southern Pacific Transportation Company (SPTCo), Industrial Compliance, Inc. (IC) conducted the first of two groundwater sampling rounds at the above-referenced site (Figures 1 and 2). At least two consecutive quarterly sampling events have been required by the Santa Barbara County Health District (SBCHD) in order to close the site (UST Site # 50119). A brief summary of site activities and analytical results is provided below.

SITE ACTIVITIES

On December 11, 1991, IC arrived on site to conduct the sampling of three groundwater monitoring wells at the site. The IC field technician obtained depth to groundwater measurements from each well, which were used to calculate the groundwater gradient at the site.[1] The groundwater flow direction on December 11, 1991, was calculated to be South 36° West (see Figure 3).

For purging purposes, the volume of water in each well was calculated using the total depth of the well, the depth to water, and the multiplier of 0.16 gallons per linear foot of water for a 2-inch diameter well (see Attachment A for the Well Sample Sheets). A minimum of three well casing volumes were purged from each well with a new disposable bailer (one bailer per well). During purging, the field technician monitored temperature, pH and conductivity. The purge water was retained in a 55-gallon drum.

---

[1] Based on a review of the samplers' field notes and map, it is evident that the well caps of monitoring wells MW-2 and MW-3 had been switched. Thus, the data for MW-2 and MW-3 shown on logs, chain-of-custody form, etc., included herein as Attachments, actually correspond to MW-3 and MW-2, respectively. This switch was taken into account when the gradient at the site was calculated. The well caps will be placed on the appropriate wells during the next site visit.

Upon completion of the purging activities, a new disposable bailer was used to obtain a water sample from each well (one bailer per well). For each well, three 40-milliliter vials (with dilute hydrochloric acid as a preservative) were completely filled without allowing any headspace to remain in the container. The samples were labeled, logged onto a chain-of-custody form, placed in an iced cooler, and delivered to the Coast-to-Coast Analytical Laboratory in Goleta, California for chemical analyses.

ANALYTICAL RESULTS

One sample from each well was analyzed for total petroleum hydrocarbons (TPH) with fuel identification (extraction by EPA Method 5030 [purge and trap], and analyzed by CAL DHS DRAFT TPH [Modified] and EPA Method 8260 [GC/MS]). The chemical analyses performed on the water samples from the three wells at the subject site did not detect TPH constituents (gasoline, diesel, stoddard solvent) at, or above, the practical quantitation limit of 50 parts per billion (a copy of the laboratory analytical reports and the chain-of-custody form are included as Attachment B).

OTHER SITE ACTIVITIES

With respect to the stockpiled soil on site, IC intends to transport the non-hazardous material to the VenVirotek facility in Ventura County. The soil will be treated using the Chemfix method and will be utilized as daily cover at the Ventura County Landfill. Documentation of the Regional Water Quality Control Board's approval of VenVirotek's Chemfix method as treatment of petroleum-affected soil is being forwarded to the SBCHD for reference. IC intends to schedule the soil removal activities for February, 1992.

The next quarterly groundwater sampling round will be conducted in February, 1992. Upon submittal of the analytical results from the second round of sampling and completion of the soil disposal activities, IC will request closure of the site, assuming that the analytical results do not indicate the presence of petroleum hydrocarbons.

If you have any questions or comments regarding this submittal, please contact either of the undersigned.

Sincerely,

Ana Nathe
Assistant Project Manager

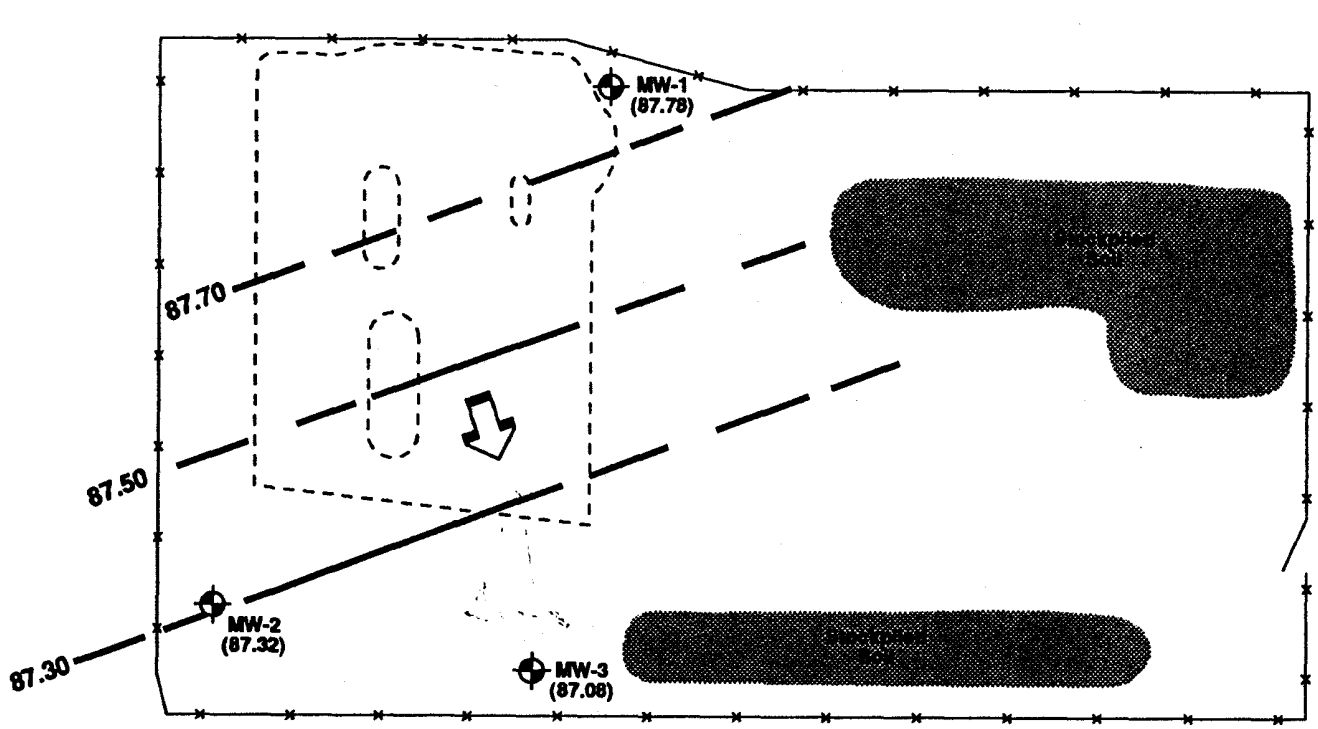
Todd A. Hook, P.E.
Project Manager

Carpinteria Water Results/05149WTR.RPT/AMNDISK3

TAH:AMN:ekw

Attachments: A - Well Sample Sheets
B - Laboratory Analytical Reports and Chain-of-Custody Form

cc: John Moe, SPTCo Environmental Department (w/o attachments)
Doug Wubbena, SPTCo Real Estate Department (w/o attachments)
Dave Long, SPTCo Legal Department (w/o attachments)



LEGEND

- MW-2 — Monitoring Well
- (87.32) — Groundwater Elevation
- Groundwater Contour Line
- Denotes Direction of Gradient (S 36° W)
- Previous Excavation
- Railroad Tracks
- Fence

Approx. Scale in Feet

0 15' 30'

Well	Top of Casing Surveyed Elevation (ft msl)	Depth to Water (ft msl)	Calculated Groundwater Elevation (ft msl)
MW-1	97.927	10.15	87.78
MW-2	96.136	8.82	87.32
MW-3	96.560	9.48	87.08

Industrial Compliance, Inc.
A Subsidiary of SP Environmental Systems, Inc..

PROJECT NO: 05149 | DATE: 01/07/92

DRAWN BY: PD | CHECKED BY: AN

GROUNDWATER GRADIENT MAP
SOUTHERN PACIFIC TRANSPORTATION CO.
399 LINDEN AVENUE
CARPINTERIA, CALIFORNIA

FIGURE 3

SCALE: as shown

05149 Fig 3dtiss 73/Soil Rem Rpt 0192

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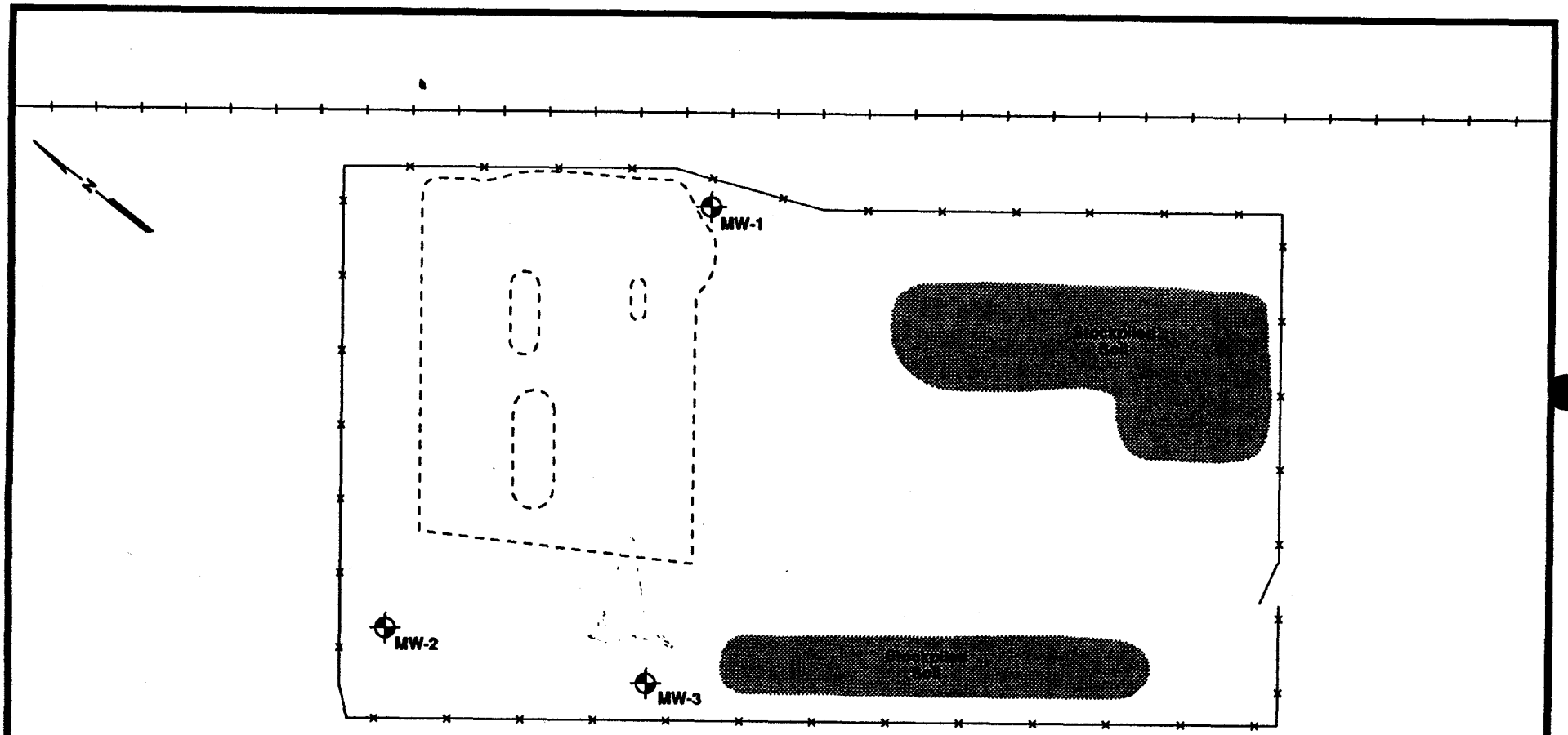
Industrial Compliance, Inc. A Subsidiary of SP Environmental Systems, Inc.	SITE LOCATION MAP SOUTHERN PACIFIC TRANSPORTATION CO. 399 LINDEN AVENUE AND ADJACENT PROPERTY CARPINTERIA, CALIFORNIA	FIGURE: 1
PROJECT NO: 05149 / DATE: 01/07/92		SCALE: as shown
DRAWN BY: PD / CHECKED BY: AN		

05149 Fig 1/disc 73/Soil Rem Rpt 0192



LEGEND

- MW-2 — Monitoring Well
- Former Underground Storage Tank Location
- Previous Excavation
- Railroad Tracks
- Fence

Approx. Scale in Feet

0 15' 30'

Industrial Compliance, Inc. A Subsidiary of SP Environmental Systems, Inc..	
PROJECT NO: 05149	DATE: 01/07/92
DRAWN BY: PD	CHECKED BY: AN

SITE MAP
SOUTHERN PACIFIC TRANSPORTATION CO.
399 LINDEN AVENUE
CARPINTERIA, CALIFORNIA

FIGURE
2

SCALE:
as shown

05149 Fig 2/disc 73/Soil Rem Rpt 0192

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ATTACHMENT A

WELL SAMPLE SHEETS

WELL SAMPLE SHEET
J05149

Well No. 1

Sample No: 13178
Sample Time 1145
Date 12-11-91
Purge Start Time 0955
Purge Stop Time 1020
Sampling Personnel Mark Barros Initials MJB
Weather Conditions Sunny, Calm, 65°
Sample Collection Method Bailer

Well Measurements:

2-inch ID mult = 0.16	Measured depth to bottom (DB) =	19.0
4-inch ID mult = 0.65	Depth to Water (DTW) =	10.15
6-inch ID mult = 1.47	Height of water column (H) = DB-DTW	8.85
8-inch ID mult = 2.61	One casing volume (CV) = ID mult x H	1.4
	Desired Purge Volume (3CV)	4.2

Purge Data

Time	0955	1005	1015	1020			
pH	7.6	6.8	6.7	6.9			
Temp (F)	69.8	71.5	72.4	71.2			
EC (us)	1330	1310	1400	1360			
Flow (sec/gal)							
Turbity	clear	murky	murky	slight murky			
Odor	NONE	NONE	NONE	NONE			
Volume purged	0	1	3	4			

Comments Samples are clear, No odor

MW-1 located at NE corner of former excavation.

WELL SAMPLE SHEET
JO5149

Well No. 2

Sample No: 13174 Sample Time 1240

Date 12-11-91 Purge Start Time 1205 Purge Stop Time 1230

Sampling Personnel Mark Barros Initials MJB

Weather Conditions Sunny, Calm, 70°

Sample Collection Method Bailer

Well Measurements:

2-inch ID mult = 0.16
4-inch ID mult = 0.65
6-inch ID mult = 1.47
8-inch ID mult = 2.61

Measured depth to bottom (DB) =	19
Depth to Water (DTW) =	9.48
Height of water column (H) = DB-DTW	9.52
One casing volume (CV) = ID mult x H	1.5
Desired Purge Volume (3CV)	4.5

Purge Data

Time		1245	1225	1230			
pH		7.6	7.3	7.3			
Temp (F)		73.0	73.8	73.4			
EC (us)		1236	1399	1400			
Flow (sec/gal)							
Turbity		murky	murky	murky			
Odor		NONE	None	NONE			
Volume purged	0	1	3	4.5			

Comments Samples are clear, No odor.

MW-2 located south of former excavation (actually = MW-3)

WELL SAMPLE SHEET

J05149

Well No. ~~4~~ 3

Sample No: 15542

Sample Time 1115

Date 12-11-91

Purge Start Time 1035

Purge Stop Time 1100

Sampling Personnel Mark Barros Initials MJB

Weather Conditions Sunny, Calm, 67°

Sample Collection Method Bailer

Well Measurements:

2-inch ID mult = 0.16	Measured depth to bottom (DB) =	17.5
4-inch ID mult = 0.65	Depth to Water (DTW) =	8.88
6-inch ID mult = 1.47	Height of water column (H) = DB-DTW	8.6
8-inch ID mult = 2.61	One casing volume (CV) = ID mult x H	1.3
	Desired Purge Volume (3CV)	4.1

Purge Data

Time	1035	1043	1055	1100			
pH	7.5	7.4	7.4	7.2			
Temp (F)	69.2	70.8	72.8	72.2			
EC (us)	8280	8420	9130	9020			
Flow (sec/gal)							
Turbity	clear	murky	murky	murky			
Odor	NONE	NONE	NONE	NONE			
Volume purged	0	1	3	4			

Comments Samples are clear, no odor

MW-3 located west of former excavation.
(actually = MW-2)

ATTACHMENT B
ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY FORM

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

San Luis Obispo, CA • Goleta, CA • Benicia, CA • Camarillo, CA • Newport Beach, CA • Valparaiso, IN

Santa Barbara Division
751 S. Kellogg, Goleta, California 93117

(805) 964-7838
FAX (805) 967-4386

CLIENT: Todd Hook
S.P. Environmental Systems
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Lab Number : GE-2588-2
Project : 05149 Carpinteria CA

Analyzed : 12/16/91
Analyzed by: MM
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
13178 Well#1. Groundwater	Groundwater	Mark Barros	12/11/91	12/11/91

CONSTITUENT	(CAS RN)	*PQL ppb	RESULT ppb	NOTE
TOTAL PURGEABLE PETROLEUM HYDROCARBONS				1,2
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND	
Total Petroleum Hydrocarbons (Stoddard)		50.	ND	
Percent Surrogate Recovery			96.	

Santa Barbara Division is certified by CA Department of Health Services: ELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) EXTRACTED by EPA 5030 (purge-and-trap)
(2) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)

12/17/91
MSD1
MC/jaj/mcc/whh

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

San Luis Obispo, CA • Goleta, CA • Benicia, CA • Camarillo, CA • Newport Beach, CA • Valparaiso, IN

Santa Barbara Division
751 S. Kellogg, Goleta, California 93117

(805) 964-7838
FAX (805) 967-4386

CLIENT: Todd Hook
S.P. Environmental Systems
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Lab Number : GE-2588-1
Project : 05149 Carpinteria CA

Analyzed : 12/16/91
Analyzed by: MM
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
13174 Well#2. Groundwater	Groundwater	Mark Barros	12/11/91	12/11/91

CONSTITUENT	(CAS RN)	*PQL ppb	RESULT ppb	NOTE
TOTAL PURGEABLE PETROLEUM HYDROCARBONS				1,2
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND	
Total Petroleum Hydrocarbons (Stoddard)		50.	ND	
Percent Surrogate Recovery			100.	

Santa Barbara Division is certified by CA Department of Health Services: ELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) EXTRACTED by EPA 5030 (purge-and-trap)
(2) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)

12/17/91
MSD1
MC/jaj/mcc/whh

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

San Luis Obispo, CA • Goleta, CA • Benicia, CA • Camarillo, CA • Newport Beach, CA • Valparaiso, IN

Santa Barbara Division
751 S. Kellogg, Goleta, California 93117

(805) 964-7838
FAX (805) 967-4386

CLIENT: Todd Hook
S.P. Environmental Systems
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Lab Number : GE-2588-3
Project : 05149 Carpinteria CA

Analyzed : 12/16/91
Analyzed by: MM
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
15542 Well#3. Groundwater	Groundwater	Mark Barros	12/11/91	12/11/91

CONSTITUENT	(CAS RN)	*PQL ppb	RESULT ppb	NOTE
TOTAL PURGEABLE PETROLEUM HYDROCARBONS				1,2
Total Petroleum Hydrocarbons (Gasoline)		50.	ND	
Total Petroleum Hydrocarbons (Diesel 2)		50.	ND	
Total Petroleum Hydrocarbons (Stoddard)		50.	ND	
Percent Surrogate Recovery			94.	

Santa Barbara Division is certified by CA Department of Health Services: ELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) EXTRACTED by EPA 5030 (purge-and-trap)
(2) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)

12/17/91
MSD1
MC/jaj/mcc/whh

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

San Luis Obispo, CA • Goleta, CA • Benicia, CA • Camarillo, CA • Newport Beach, CA • Valparaiso, IN

Santa Barbara Division
751 S. Kellogg, Goleta, California 93117

(805) 964-7838
FAX (805) 967-4386

CLIENT: Coast-to-Coast Analytical Services, Inc.

Analyzed : 12/16/91
Analyzed by: MM
Method : As Listed

QC MATRIX SPIKE
REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
MATRIX SPIKE	Aqueous			

CONSTITUENT	ORIGINAL RESULT	SPIKE AMOUNT	RESULT ppb	%REC	NOTE
TOTAL PURGEABLE PETROLEUM HYDROCARBONS					1,2
Total Petroleum Hydrocarbons (Gasoline)	ND	150.	140.	93.	

Santa Barbara Division is certified by CA Department of Health Services: ELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) EXTRACTED by EPA 5030 (purge-and-trap)
(2) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)

12/17/91
MSD1
MC/jaj/mcc/whh
GE2588-1

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

SP - EvS

CHAIN-OF-CUSTODY RECORD

No. 10147

SP - Environmental Systems, Inc. • 9719 Lincoln Village Drive, Ste. 310 • Sacramento, CA 95827 • Phone 916-369-8971 • FAX 916-369-8370

PROJECT NAME: Carpinteria CA
PROJECT LOCATION: Carpinteria
PROJ. NO.: 05149
PROJECT CONTACT: ANA Nathe
PROJECT TELEPHONE NO.: 916-369-8971
CLIENT'S REPRESENTATIVE: SPTCO
PROJECT MANAGER/SUPERVISOR: Todd Hook

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) TPH by EPA 8240	REMARKS
1	13174	12/11/91	1240		X	Well #2. Groundwater	3 VOA Vials	X	No odor / clear
2	13178	12/11/91	1145		X	Well #1. Groundwater	3 VOA Vials	X	No odor / clear
3	15542	12/11/91	1115		X	Well #3 Groundwater	3 VOA Vials	X	No odor / clear
4									
5									
6									
7									
8									
9									
10									

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-3	Mark Barros	Nicki Schneider	12/11/91	1340
2					
3					
4					

REMARKS: 5 standard turnaround time

Thanks

SAMPLER'S NAME: Mark Barros
SAMPLER'S SIGNATURE: Mark Barros

TRANSFER 1

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SANTA BARBARA COUNTY

HAZARDOUS MATERIAL SMU/LUFT PROGRAM

CONTACT REPORT

DATE: 1/6/92 TIME: 11:06 A.M

NAME OF PERSON: Ana Nathe TITLE:

COMPANY OR AGENCY: S. P Environmental Systems

SITE: SMU ☐ LUFT ☒ ADDRESS: 399 LINDEN

PHONE: (916) 369-8971 TYPE OF CONTACT: OFFICE ☐ PHONE ☒ FIELD ☐ OTHER:

SUBJECT: Lab results from monitoring wells.

SUMMARY OF DISCUSSION:

Ms. Ana Nathe called to state that the lab analysis from the sampling on 12/11/91 were all non-detect. The information would be sent in a report.

Also of concern were the requirements from SBCLP on the soil disposal. Ms Nathe stated that Regional Water Control Board for the Ventura region would not issue a letter of approval for the removal and treatment if the soil. If conditions were met existing guidelines then the RWQCB did not have an issue.

Ms Nathe also requested G.W sampling the first part of Feb for the quarterly report.

REPORTED BY: Richard Evans

SANTA BARBARA COUNTY

HAZARDOUS MATERIAL SMU/LUFT PROGRAM

CONTACT REPORT

DATE: 12/11/91 TIME: 3:00

NAME OF PERSON: Ana Nathe TITLE:

COMPANY OR AGENCY: S.P. Environmental Systems

SITE: SMU ☐ LUFT ☒ ADDRESS: 399 LINDEN, Carpinteria

PHONE: (916) 369-8971 TYPE OF CONTACT: OFFICE ☐ PHONE ☒ FIELD ☐ OTHER:

SUBJECT: Summary of field activities

SUMMARY OF DISCUSSION:

Ms Nathe called to inquire about the sampling that was done at the site today (12/11/91). She was told that all procedures were followed. Two issues were addressed: 1) correct location of monitoring wells MW-2 and MW-3 (wells caps might of been switched) 2) disposal of purged water stored on site.

REPORTED BY: Richard Evans

County of Santa Barbara
Health Care Services - LUFT Program
Site Investigation Report

Site Name: ORCHARD SERVICE
Site Location: 399 LINDEN, CARPINTERIA
Site No: 50119
Person Contacted: MARK BARROS
Consultant Firm: S.P. Environmental

Date: 12/4/91
Arrival: 10:50
Departure: 1:00
Phone:
Phone:

Estimated depth to groundwater: 8.8 ft BGS
Type of hazardous substance released: STODDARD
Field Screening Equipment:
- Consultant WATER LEVEL METER, EC meter
- LUFT

Purpose of Inspection:
WITNESS H_2O SAMPLING

RP Samples Taken
X H_2O ___ Soil
HCl preservative

Analysis:
COAST TO COAST
EPA 8240

RP Laboratory:

LUFT Samples Taken
___ H_2O ___ Soil

Analysis:

Field Observations / Comments:

Wells MW-1 and MW-3 were purged before I arrived. Met w/ Mark Barros who showed me data on purged wells + EC meter. Witnessed sampling of wells, tampon seals on all 40 ml vials, sample placed in cooler with ice, New bailer on each well.

Note: MAP locations different from well caps
Note: Purged H_2O was placed in a 55 gallon drum that was ~~found~~ on site. Oil observed. Mr. Barros was informed that the drum became S.P property and would have to be properly disposed of. The drum was empty No labels. Drum located on east side of fenced area. Will be moved on site

Investigated By: Richard Casey Date: 12/11/91

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION
101 CENTRE PLAZA DRIVE
MONTEREY PARK, CA 91754-2156
(213) 266-7500

PETE WILSON, Governor

November 14, 1991

Mike Adamske
Venvirotek
1536 Eastman Avenue, Suite A
Ventura, CA 93003

PROCESSING SO_2 SCRUBBER WASTE AT BAILARD LANDFILL PER THIS BOARD'S ORDER NO. 88-066 (FILE NO. 84-33)

Reference is made to your letter dated August 14, 1991, which requested permission to process SO_2 scrubber waste from oilfield and gas production facilities. Your letter also included laboratory analyses of unprocessed and processed material from the demonstration project which we approved by our letter dated June 12, 1991.

Based upon review of your initial analyses, it was determined that detection limits used for volatile organic compounds (VOC) were too high and you were asked to resubmit VOC analyses using lower detection limits. On October 25, 1991, we received your new analytical data.

We have reviewed these data and determined that, in accordance with Section A.3. of this Board's Order 88-066, such scrubber waste may be processed at your facility located at the Bailard Landfill provided that the analyses included in your letter and subsequent submittal are representative of the waste stream to be treated by the Chemfix process. In accordance with Sections B.1 and B.3 of this same Order, the treated SO_2 scrubber waste (Chemfix material) may be used as daily cover at Bailard Landfill provided moisture does not exceed 50% as specified in Section B.2. of this Order. Also, as stated in Section II. (9.) of Monitoring and Reporting Program No. 6689, "All analytical results and dates the samples were taken and analyzed during the quarter," shall be submitted to this Board.

If you have any questions, please call Rod Nelson at (213) 266-7548.

Robert P. Ghirelli

ROBERT P. GHIRELLI, D.Env.
Executive Officer

RECEIVED
FEB 7 1992
Santa Barbara County
Environmental Health Services

SANTA BARBARA COUNTY

HAZARDOUS MATERIAL SMU/LUFT PROGRAM

CONTACT REPORT

DATE: 11/25/91 TIME: 1:20

NAME OF PERSON: TOD HOOK TITLE:

COMPANY OR AGENCY: S. P Environmental

SITE: SMU ☐ LUFT ☒ ADDRESS:

PHONE: 916)369-8971 TYPE OF CONTACT: OFFICE ☐ PHONE ☒ FIELD ☐ OTHER:

SUBJECT: 399 LINDEN, Carpinteria, CA

SUMMARY OF DISCUSSION:

Return call to TOD HOOKS ⇒ Mr. Hooks was informed that VenVirotek's Disclosure Requirements (dated 7/15/88) that the executive officer for LARWQCB must approve the treatment + disposal. He was informed that a letter prior to hauling H/o VenVitech. He was also informed that G/W monitoring of all three wells would be required before closure of was agreed to that at least 2 quarters of U.D.C. below action levels would be required before closure.

REPORTED BY: Richard Evans

COUNTY OF SANTA BARBARA

OFFICE MEMORANDUM

To Richard Evans Date 11-22-91

From Kate Sulka In re 399 Linden - Soil Disposal

1) As stated in VenViro tek's Discharge Requirements (dated July 15, 88), the only way contaminated soils can be accepted for treatment is if the Executive Officer (of the LA RWQCB) approves of it. See page 4 #3 (I've flagged it for you). Therefore, we need to write them, (SPRR) notify them of our requirement to get approval in writing prior to hauling it to VenViro tek. Once the LA Board agrees (in writing) we can approve it.

2) Regarding the stoddard: they have removed the source (ie contaminated soil) but we don't agree that there may be no impact on gw. The other high stoddard sample (10/31/90, N wall 10' bgs 2800 ppm Stoddard) was near where

ORAL messages waste your time and the time of the other person; they often cause annoying interruptions and are apt to be misunderstood or forgotten. *Put it in writing.* →

the gw sample was taken. We need <u>at least</u> a couple quarters of gw sampling (all 3 walls) to see if an impact has been made on the gw. (Especially since we have only 1 sample of the gw from each well, to date).

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SANTA BARBARA COUNTY

HAZARDOUS MATERIAL SMU/LUFT PROGRAM

CONTACT REPORT

DATE: 11/18/91 TIME: 8:30 Am

NAME OF PERSON: Tod Hock TITLE:

COMPANY OR AGENCY: S.P. Environmental Systems

SITE: SMU ☐ LUFT ☒ ADDRESS: 9719 Lincoln Village Drive, Suite 310

PHONE: (916) 369-8971 TYPE OF CONTACT: OFFICE ☐ PHONE ☒ FIELD ☐ OTHER:

SUBJECT: 399 Linden, Carpinteria

SUMMARY OF DISCUSSION:

Return call to Mr Tod Hock of S.P. Environmental Systems concerning the site at 399 Linden Carpinteria. Mr. Hock had two questions ① Status of the site assessment and ② disposal of the soil on site. Mr. Tod Hock was informed that the site assessment was under review and a letter would be written the week of 11/18/91 giving a status and that if ~~SB~~ S.P. Environmental requested SBCAPCD would again review the disposal of the soil at Vro Tech facility in Ventura. Mr. Hock said he would forward additional information on the soil disposal this week.

REPORTED BY: A. Maud Edens

SP ENVIRONMENTAL SYSTEMS, INC.

9719 LINCOLN VILLAGE DR., SUITE 310 SACRAMENTO, CA 95827 (916) 369-8971 FAX (916) 369-8370

October 29, 1991

VIA FACSIMILE

Mr. Richard Evans
Hazardous Materials Specialist
County of Santa Barbara
Environmental Health Services
5540 Ekwill Street, Suite B
Santa Barbara, California 93111

SUBJECT: **Status Update**
Southern Pacific Transportation Company
399 Linden Avenue
Carpinteria, California
SBCLP Site # 50119
SPEvS Project No. 05149

Dear Mr. Evans:

SP Environmental Systems, Inc. (SPEvS), agent for the Southern Pacific Transportation Company (STPCo) in environmental matters, does hereby submit a status update regarding the stockpiled soil at the above-referenced site.

SPEvS previously submitted a disposal plan to the Santa Barbara County Health Services LUFT Program (SBCLP) which involved transporting the non-hazardous material to the VenVirotek facility in Ventura County where the material would be stabilized by using the Chemfix process, and ultimately used as daily cover at the Ventura County Landfill. The SBCLP, in a letter dated August 22, 1991, did not concur with SPEvS' planned disposal option, and requested that an alternative treatment/disposal option be proposed.

Since that time, SPEvS has been researching alternative treatment/disposal options that have unit treatment/disposal costs similar to the VenVirotek option. SPEvS has not yet determined a more cost-effective method; however, SPEvS will notify the SBCLP upon determination of the final treatment/disposal option.

If you have any questions or comments regarding this update, please call me at (916)369-8971.

Sincerely,

Ana Nathe
Assistant Project Manager

AMN/amn

Status Update/05149STS.RPT/AMNDISK3

RECEIVED
OCT 3 1 1991
Santa Barbara County
Environmental Health Services

cc: John Moe, SPTCo Environmental Department
Doug Wubbena, SPTCo Real Estate Department

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RECEIVED

OCT 3 1 1991

Santa Barbara County
Environmental Health Services

COUNTY OF SANTA BARBARA

OFFICE MEMORANDUM

To Rich/Fik Date 8-22-91

From Kate In re 399 Linden

I agree w/your 8/15/91 letter, + have a couple suggestions. If their July 15, 91 Rpt has not been responded to, I'd include response in this letter. As such, I think they need to be made aware of the stddard issue + the need for further work in this area (ie groundwater).

ORAL messages waste your time and the time of the other person; they often cause annoying interruptions and are apt to be misunderstood or forgotten. *Put it in writing.*

COUNTY OF SANTA BARBARA

OFFICE MEMORANDUM

To File Date 8/15/91

From Richard Evans In re 399 LINDEN AV

Ana Nathe

(916) 369-8971

Return call to Ana Nathe → Wants to know the status of the remediation proposal. She stated that the soil will be taken to Ventura County for treatment & will be used as backfill in Ventura County not Santa Barbara

Richard Evans

ORAL messages waste your time and the time of the other person; they often cause annoying interruptions and are apt to be misunderstood or forgotten. *Put it in writing.*

COUNTY OF SANTA BARBARA

OFFICE MEMORANDUM

To File / Rich Date 7/30/91

From Paul In re 399 Linden / Chemfix

I am not of the opinion that chemical fixation processes have or will have any beneficial effect in reducing organic contaminant migration. These techniques generally result only in either aeration or dilution. I believe DHS is also of this opinion. Should an RP request such a remedial option is should first be approved by DHS Alternative Technologies (contact John Wesnousky)

ORAL messages waste your time and the time of the other person; they often cause annoying interruptions and are apt to be misunderstood or forgotten. *Put it in writing.*

COUNTY OF SANTA BARBARA • ENVIRONMENTAL HEALTH SERVICES

5540 EKWILL STREET, SUITE B • SANTA BARBARA, CALIFORNIA 93111 • (805) 681-5200

August 22, 1991

Mr. John Moe
Southern Pacific Railroad
One Market Plaza, Room 1007
San Francisco, CA 94105

RE: Additional Site Investigation and Remediation Report Submittal dated July 15, 1991, [redacted] (Site # 50119)

Dear Mr. Moe:

The Santa Barbara County LUFT Environmental Health Services LUFT Program (SBCLP) has received the report dated July 15, 1991, for the above reference site.

After careful review of this report, SBCLP cannot approve your proposed remediation plan. SBCLP is not of the opinion that chemical fixation processes have or will have any beneficial effect in reducing organic contaminant migration. These techniques generally result only in either affixation or dilution. SBCLP believes that the Department of Health Services (DHS) is also of this opinion. Should a responsible party request such a remedial option, it should first be approved by DHS Alternative Technologies.

If you have any questions, please feel free to contact me at (805) 681-4766.

Sincerely,

Richard Evans

Richard Evans
Hazardous Materials Specialist
LUFT Program

RE:dhl
pc: Ms. Ana Nathe, S.P. Environmental Systems, Inc.

50119

BRANCH OFFICES

500 West Foster Rd.
Santa Maria, CA 93455
(805) 934-6223

751-B East Burton Mesa
Lompoc, CA 93436
(805) 737-7744

SANTA BARBARA COUNTY

HAZARDOUS MATERIAL LUFT PROGRAM

OFFICE CONTACT REPORT

DATE 7/15/91

NAME OF PERSON Anna Nathe TITLE

COMPANY OR AGENCY SP FNN. Systems

ADDRESS

PHONE 916/369-8971 TYPE OF CONTACT: OFFICE PHONE X FIELD OTHER

SUBJECT 399 Linden, Carp., CA 654-1900

SUMMARY OF DISCUSSION Recording re Nipoma

Tim Downey wants to transport spoils to Ventura Biotek's facility in Ventura and treat them there. Supposedly, they have RWQCB permits to treat TPH-contam soils there. I need to discuss permits and process with Downey. When space or disposal needed. Downey also took samples; need to get results.

REPORTED BY: DL Cummings

LUFT Fm 3 REV 2/90

SANTA BARBARA COUNTY

HAZARDOUS MATERIAL LUFT PROGRAM

OFFICE CONTACT REPORT

DATE 7/15/91

NAME OF PERSON Tim Downey TITLE

COMPANY OR AGENCY Ventivotek

ADDRESS

PHONE 654-1900 TYPE OF CONTACT: OFFICE ___ PHONE X FIELD ___ OTHER ___

SUBJECT 399 Linden, Carp. CA

SUMMARY OF ~~DISCUSSION~~

Proposes to bring spoils from site to their facility in Ventura and treat/dispose of soil. They (supposedly) have approval from RWQCB, DHS and Vent. Landfill to do up to 10,000 ppm TPH. I outlined our reservations about Chemfix; they are to send us more info and we'll take proposal under advisement.

REPORTED BY: D. Cummings

LUFT Fm 3 REV 2/90

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COUNTY OF SANTA BARBARA • ENVIRONMENTAL HEALTH SERVICES

5540 EKWILL STREET, SUITE B • SANTA BARBARA, CALIFORNIA 93111 • (805) 681-5200

July 3, 1991

Ms. Mercy Parker
SP Environmental Systems, Inc.
9719 Lincoln Village Drive
Suite 310
Sacramento, CA 95827

RE: **399 Linden, Carpinteria, CA. (Site # 5019)**

Dear Ms. Parker:

The Santa Barbara County LUFT Program (SBCLP) has received and reviewed the remediation proposal for the excavation spoils located at 399 Linden. Your request to use the Chemfix method to treat the spoils is denied for the following reasons:

1. The information you have provided does not contain clear evidence that the Chemfix method is successfully proven to immobilize petroleum hydrocarbons in soil. The sites in Santa Barbara County where Chemfix was approved for remediation purposes, contained metals, not petroleum hydrocarbons. Based on this, SBCLP does not believe Chemfix will be successful in remediating the spoils piles at 399 Linden.

2. The process of applying the Chemfix reagents will allow aeration of the spoils to occur. Considering the large size of the spoils piles and the close proximity of a school, aeration is not feasible for this site.

Therefore, SBCLP is requiring you to submit another proposal for treatment and/or disposal of the spoils piles located at this site. Prior to submission of a proposal, however, it would be prudent for you to sample and analyze the spoils piles to determine the contaminant levels they contain. This will aid you in determining the best treatment/disposal method. Please submit a work plan for sampling these piles by **July 11, 1991.**

If you have any questions regarding this matter, you may contact me at (805) 681-4778.

Sincerely,

Deanna L. Cummings
Hazardous Materials Specialist
LUFT Program

dhl

BRANCH OFFICES

500 West Foster Rd.
Santa Maria, CA 93455
(805) 934-6223

751-B East Burton Mesa
Lompoc, CA 93436
(805) 737-7744

SP ENVIRONMENTAL SYSTEMS, INC.

9719 LINCOLN VILLAGE DR., SUITE 310 SACRAMENTO, CA 95827 (916) 369-8971 FAX (916) 369-8370

May 31, 1991

RECEIVED
JUN 3 1991
Santa Barbara County
Environmental Health Services

Deanna Cummings
County of Santa Barbara
Department of Environmental Health Services
5540 Ekwill Street, Suite B
Santa Barbara, California 93111

Subject: Carpenteria Soil Remediation
Southern Pacific Transportation Company Property
399 Linden Avenue, Carpenteria, California
SPEvS Project No. 05149

Dear Ms. Cummings:

In a phone conversation on May 21, 1991 with Ana Nathe, the disposition of the stockpiled soil in Carpenteria at the above-referenced site was discussed. SP Environmental Systems, Inc. (SPEvS) plans to have the stockpiled soil chemically fixed by VenVirotek, Inc. using the Chemfix process, which will immobilize the petroleum hydrocarbons; afterwhich, the treated soil will be transported to a Class III landfill for re-use as daily cover. The procedures to be followed are described below:

1. A VenVirotek representative will visit the site to assess whether there is sufficient area available to accommodate the on-site treatment of the stockpiled soil. At that time, a sample of the soil will be retrieved and bench-scale testing will be performed to reagent concentrations to insure that the treated material will meet the specifications for re-use as daily cover at a Class III landfill.

2. The project will begin with the spreading of the stockpiled soil over an area large enough to accommodate the treatment process. During the spreading of the soil, a fine water spray will be applied to control dust that might otherwise migrate from the project site.

3. Once the soil is spread to a specified lift height, proprietary reagents will be added to the soil to achieve the reagent concentrations established in the bench-scale test. During the application of the reagents water spray will once again be applied to control the migration of dust.

4. Once the reagents are applied to the soil, mixing equipment will be utilized to mix the reagents with the soil. Once again, a fine water spray will be applied to facilitate the chemical reaction and to control fugitive dust migration.

5. Upon completion of the reagent application, the mixed material will be allowed to cure for seven to ten days. Testing will be performed during this time to assess whether additional mixing is necessary to assist with the curing process.

6. At the end of the curing period, further testing will be performed to confirm that the treated material meets the specified standards for re-use as daily cover at the landfill.

7. Upon completion of the testing, the re-usable material will be loaded and transported to a Class III landfill for re-use as daily cover. VenVirotek has an existing contract with a Class III landfill in Ventura County that accepts the treated material for use as daily cover.

8. Upon arrival at the landfill, the treated material will be weighed to determine the total amount of material treated during the project. For the purpose of billing, the volume of reagent added to the waste will be verified and deducted from the total volume delivered to the landfill.

9. A final report will be prepared outlining the project steps and the final disposition of the treated material, in order to close this site.

For additional information regarding VenVirotek and the Chemfix process, please refer to the enclosed information packet. Please feel free to contact Mercy Parker at (916)369-8971 if you have any questions regarding this workplan.

Sincerely,

Mercy Parker
Compliance/Safety Officer

Todd A. Hook, P.E.
Project Manager

TAH/MP:er

Enclosure

cc: John Moe
Doug Wubbena

FILE COPY

COUNTY OF SANTA BARBARA • ENVIRONMENTAL HEALTH SERVICES

5540 EKWILL STREET, SUITE B • SANTA BARBARA, CALIFORNIA 93111 • (805) 681-5200

March 29, 1991

Ms. Elizabeth Gillis
SP Environmental Systems, Inc.
9719 Lincoln Drive, Suite 310
Sacramento, CA 95827

Dear Ms. Gillis:

Subject: Orchard Services, 399 Linden Avenue, Carpinteria, CA
(Site # 50119)

The Santa Barbara LUFT Program (SBCLP) has received the request for extension dated January 21, 1991, and work plan for additional site assessment dated February 11, 1991, for the above referenced site. After careful review of this report, we approve your proposal with the following condition(s):

An inspector from SBCLP must be present during site work. please call forty-eight (48) hours in advance, to schedule an appointment.

If you have any questions regarding this matter please contact the undersigned at (805) 681-4752.

Very truly yours,

Richard A. Stedman
LUFT/HAZ Mat Supervisor

Kate Sulka

Kate Sulka
LUFT Senior Specialist

KS:ck

BRANCH OFFICES

500 West Foster Rd.
Santa Maria, CA 93455
(805) 934-6223

751-B East Burton Mesa
Lompoc, CA 93436
(805) 737-7744

SITE LOG

DATE	WORK CARRIED OUT
7/25/90	R. Evans and P. Meisch visited the site to discuss the extent of contamination and methods of remediation. Ms. Liz Fillis, SP Environmental was on site and indicated that ~~extra~~ excavation would be the method that would be pursued. Ms. Liz Fillis was encouraged to delineate the extent of contamination before excavating the soils. She stated that SP is concerned with remediating the site as quickly as possible and wished like to Excavate instead of assess at this time.
9/17/90	Call to Liz Fillis LMTCB re: sec.
10/22/90	Went to site based on message from Richard Evans that site work was going on. No drilling or excavating was taking place, however both buildings on site had been demolished.
1-3-91	Call from Anna Natha - left mssg 3:51
- 4:16	Call Back from Anna → She spoke w/ Richard Stedman Richard stated if Remove to <100 ppm okay to leave on-site - Resample gw for TPH. Will trench to 8' more towards Rd and if no soil. Work plan to be submitted to EHS (simple one addressing issues in 12/21/90 letter)

COUNTY OF SANTA BARBARA

OFFICE MEMORANDUM

To Kate Date 1/3/91

From Rich In re

Please call Ana Aracy, SP ENV.

RE: 399 Linden Ave, Carp.

(916) 369-8971

ORAL messages waste your time and the time of the other person; they often cause annoying interruptions and are apt to be misunderstood or forgotten. *Put it in writing.*

PA-103A

FILE COPY

COUNTY OF SANTA BARBARA • ENVIRONMENTAL HEALTH SERVICES

5540 EKWILL STREET, SUITE B • SANTA BARBARA, CALIFORNIA 93111 • (805) 681-5200

December 21, 1990

Elizabeth Gillis
SP Environmental Systems, Inc.
9719 Lincoln Village Drive, Suite 310
Sacramento, CA 95827

Dear Ms. Gillis:

Subject: Orchard Services, 399 Linden Avenue, Carpinteria CA
(Site No. 50119)

The Santa Barbara County Environmental Health Services LUFT Program (SBCLP) has received the Site Investigation and Remediation report dated November 21, 1990, for the above referenced site.

After careful review of this report, we cannot approve your recommendations for no further action at this time. The following information is required:

1) Due to the high concentrations of stoddard solvent in the north wall at 10' below the ground surface, the full extent of soil contamination has not been defined.

   The test boring was taken below the clay layer at 11.5 feet below the ground surface but was not tested for TPH as, stoddard solvent. Therefore this boring does not delineate the eastern extent of soil contamination.

2) Abandonment of the monitoring wells can not be approved at this time due to the potential need for tracking the movement of contamination on and/or off site.

3) Clarification is also required for the location of the underground storage tank removed during the October excavating. Please submit a receipt and/or manifest for the disposal site.

   Submittal of receipt/manifest for the soils removed and taken to McKittrick is also requested.

BRANCH OFFICES

500 West Foster Rd.
Santa Maria, CA 93455
(805) 934-6223

751-B East Burton Mesa
Lompoc, CA 93436
(805) 737-7744

Please submit a complete workplan and sampling plan for additional site assessment by January 21, 1991.

All monitoring wells shall be constructed and abandoned according to the standards found in California Code of Regulations Title 23, Section 2647 and 2648, and County Ordinance Number 3458. Permits shall be obtained from the SBCLP prior to starting work or destruction of wells.

All work shall be performed per the quidelines found in the State LUFT Manual (October 1989 editions) and SBCLP requirements.

If you any questions regarding this matter please contact, Kate Sulka at (805) 681-4752.

Very truly yours,

Richard A. Stedman
LUFT/Haz. Mat. Supervisor

Kate Sulka

Kate Sulka
Senior Specialist
LUFT Program

KS:jl

12-17-90

399 Linden - Site Investigation + Remediation Report Nov. 26, 90

Questions:

- Current location of UST Removed during Oct. excavation?
- Receipts/manifests for removed soils taken to McKittrick
- - - - - - (425 cu yds)

* 4200 ppm TPH/solvent at 10' Sample #11888 - Action needed? ie., delineation of E + W extent?

* The MW installed by ERM-West in Oct '89 had 77 ppb of TPH - MW is now abandoned -
All 3 current MW have ND for Nov 1990 sampling -
should we have another Round of samples to see if ERM's well was an anomaly or what?

Kate

I find it interesting that the test boring sample (Table 3) was taken below the clay layer @ 11.5' bgs. This sample was not tested for TPH as stoddard solvent but rather TPH gasoline. Therefore, this boring does not delineate eastern extent of soil contamination.

over

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Due to the possibility of leaving contamination in place - the MWs should not be abandoned.

Recommendation

Due to high conc of standard solvent the full extent of soil contamination must be defined. Once this is completed LUFT can respond to the remedial action / no action question.

Paul:

Pls Review. They want NFA (no further action) but my concerns are ★ on my notes - What'd ya think? Close the site or 1/4/4 monitoring + delineate further?

KEGS

FILE COPY

COUNTY OF SANTA BARBARA • ENVIRONMENTAL HEALTH SERVICES

5540 EKWILL STREET, SUITE B • SANTA BARBARA, CALIFORNIA 93111 • (805) 681-5200

October 3, 1990

Elizabeth Gillis
SP Environmental System, Inc.
9719 Lincoln Village Drive, Suite 310
Sacramento, CA 95827

Site Location: Orchard Services, 399 Linden Avenue, Carpinteria, California (Site No. 50119)

Dear Ms. Gillis:

The County of Santa Barbara, Environmental Health Services LUFT Program has received the letter dated Septemeber 18, 1990, for the above-referenced site.

After careful review of this letter, SBCLP concurs with the request not to screen the wells across the two zones.

An inspector from the LUFT Program must be present during site work. Please call forty-eight (48) hours in advance, to schedule an appointment. South County call (805) 681-5200.

All monitoring wells shall be constructed according to the standards found in California Code of Regulations Title 23, Section 2647 and 2648, and County Ordinance Number 3458. Permits shall be obtained from the SBCLP prior to starting work or destruction of wells.

If you have any questions regarding this matter please contact, Richard Evans at (805) 681-5200.

Very truly yours,

Richard A. Stedman
LUFT Program Supervisor

Leif Reynolds for Richard Evans

Richard Evans
Hazardous Materials Specialist
LUFT Program

RE/jl
RE-124

BRANCH OFFICES

500 West Foster Rd.
Santa Maria, CA 93455
(805) 934-6223

751-B East Burton Mesa
Lompoc, CA 93436
(805) 737-7744

SP ENVIRONMENTAL SYSTEMS, INC.

9719 LINCOLN VILLAGE DR., SUITE 310 SACRAMENTO, CA 95827 (916) 369-8971 FAX (916) 369-8370

September 18, 1990

Richard Evans
LUST Program
Santa Barbara County
Environmental Health Services
315 Camino Del Remedio
Santa Barbara, Ca 93110

SUBJECT: Phase II Site Remediation
Orchard Services
399 Linden Avenue
Carpinteria, CA
SPEvS Job No. 05149

Dear Mr. Evans,

In response to your telephone call on August 29, 1990, SP Environmental Systems, Inc. (SPEvS) offers the following additional information on the revised workplan submitted on August 14, 1990. The revised workplan included the excavation of contaminated soil and the installation of three monitoring wells on the above referenced site where two small underground tanks had previously been removed.

Enclosed is a site map showing the proposed locations of the two additonal monitoring wells, as you requested. These wells are located to provide information on groundwater direction and groundwater quality, both upgradient and downgradient of the tank site.

SPEvS has reviewed the information available on the site to determine the appropriate screening interval for the wells. There is limited and sometimes conflicting information on the hydrogeological conditions at the site. SPEvS would like to determine well depths and screening intervals in the field based on the actual conditions observed in during drilling.

ERM West states in their November 1989 Site Assessment Report that they encountered groundwater at approximately 18 feet below grade, and the water level subsequently rose in the well to approximately 9 feet below grade.

When digging at the site, SPEvS observed waterseeping into the excavation when the excavation was approximately six feet deep. This water appeared to be influenced by tidal action. The water was found at the interface of a upperlayer of sandy soil and the lower clay layer. It is believed that soil contamination is currently confined to the upper six feet of sandy soil and does not penetrate the clay zone.

SPEvS believes, from the data currently available, that there may be shallow

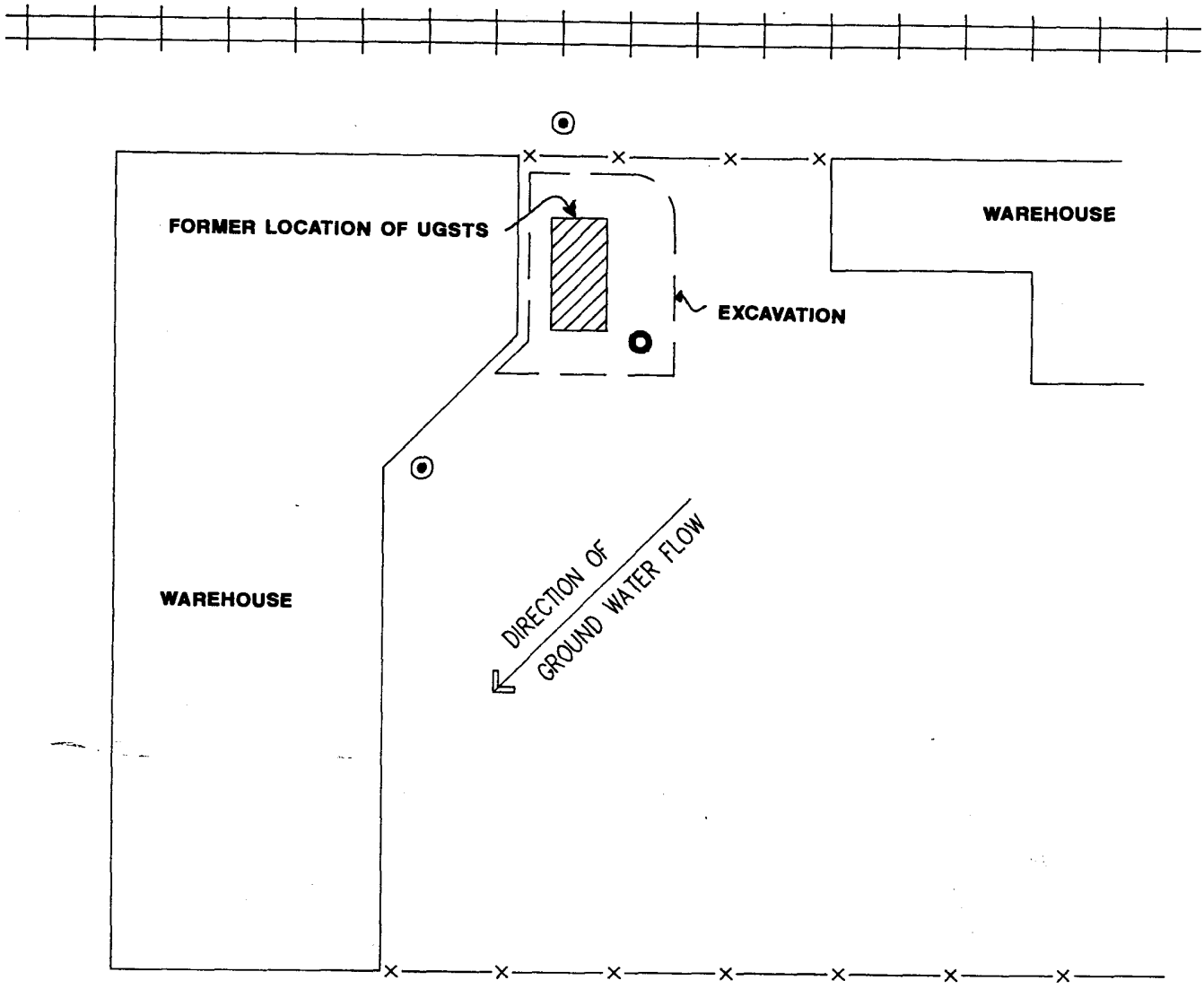
water that is a result of surface percolation and tidal forces. The groundwater encountered a 18 feet by ERM West, may be a different zone, and is partially confined (and protected) by the clay layer. SPEvS does not want to screen wells across the two zones, thereby introducing a mechanism whereby cross contamination could occur.

In accordance with the previously submitted workplan, pilot boreholes will be installed to observe subsurface conditions, prior to installing any wells. Santa Barbara County will be consulted concerning well depth and screening intervals prior to the installation of any wells.

Elizabeth Gillis

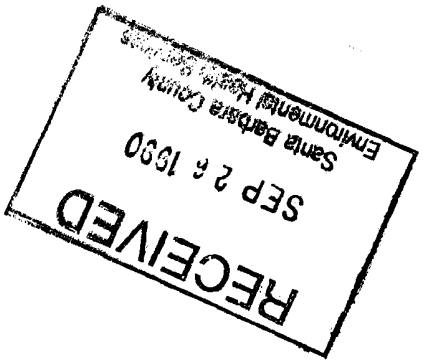
Elizabeth Gillis
Project Manager

cc: Joan Herida, Santa Barbara County APCD
Mike Collier, SPTCo Real Estate



SP ENVIRONMENTAL SYSTEMS		FIGURE
PROJECT NO. 05149	DATE: 9-17-90	
DRAWN BY: EG	CHECKED BY:	NTS SCALE

PROPOSED MONITORING WELL LOCATIONS


RECEIVED
SEP 26 1990
Santa Barbara County
Environmental Health Services

SP ENVIRONMENTAL SYSTEMS, INC.

9719 LINCOLN VILLAGE DR., SUITE 310 SACRAMENTO, CA 95827 (916) 369-8971 FAX (916) 369-8370

August 16, 1990

Richard Evans
LUST Program
Santa Barbara County
Environmental Health Services
315 Camino Del Remedio
Santa Barbara, Ca 93110

SUBJECT: Phase II Site Remediation
Orchard Services
399 Linden Avenue
Carpinteria, CA
SPEvS Job No. 05149

Dear Mr. Evans,

On July 23 through July 25, SP Environmental Systems, Inc (SPEvS) initiated site remediation activities based on an approved workplan submitted on June 1, 1990. The workplan included the excavation of contaminated soil and the installation of a down gradient well on the above reverenced site where two small underground tanks had previously been removed.

After excavating approximately 150 cubic yards of contaminated soil it was apparent that the amount of contaminated soil was greater than originally anticipated. After discussions with the LUST program engineer, it was agreed that work would be discontinued and the workplan would be revised to reflect our new understanding of the site's conditions.

This submittal contains a revised workplan based on the observations made in the field during excavation activities. This workplan also contains a discussion of the information gathered during the field work, including laboratory results.

It is intended that this submittal fulfill the quarterly reporting requirement for the third quarter of 1990. SPEvS' will await your comments on the workplan prior to the initiation of any activities.

Elizabeth Gillis
Project Manager

cc: Joan Herida, Santa Barbara County APCD
Mike Collier

RECEIVED
AUG 22 1990
Santa Barbara County
Environmental Health Services

- Need site map w/ MW locations
- Must screen thru ∇ – previous MW had GW @ 9' bgs
  - ↳ screen feeling Subsurface rising water table
  - ↳ will provide written explanation

SITE LOG

DATE	WORK CARRIED OUT
5/30/90	Call from Elizabeth Gillis, SP Environmental Systems concerning monitoring well requirement for the site. She stated that LAB analysis would be submitted to SBCLP to determine if additional monitoring wells would be required. She stated that the site would be remediated by removing the contaminated soil.
5/30/90	FAXED WELL DESTRUCTION REQUIREMENTS & SBCLP CLEAN-UP LEVELS to E. GILLIS,
7/15/90	Call from Liz Gillis SP. Environmental LMTCB
7/16/90	Return call to Liz Gillis - Stee Scheduled work at the site for 7/23/90

FILE COPY

COUNTY OF SANTA BARBARA • HEALTH CARE SERVICES

300 San Antonio Road • Santa Barbara, California 93110 • (805) 681-4200

FAX Number (805) 681-5191

LAWRENCE HART, M.D., F.A.C.P.M.
DIRECTOR AND HEALTH OFFICER

June 29, 1990

Elizabeth Gillis
S.P. Environmental Systems
9719 Lincoln Village Drive, Suite 310
Sacramento, CA 95825

Site No. 50119

Site Location: 399 Linden Avenue, Carpinteria, California

Dear Mr. Gillis:

The Santa Barbara LUFT Program (SBCLP) has received the report, Phase II Site Remediation dated June 18, 1990 for the above-referenced site.

After careful review of this report, we approve your proposal with the following condition(s):

1. An inspector from SBCLP must be present during site work. Please call forty-eight (48) hours in advance, to schedule an appointment. South County call (805) 681-5200.

All monitoring wells shall be constructed according to the standards found in California Code of Regulations Title 23, Section 2647 and 2648, and County Ordinance Number 3458. Permits shall be obtained from the SBCLP prior to starting work or destruction of wells.

If you have any questions regarding this matter please contact, Richard Evans at (805) 681-5200.

Very truly yours,

Richard A. Stedman
LUFT Program Supervisor

Richard Evans
LUFT Specialist

RE:sa

cc: John Moe, Southern Pacific Railroad

RE-77

FILE COPY

COUNTY OF SANTA BARBARA • HEALTH CARE SERVICES

300 San Antonio Road • Santa Barbara, California 93110 • (805) 681-4200

FAX Number (805) 681-5191

LAWRENCE HART, M.D., F.A.C.P.M.
DIRECTOR AND HEALTH OFFICER

June 22, 1990

Mr. John Moe
Southern Pacific Railroad
1 Market Plaza, Room 1007
San Francisco, CA 94105

Site No. 50119

Site Address: 399 Linden, Carpinteria, California

Please be advised that quarterly reporting is required for all sites where unauthorized releases of hazardous substances from underground storage tanks have occurred. [California Codes of Regulations, Title 23, Section 2652(d)]. These reports are to be submitted every three (3) months until the LUFT site has been officially closed. The reports are to include quarterly water level measurements, sampling results, and any additional site work or activity performed during the quarter. All quarterly reports will be due on the following schedule:

January 20th
April 20th
July 20th
October 20th

All written correspondence should be sent to:

County of Santa Barbara
Leaking Underground Fuel Tank Program
5540 Ekwill, Suite B
Santa Barbara, California 93111

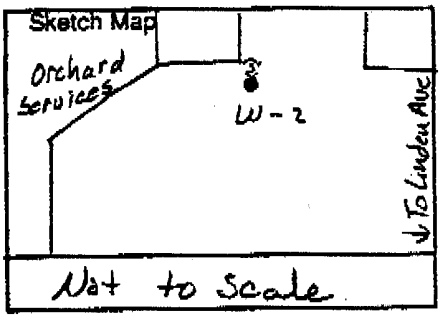
Attn: Richard Evans, LUFT Specialist

ERM-West
Environmental Resources Management

Drilling Log

Project SP-Carpinteria Owner Southern Pacific
Location Carpinteria - CMT Project Number 847
Well Number W-2 Boring Number
Total Depth 25' Diameter 2"
Drilling Company Spectrum Drilling Method HSA
Driller Garry/Darren Log By KAH Date Drilled 10/25/89
Begin Drilling 13:10 Finish Drilling 14:00

Sketch Map



Depth (feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Consistency, moisture, color, odor, staining, etc.)
0				Surface: compacted soil and gravel
1				
2				SAND, silty, very loose, medium fine to very fine grained, dark brown, dry, micaceous, ~5% mafic
3				
4		PVC		CLAY, sandy, soft, plastic, dark gray to black, moist
5			13:20	
			NR	CLAY, sandy, soft, plastic, medium gray, moist, mild hydrocarbon (?) odor
6				
7			10/25/89	
8				
9				
10			13:25	
			NR	SAND, clayey, very fine to fine-grained, slightly plastic, medium loose, moist, no odor
11				
12			10/25/89	

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SP ENVIRONMENTAL SYSTEMS, INC.
719 Lincoln Village Drive, Suite #310
Sacramento, CA 95827
(916) 369-8971 FAX (916) 369-8370

5/30/90

*SCREENED BELOW WATER TABLE. R.P WILL PROPOSED TO DESTROY this WELL.
R. EVANS

FACSIMILE COVER LETTER

Date:

Company Name:	SB County LUST
Contact Name:	Richard Evans
Fax Number:	805 681 5370

Sender:	Gillis
Description:	well Data

During drilling gw was encountered @ 18-22'. Erupting sands were encountered. Potentiometric surface stabilized ~~between~~ at ± 9' ~~found~~ below grade. From other well data, ground water is flowing west-northwest

Number of pages (including cover page): 4

If there are any problems with this transmission, please call

(916) 369-8971 IMMEDIATELY.

This form created by FPG for SP Environmental Sys.

NOV 30 '90 13:14 FROM SP ENS PAGE.001

ERM-West

Environmental Resources Management

Drilling Log

Project: SP-Carpinteria | Owner: Southern Pacific

Location: Carpinteria - CMT | Project Number: 847

Well Number: W-2 | Boring Number:

Total Depth: 25' | Diameter: 2"

Drilling Company: Spectrum | Drilling Method: HSA

Driller: Garry/Darren | Log By: KAH | Date Drilled: 10/25/89

Begin Drilling: 13:10 | Finish Drilling: 14:00

Sketch Map

See Page 1

Depth (feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Consistency, moisture, color, odor, staining, etc.)
12				Water on rod
13				
14			13:35	
15			N.R.	SAND, clayey, very fine to fine-grained, medium loose, wet, ~5% mafic grains, micaceous
16				
17				
18				SAND, some silt and clay flowing to surface
19				
20			13:45	SAND, some silt and clay, very loose, flowing to surface, medium brown, wet, no odor, micaceous
21				
22				
23				
24				

www.lawcopyinc.com

Drilling Log

ERM-West
Environmental Resources Management

Project SP-Carpinteria Owner Southern Pacific
Location Carpinteria - CMT Project Number 847
Well Number W-2 Boring Number
Total Depth 25' Diameter 2"
Drilling Company Spectrum Drilling Method HSA
Driller Garry/Darren Log By KAH Date Drilled 10/25/89
Begin Drilling 13:10 Finish Drilling 14:00

Sketch Map

See Page 1

Depth (feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Consistency, moisture, color, odor, staining, etc.)
24			14:00	
25	BOH	BOH		SAND, some silt and clay, very fine to fine-grained, loose, flowing to surface, wet, medium brown, micaceous, no odor

Well construction: Lonestar #3 sand 2 sacks
Cement 2 sacks
Bentonite pellet 1 bucket
15' blank 2" PVC casing; 10' 0.020" slot, 2" diameter screen and diversified well prod. box

Page 3 of 3

SP ENVIRONMENTAL SYSTEMS, INC.

9719 LINCOLN VILLAGE DR. SUITE 310 SACRAMENTO, CA 95827 (916) 369-8971 FAX (916) 369-8370

June 18, 1990

Richard Evans
LUST Program
Santa Barbara County
Environmental Health Services
315 Camino Del Remedio
Santa Barbara, CA 93110

SUBJECT: Phase 2 Site Remediation, Orchard Services
399 Linden Avenue
Carpinteria, California
SPEvS Job No. 05149

Dear Mr. Evans:

Per your request, I have enclosed the workplan for the Phase 2 investigation and cleanup of 399 Linden Avenue, Carpinteria, California. Two underground storage tanks were removed from the site in February and minor contamination was noted.

SPEvS' will await your comments on the workplan prior to the initiation of any activities.

Sincerely,

Elizabeth Gillis
Project Manager

EG:ekw

Enclosure

cc: M. Collier

RECEIVED
JUN 22 1990
Santa Barbara County
Environmental Health Services

399 LINDEN

SITE LOG

DATE	WORK CARRIED OUT
4/27/90	Call from Liz Gilis of Southern Pacific Environmental. She requested a week extension to submit her Assessment work plan. - Aff.
5/1/90	Call from Mike Caldwer (213) 780-6909 LMOAM - Southern Pacific Transportation
5/1/90	Return call to Mike Caldwer of S.P. Property mgmt. He explained his legal problems with the site. He requested that we notified the Lessee on site to clean up the site. He was told that the property owner is responsible. He requested an extension to work out the details with the Lessee. He was told an extension would be granted for 30 days.
5/17/90	Call from Mr. Mike Collier of SP Property mgmt. to update SBCP on the situation of identifying the responsible party for the clean-up
5/22/90	Call from Mike Collier. He was told to proceed with the Assessment work plan.

SITE LOG

DATE	WORK CARRIED OUT
4/4/90	Call from Liz Gillis, S.P Engineer requesting information of SBCLP for clean-up of 399 LINDEN Ave. Carpinteria
4/4/90	Call to Liz Gillis, SP. Environmental she requested SBCLP clean-up Standard
4/4/90	FAXED clean-up Standards

COUNTY OF SANTA BARBARA • HEALTH CARE SERVICES

315 CAMINO DEL REMEDIO • SANTA BARBARA, CALIFORNIA 93110 • (805) 681-5200

LAWRENCE HART, M.D., F.A.C.P.M.
DIRECTOR AND HEALTH OFFICER

FILE COPY

March 27, 1990

Elizabeth Gillis
S.P. Environmental Systems, Inc.
9719 Lincoln Village Drive, Suite 310
Sacramento, CA 95827

Site No. 50119

Site Location: 399 Linden Avenue, Carpinteria, California

Dear Ms. Gillis:

The Santa Barbara LUFT Program (SBCLP) has received the report dated March 23, 1990, for the above-referenced site.

After careful review of this report, SBCLP will require a complete assessment of the site to delineating vertical and lateral extent of contamination.

Laboratory analyses required for gasoline in soil and groundwater samples are:

Total Petroleum Hydrocarbons (TPH) using EPA method 8015 with an acceptable method-detection-limit of 10 parts per million (ppm) in soil and 1 ppm in groundwater.

Benzene, toluene, ethylbenzene, and xylene (BTEX) using EPA method 8020/602 or EPA method 624. Acceptable method-detection-limits in soil are benzene to 0.005 ppm; toluene, ethylbenzene, and xylene to the California Department of Health Services' (DOHS) recommended drinking water standards. Acceptable method-detection-limits for groundwater are California DOHS recommended drinking water standards.

Total lead using EPA method 7420/7421, with an acceptable method-detection-limit of 1 ppm in soil and the California DOHS recommended drinking water standard for lead in groundwater.

Soil and groundwater clean-up levels are based upon the State of California, Department of Health Services Recommended Drinking Water Action Levels.

BRANCH OFFICES

500 West Foster Rd.
Santa Maria, CA 93455
(805) 934-6223

751-B East Burton Mesa
Lompoc, CA 93436
(805) 737-7744

All laboratory analyses shall be performed by a California State Certified Laboratory. All sample results should include a copy of the chain of custody form.

Detection limits for soil and groundwater samples shall be below the State drinking water action levels, except Benzene in soil which requires a detection limit of 5ppb (parts per billion). Composite samples are not acceptable.

All monitoring wells shall be constructed according to the standards found in California Code of Regulations Title 23, Section 2647 and 2648, and County Ordinance Number 3458. Permits shall be obtained from the SBCLP prior to starting work or destruction of wells.

All work shall be performed per the guidelines found in the State LUFT Manual (May 1988 edition) and SBCLP requirements.

Please submit to this office within thirty (30) days a proposed work plan for the assessment of the site.

If you have any questions regarding this matter please contact, Richard Evans at (805) 681-4361.

Very truly yours,

Richard A. Stedman
LUFT Program Supervisor

Richard Evans
LUFT Specialist

RE:sa

RE-27

SP ENVIRONMENTAL SYSTEMS, INC.

9719 LINCOLN VILLAGE DR. SUITE 310 SACRAMENTO, CA 95827 (916) 369-8971 FAX (916) 369-8370

RECEIVED
MAR 23 1990
Santa Barbara County
Environmental Health Services

March 21, 1990

Santa Barbara County
Environmental Health Services
315 Camino Del Remedio
Santa Barbara, Ca 93110

Attention: Richard Evans
Lust Program

Enclosed please find the following information on the underground storage tank removals performed at 399 Linden Avenue, Carpinteria:

* UGST removal workplan
* Tank removal report
* Figure 1- Site Plan with Sampling Locations
* Table 1- Results of Soil Sampling
* Original Analytical Results with Chain of Custody Form
* Unauthorized Release Report

It is SPEvS' understanding that we will be contacted by you concerning the next phase of investigation after you have reviewed the enclosed information.

Elizabeth Gillis
Project Manager

UGST REMOVAL WORK PLAN

1. PURPOSE

The purpose of this work plan is to outline the procedures used during the removal of underground storage tanks (UST) from a Southern Pacific site. The removal of an UST includes the permanent removal of the tank and associated piping (if any), disposal of the tank and piping, and proper backfilling of the excavation.

2. PROCEDURES FOR TANK REMOVAL

- The UST will be exposed by removing the overlying material (asphalt, concrete, gravel, soil) by means of a backhoe, jackhammer, shovel or other appropriate equipment.

- Any residual liquid will be removed from the tank by pumping the material into a vacuum truck. This liquid will be transported for either recycling or proper disposal. The tanks will be cleaned by rinsing the tanks with very hot water and pumping the rinsate into the vacuum truck.

- Prior to pulling the tank from the excavation, the tank will be rendered inert by purging with carbon dioxide. An explosimeter, or LEL meter will be used in the field to determine that the tank is inert. All local regulations governing procedures and inspections will be followed.

- The tank will be removed from the excavation by means of a backhoe. The tank will be loaded onto a flatbed truck, and transported to a site which is certified to scrap the tanks. A certificate for each tank will be obtained after its destruction to document that the tanks will not be re-used for any purpose other than scrap metal.

3. EXCAVATION SAMPLING PROCEDURES

3.1 Excavation Procedures

Upon removal of each tank, the tank backfill material will be removed from the excavation with the backhoe. The excavation will be visually inspected as well as screened with a Photovac TIP II (a photo-ionization detector) for an indication of soil contamination. If contamination is found to be present, the affected soil will be separated from soil which is deemed clean, and will be either stockpiled on and covered with plastic, or placed in 55-gallon soil drums until receipt of analytical results from soil samples.

Once the extent of obvious contamination has been removed, or if no contamination was found, the native soil beneath either end of the tank will be sampled. If the extent of contamination could not be

removed, then samples would be obtained from the bottom (or sidewalls) of the excavation.

3.2 Sampling Procedures

Upon deciding the sample locations, each sample will be obtained by the following procedures:

- Native soil from the desired location will be obtained with the backhoe bucket and brought to the ground surface.
- The top portion of the material will be scraped away with a clean hand trowel to expose undisturbed soil.
- To obtain a sample, the field technician will drive a clean brass tube into the undisturbed soil with a mallet. (The brass tubes will be cleaned prior to use by washing in a solution of tri-sodium phosphate, rinsing in distilled water, and allowing to air dry.)
- The sample tube will be removed from the soil and each end will be covered with Teflon sheeting and tight fitting plastic end caps.
- Each sample will be labeled, logged onto a chain-of-custody, and stored in an iced cooler until delivery to a state certified laboratory.
- A portion of the soil from the backhoe bucket will be described and screened with a Photovac Tip II (photo-ionization detector), which is calibrated frequently following the manufacturers instructions. The description and TIP reading will be noted in the Field Technician's field notes and will be reported in the site specific report for each tank.

4. EXCAVATION CLOSURE

Upon completion of sample collection, each excavation will be closed by backfilling with either the material removed (if no contamination was indicated), or by backfilling with clean imported fill from an offsite source. The excavations will be compacted as each site as required by local ordinance.

After the excavation has been backfilled, the site will be restored to its original condition. Either asphalt, concrete, or gravel will be replaced, if necessary, and any fencing, etc. removed during construction activities, will be replaced.

5. ANALYTICAL REQUIREMENTS

As a minimum, two samples from the tank excavation will be analyzed for total petroleum hydrocarbons, and benzene, toluene, ethylbenzene, and xylenes, unless otherwise instructed or deemed necessary. Samples will be analyzed by a state certified laboratory on a standard 2-week turn around time.

6. HEALTH AND SAFETY PROCEDURES

At each tank site, the minimum level of protection required for all personnel on site will be:

- steel toe boots
- hard hats
- safety glasses or goggles
- disposable gloves

The level of protection may be upgraded if field observations and TIP readings deem it to be necessary.

Safe work practices will be followed. The work area will be barricaded so as not to allow the public to have access to the work area. In addition, any excavation left open will be fenced.

A tailgate safety meeting will be given by the field technician with the field crew, in order to assure safe work practices.

SP ENVIRONMENTAL SYSTEMS, INC.
UNDERGROUND STORAGE TANK REMOVAL
CARPINTERIA,CA

GENERAL SITE INFORMATION

1. a) SP Tank Number: 05053-1, 05053-2
   b) State Tank Number: 05
2. Date On Site: Feb 14-16, 1990
3. Facility Name: Orchard Services (lessee)
4. Street Address: 399 Linden Avenue
5. City/State/County: Carpinteria/CA/Santa Barbara
6. Comments: SP determining if leasee is responsible for removal costs.

TANK INFORMATION

1. Diameter: 05053-1: approximately 3 feet
   05053-2: approximately 3 feet
2. Length: 05053-1: approximately 4 feet
   05053-2: approximately 12 feet
3. Tank Capacity (volume): 05053-1 230 gallons
   05053-2 1000 gallons
4. Product Type: gasoline in both tanks
5. Amount of product in tank (if any): less that 10 gallons in 05053-1, none in 05053-2.

   a) Was product pumped?: yes
   b) If so, destination of product: Kern Vacuum to Gibson Oil
   c) Comments: tanks were rinsed on site

6. Condition of Tank/Comments: Tanks were estimated to be over 40 years old. Installed by SPTCo. for the lemon packing maintenance operations. Last date on pump certification was 1961. Tanks appeared to be in good condition.

EXCAVATION INFORMATION

1. Length/orientation: 20 feet, E-W

2. Width/orientation: 6 feet, N-S

3. Final excavation depth: 6 feet

4. Visible Contamination?: yes
   a) Describe extent: still present a 11 feet on west
   b) Field TIP Reading(s): none taken

5. Soil Description (include type, color, moisture, odor, other):
   0-5 feet fill, dark brown moist HnU 5-20 ppm (County instrument)
   5-9 feet sandy soil, light color, very moist, HnU 250-350 ppm (County instrument)
   9-11 feet sandy clay, light brown, slightly moist, some odor

6. Excavation Backfilled?: yes and compacted to 90% (tested)
   a) Source of fill material: Santa Barbara Sand and Gravel

7. Is there soil stockpiled?: yes, 30 yards
   a) Location: next to excavation

8. Additional Work Necessary?: yes
   a) Explain: stockpiled soil removal/treatment, investigate the extent of contamination (Santa Barbara County has a LUFT program)

LABORATORY INFORMATION

1. Number of samples taken: 4

Sample ID	Sample Location	Analyses
OS-1	9', west end floor	TPH, 8020, lead
OS-2	Stockpile, dark fill	TPH, 8020, lead
OS-3	Stockpile, sandy soil	TPH, lead, 8240
OS-4	4', east end wall	TPH, 8020, lead

2. Performing Laboratory: Coast Laboratories, Goleta

3. Chain-of-Custody Number:

4. Date Sent to Lab: 16 February 1990

5. Comments: Lab to send results directly to County LUFT program

CONTRACTOR INFORMATION

1. Contractor Name: Kern Environmental

2. Personnel Onsite (Name/Title): Steve, foreman
Noah, laborer
????, operator
Vacuum truck drivers, Stan and ????

3. Mobe/Demobe Hours:

4. Onsite Work Hours: 14 Feb: 2 hours
15 Feb: 13 hours
16 Feb: 8 hours

5. Standby Hours: none

6. Total time billed to this tank site: see Kern invoice

7. Equipment and Materials used or rented: see Kern invoice

8. Comments: Information on compaction testing should be recieved by 27 February. Original scope of work did not include the 1000 gallon tank which was discovered during excavation activities. Additional work will be required. The approach will depend on the property status (vacated or still leased).

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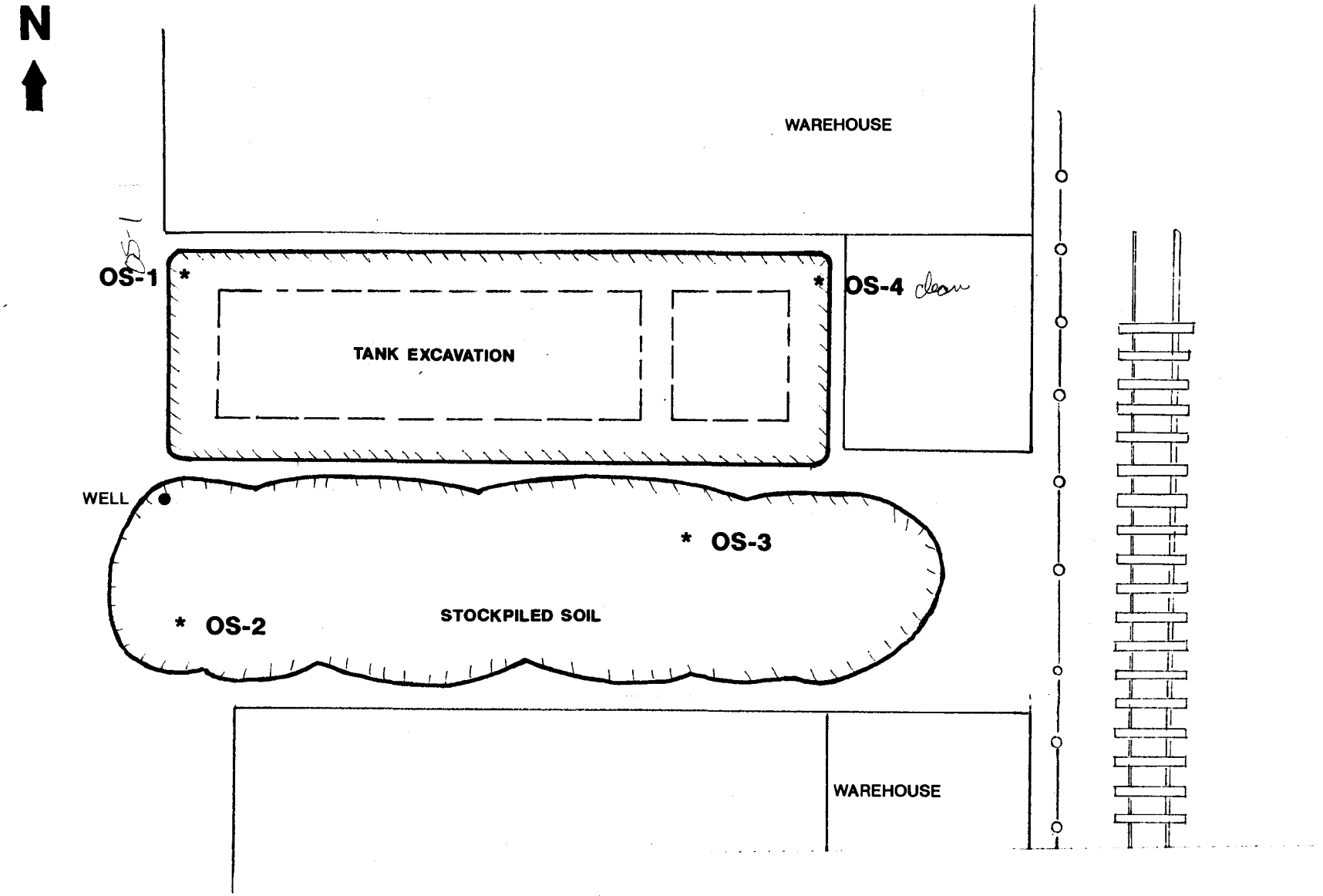


ORCHARD SERVICES
Site Plan with Sampling Locations
SPEvS Job No. 05053

NTS

TABLE 1

ORCHARD SERVICES
Results of Soil Sampling
performed
February 16, 1990

Sample No.	Location	Results in ppm			
		TTLC Lead	BTEX		TPH
OS-1	9', west	19	[redacted]		gas 40
			toluene	.59	stod solvent [redacted]
			ethylb	.52	
			xylene	.72	
OS-2	Stockpile fill	28	benzene	---	gas <.5
			toluene	.009	stod solvent 5.9
			ethylb	.010	
			xylene	.025	
OS-3	stockpile sandy	120*	benzene	.05	gas 70
			toluene	.04	stod solvent [redacted]
			ethylb	1.0	
			xylene	.20**	
OS-4	4', east	21	benzene	.01	gas 8
			toluene	.04	stod solvent 85
			ethylb	.13	
			xylene	.05	

* STLC value for this sample was 0.74 mg/liter

** Non detectable for all other analytes in EPA method 8240

Coast to Coast Analytical Services

Coast to Coast
Analytical Services
751 South Kellogg, Suite A
Goleta, California 93117
(805) 964-7838

Lab Number: As Listed
Collected: 02/16/90
Received: 02/16/90 @ 15:58
Tested: 02/20/90 by ABS
Collected by: Elizabeth Gillis

ATTN: Elizabeth Gillis
Southern Pacific Environmental
9719 Lincoln Village Drive, Suite 310
Sacramento, CA 95827

Sample Description:
Job #05053, Orchard Services,
Soils As Listed

Digested by EPA Method 3050
by EPM on 02/18/90
Tested by EPA Method 7420

REPORT

LAB NUMBER	SAMPLE DESCRIPTION & TIME COLLECTED	TOTAL LEVEL FOUND - mg/kg LEAD Detection Limit = 1. (PQL)*
GD-0801	OS-1 Collected @ 09:15	19.
GD-0802	OS-2 Collected @ 09:30	28.
GD-0803	OS-3 Collected @ 09:45	120.
GD-0804	OS-4 Collected @ 10:00	21.
QS-0804	Spike % Recovery - 104% (Spiked with 24. mg/kg)	46.
QSS-0804	Duplicate Spike % Recovery - 104% (Spiked with 23. mg/kg)	45.

*Practical Quantitation Limit

***The TOTAL THRESHOLD LIMIT CONCENTRATION for lead is 1000 mg/kg as listed in 22 Cal Adm Code Article 11 Section 66699 as persistent & bioaccumulative toxic substance.

Respectfully submitted,
COAST TO COAST ANALYTICAL SERVICES
Mary Havlicek, Ph.D., President

MH/jt
02/23/90
D0801-04.wr1 #78

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services
751 South Kellogg, Suite A
Goleta, California 93117
(805) 964-7838

Lab Number: GD-9803
Collected: 03/10/90 @ 09:45
Received: 03/10/90 @ 15:58
Tested: As Listed
Collected by: Elizabeth Gillis

ATTN: Elizabeth Gillis
S.P. Environmental
9719 Lincoln Village Drive, Suite 310
Sacramento, CA 95827

Sample Description:
Job #053053, Orchard Services,
OS-3, Soil

CA WET (Citrate Buffer)
by NG on 03/13/90
Digested by EPA Method 3010
by EPM on 03/15/90

REPORT

CONSTITUENT	EPA METHOD/DATE/ANALYST	DETECTION LIMIT (PQL)*	SOLUBLE LEVEL FOUND mg/l
LEAD	EPA 7420 03/16/90 NG	0.02	0.74

*Practical Quantitation Limit

***The SOLUBLE THRESHOLD LIMIT CONCENTRATION for lead is 5.0 mg/l as listed in 22 Cal Adm Code Article 11 Section 66699 as persistent & bioaccumulative toxic substance.

MH/jt
03/18/90
D0803spe.wr1 #81

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Mary Havlicek, Ph.D., President

Coast-to-Coast Analytical Services

Coast-to-Coast Analytical Services, Inc.
751 S. Kellogg Avenue, Suite A
Goleta, California 93117
(805) 964-7838

Lab Number: GD-0801
Collected: 02/16/90
Received: 02/16/90
Tested: 02/19/90
Collected by: E. Gillis

Fuel Fingerprint Analysis - EPA 8240/8260 (GC/MS)
EXTRACTED BY EPA METHOD 5030 - Purge & Trap **

SP Environmental Systems
9719 Lincoln Village Drive
Suite 310
Sacramento, CA 95827

SAMPLE DESCRIPTION:
Job # 05053, Orchard Services
OS - 1, soil

Compound Analyzed	Detection Limit (*PQL) in ppm	Concentration in ppm
Benzene	0.05	0.10
Toluene	0.05	0.59
Ethylbenzene	0.05	0.52
Xylenes	0.05	0.72
1,2-Dichloroethane (EDC)	0.05	not found
Ethylene Dibromide (EDB)	0.05	not found
TOTAL PURGEABLE PETROLEUM HYDROCARBONS (C4 - C12 Hydrocarbons)	5.	340.
BTX as a Percent of Fuel		0.4
Percent Surrogate Recovery		81.

*PQL - Practical Quantitation Limit
** Sonicated during Extraction
NOTE: High concentration of petroleum hydrocarbons caused the sample to be run diluted, resulting in raised practical quantitation limits for analytes. Please refer to instrument blank for undiluted practical quantitation limits.

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Mary Havlicek, Ph.D.
President

gd0801f.wr1
MH/brp/mc
msdg1/03/09/90

RECEIVED
MAR 14 1990
SP-ENVIRONMENTAL

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
751 S. Kellogg Avenue, Suite A
Goleta, California 93117
(805) 964-7838

Lab Number: GD-0802dup
Collected: 02/16/90
Received: 02/16/90
Tested: 02/19/90
Collected by: E. Gillis

Fuel Fingerprint Analysis - EPA 8240/8260 (GC/MS)
EXTRACTED BY EPA METHOD 5030 - Purge & Trap **

SP Environmental Systems
9719 Lincoln Village Drive
Suite 310
Sacramento, CA 95827

SAMPLE DESCRIPTION:
Job # 05053, Orchard Services
OS - 2, soil
duplicate

Compound Analyzed	Detection Limit (*PQL) in ppm	Concentration in ppm
Benzene	0.005	not found
Toluene	0.005	0.008
Ethylbenzene	0.005	0.006
Xylenes	0.005	0.015
1,2-Dichloroethane (EDC)	0.005	not found
Ethylene Dibromide (EDB)	0.005	not found
TOTAL PURGEABLE PETROLEUM HYDROCARBONS (C4 - C12 Hydrocarbons)	0.5	6.7
BTX as a Percent of Fuel		0.3
Percent Surrogate Recovery		83.

*PQL - Practical Quantitation Limit
** Sonicated during Extraction

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Mary Havlicek, Ph.D.
President

gd0802fd.wr1
MH/jm/mc
msdg1/03/09/90

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
751 S. Kellogg Avenue, Suite A
Goleta, California 93117
(805) 964-7838

Lab Number: GD-0802
Collected: 02/16/90
Received: 02/16/90
Tested: 02/19/90
Collected by: E. Gillis

Fuel Fingerprint Analysis - EPA 8240/8260 (GC/MS)
EXTRACTED BY EPA METHOD 5030 - Purge & Trap **

SP Environmental Systems
9719 Lincoln Village Drive
Suite 310
Sacramento, CA 95827

SAMPLE DESCRIPTION:
Job # 05053, Orchard Services
OS - 2, soil

Compound Analyzed	Detection Limit (*PQL) in ppm	Concentration in ppm
Benzene	0.005	not found
Toluene	0.005	0.009
Ethylbenzene	0.005	0.010
Xylenes	0.005	0.025
1,2-Dichloroethane (EDC)	0.005	not found
Ethylene Dibromide (EDB)	0.005	not found
TOTAL PURGEABLE PETROLEUM HYDROCARBONS (C4 - C12 Hydrocarbons)	0.5	5.9
BTX as a Percent of Fuel		0.6
Percent Surrogate Recovery		81.

*PQL - Practical Quantitation Limit
** Sonicated during Extraction

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Mary Havlicek, Ph.D.
President

gd0802f.wr1
MH/jm/mc
msdg1/03/09/90

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
751 S. Kellogg Avenue, Suite A
Goleta, California 93117
(805) 964-7838

Lab Number : GD-0803
Collected : 02/16/90
Received : 02/16/90
Tested : 02/16/90
Collected by: E. Gillis

EPA METHOD 8240/8260 (GC/MS)
EXTRACTED BY EPA 5030 - Purge & Trap

Attn: Elizabeth Gillis
SP Environmental Systems
9719 Lincoln Village Drive, Ste 310
Sacramento, CA 95827

Sample Description:
Job # 05053, Orchard Services
OS - 3, soil

Compound Analyzed	Detection Limit *PQL (ug/kg)	Concentration (ug/kg)	Compound Analyzed	Detection Limit *PQL (ug/kg)	Concentration (ug/kg)
Acetone	1000.	ND	1,2-Dichloroethene	40.	ND
Benzene	20.	50.	1,2-Dichloropropane	40.	ND
Bromodichloromethane	40.	ND	c-1,3-Dichloropropene	40.	ND
Bromoform	40.	ND	t-1,3-Dichloropropene	40.	ND
Bromomethane	40.	ND	Ethylbenzene	40.	1000.
2-Butanone	500.	ND	2-Hexanone	100.	ND
Carbon Disulfide	40.	ND	Methyl Isobutyl Ketone	100.	ND
Carbon Tetrachloride	40.	ND	Methylene Chloride	100.	ND
Chlorobenzene	40.	ND	Styrene	40.	ND
Chloroethane	40.	ND	1,1,2,2-Tetrachloroethane	40.	ND
2-Chloroethylvinylether	500.	ND	Tetrachloroethene	40.	ND
Chloroform	40.	ND	Toluene	40.	40.
Chloromethane	40.	ND	1,1,1-Trichloroethane	40.	ND
Dibromochloromethane	40.	ND	1,1,2-Trichloroethane	40.	ND
1,2-Dichlorobenzene	40.	ND	Trichloroethene	40.	ND
1,3-Dichlorobenzene	40.	ND	Trichlorofluoromethane	40.	ND
1,4-Dichlorobenzene	40.	ND	Trichlorotrifluoroethane	100.	ND
1,1-Dichloroethane	40.	ND	Vinyl Acetate	100.	ND
1,2-Dichloroethane	40.	ND	Vinyl Chloride	40.	ND
1,1-Dichloroethene	40.	ND	Xylenes	40.	200.
Total Purgeable Petroleum Hydrocarbons (C4 - C12)				1000.	470000.

* PQL - Practical Quantitation Limit
** NOTE: High detection limits are due to sample matrix.
Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 108/114/130
Constituents reported as ND would have been reported if present at or above the detection limit.

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Mary D. Havlicek, Ph.D., President

finn/03/09/90
gd0803v.wr1
MH/brp/mc

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
751 S. Kellogg Avenue, Suite A
Goleta, California 93117
(805) 964-7838

Lab Number: GD-0804
Collected: 02/16/90
Received: 02/16/90
Tested: 02/19/90
Collected by: E. Gillis

Fuel Fingerprint Analysis - EPA 8240/8260 (GC/MS)
EXTRACTED BY EPA METHOD 5030 - Purge & Trap **

SP Environmental Systems
9719 Lincoln Village Drive
Suite 310
Sacramento, CA 95827

SAMPLE DESCRIPTION:
Job # 05053, Orchard Services
OS - 4, soil

Compound Analyzed	Detection Limit (*PQL) in ppm	Concentration in ppm
Benzene	0.01	0.01
Toluene	0.01	0.04
Ethylbenzene	0.01	0.13
Xylenes	0.01	0.05
1,2-Dichloroethane (EDC)	0.01	not found
Ethylene Dibromide (EDB)	0.01	not found
TOTAL PURGEABLE PETROLEUM HYDROCARBONS (C4 - C12 Hydrocarbons)	1.	93.
BTX as a Percent of Fuel		0.1
Percent Surrogate Recovery		70.

*PQL - Practical Quantitation Limit
** Sonicated during Extraction
NOTE: High concentration of petroleum hydrocarbons caused the sample to be run diluted, resulting in raised practical quantitation limits for analytes. Please refer to instrument blank for undiluted practical quantitation limits.

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Mary Havlicek, Ph.D.
President

gd0804f.wr1
MH/jm/mc
msdg1/03/09/90

Enseco

Page 1 of 1

CHAIN-OF-CUSTODY RECORD

SAMPLER: (Signature) Elizabeth Gillis

Phone 916-369-8971

Date Shipped _____ Carrier _____

Airbill No. _____ Cooler No. _____

SHIP TO:

Enseco-Cal Lab
2544 Industrial Blvd.
West Sacramento, CA 95691
(916) 372-1393

ATTENTION: _____

SEND RESULTS TO:

Client Name Elizabeth Gillis

Company Southern Pacific Environmental

Address 9719 Lincoln Village Drive, Suite 310
Sacramento 95827

Phone 916-369-8971

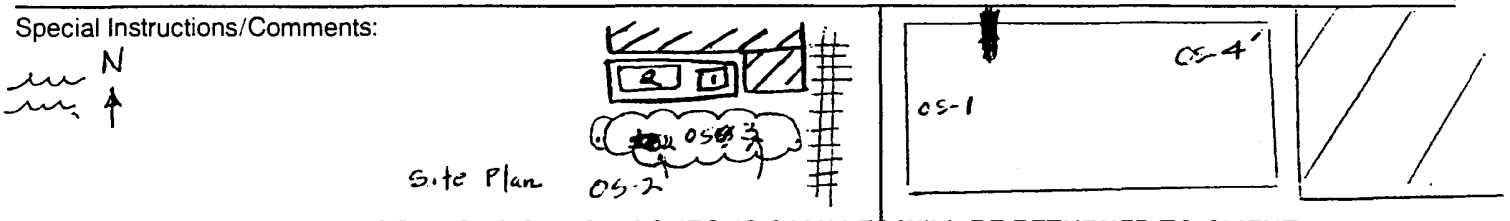
PROJECT NAME Orchard Services **PROJECT NO.** 05053 **P.O. NO.** _____

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
E. Gillis		3:58	2-16-90
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received at lab by: (Signature)	Date	Time
	Kellee Heisher	2-16-90	3:58
Relinquished from lab by: (Signature)	Received by: (Signature)	Date	Time

ANALYSIS REQUEST

Sample ID Number	Sample Description	Date/Time Sampled	Analysis Requested	Sample Condition Upon Receipt
OS-1	brass tube	915	8015-M, 8020, Lead TTLC	
OS-2	brass tube	930	" " "	9'
OS-3	brass tube	945	" " , 8240	
OS-4	brass tube	1000	8015-M, 8020, Lead	5'

Special Instructions/Comments:



NOTE: UNUSED PORTIONS OF NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Expected Analytical T.A.T's: _____ Immediate Attention (200% surcharge) _____ RUSH (50-100% surcharge) X Standard

Cal Lab ID Number: *(for lab use only)*

Client Retains White Copy Only

(Revised 1/87)

UNAUTHORIZED RELEASE REPORT
for
County of Santa Barbara, Health Care Services

Two underground storage tanks were removed from 399 Linden Avenue, Carpinteria on February 15, and 16, 1990. The 250 and 1000 gallon steel tanks were in good condition and only slightly rusted. No holes were observed. The estimated age of the tanks is 40 years old. The tanks are believed to have contained super and regular gasoline to support the vehicle maintenance operations of the lemon packing yard that previously operated here.

During excavation activities, contamination was noted in the backfill and the native soils. Refer to Table 1 for a summary of analytical results of soil sampling. The actual quantity of hazardous substances released is unknown, but appears to be the result of overfilling and normal operations over the course of time, rather than as a result of a leak or spill.

The estimate of the extent of soil and groundwater contamination is based on the observations and information gained from the tank removal operations and from a report on a well previously installed by ERM- West at the site. The results of the soil sampling indicate that contamination remains in the soil at the nine foot depth at the west end of the excavation. Results indicate 40 ppm gasoline and 300 ppm stoddard solvent. Contamination appeared to dissipate rapidly at the eastern end of the excavation and in fact at a depth of only four feet 8 ppm gasoline and 85 ppm stoddard solvent were observed. The areal extent of contamination was difficult to determine due to proximity of building and underground interferences.

The well previously installed by ERM-West is located just south of the southwestern corner of the excavation. Results of the soil sample from the boring collected between 6.0' and 6.5' indicate 300 mg/kg kerosene and 97 mg/kg gasoline. The water sample contained 77 ug/l gasoline.

Contaminated soil was removed from the excavation to a depth of six feet. The final size of the excavation was 20' x 6' x 6'. Approximately 30 cubic yard of soil was stockpiled onsite awaiting analytical results of sampling to ascertain disposal options. The excavation was backfilled with clean imported soil and compacted to 90 percent relative compaction. The stockpiled soils will be transported to Forward, Inc. in Stockton, California for final disposal as a California regulated waste only.

COUNTY OF SANTA BARBARA • HEALTH CARE SERVICES

315 CAMINO DEL REMEDIO • SANTA BARBARA, CALIFORNIA 93110 • (805) 681-5200

LAWRENCE HART, M.D., F.A.C.P.M.
DIRECTOR AND HEALTH OFFICER

FILE COPY

February 20, 1990

Mr. John Moe
Southern Pacific Railroad
1 Market Plaza, Room 1007
San Francisco, CA 94105

Re: Underground Tank Release at 399 Linden Avenue, Carpinteria, California

On June 5, 1989, Santa Barbara County signed a contract with the State Water Resources Control Board to oversee assessment and cleanup at the above named site. As a result of this agreement Environmental Health Services has formed the Leaking Underground Fuel Tank (LUFT) Program with whom you will be working during remediation of this site. Under the terms of this contract, the State will bill you for time spent working on your case by LUFT Program Staff. Attached is a notice informing you of your financial obligations and responsibilities regarding cleanup of your site.

If you have any questions regarding this notice, please contact Richard Evans, (805) 681-4361, between the hours of 8:00 & 9:30 a.m., Monday through Friday.

Very truly yours,

Richard A. Stedman
LUFT Program Supervisor

Richard Evans

Richard Evans
LUFT Specialist

Attachment: Notice of Reimbursement

BRANCH OFFICES

500 West Foster Rd.
Santa Maria, CA 93455
(805) 934-6223

751-B East Burton Mesa
Lompoc, CA 93436
(805) 737-7744

State Water Resources Control Board
Division of Water Quality
LUFT Cleanup Program

Notice of Reimbursement
When Federal Funds are Used

Whereas the federal Petroleum Leaking Underground Storage Tank Trust Fund provides funding to pay the local and state agency administrative and oversight costs associated with the cleanup of releases from underground storage tanks; and Whereas the direct and indirect costs of overseeing removal or remedial action at the above site are funded, in whole or in part, from the federal Trust Fund; and Whereas the above individual(s) or entity(ies) have been identified as the party or parties responsible for investigation and cleanup of the above site; YOU ARE HEREBY NOTIFIED that pursuant to Subdivision (h) of Section 699(b) of the United States Code, the above Responsible Party or Parties shall reimburse the State Water Resources Control Board for all direct and indirect costs incurred by any and all state and local agencies while overseeing the cleanup of the above underground storage tank site; and the above Responsible Party or Parties shall make full payment of such costs within 30 days of receipt of a detailed invoice from the State Water Resources Control Board.

(549, 5147) 713 206-7500

STATE OF CALIFORNIA — GEORGE DEUKMEJIAN, *Governor*

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION

107 SOUTH BROADWAY, SUITE 4027
LOS ANGELES, CALIFORNIA 90012—4596
(213) 620-4460

Rod Nelson
206-7548
COPY

July 15, 1988

Mr. Don Slack, President
VenVirotek
1536 Eastman Ave., Suite 6-A
Ventura, CA 93003

DISCHARGE REQUIREMENTS-BAILARD FACILITY
(File No. 84-33)(CI 6689)

Reference is made to our letter dated June 15, 1988, which transmitted a copy of tentative waste discharge requirements adding additional waste streams to the treatment process at your Bailard facility.

In accordance with administrative procedures, this Board, at a public meeting held on June 27, 1988, reviewed the tentative Order and comments submitted, considered all factors in the case, and adopted Order No. 88-066 (copy attached) relative to this discharge.

The first monitoring report under the Program attached to the Order is due November 1, 1988; however, any reports previously required under your earlier Program (for the period ending June 30, 1988) must still be submitted.

If you have any questions regarding this matter, please call me at (213) 620-5320.

Raymond K Delacourt

RAYMOND K. DELACOURT
Senior Water Resource
Control Engineer

cc: See attached mailing list

Enclosure

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. 88-066

WASTE DISCHARGE REQUIREMENTS
for
VenVirotek

(File No. 84-33)

The California Regional Water Quality Control Board, Los Angeles Region, finds:

1. VenVirotek (the "operator") currently utilizes the Chemfix process at the Bailard Landfill site for the treatment of nonhazardous oil field drilling muds under waste discharge requirements contained in Order No. 87-16, adopted by this Board on January 26, 1987.

2. The Chemfix process is a solidification and chemical fixation process patented by Chemfix Technologies, Inc. (CTI). VenVirotek has a license for this process in which sodium silicate and cement are mixed with the water-based, nonhazardous oilfield drilling mud wastes. VenVirotek contends that reactions of the water soluble silicates in the reagents with the mud transform the drilling mud into a soil-like, solid, nonhazardous material with properties similar to silty clay and suitable for use as daily cover. The product produced in this process is currently used for daily cover at Coastal Landfill.

3. VenVirotek, a California corporation and a wholly owned subsidiary of Chemfix Technologies, Inc., has filed a report of material change to add the following nonhazardous waste streams to the treatment process: Wastewater (oilfield production brine water), Water-based drill cuttings, Oil-based drilling muds, Oil-based drill cuttings, Tank and pit bottom sediments, SO_2 scrubber waste, Contaminated soil, and Municipal sewage sludge.

4. Section 17225.16 of Title 14 of the Code of California Regulations (CCR) defines "cover material" as soil or other material suitable for use in covering compacted solid wastes in a disposal site.

5. Water drilling mud and fluids are listed in the State Department of Health Services' hazardous waste regulations (Section 66680, Chapter 30, Title 22, CCR) as hazardous wastes if the muds or fluids contain hazardous materials. However, the

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Department of Health Services developed a list of "Drilling Mud Additives uses in Nonhazardous drilling Muds and Fluids". Waste drilling muds and fluids containing only the listed additives may be managed as nonhazardous wastes, provided they do not contain toxic substances from other sources.

6. The Ventura County Planning Division conducted an Initial Study (environmental evaluation) to determine if this project could significantly affect the environment. The Initial Study determined that the project could have a significant effect on the environment; however, the potentially significant impacts can be satisfactorily mitigated through adoption of identified mitigation measures. Therefore, the Ventura County Planning Division prepared a Mitigated Negative Declaration pursuant to the provisions of the California Environmental Quality Act (CEQA) (Section 15073) which was certified by the County January 22, 1987. In a letter dated November 10, 1987, the Division found that the addition of nonhazardous water-based drilling muds and cuttings, mineral-oil-based drilling muds and cuttings, oilfield wastewater (from tanks and water treatment), and oilfield tank bottom sediments, to the processing waste stream would be Categorically Exempt from CEQA under Section 15301, which exempts a "minor alteration of existing public or private structures . . . involving negligible or no expansion of use beyond that previously existing."

7. VenVirotek processes up to 100,000 gallons per day of nonhazardous wastes, but has the potential for expansion to 200,000 gallons per day. The Chemfix material that is produced is dried and stockpiled for use as daily cover material at the Ventura Coastal Landfill. VenVirotek also proposes to use the Chemfix material as a daily cover material at the Bailard Landfill when it is re-opened in fall 1988. (Bailard Landfill has been inactive since October 13, 1975.)

8. On May 23, 1988, this Board adopted Order No. 88-54 which prescribes waste discharge requirements for the disposal of nonhazardous and inert solid wastes at Bailard Landfill, a Class III Landfill. The landowners of Bailard landfill are W. R. Bailard, et al., but the landfill is operated by Ventura Regional Sanitation District.

9. The Bailard Landfill is located west of Victoria Avenue along the south bank of the Santa Clara River in Ventura County (just outside the city of Oxnard). VenVirotek operates the Chemfix process on a six-acre site at the Bailard Landfill.

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10. The site configuration consists of three components:

a. A truck unloading area and drilling mud storage containment,

b. CTI's processing unit and associated equipment, and the

c. Chemfix material containment area.

11. The Chemfix process unit is a self-contained system in a forty-foot trailer consisting of liquid and dry reagent storage tanks, reagent metering systems, and a mechanical reagent mixing system.

12. The product Chemfix material is pumped into four bermed, unlined solidification cells, each with a 120,000 cubic-foot capacity. VenVirotek has installed soil moisture sensing devices under each solidification cell to detect any moisture that may leak to the ground below.

13. After several days "drying" time in the solidification cells, the Chemfix material is removed and stockpiled in a bermed area adjacent to the cells for use as daily cover material.

14. The Bailard Landfill lies within the Oxnard Plain Hydrologic Subunit of the Santa Clara-Calleguas Hydrologic Unit of Southern California. The uppermost "semi-perched" aquifer is known to be of poor water quality due to the leaching of poor quality water from agricultural practices in the Forebay area, and from leachate in the vicinity of the landfill (not necessarily leachate from only Bailard, but also other nearby landfills). The underlying Oxnard aquifer, an important water-bearing unit, is used primarily for industrial, agricultural, and domestic supply. Its use is restricted in the vicinity of the landfill to irrigation purposes.

15. The Board adopted a revised Water Quality Control Plan for the Santa Clara River Basin on March 27, 1978. The Plan contains water quality objectives for surface and groundwaters of the Oxnard Hydrologic Subarea. The requirements in this Order as they are met will be in conformance with the goals of the Water Quality Control Plan.

The Board has notified VenVirotek and interested agencies and persons of its intent to prescribe waste discharge requirements for the Chemfix project at the Bailard Landfill.

The Board in a public meeting heard and considered all comments pertaining to the project.

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IT IS HEREBY ORDERED that VenVirotek shall comply with the following:

A. Acceptable Materials

1. Wastes acceptable for treatment at this facility shall be limited to only nonhazardous wastes as defined by the Department of Health Services. Hazardous waste as defined in Section 25117 of the Health and Safety Code and/or in Title 22, Chapter 30, CCR, shall not be accepted for treatment (or stored) at this facility.

2. The following waste streams are acceptable for treatment at this facility:

a. Water-based drilling muds and cuttings,
b. Mineral-oil-based drilling muds and cuttings,
c. Oilfield wastewater (from tanks and water treatment), and
d. Oilfield tank bottom sediments.

3. The following waste streams may be acceptable for treatment at this facility upon approval of the Executive Officer. In addition, the Executive Officer may allow treatment of one or more of these waste streams, but may limit the use of produced Chemfix product. (He may direct that it not be used for cover and be disposed of for example.)

a. Oil-based drilling muds and cuttings other than mineral-oil-based muds and cuttings,
b. SO_2 scrubber waste,
c. Contaminated soil, and
d. Municipal sewage sludge.

4. Waste streams not specifically named above shall not be accepted for treatment at this facility.

B. Chemfix Use Requirements

1. If the Chemfix material is used, the Chemfix material shall only be used as daily cover at Coastal Landfill (unless approved for use at Bailard as provided for below.)

2. Chemfix material used as daily cover shall not have a moisture content greater than 50%.

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3. Chemfix material shall not be used as daily cover at the Bailard Landfill without prior approval of the Executive Officer.

4. Chemfix material discharged into the solidification cells or stockpiled shall not release liquids containing pollutants to the ground below.

5. Chemfix material used as cover material shall not release liquids into the Coastal or Bailard landfills.

6. Chemfix material which is nonhazardous, and has a moisture content less than 50%, may be disposed of in any Class III landfill in this Region.

7. Chemfix material which is nonhazardous, but has a moisture content between 50% and 80%, may only be disposed of in a Class III landfill in this Region having a leachate collection and removal system and at a minimum solids-to-liquid ratio of 5:1 by weight (assuming the landfill site doesn't have a different site-specific solids-to-liquid ratio requirement).

C. General Requirements

1. Wastes treated or handled at the site shall not be permitted to escape to the ground where they could threaten or pollute groundwater, or to enter drainage ditches or watercourses, where they could threaten or pollute surface water. ("Untreated" wastes shall be defined to include partially treated wastes here and herein below.)

2. The treatment site shall be engineered with appropriate linings and/or dikes to insure that there will be no loss from the site from the untreated waste holding tanks, unloading areas, process unit areas, solidification cells, and stockpile areas due to leakage, flooding, liquefaction, or seismic activity.

3. All untreated waste, Chemfix reagent and product containment areas shall be provided with adequate freeboard to insure against overtopping.

4. There shall be no damage to the community by odors or unsightliness resulting from unreasonable practices in the treatment of wastes at this site, such that it would create a nuisance as defined in Section 13050(m) of the California Water Code (CWC).

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5. Neither treatment nor handling of the untreated waste streams, Chemfix material, or reagents shall create pollution (as defined in Section 13050(l) CWC) or nuisance (as defined in Section 13050(m) CWC).

6. The operators shall remove and relocate untreated waste streams or Chemfix materials which are in violation of these requirements.

7. Any untreated waste or Chemfix material removed from the site for disposal shall be disposed of only at a legal disposal site. Any untreated waste or Chemfix material transported from the site shall not be permitted to leak or otherwise escape to the ground or to a watercourse en route to the disposal site. For the purposes of these requirements, a legal site is one for which requirements have been adopted by a Regional Water Quality Control Board and which is in full compliance therewith.

8. Dust emissions from the dry reagent system or the Chemfix material shall not cause a nuisance.

9. Storm runoff, except rain falling directly on the facility, shall be diverted around the site.

10. The Chemfix process site shall be protected from any washout or erosion of wastes or covering materials, and from inundation which could occur as a result of flood having a predicted frequency of once in 100 years or less.

11. Adequate measures shall be taken to prevent a condition of nuisance from fly breeding, rodent harborage, and other vectors.

D. General Provisions

1. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the operator from his liabilities under federal, state, or local laws.

2. These requirements do not exempt the operator of the Chemfix process facilities from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this treatment facility and they leave unaffected any further restraint on the facility or Chemfix material which may be contained in other statutes or required by other agencies.

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3. The operator must comply with all of the terms, requirements and conditions of this order. Any violation of this order constitutes a violation of the California Water Code, and is grounds for enforcement action, order termination, order revocation, or any combination thereof.

4. Any use of the Chemfix material other than specifically described in this order is prohibited, and constitutes a violation of this order.

5. The Regional Board shall be notified of any incident resulting from site operations that may endanger health or the environment by telephone within 24 hours and in writing within seven days. The written notification shall fully describe the incident including what occurred, when it occurred, the duration of the incident, when correction occurred (or when correction will occur if it is a continuing incident), and the steps taken or planned to reduce, eliminate, and/or prevent recurrence. All instances of noncompliance with this Order shall also be reported to the Board in the same manner as stated above for endangerment incidents.

6. In the event the operator is unable to comply with any of the conditions of this order due to:

a. breakdown of processing equipment;
b. accidents caused by human error of negligence; or
c. other causes such as acts of nature;

The operator shall notify the Executive Officer by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written notification shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to correct the problem and the dates thereof, and what steps are being taken to prevent the problem from recurring.

7. After notice and opportunity for a hearing, this order may be terminated or modified for cause, including, but not limited to:

a. Violation of any term or condition contained in this order;

b. Obtaining this order by misrepresentation, or failure to disclose all relevant facts; and/or

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c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

8. This order may be modified, revoked and reissued, or terminated for cause. The filling of request by the operators for a modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this order.

9. This order does not convey any property rights of any sort, or any exclusive privilege.

10. The operator shall furnish, within a reasonable time, any information the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this order. The operator shall also furnish to the Regional Board, upon request, copies of records required to be kept by this order.

11. All applications, reports, or information submitted to the Regional Board shall be signed:

a. In the case of cooperations, by a principle executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;

b. In the case of a partnership, by a general partner; or

c. In the case of a sole proprietorship, by the proprietor.

12. A copy of these waste discharge requirements shall be maintained at the treatment facility so as to be available at all times to operating personnel.

13. The operator shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.

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14. The operator shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the operator to achieve compliance with this order. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the operators only when necessary to achieve compliance with the conditions of this order.

15. The operator shall give advance notice to the Regional Board as soon as possible of any planned physical alterations or additions to the treatment facilities or of any planned changes in the facilities.

16. The operator shall file with the Board a report of material change at least 120 days before making any material change or proposed change in the types, character, location or volume of wastes or materials treated or Chemfix material disposed or used.

17. In the event of any change in the name, ownership, or control of these treatment facilities, the operator shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this order by letter, copy of which shall be forwarded to the Board.

18. Regional Board staff shall be allowed entry to the treatment facility, or where records are kept regarding the facility, at any reasonable time. Staff shall be permitted to inspect any area of the facility and any monitoring equipment used to demonstrate compliance with this Order. Staff shall be permitted to copy any records, photograph any area, obtain samples, and/or monitor to assure compliance with this Order, or as authorized by applicable laws or regulations.

19. The operator shall furnish, under penalty of perjury, technical or monitoring program reports in accordance with Section 13267 CWC. Failure or refusal to furnish these reports, or falsifying any information provided therein makes the discharger guilty of a misdemeanor and subject to the penalties stated in Section 13268 CWC. Monitoring reports shall be submitted in accordance with the specifications contained in a Monitoring and Reporting Program prepared by the Executive Officer. This Monitoring and Reporting Program is subject to periodic revisions as warranted.

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20. The operator shall file a technical report with this Board not later than 30 days after receipt of this order, relative to the operation and maintenance program for the treatment facilities. The information to be contained in that report shall include, as minimum, the following:

a. The name and address of the person or company responsible for operation and maintenance of the facility;

b. Type of maintenance (preventive or corrective); and

c. Frequency of maintenance, if preventive.

If an operation and maintenance report has been submitted to the Board previously and there have been no changes, a second report need not be provided (although a letter to that affect shall be submitted in lieu of the report).

21. The operator shall file with the Board within 90 days after the effective date of this order, a technical report on their preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report shall:

a. Identify the possible sources of accidental discharges, untreated waste bypasses, and contaminated drainages. The loading and storage areas, potential power failures, and the failure of processing equipment, tanks and pipes should be considered;

b. Evaluate the effectiveness of the present facilities and procedures and state when they became operational;

c. Describe the facilities and procedures needed for effective preventive and contingency plans; and

d. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

Board staff, after review of this technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions may be incorporated as part of this order, upon notice to the discharger, and positive consideration by the Board.

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If a preventive and contingency plans report has been approved by the Executive Officer previously and there have been no changes, a second report need not be filed, but a letter to that affect shall be filed in lieu of the report.

22. The operator shall have an operating plan for handling any hazardous waste that may be received or identified at the treatment facility. The plan shall be submitted to the Executive Officer for his approval within 30 days of adoption of this order.

If a hazardous waste operating plan has been approved by the Board previously and there have been no changes, a second plan need not be filed, but a letter to that affect shall be submitted in lieu of the plan.

23. The operator shall provide this Regional Board with a list of all chemical compounds and materials used at the Chemfix process site. This list shall include both trade and chemical names and quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.

If a list has been submitted previously and there have been no changes, a second list need not be submitted, but a letter stating no changes have occurred shall be submitted within 30 days of adoption of this order.

24. This Board's Order No. 87-16, adopted January 26, 1987, is hereby rescinded.

I, Robert P. Ghirelli, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angles Region on June 27, 1988.

Richard C. Stein

for ROBERT P. GHIRELLI, D.Env.
Executive Officer

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
MONITORING AND REPORTING PROGRAM NO. 6689

FOR

VenVirotek
(File No. 84-33)

I. Reporting

A. The discharger shall implement this Monitoring and Reporting Program beginning July 1, 1988. Monitoring reports shall be submitted to the Board quarterly, by the first day of the second month following the close of each calendar quarter. The first monitoring report under this program is due November 1, 1988.

B. Each monitoring report must affirm in writing that all analyses were conducted at a laboratory certified for such analyses in accordance with Section 13176 of the Water Code and in accordance with current EPA guideline procedures, 40 CFR Part 261, or as specified in this Monitoring Program.

C. For any analyses performed for which no procedures are specified in the EPA guidelines or in this Monitoring Program, the constituent or parameter analyzed and the method or procedure used must be specified in the report.

D. The discharger may submit additional data to the Board not required by this Program in order to simplify reporting to other regulatory agencies.

E. The following items in the attached "General Monitoring and Reporting Provisions" shall be applicable to this program: Items 1,4,5,7,8(with the exception that the report shall be due March 1st of each year),10,11,12,14, and 15.

F. Quarterly monitoring shall be performed during the months of February, May, August, and November.

G. Where the units for a parameter are listed as ug/l (ppb), suitable analytical techniques shall be used to achieve this precision. All minimum limits of detection shall be below the current Drinking Water Action Levels recommended by the Department of Health Services, Sanitary Engineering Branch, or the minimum limit of detection specified in EPA Methods, or Appendix A, 40 CFR 136, if the Action Level is not achievable.

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H. Analytical data reported as "less than" shall be reported as less than a numeric value or below the limit of detection for that particular analytical method (also the limit of detection shall be noted).

I. All analytical samples obtained for this Program shall be grab samples.

J. If the discharger performs analyses for any parameter more frequently than required by this Program using approved analytical methods, the results of those analyses shall be included in the monitoring report.

K. In the event that hazardous, designated or other unacceptable wastes are detected at the site, the type, source, quantity and disposition of those wastes shall also be reported. If no unacceptable wastes are detected during the monitoring period, the report shall so state.

L. VenVirotek shall retain records of all monitoring information, including all calibration and maintenance records regarding monitoring instrumentation, and copies of all data submitted to regulatory agencies for a period of at least five years. This period may be extended by request of the Executive Officer at any time and shall be extended during the course of any unresolved litigation regarding all or any part of the site.

M. Records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurement;

b. The individual(s) who performed the sampling or measurement;

c. The date(s) analyses were performed on the samples;

d. The individual(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of the analyses or measurements.

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II. Treatment Process Reporting

All quarterly reports submitted to the Board shall contain the following information:

1. A tabular list of the sources, types and volumes of all wastes to be treated received daily. (Each volume of waste must be identified according to source and type.)

2. VenVirotek shall certify either by the procedures contained in Section 66305, Title 22 CCR, or based on acceptable analytical data, that each load of waste to be treated is nonhazardous.

3. A tabular list of the monthly totals of all the types and volumes of each waste received which corresponds to the Acceptable Materials lists in the waste discharge requirements.

4. A tabular list of the volume of Chemfix material produced daily.

5. A tabular list of dates, volumes, and locations of Chemfix material that was used as daily cover; these locations shall be specifically indicated on a map and submitted to the Board.

6. A tabular list of dates, volumes, and locations of the ultimate disposal of any untreated or partially treated wastes that were not processed, or Chemfix material that was not used as daily cover. If all the Chemfix material produced during the monitoring period was used, a statement to that affect shall be submitted with each monitoring report.

7. If the soil moisture sensing devices detect any leakage from the Chemfix material to the ground below the solidification cells, the operator shall report the estimated volume, location, and dates of leakage. If no leakage was detected, the operator shall so state this in each report.

8. A tabular list of the names and addresses of the waste generators and haulers during the quarter.

9. All analytical results and dates the samples were taken and analyzed during the quarter.

10. A certification that all wastes received, processed, handled, or disposed of were in compliance with the Board's requirements.

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III. Sampling and Analyses

Representative samples shall be obtained and analyzed as follows:

A. Incoming Wastes

Monthly analyses of the incoming wastes shall be performed for the following parameters. The sample shall be representative of the waste mixture to be treated. If any waste stream(s) is routinely treated uncombined with all the other waste streams, it shall be sampled and analyzed separately.

Parameters	Units
pH	pH units
Electrical conductivity	umhos/cm
Oil and grease (EPA Method 418.1)	mg/l
Total petroleum hydrocarbons (EPA Method 8020 or 8015 modified)	ug/l
Total organic carbon	mg/l
Moisture content	percent

B. Chemfix Material (in Solidification Cells)

Monthly analyses of the Chemfix product material shall be performed for the following parameters:

Parameters	Units
Permeability [1]	cm/sec
Cationic exchange capacity	meq/100 mg
Unconfined compressive strength	PSF
Moisture content	percent

C. Chemfix Material (in stockpiles)

A representative sample of each stockpile of Chemfix material shall be obtained and analyzed immediately prior to its use as daily cover for moisture content:

Parameter	Units
Moisture content	percent

[1] Since the sample preparation affects the permeability test results, the specifics of sample preparation shall also be reported. The permeability shall be relative to water.

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D. Additional Hazardous Waste Sampling and Analyses

In addition to the above, once each calendar quarter, samples of the untreated waste(s) and treated Chemfixed material of the same waste(s), shall be tested in accordance with Section 66700, Title 22 CCR (WET) to determine the Soluble Threshold Limit Concentration (STLC) and the Total Threshold Limit Concentration (TTLC) values for the following parameters:

Antimony and/or its compounds
Arsenic and/or its compounds
Asbestos
Barium and/or its compounds
(excluding barite)
Beryllium and/or its compounds
Cadmium and/or its compounds
Chromium (VI) compounds
Chromium (III) and/or its compounds
Cobalt and/or its compounds
Copper and/or its compounds
Fluoride salts
Lead and/or its compounds
Mercury and/or its compounds
Molybdenum and/or its compounds
Nickel and/or its compounds
Selenium and/or its compounds
Silver and/or its compounds
Thallium and/or its compounds
Vanadium and/or its compounds
Zinc and/or its compounds

Also, these same samples shall be analyzed for volatiles, semi-volatiles, pesticides and PCB's using EPA Methods 8240, 8270, and 8080. (Other acceptable Methods such as 8010 and 8020, etc., may by substituted for 8240 upon written request and approval.) All peaks greater than 10% of the internal standard shall be identified and quantified for gas chromatography analyses. The analyses shall be compared against both the TTLC and STLC limits in Title 22 as applicable. The analytical precision of each analysis must be such that this comparison can be made.

Ordered by : Richard C. Hall
for Executive Officer

Date: June 27, 1988

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

GENERAL MONITORING AND REPORTING PROVISIONS

1. All sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.

2. All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health.

3. Effluent samples shall be taken downstream of any addition to the treatment works and prior to mixing with the receiving waters.

4. The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall ensure that both activities will be conducted.

5. A grab sample is defined as an individual sample collected in fewer than 15 minutes.

6. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period. The volume of each individual sample is proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

7. For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

8. By January 30 of each year, the discharger shall submit an annual report to the Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the waste discharge requirements.

9. The discharger shall maintain all sampling and analytical results, including strip charts; date, exact place, and time of sampling; date analyses were performed; analyst's name, analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge of when requested by the Board.

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10. In reporting the monitoring data, the discharger shall arrange the data in tabular form so that the data, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with waste discharge requirements and, where applicable, shall include results of receiving water observations.

11. Monitoring reports shall be signed by:

    a. In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;

    b. In the case of a partnership, by a general partner;

    c. In the case of a sole proprietorship, by the proprietor;

    d. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

12. Each report shall contain the following completed declaration:

    " I declare under penalty of perjury that the foregoing is true correct.

    Executed on the _____ day of _____ at _____.

    _____(Signature)

    _____(Title)"

13. The discharger shall mail a copy of each monitoring report to the following:

    California Regional Water Quality
    Control Board - Los Angeles Region
    107 South Broadway, Room 4027
    Los Angeles, CA 90012

    ATTN: Executive Officer

14. If no flow occurred (or no waste was deposited) during the reporting period, the report shall so state.

15. These records and reports are public documents and shall be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region. Records or reports which might disclose trade secrets, etc., may be excluded from this provision as provided in Section 13267 (b) of the Porter-Cologne Water Quality Control Act, if requested.

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JUL 16 1991
Santa Barbara County
Environmental Health Services

Ana Nathe
(916) 369-8971

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. 88-066

WASTE DISCHARGE REQUIREMENTS
for
VenVirotek

(File No. 84-33)

The California Regional Water Quality Control Board, Los Angeles Region, finds:

1. VenVirotek (the "operator") currently utilizes the Chemfix process at the Bailard Landfill site for the treatment of nonhazardous oil field drilling muds under waste discharge requirements contained in Order No. 87-16, adopted by this Board on January 26, 1987.

2. The Chemfix process is a solidification and chemical fixation process patented by Chemfix Technologies, Inc. (CTI). VenVirotek has a license for this process in which sodium silicate and cement are mixed with the water-based, nonhazardous oilfield drilling mud wastes. VenVirotek contends that reactions of the water soluble silicates in the reagents with the mud transform the drilling mud into a soil-like, solid, nonhazardous material with properties similar to silty clay and suitable for use as daily cover. The product produced in this process is currently used for daily cover at Coastal Landfill.

3. VenVirotek, a California corporation and a wholly owned subsidiary of Chemfix Technologies, Inc., has filed a report of material change to add the following nonhazardous waste streams to the treatment process: Wastewater (oilfield production brine water), Water-based drill cuttings, Oil-based drilling muds, Oil-based drill cuttings, Tank and pit bottom sediments, SO_2 scrubber waste, Contaminated soil, and Municipal sewage sludge.

4. Section 17225.16 of Title 14 of the Code of California Regulations (CCR) defines "cover material" as soil or other material suitable for use in covering compacted solid wastes in a disposal site.

5. Water drilling mud and fluids are listed in the State Department of Health Services' hazardous waste regulations (Section 66680, Chapter 30, Title 22, CCR) as hazardous wastes if the muds or fluids contain hazardous materials. However, the

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Department of Health Services developed a list of "Drilling Mud Additives uses in Nonhazardous drilling Muds and Fluids". Waste drilling muds and fluids containing only the listed additives may be managed as nonhazardous wastes, provided they do not contain toxic substances from other sources.

6. The Ventura County Planning Division conducted an Initial Study (environmental evaluation) to determine if this project could significantly affect the environment. The Initial Study determined that the project could have a significant effect on the environment; however, the potentially significant impacts can be satisfactorily mitigated through adoption of identified mitigation measures. Therefore, the Ventura County Planning Division prepared a Mitigated Negative Declaration pursuant to the provisions of the California Environmental Quality Act (CEQA) (Section 15073) which was certified by the County January 22, 1987. In a letter dated November 10, 1987, the Division found that the addition of nonhazardous water-based drilling muds and cuttings, mineral-oil-based drilling muds and cuttings, oilfield wastewater (from tanks and water treatment), and oilfield tank bottom sediments, to the processing waste stream would be Categorically Exempt from CEQA under Section 15301, which exempts a "minor alteration of existing public or private structures . . . involving negligible or no expansion of use beyond that previously existing."

7. VenVirotek processes up to 100,000 gallons per day of nonhazardous wastes, but has the potential for expansion to 200,000 gallons per day. The Chemfix material that is produced is dried and stockpiled for use as daily cover material at the Ventura Coastal Landfill. VenVirotek also proposes to use the Chemfix material as a daily cover material at the Bailard Landfill when it is re-opened in fall 1988. (Bailard Landfill has been inactive since October 13, 1975.)

8. On May 23, 1988, this Board adopted Order No. 88-54 which prescribes waste discharge requirements for the disposal of nonhazardous and inert solid wastes at Bailard Landfill, a Class III Landfill. The landowners of Bailard landfill are W. R. Bailard, et al., but the landfill is operated by Ventura Regional Sanitation District.

9. The Bailard Landfill is located west of Victoria Avenue along the south bank of the Santa Clara River in Ventura County (just outside the city of Oxnard). VenVirotek operates the Chemfix process on a six-acre site at the Bailard Landfill.

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IT IS HEREBY ORDERED that VenVirotek shall comply with the following:

A. Acceptable Materials

1. Wastes acceptable for treatment at this facility shall be limited to only nonhazardous wastes as defined by the Department of Health Services. Hazardous waste as defined in Section 25117 of the Health and Safety Code and/or in Title 22, Chapter 30, CCR, shall not be accepted for treatment (or stored) at this facility.

2. The following waste streams are acceptable for treatment at this facility:

a. Water-based drilling muds and cuttings,
b. Mineral-oil-based drilling muds and cuttings,
c. Oilfield wastewater (from tanks and water treatment), and
d. Oilfield tank bottom sediments.

3. The following waste streams may be acceptable for treatment at this facility upon approval of the Executive Officer. In addition, the Executive Officer may allow treatment of one or more of these waste streams, but may limit the use of produced Chemfix product. (He may direct that it not be used for cover and be disposed of for example.)

a. Oil-based drilling muds and cuttings other than mineral-oil-based muds and cuttings,
b. SO_2 scrubber waste,
c. Contaminated soil, and
d. Municipal sewage sludge.

4. Waste streams not specifically named above shall not be accepted for treatment at this facility.

B. Chemfix Use Requirements

1. If the Chemfix material is used, the Chemfix material shall only be used as daily cover at Coastal Landfill (unless approved for use at Bailard as provided for below.)

2. Chemfix material used as daily cover shall not have a moisture content greater than 50%.

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10. The site configuration consists of three components:

a. A truck unloading area and drilling mud storage containment,

b. CTI's processing unit and associated equipment, and the

c. Chemfix material containment area.

11. The Chemfix process unit is a self-contained system in a forty-foot trailer consisting of liquid and dry reagent storage tanks, reagent metering systems, and a mechanical reagent mixing system.

12. The product Chemfix material is pumped into four bermed, unlined solidification cells, each with a 120,000 cubic-foot capacity. VenVirotek has installed soil moisture sensing devices under each solidification cell to detect any moisture that may leak to the ground below.

13. After several days "drying" time in the solidification cells, the Chemfix material is removed and stockpiled in a bermed area adjacent to the cells for use as daily cover material.

14. The Bailard Landfill lies within the Oxnard Plain Hydrologic Subunit of the Santa Clara-Calleguas Hydrologic Unit of Southern California. The uppermost "semi-perched" aquifer is known to be of poor water quality due to the leaching of poor quality water from agricultural practices in the Forebay area, and from leachate in the vicinity of the landfill (not necessarily leachate from only Bailard, but also other nearby landfills). The underlying Oxnard aquifer, an important water-bearing unit, is used primarily for industrial, agricultural, and domestic supply. Its use is restricted in the vicinity of the landfill to irrigation purposes.

15. The Board adopted a revised Water Quality Control Plan for the Santa Clara River Basin on March 27, 1978. The Plan contains water quality objectives for surface and groundwaters of the Oxnard Hydrologic Subarea. The requirements in this Order as they are met will be in conformance with the goals of the Water Quality Control Plan.

The Board has notified VenVirotek and interested agencies and persons of its intent to prescribe waste discharge requirements for the Chemfix project at the Bailard Landfill.

The Board in a public meeting heard and considered all comments pertaining to the project.

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3. Chemfix material shall not be used as daily cover at the Bailard Landfill without prior approval of the Executive Officer.

4. Chemfix material discharged into the solidification cells or stockpiled shall not release liquids containing pollutants to the ground below.

5. Chemfix material used as cover material shall not release liquids into the Coastal or Bailard landfills.

6. Chemfix material which is nonhazardous, and has a moisture content less than 50%, may be disposed of in any Class III landfill in this Region.

7. Chemfix material which is nonhazardous, but has a moisture content between 50% and 80%, may only be disposed of in a Class III landfill in this Region having a leachate collection and removal system and at a minimum solids-to-liquid ratio of 5:1 by weight (assuming the landfill site doesn't have a different site-specific solids-to-liquid ratio requirement).

C. General Requirements

1. Wastes treated or handled at the site shall not be permitted to escape to the ground where they could threaten or pollute groundwater, or to enter drainage ditches or watercourses, where they could threaten or pollute surface water. ("Untreated" wastes shall be defined to include partially treated wastes here and herein below.)

2. The treatment site shall be engineered with appropriate linings and/or dikes to insure that there will be no loss from the site from the untreated waste holding tanks, unloading areas, process unit areas, solidification cells, and stockpile areas due to leakage, flooding, liquefaction, or seismic activity.

3. All untreated waste, Chemfix reagent and product containment areas shall be provided with adequate freeboard to insure against overtopping.

4. There shall be no damage to the community by odors or unsightliness resulting from unreasonable practices in the treatment of wastes at this site, such that it would create a nuisance as defined in Section 13050(m) of the California Water Code (CWC).

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5. Neither treatment nor handling of the untreated waste streams, Chemfix material, or reagents shall create pollution (as defined in Section 13050(l) CWC) or nuisance (as defined in Section 13050(m) CWC).

6. The operators shall remove and relocate untreated waste streams or Chemfix materials which are in violation of these requirements.

7. Any untreated waste or Chemfix material removed from the site for disposal shall be disposed of only at a legal disposal site. Any untreated waste or Chemfix material transported from the site shall not be permitted to leak or otherwise escape to the ground or to a watercourse en route to the disposal site. For the purposes of these requirements, a legal site is one for which requirements have been adopted by a Regional Water Quality Control Board and which is in full compliance therewith.

8. Dust emissions from the dry reagent system or the Chemfix material shall not cause a nuisance.

9. Storm runoff, except rain falling directly on the facility, shall be diverted around the site.

10. The Chemfix process site shall be protected from any washout or erosion of wastes or covering materials, and from inundation which could occur as a result of flood having a predicted frequency of once in 100 years or less.

11. Adequate measures shall be taken to prevent a condition of nuisance from fly breeding, rodent harborage, and other vectors.

D. General Provisions

1. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the operator from his liabilities under federal, state, or local laws.

2. These requirements do not exempt the operator of the Chemfix process facilities from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this treatment facility and they leave unaffected any further restraint on the facility or Chemfix material which may be contained in other statutes or required by other agencies.

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3. The operator must comply with all of the terms, requirements and conditions of this order. Any violation of this order constitutes a violation of the California Water Code, and is grounds for enforcement action, order termination, order revocation, or any combination thereof.

4. Any use of the Chemfix material other than specifically described in this order is prohibited, and constitutes a violation of this order.

5. The Regional Board shall be notified of any incident resulting from site operations that may endanger health or the environment by telephone within 24 hours and in writing within seven days. The written notification shall fully describe the incident including what occurred, when it occurred, the duration of the incident, when correction occurred (or when correction will occur if it is a continuing incident), and the steps taken or planned to reduce, eliminate, and/or prevent recurrence. All instances of noncompliance with this Order shall also be reported to the Board in the same manner as stated above for endangerment incidents.

6. In the event the operator is unable to comply with any of the conditions of this order due to:

a. breakdown of processing equipment;
b. accidents caused by human error of negligence; or
c. other causes such as acts of nature;

The operator shall notify the Executive Officer by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written notification shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to correct the problem and the dates thereof, and what steps are being taken to prevent the problem from recurring.

7. After notice and opportunity for a hearing, this order may be terminated or modified for cause, including, but not limited to:

a. Violation of any term or condition contained in this order;

b. Obtaining this order by misrepresentation, or failure to disclose all relevant facts; and/or

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c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

8. This order may be modified, revoked and reissued, or terminated for cause. The filling of request by the operators for a modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this order.

9. This order does not convey any property rights of any sort, or any exclusive privilege.

10. The operator shall furnish, within a reasonable time, any information the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this order. The operator shall also furnish to the Regional Board, upon request, copies of records required to be kept by this order.

11. All applications, reports, or information submitted to the Regional Board shall be signed:

a. In the case of cooperations, by a principle executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;

b. In the case of a partnership, by a general partner; or

c. In the case of a sole proprietorship, by the proprietor.

12. A copy of these waste discharge requirements shall be maintained at the treatment facility so as to be available at all times to operating personnel.

13. The operator shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.

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14. The operator shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the operator to achieve compliance with this order. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the operators only when necessary to achieve compliance with the conditions of this order.

15. The operator shall give advance notice to the Regional Board as soon as possible of any planned physical alterations or additions to the treatment facilities or of any planned changes in the facilities.

16. The operator shall file with the Board a report of material change at least 120 days before making any material change or proposed change in the types, character, location or volume of wastes or materials treated or Chemfix material disposed or used.

17. In the event of any change in the name, ownership, or control of these treatment facilities, the operator shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this order by letter, copy of which shall be forwarded to the Board.

18. Regional Board staff shall be allowed entry to the treatment facility, or where records are kept regarding the facility, at any reasonable time. Staff shall be permitted to inspect any area of the facility and any monitoring equipment used to demonstrate compliance with this Order. Staff shall be permitted to copy any records, photograph any area, obtain samples, and/or monitor to assure compliance with this Order, or as authorized by applicable laws or regulations.

19. The operator shall furnish, under penalty of perjury, technical or monitoring program reports in accordance with Section 13267 CWC. Failure or refusal to furnish these reports, or falsifying any information provided therein makes the discharger guilty of a misdemeanor and subject to the penalties stated in Section 13268 CWC. Monitoring reports shall be submitted in accordance with the specifications contained in a Monitoring and Reporting Program prepared by the Executive Officer. This Monitoring and Reporting Program is subject to periodic revisions as warranted.

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20. The operator shall file a technical report with this Board not later than 30 days after receipt of this order, relative to the operation and maintenance program for the treatment facilities. The information to be contained in that report shall include, as minimum, the following:

a. The name and address of the person or company responsible for operation and maintenance of the facility;

b. Type of maintenance (preventive or corrective); and

c. Frequency of maintenance, if preventive.

If an operation and maintenance report has been submitted to the Board previously and there have been no changes, a second report need not be provided (although a letter to that affect shall be submitted in lieu of the report).

21. The operator shall file with the Board within 90 days after the effective date of this order, a technical report on their preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report shall:

a. Identify the possible sources of accidental discharges, untreated waste bypasses, and contaminated drainages. The loading and storage areas, potential power failures, and the failure of processing equipment, tanks and pipes should be considered;

b. Evaluate the effectiveness of the present facilities and procedures and state when they became operational;

c. Describe the facilities and procedures needed for effective preventive and contingency plans; and

d. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

Board staff, after review of this technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions may be incorporated as part of this order, upon notice to the discharger, and positive consideration by the Board.

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If a preventive and contingency plans report has been approved by the Executive Officer previously and there have been no changes, a second report need not be filed, but a letter to that affect shall be filed in lieu of the report.

22. The operator shall have an operating plan for handling any hazardous waste that may be received or identified at the treatment facility. The plan shall be submitted to the Executive Officer for his approval within 30 days of adoption of this order.

If a hazardous waste operating plan has been approved by the Board previously and there have been no changes, a second plan need not be filed, but a letter to that affect shall be submitted in lieu of the plan.

23. The operator shall provide this Regional Board with a list of all chemical compounds and materials used at the Chemfix process site. This list shall include both trade and chemical names and quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.

If a list has been submitted previously and there have been no changes, a second list need not be submitted, but a letter stating no changes have occurred shall be submitted within 30 days of adoption of this order.

24. This Board's Order No. 87-16, adopted January 26, 1987, is hereby rescinded.

I, Robert P. Ghirelli, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angles Region on June 27, 1988.

Richard C. Tobias

for ROBERT P. GHIRELLI, D.Env.
Executive Officer

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
MONITORING AND REPORTING PROGRAM NO. 6689

FOR

VenVirotek
(File No. 84-33)

I. Reporting

A. The discharger shall implement this Monitoring and Reporting Program beginning July 1, 1988. Monitoring reports shall be submitted to the Board quarterly, by the first day of the second month following the close of each calendar quarter. The first monitoring report under this program is due November 1, 1988.

B. Each monitoring report must affirm in writing that all analyses were conducted at a laboratory certified for such analyses in accordance with Section 13176 of the Water Code and in accordance with current EPA guideline procedures, 40 CFR Part 261, or as specified in this Monitoring Program.

C. For any analyses performed for which no procedures are specified in the EPA guidelines or in this Monitoring Program, the constituent or parameter analyzed and the method or procedure used must be specified in the report.

D. The discharger may submit additional data to the Board not required by this Program in order to simplify reporting to other regulatory agencies.

E. The following items in the attached "General Monitoring and Reporting Provisions" shall be applicable to this program: Items 1,4,5,7,8(with the exception that the report shall be due March 1st of each year),10,11,12,14, and 15.

F. Quarterly monitoring shall be performed during the months of February, May, August, and November.

G. Where the units for a parameter are listed as ug/l (ppb), suitable analytical techniques shall be used to achieve this precision. All minimum limits of detection shall be below the current Drinking Water Action Levels recommended by the Department of Health Services, Sanitary Engineering Branch, or the minimum limit of detection specified in EPA Methods, or Appendix A, 40 CFR 136, if the Action Level is not achievable.

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H. Analytical data reported as "less than" shall be reported as less than a numeric value or below the limit of detection for that particular analytical method (also the limit of detection shall be noted).

I. All analytical samples obtained for this Program shall be grab samples.

J. If the discharger performs analyses for any parameter more frequently than required by this Program using approved analytical methods, the results of those analyses shall be included in the monitoring report.

K. In the event that hazardous, designated or other unacceptable wastes are detected at the site, the type, source, quantity and disposition of those wastes shall also be reported. If no unacceptable wastes are detected during the monitoring period, the report shall so state.

L. VenVirotek shall retain records of all monitoring information, including all calibration and maintenance records regarding monitoring instrumentation, and copies of all data submitted to regulatory agencies for a period of at least five years. This period may be extended by request of the Executive Officer at any time and shall be extended during the course of any unresolved litigation regarding all or any part of the site.

M. Records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurement;

b. The individual(s) who performed the sampling or measurement;

c. The date(s) analyses were performed on the samples;

d. The individual(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of the analyses or measurements.

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II. Treatment Process Reporting

All quarterly reports submitted to the Board shall contain the following information:

1. A tabular list of the sources, types and volumes of all wastes to be treated received daily. (Each volume of waste must be identified according to source and type.)

2. VenVirotek shall certify either by the procedures contained in Section 66305, Title 22 CCR, or based on acceptable analytical data, that each load of waste to be treated is nonhazardous.

3. A tabular list of the monthly totals of all the types and volumes of each waste received which corresponds to the Acceptable Materials lists in the waste discharge requirements.

4. A tabular list of the volume of Chemfix material produced daily.

5. A tabular list of dates, volumes, and locations of Chemfix material that was used as daily cover; these locations shall be specifically indicated on a map and submitted to the Board.

6. A tabular list of dates, volumes, and locations of the ultimate disposal of any untreated or partially treated wastes that were not processed, or Chemfix material that was not used as daily cover. If all the Chemfix material produced during the monitoring period was used, a statement to that affect shall be submitted with each monitoring report.

7. If the soil moisture sensing devices detect any leakage from the Chemfix material to the ground below the solidification cells, the operator shall report the estimated volume, location, and dates of leakage. If no leakage was detected, the operator shall so state this in each report.

8. A tabular list of the names and addresses of the waste generators and haulers during the quarter.

9. All analytical results and dates the samples were taken and analyzed during the quarter.

10. A certification that all wastes received, processed, handled, or disposed of were in compliance with the Board's requirements.

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III. Sampling and Analyses

Representative samples shall be obtained and analyzed as follows:

A. Incoming Wastes

Monthly analyses of the incoming wastes shall be performed for the following parameters. The sample shall be representative of the waste mixture to be treated. If any waste stream(s) is routinely treated uncombined with all the other waste streams, it shall be sampled and analyzed separately.

Parameters	Units
pH	pH units
Electrical conductivity	umhos/cm
Oil and grease (EPA Method 418.1)	mg/l
Total petroleum hydrocarbons (EPA Method 8020 or 8015 modified)	ug/l
Total organic carbon	mg/l
Moisture content	percent

B. Chemfix Material (in Solidification Cells)

Monthly analyses of the Chemfix product material shall be performed for the following parameters:

Parameters	Units
Permeability [1]	cm/sec
Cationic exchange capacity	meq/100 mg
Unconfined compressive strength	PSF
Moisture content	percent

C. Chemfix Material (in stockpiles)

A representative sample of each stockpile of Chemfix material shall be obtained and analyzed immediately prior to its use as daily cover for moisture content:

Parameter	Units
Moisture content	percent

[1] Since the sample preparation affects the permeability test results, the specifics of sample preparation shall also be reported. The permeability shall be relative to water.

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D. Additional Hazardous Waste Sampling and Analyses

In addition to the above, once each calendar quarter, samples of the untreated waste(s) and treated Chemfixed material of the same waste(s), shall be tested in accordance with Section 66700, Title 22 CCR (WET) to determine the Soluble Threshold Limit Concentration (STLC) and the Total Threshold Limit Concentration (TTLC) values for the following parameters:

Antimony and/or its compounds
Arsenic and/or its compounds
Asbestos
Barium and/or its compounds
(excluding barite)
Beryllium and/or its compounds
Cadmium and/or its compounds
Chromium (VI) compounds
Chromium (III) and/or its compounds
Cobalt and/or its compounds
Copper and/or its compounds
Fluoride salts
Lead and/or its compounds
Mercury and/or its compounds
Molybdenum and/or its compounds
Nickel and/or its compounds
Selenium and/or its compounds
Silver and/or its compounds
Thallium and/or its compounds
Vanadium and/or its compounds
Zinc and/or its compounds

Also, these same samples shall be analyzed for volatiles, semi-volatiles, pesticides and PCB's using EPA Methods 8240, 8270, and 8080. (Other acceptable Methods such as 8010 and 8020, etc., may by substituted for 8240 upon written request and approval.) All peaks greater than 10% of the internal standard shall be identified and quantified for gas chromatography analyses. The analyses shall be compared against both the TTLC and STLC limits in Title 22 as applicable. The analytical precision of each analysis must be such that this comparison can be made.

Ordered by : Richard C. Hall
for Executive Officer

Date: June 27, 1988

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

GENERAL MONITORING AND REPORTING PROVISIONS

1. All sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.

2. All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health.

3. Effluent samples shall be taken downstream of any addition to the treatment works and prior to mixing with the receiving waters.

4. The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall ensure that both activities will be conducted.

5. A grab sample is defined as an individual sample collected in fewer than 15 minutes.

6. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period. The volume of each individual sample is proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

7. For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

8. By January 30 of each year, the discharger shall submit an annual report to the Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the waste discharge requirements.

9. The discharger shall maintain all sampling and analytical results, including strip charts; date, exact place, and time of sampling; date analyses were performed; analyst's name, analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge of when requested by the Board.

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10. In reporting the monitoring data, the discharger shall arrange the data in tabular form so that the data, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with waste discharge requirements and, where applicable, shall include results of receiving water observations.

11. Monitoring reports shall be signed by:

    a. In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;

    b. In the case of a partnership, by a general partner;

    c. In the case of a sole proprietorship, by the proprietor;

    d. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

12. Each report shall contain the following completed declaration:

" I declare under penalty of perjury that the foregoing is true correct.

Executed on the _____ day of _____ at _____.

_____(Signature)

_____(Title)"

13. The discharger shall mail a copy of each monitoring report to the following:

California Regional Water Quality
Control Board - Los Angeles Region
107 South Broadway, Room 4027
Los Angeles, CA 90012

ATTN: Executive Officer

14. If no flow occurred (or no waste was deposited) during the reporting period, the report shall so state.

15. These records and reports are public documents and shall be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region. Records or reports which might disclose trade secrets, etc., may be excluded from this provision as provided in Section 13267 (b) of the Porter-Cologne Water Quality Control Act, if requested.

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CORRESPONDENCE - SECTION IV

Continuance of Correspondence,

when Section III is full.

*** Chronological Order ***

SMU / LUFT TECHNICAL REVIEW COMMITTEE DATA SHEET

S.A. Wkpln ☐ Site Assessment ☐ RAP Wkpln ☐ RAP ☐ Closure ☒ Other ☐ _____
Specialist: RICHARD EVANS Date Submitted: 5/6/92 Report Date: 4/28/92

FOLLOWING IS THE DATA REQUIRED(subject change) FOR THE COMMITTEE TO PROPERLY REVIEW THE REPORT WITHOUT SPENDING EXTENSIVE TIME REVIEWING THE COMPLETE SITE FILES. THIS DATA SHEET IS TO BE PROVIDED BY THE SPECIALIST UPON SUBMISSION OF THE REPORT TO THE COMMITTEE. INCLUDE A COPY OF ALL PERTINENT DATA NOT CONTAINED IN THIS REPORT.

Site Name: ORCHARD SERVICES/SPTC PROPERTY SMU/LUFT#: 50119
Site Address: 399 LINDEN City: CARPINTERIA

Contamination: Soil ✓ Groundwater ___ Free Product ___ Thickness: ___
Substance released: STODDARD SOLVENT Estimated amount: UNKNOWN
Release(length of time) 1 month ___ 3 mo.___ 6 mo.___ 1 yr.___ >1 yr.___
(time since release) _____

Assessment Complete? YES Date? 10/22/90
Interim Remediation? EXCAVATION of CONTAMINATED AND

SOILS

Soils type: site typical (lithology)
surface - 5 ft LOOSE ORGANIC RICH SILT
- 10 ft CLAY w/ SAND
- 11 ft GROUNDWATER
- ft _____
- ft _____

Soil Plume delineated? (Boring Number)
Lateral limits North ___ East ___ South ___ West ___
Vertical " Pit ___/___' N. ___/___'E. ___/___' S. ___/___' W. ___/___'
Estimated Volume of Contaminated Soil: ≈150 CUBIC YARDS

GROUNDWATER

Depth to Groundwater 10.5 ~~365~~ Depth to gw from bottom of contamination _____

Groundwater Plume delineated? (Monitoring Well #)
Laterally North ___ South ✓ East ✓ West ✓

Groundwater elevations: Highest 9.0' Lowest 12.0' Ave. 10.5 19 ft. confined LIKELY TO
Gradient - height extremes between wells: _____
Flow direction: SOUTH WESTERLY TOWARD OCEAN Variations: _____

TRC WILL RESPOND TO SUBMISSIONS WITHIN TWO WEEKS

Consultant's Conclusion: [redacted] Contaminated soils were [redacted] excavated and verification samples were taken that indicate that the remediation of the soils was complete. Groundwater monitoring was non-detect for all 3 monitoring wells for two consecutive quarters.

Proposed Remediation? The proposed remediation for the site was to excavate the impacted soils which was completed

Specialist's Comments & Concerns: Based on the assessment of the site and the remediation of the soils and groundwater monitoring lab analysis it appears that this site should be granted closure.

Extenuating Circumstances? Original groundwater sampling did not follow SBCLP protocal.

TRC REVIEW: This site has met the criteria of SBCLP for closure. Formal closure for the site must come from the RWQCB due to the fact that groundwater was assessed. SBCLP will not have approval for the abandonment of the 3 monitoring wells until the RWQCB has agreed to close the site.

Signature: Barbara A. Fonte, John Moll Richard Evans

Report Review - Site Investigation
And Remediation Report
349 Linden Avenue, Carpinteria
LUFT # 5011.9

5/13/92

Site Activities
1. Tank Removals (3) ~~no holes in 250 + 1,000 gallon tk~~
2. Soil Excavation ~~25 cy~~
3. Monitoring well installation (3)
4. Monitoring well abandonment/destruction

Soils - Regulated Waste (CA)

35 cubic yards
Forward Env., Stockton

[redacted]

Feb. 1990 - Tank Pull/Soil Samples
three tanks excavated (250, 100, 1,000 gallon tks)
35 cubic yards soil excavated
Soil contaminated with (6-10ft bgs):
BTEX, Lead } samples below cleanup levels
TPH (solvent and gasoline) 400 - 3800 ppm
4 samples analyzed (2 from stock pile)
CS-1
CS-2
CS-3
CS-4
Noted that contaminated soils were under bldgs + in center of yard

July 1991 - Additional Excavation and Sampling
100 cubic yards excavated
Soil Contaminated with Solvent (TPH)
~~Was~~ N. Wall @ 10ft
Sample # 11888
TPH = 3600 ppm

SE Floor @ 10ft
Sample # 11885
TPH = 7700 ppm
4 samples analyzed (2 from stock pile)
11862
11861
11860
11859
Noted clay layer at 10ft where water began entering the pit

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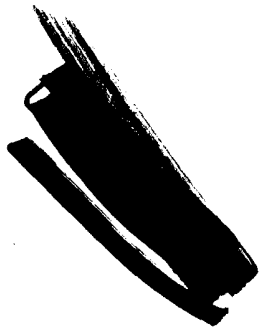
October 1990 Demolished Bldgs / Additional Sampling

Prior to excavation
Excavation of contaminated soils Oct 5, 1990
Trenching activities
Visable soil contamination
4 ft layer
between 6 & 10 ft bgs
Clay layer at 10 ft.



Final excavation size
56' X 64' X 10'

100 gallon tank discovered
excavated
no filler pipes or lines (must have been removed)

460 cys manifested to McKittrick LF

8 verification samples collected (Fig 2) (Table 3)
10ft bgs

Subsurface conditions

Silty Sands, Sandy clays, gravelly Sands
Separated by varied thickness of clay.

Gravel thickness is ≈ 1 to 5 ft

Soils are moist. However, it appears that the groundwater level is approximately 11.5 ft. bgs. Transitional zone
Confined - encountered 19 ft bgs
Rose to 9 - 10.5 ft bgs
Major contamination between 6 - 12 ft bgs

No sample collected beneath former 550 gallon capacity tank or 1000 gall tank

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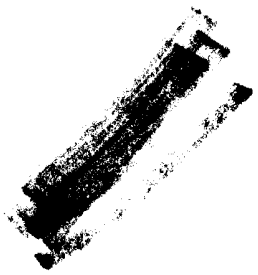

Special Circumstances

Small area located near NE wall
TPH - 3,600 mg/kg
Statement in report
No certificate from Engineer stating such
Near rail road tracks



Groundwater Test Complitied

2/11/92

Report Review - Groundwater
Sampling and Soil Disposal Report
SBCHD Site No. 50119 - Linden Ave

Site Activities

Sampling 3 groundwater monitoring wells for:
EPA 5030
EPA 8260 (Gasoline, diesel & Stoddard)
Test Results - ND

Groundwater Gradient
- measurement on in MSL values
- Calculation are not provided for gradient projection
- Groundwater depth - 10.5 bgs
- water purged from well (2" dia)
  - MW-1 = 41 gallons
  - MW-2 = 40 gallons
  - MW-3 = 46 gallons

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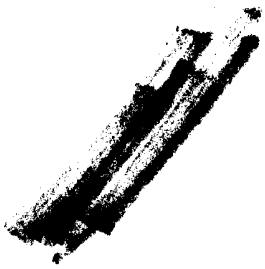
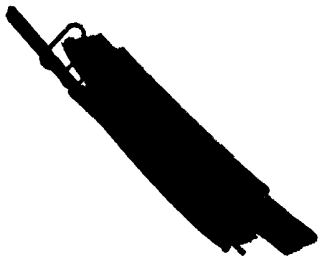


Ground Water Analysis Completed

EPA Method 5030
EPA Method 8260
Fingerprint
Includes 8010 + 8020 constituents
Require 2 consecutive clean samples

Soil Excavation + Treatment

- 735 tons excavated
- Chemtrix
- Disposal at Ventura Landfill
  Class ___ Landfill
- Manifest — 18 yds X 30 = 540 yds



Report Signature

Project Manager and
Require Reg. Engr / Geologist

Conclusions

Monitoring wells 1 through 3 constructed to penetrate through clay at approximately 11 ft bgs.

Worst case contaminated soil had the following detection values after the tank was pulled.

Lead = 120 ppm (TTLC) TPH = 3,600 (@ end of excavation)
Benzene = .010
Toluene = .054
Ethylbenzene = 2.8
Xylene = .72

These soils have been excavated and verification samples are non-detect for all samples collected (9) except one over adjacent to the railroad tracks (TPH = 2,300) east of 250 gallon separator tank.

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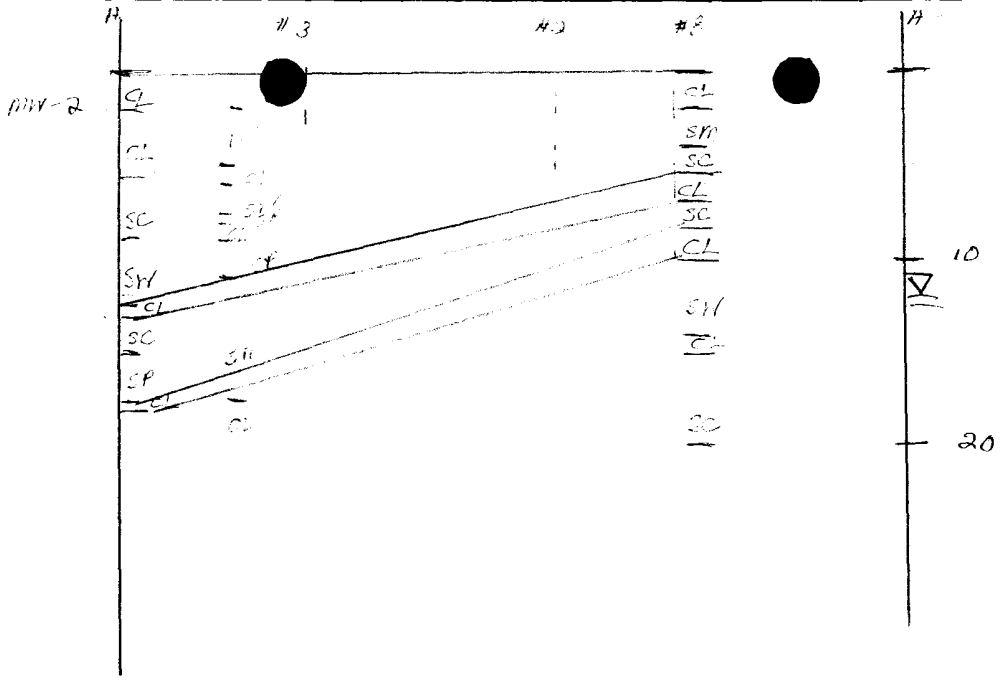
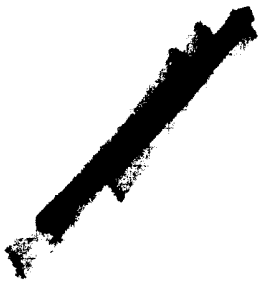


#3 = 1185 @ 10 ft

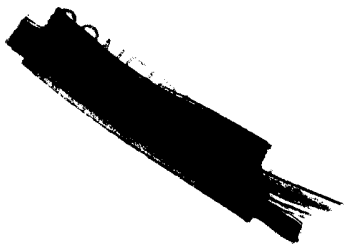
#2 = 1182 @ 10 ft

#1 = 1183 at 10 ft (near MW-1)



The following initial sample ~~locations~~ numbers are not indicated on the site maps.

Sample No.	Sample location
11062	OS - 1
11061	OS - 2
11060	OS - 3
11059	OS - 4



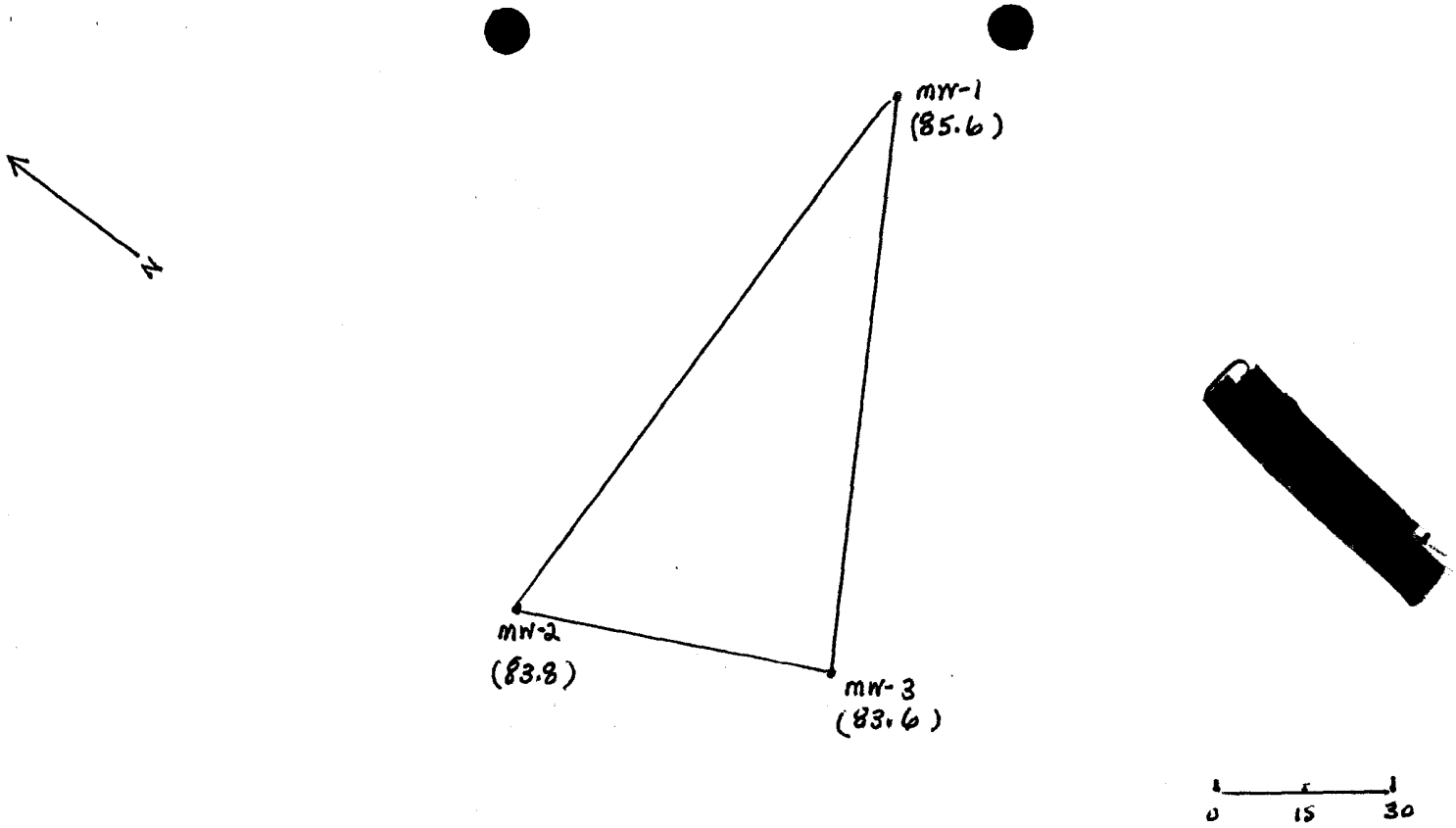
Site Assessment and verification samples delinate that remediation is completed in all but one small area, east of excavated area near 250 gal. tk (Cosmos tk)

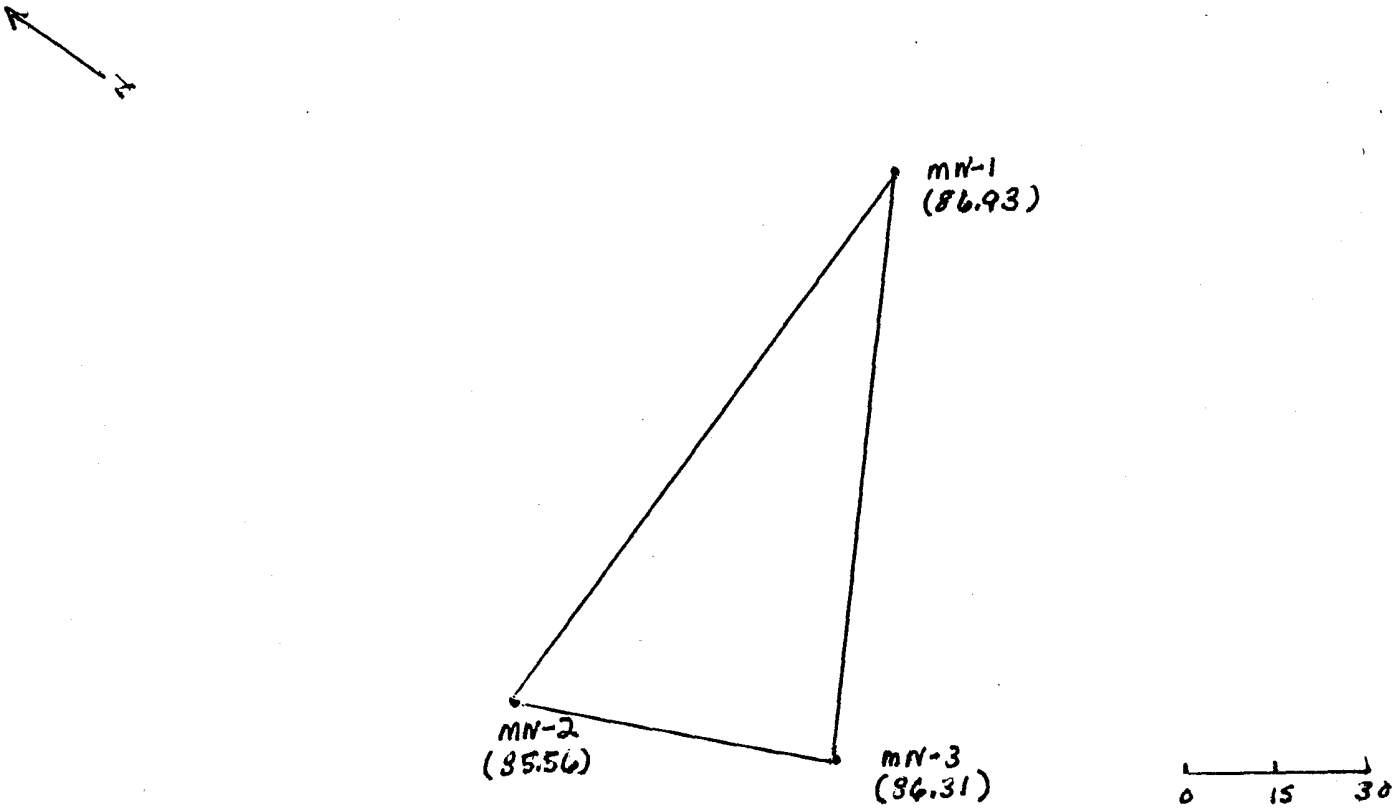
Field Notes From DeAnna - This area was excavated

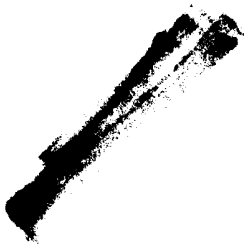
Groundwater is shallow @ ≤ 10 ft bgs. County cleanup levels for TPH are 100 ppm. Groundwater is not impacted after how many consective samples. What was depth of tank. Where they below the first clays encountered at about 0-5 ft. below gs.

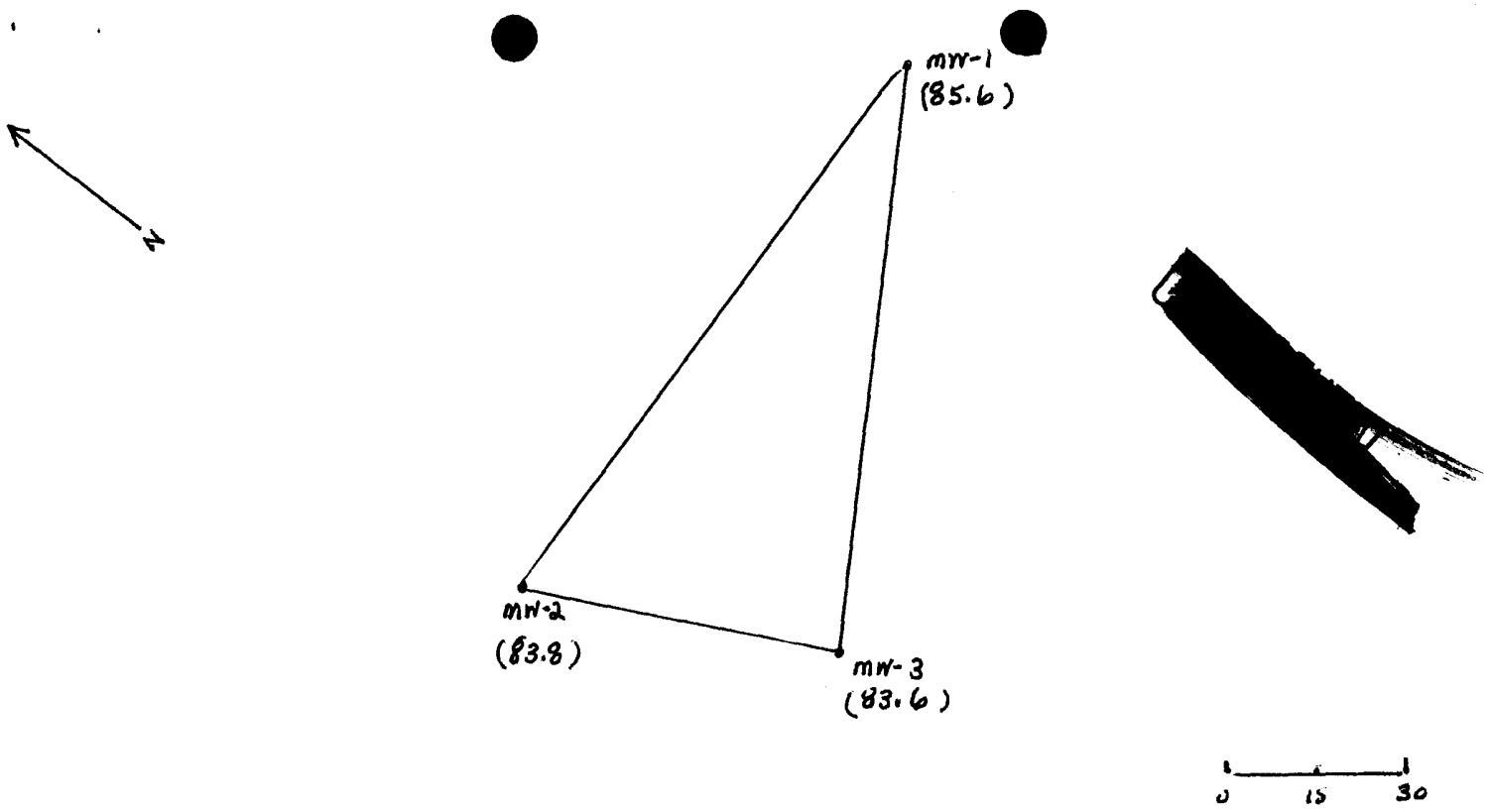
Recommendation

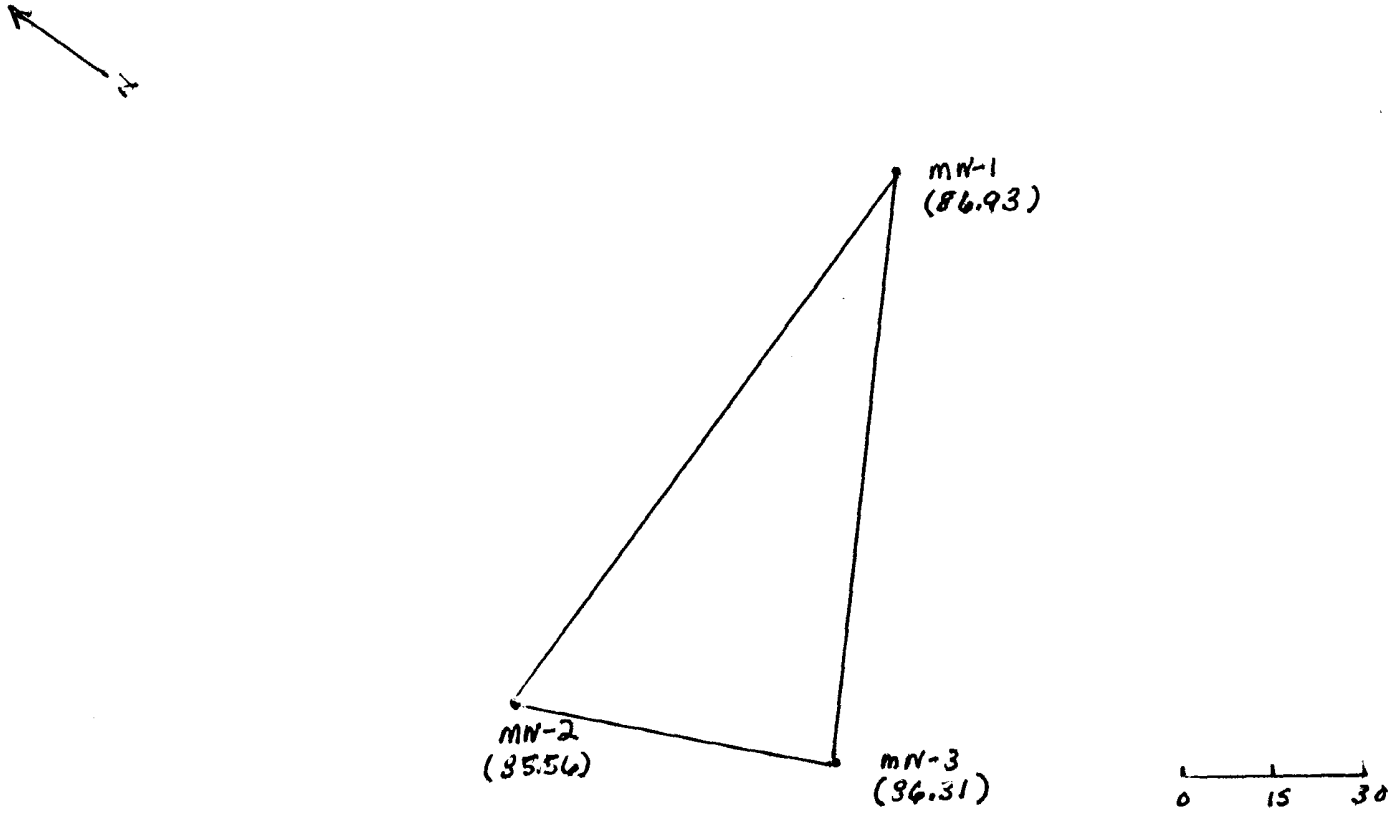
1. Delinate soil contamination east of tank excavation and hot area (if possible) to estimate the quanity of TPH left in place — done — DeAnna witnessed this in the field.
2. If contaminated soil is within a small localized area. Close site.

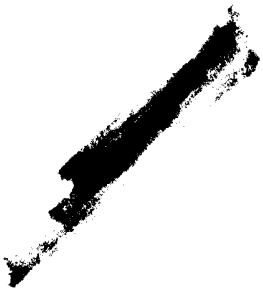

N
MW-1
(85.6)
MW-2
(83.8)
MW-3
(83.6)
0
15
30


N
MW-1
(86.93)
MW-2
(85.56)
MW-3
(84.31)
0
15
30

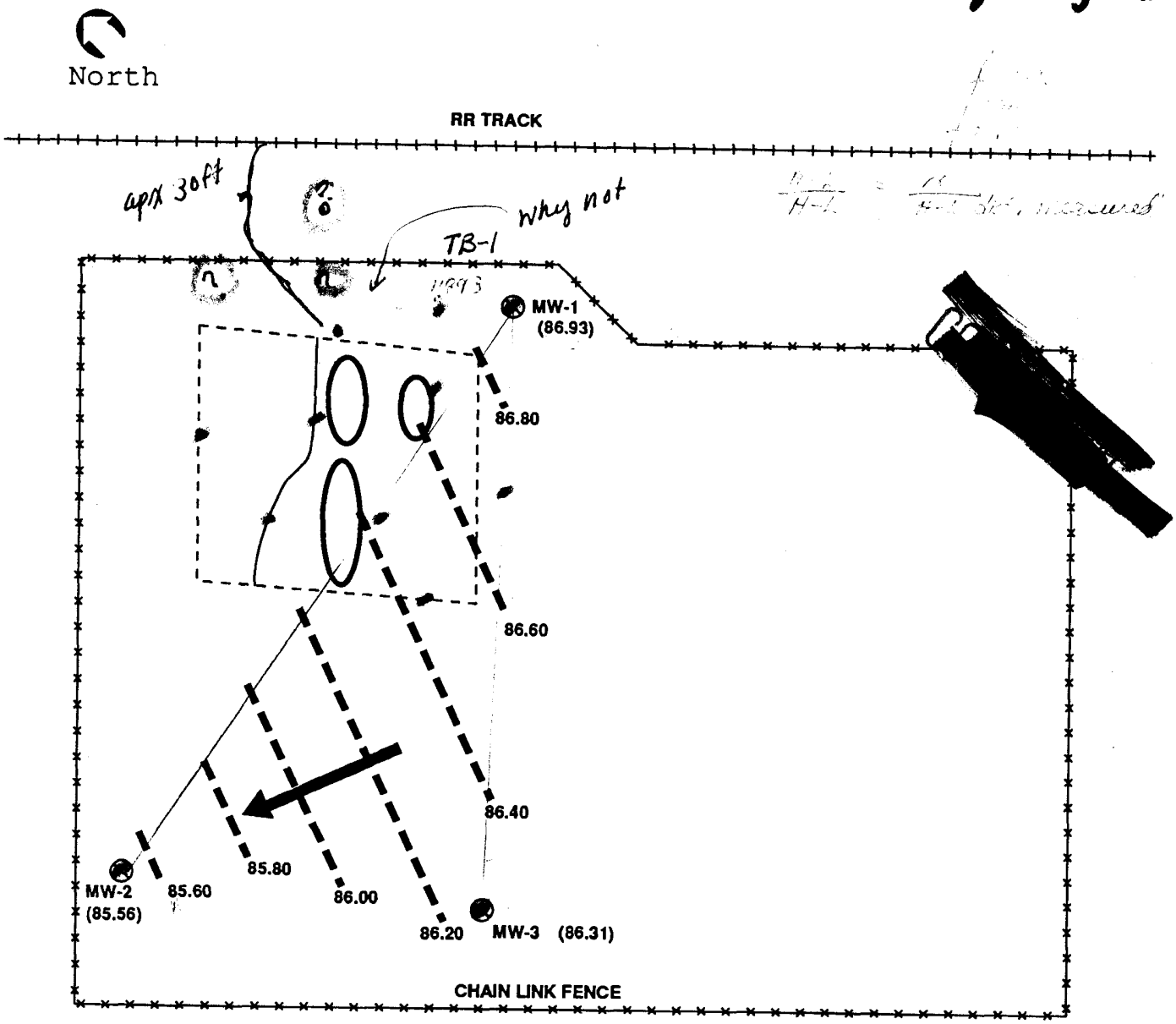



N
MW-1
(85.6)
MW-2
(83.8)
MW-3
(83.6)
0
15
30


N
MW-1
(86.93)
MW-2
(85.56)
MW-3
(86.31)
0
15
30



ck. g.w. gradient



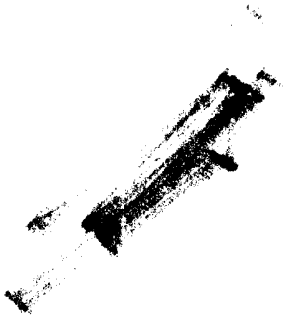
LEGEND

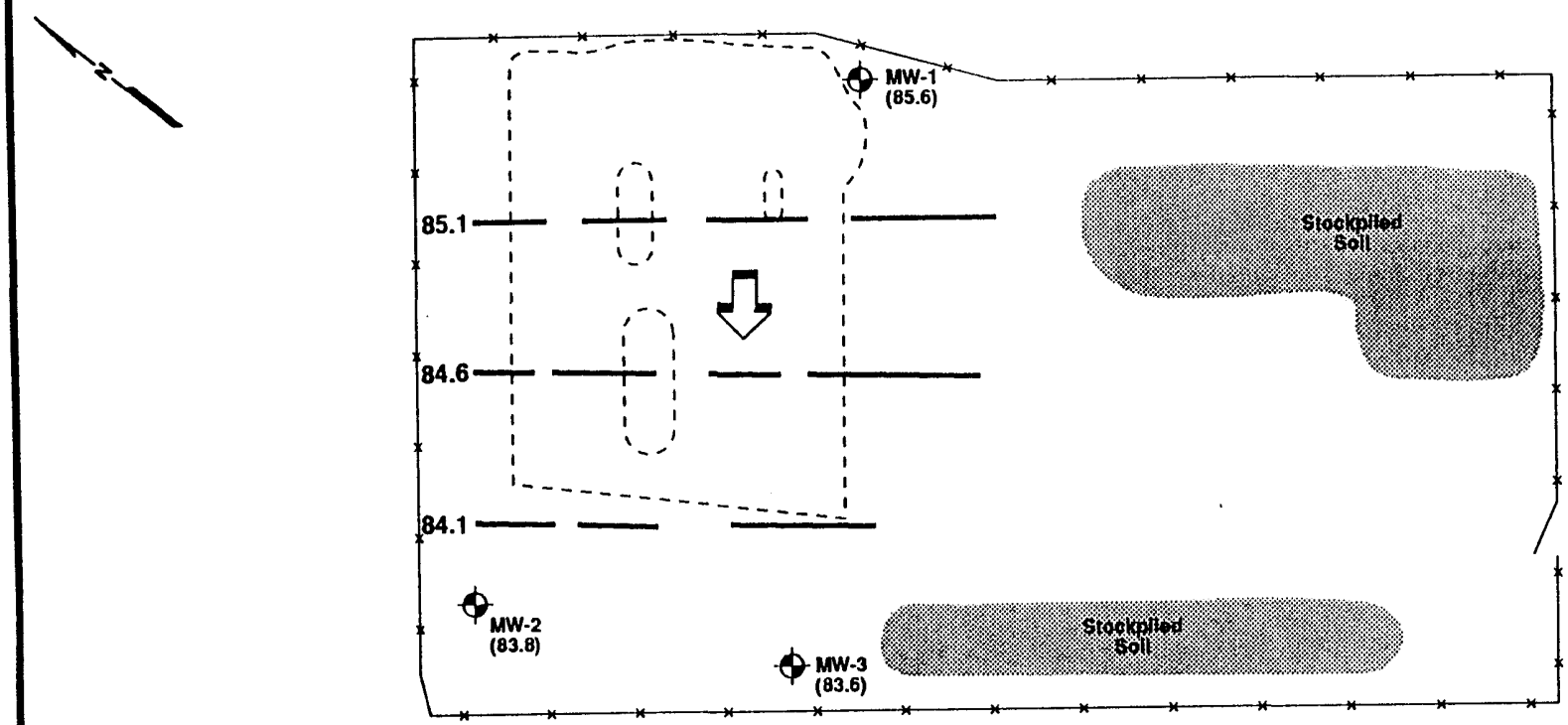
TPH 2800

- FORMER UST LOCATION
- MW-1 (86.93) — MONITORING WELL (ELEVATION)
- 86.20 — LINE OF EQUAL WATER ELEVATION BASED ON ARBITRARILY ASSIGNED DATUM
- GENERAL DIRECTION OF GROUNDWATER FLOW

NOTE: Water level countours based on measurements taken on November 16, 1990.

SP ENVIRONMENTAL SYSTEMS, INC.	POTENTIOMETRIC SURFACE MAP ORCHARD SERVICES CARPINTERIA, CALIFORNIA SOUTHERN PACIFIC TRANSPORTATION CO.	FIGURE 3
PROJECT NO: 05149 / DATE: 11/16/90 DRAWN BY: PD / CHECKED BY: DCG		N.T.S. SCALE





LEGEND

- MW-2 — Monitoring Well
- (83.8) — Groundwater Elevation
- Groundwater Contour Line
- Denotes Direction of Gradient (S 60° W)
- Previous Excavation
- Railroad Tracks
- Fence

Approx. Scale in Feet
0 15' 30'

Well	Top of Casing Surveyed Elevation (ft msl)	Depth to Water (ft msl)	Calculated Groundwater Elevation (ft msl)
MW-1	97.927	12.3	85.6
MW-2	96.136	12.33	83.8
MW-3	96.560	12.93	83.6

Industrial Compliance, Inc.
A Subsidiary of SP Environmental Systems, Inc.

PROJECT NO: 05149 | DATE: 04/28/92
DRAWN BY: PD | CHECKED BY: AN

GROUNDWATER GRADIENT MAP
SOUTHERN PACIFIC TRANSPORTATION CO.
399 LINDEN AVENUE
CARPINTERIA, CALIFORNIA

FIGURE 3

SCALE: as shown

05149 Fig 3/disk 108/GW Mon 04/92

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COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
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NorCal Division (San Jose Laboratory)
2059 Junction Ave.
San Jose, CA 95131
(408) 955-9077

CLIENT: Todd Hook
S.P. Environmental Systems
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Lab Number : GE-2588-1
Project : 05149 Carpinteria CA

Analyzed : 12/16/91
Analyzed by: MM
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
13174 Well#2. Groundwater	Groundwater	Mark Barros	12/11/91	12/11/91

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
PURGEABLE AROMATICS (BTEX)				1,2
Benzene	(71432)	0.5	ND	
Toluene	(108883)	0.5	ND	
Ethylbenzene	(100411)	0.5	ND	
Xylenes		0.5	ND	
Percent Surrogate Recovery			100.	

San Jose Lab Certifications: CAELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)
(2) EXTRACTED by EPA 5030 (purge-and-trap)

03/02/93
MSD1
MC/mcc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

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2059 Junction Ave.
San Jose, CA 95131
(408) 955-9077

CLIENT: Todd Hook
S.P. Environmental Systems
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Lab Number : GE-2588-2
Project : 05149 Carpinteria CA

Analyzed : 12/16/91
Analyzed by: MM
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
13178 Well#1. Groundwater	Groundwater	Mark Barros	12/11/91	12/11/91

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
PURGEABLE AROMATICS (BTEX)				1,2
Benzene	(71432)	0.5	ND	
Toluene	(108883)	0.5	ND	
Ethylbenzene	(100411)	0.5	ND	
Xylenes		0.5	ND	
Percent Surrogate Recovery			96.	

San Jose Lab Certifications: CAELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)
(2) EXTRACTED by EPA 5030 (purge-and-trap)

03/02/93
MSD1
MC/mcc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

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Anaheim, CA • Tempe, AZ • Valparaiso, IN • Westbrook, ME • Indianapolis, IN

NorCal Division (San Jose Laboratory) San Jose, CA 95131
2059 Junction Ave. (408) 955-9077

CLIENT: Todd Hook
S.P. Environmental Systems
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Lab Number : GE-2588-3
Project : 05149 Carpinteria CA

Analyzed : 12/16/91
Analyzed by: MM
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
15542 Well#3. Groundwater	Groundwater	Mark Barros	12/11/91	12/11/91

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
PURGEABLE AROMATICS (BTEX)				1,2
Benzene	(71432)	0.5	ND	
Toluene	(108883)	0.5	ND	
Ethylbenzene	(100411)	0.5	ND	
Xylenes		0.5	ND	
Percent Surrogate Recovery			94.	

San Jose Lab Certifications: CAELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)
(2) EXTRACTED by EPA 5030 (purge-and-trap)

03/02/93
MSD1
MC/mcc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

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NorCal Division (San Jose Laboratory)
2059 Junction Ave.
San Jose, CA 95131
(408) 955-9077

CLIENT: Todd Hook
Industrial Compliance
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Lab Number : GF-1048-1
Project : 05149 399 Linden, Carpenteria
Analyzed : 04/09/92
Analyzed by: WH
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
17666 Well #1	Groundwater	Evelyn Ransom	03/31/92	04/01/92

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
PURGEABLE AROMATICS (BTEX)				1,2
Benzene	(71432)	0.5	ND	
Toluene	(108883)	0.5	ND	
Ethylbenzene	(100411)	0.5	ND	
Xylenes		0.5	ND	
Percent Surrogate Recovery			79.	

San Jose Lab Certifications: CAELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)
(2) EXTRACTED by EPA 5030 (purge-and-trap)

03/02/93
MSD1
MC/mcc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

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NorCal Division (San Jose Laboratory) San Jose, CA 95131
2059 Junction Ave. (408) 955-9077

CLIENT: Todd Hook
Industrial Compliance
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Lab Number : GF-1048-2
Project : 05149 399 Linden, Carpenteria
Analyzed : 04/09/92
Analyzed by: MM
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
17667 Well #2	Groundwater	Evelyn Ransom	03/31/92	04/01/92

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
PURGEABLE AROMATICS (BTEX)				1,2
Benzene	(71432)	0.5	ND	
Toluene	(108883)	0.5	ND	
Ethylbenzene	(100411)	0.5	ND	
Xylenes		0.5	ND	
Percent Surrogate Recovery			82.	

San Jose Lab Certifications: CAELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)
(2) EXTRACTED by EPA 5030 (purge-and-trap)

03/02/93
MSD1
MC/mcc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

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NorCal Division (San Jose Laboratory) San Jose, CA 95131
2059 Junction Ave. (408) 955-9077

CLIENT: Todd Hook
Industrial Compliance
9719 Lincoln Village Suite 310
Sacramento, CA 95827

Lab Number : GF-1048-3
Project : 05149 399 Linden, Carpenteria
Analyzed : 04/09/92
Analyzed by: JJ
Method : As Listed

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
17668 Well #3	Groundwater	Evelyn Ransom	03/31/92	04/01/92

CONSTITUENT	(CAS RN)	*PQL µg/L	RESULT µg/L	NOTE
PURGEABLE AROMATICS (BTEX)				1,2
Benzene	(71432)	0.5	ND	
Toluene	(108883)	0.5	ND	
Ethylbenzene	(100411)	0.5	ND	
Xylenes		0.5	ND	
Percent Surrogate Recovery			80.	

San Jose Lab Certifications: CAELAP #1204
*RESULTS listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit)
(1) ANALYZED by CAL DHS DRAFT TPH (modified) and EPA 8260 (GC/MS)
(2) EXTRACTED by EPA 5030 (purge-and-trap)

03/02/93
MSD1
MC/mcc

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Marissa Coronel
Laboratory Director

VenVirotek VenVirotek, 1536 Eastman Ave., Suite A, Ventura, California 93003 • 805-654-1900

August 8, 1991

Santa Barbara County
Environmental Health
5540 Ekwill Street
Suite B
Santa Barbara, California 93111

Attn: Deanna Cummings

Dear Deanna:

Enclosed for your review is a summary of the test data which VenVirotek performed on samples of the material retrieved from the Southern Pacific Site in Carpinteria, California. Also enclosed is a grid map noting where the various grab samples were retrieved, in order to develop the composite sample utilized in this testing. All of the work was performed by BTC Environmental, a California certified lab.

Once you have had a chance to review the data please give me a call so we can discuss the disposition of the contaminated material at the Carpinteria Site.

Thank you for your attention in this matter. I can be reached in Ventura at (805) 654-1900.

Sincerely,

Tim Downey
Vice President, Gen. Manger

Enclosures
TD:md:cumming.ltr

RECEIVED
AUG 9 1991
Santa Barbara County
Environmental Health Services

Printed on Recycled Paper.

METAL ANALYSIS SUMMARY

METALS	PQL TTLC	TTLC (mg/Kg)	PQL STLC	STLC (mg/L)	CAM LIMITS TTLC (mg/Kg)	CAM LIMITS STLC (mg/L)	EPA METHOD
Antimony	10	BQL	5		500	15	6010
Arsenic	3	21	1	1.6	500	5	7060
Barium	20	120	5	6	10000	100	6010
Beryllium	0.5	BQL	0.5		75	0.75	6010
Cadmium	0.5	1	0.5	BQL	100	1	6010
Chromium	50	BQL	50		2500	560	6010
Cobalt	20	BQL	10		8000	80	6010
Copper	10	26	5	BQL	2500	25	6010
Lead	3	74	3	BQL	1000	5	6010
Mercury	0.1	BQL	0.1		20	0.2	7471
Molybdenum	50	BQL	20		3500	350	6010
Nickel	10	34	5	BQL	2000	20	6010
Selenium	0.5	BQL	0.2		100	1	7740
Silver	1	BQL	0.5		500	1	6010
Thallium	5	BQL	3		700	7	6010
Vanadium	10	50	10	BQL	2400	24	6010
Zinc	100	BQL	50		5000	250	6010

BQL: Below Quantitation Limit
PQL: Practical Quantitation Limit

WET ANALYSIS SUMMARY

COMPOUND	RESULT	UNITS	PQL	METHOD
Flash Point	>220	°F	60	1010
Fluoride	170	mg/Kg	1	340M
Hexavalent Cr*	BQL	mg/Kg	1	7196
Oil & Grease	240	mg/Kg	10	9071
pH (Corrosivity)	7.8	S.U.	--	9045
T.P.H.	430	mg/Kg	10	418M

ASBESTOS BULK SAMPLE ANALYSIS

MICROSCOPIC ANALYSIS

Type	Percent
CHRYSOTILE	0
AMOSITE	0
CROCIDOLITE	0
TOTAL ASBESTOS:	0%

Non-Asbestos Fiber and Content Percent

None	0%

GC/MS
BASE/NEUTRAL PRIORITY POLLUTANTS/HAZARDOUS SUBSTANCE COMPOUNDS
EPA 8270

COMPOUND	CONCENTRATION (ug/Kg)	PQL (ug/Kg)
Benzidine	BQL	1700.
bis(2-Chloroethyl)ether	BQL	1700.
1,3-Dichlorobenzene	BQL	1700.
1,4-Dichlorobenzene	BQL	1700.
1,2-Dichlorobenzene	BQL	1700.
bis(2-Chloroisopropyl)ether	BQL	1700.
N-Nitroso-di-n-propylamine	BQL	1700.
Hexachloroethane	BQL	1700.
Nitrobenzene	BQL	1700.
Isophorone	BQL	1700.
bis(2-Chloroethoxy)methane	BQL	1700.
1,2,4-Trichlorobenzene	BQL	1700.
Naphthalene	BQL	1700.
Hexachlorobutadiene	BQL	1700.
Hexachlorocyclopentadiene	BQL	1700.
2-Chloronaphthalene	BQL	1700.
Dimethylphthalate	BQL	1700.
2,6-Dinitrotoluene	BQL	1700.
Acenaphthylene	BQL	1700.
Acenaphthene	BQL	1700.
2,4-Dintrotoluene	BQL	1700.
Diethylphthalate	BQL	1700.
4-Chlorophenyl-phenylether	BQL	1700.
Fluorene	BQL	1700.
N-Nitrosodiphenylamine	BQL	1700.
4-Bromophenyl-phenylether	BQL	1700.
Hexachlorobenzene	BQL	1700.
Phenanthrene	BQL	1700.
Anthracene	BQL	1700.
Pyrene	BQL	1700.
Di-n-butylphthalate	BQL	1700.
Fluoranthene	BQL	1700.
Butylbenzylphthalate	BQL	1700.
3,3'-Dichlorobenzidine	BQL	3300.
Benzo(a)anthracene	BQL	1700.
bis(2-Ethylhexyl)phthalate	BQL	1700.
Chrysene	BQL	1700.
Di-n-octylphthalate	BQL	1700.

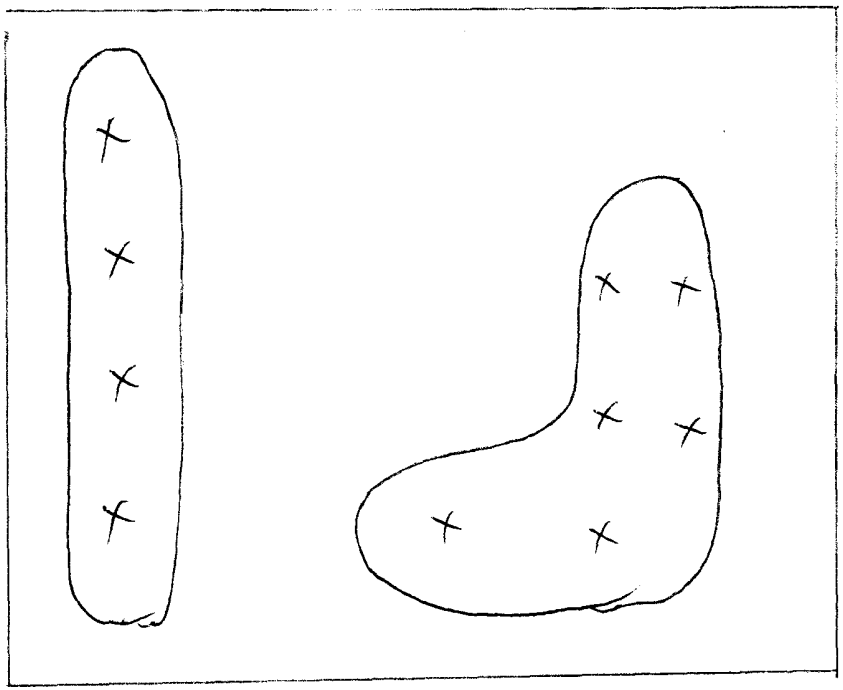
Benzo(b)fluoranthene	BQL	1700.
N-Nitrosodimethylamine	BQL	1700.
1,2-Diphenylhydrazine (2)	BQL	1700.
Benzo(k)fluoranthene	BQL	1700.
Benzo(a)pyrene	BQL	1700.
Indeno(1,2,3-cd)pyrene	BQL	1700.
Dibenz(a,h)anthracene	BQL	1700.
Benzo(g,h,i)perylene	BQL	1700.
Benzyl alcohol	BQL	1700.
4-Chloroaniline	BQL	1700.
Dibenzofuran	BQL	1700.
2-Methylnaphthalene	BQL	1700.
2-Nitroaniline	BQL	8300.
3-Nitroaniline	BQL	8300.
4-Nitroaniline	BQL	8300.

GC/MS
ACID EXTRACTABLE PRIORITY POLLUTANTS/HAZARDOUS SUBSTANCE LIST
EPA 8270

COMPOUND	CONCENTRATION (ug/Kg)	PQL (ug/Kg)
Phenol	BQL	1700.
2-Chlorophenol	BQL	1700.
2-Nitrophenol	BQL	1700.
2,4-Dimethylphenol	BQL	1700.
2,4-Dichlorophenol	BQL	1700.
4-Chloro-3-methylphenol	BQL	1700.
2,4,6-Trichlorophenol	BQL	1700.
2,4-Dinitrophenol	BQL	8300.
4-Nitrophenol	BQL	8300.
4-6-Dinitro-2-methylphenol	BQL	8300.
Pentachlorophenol	BQL	8300.
2-Methylphenol	BQL	1700.
4-Methylphenol	BQL	1700.
Benzoic acid	BQL	8300.
2,4,5-Trichlorophenol	BQL	8300.

VOLATILE ORGANIC COMPOUNDS
EPA 8240

COMPOUND	CONCENTRATION (ug/Kg)	PQL (ug/Kg)	DILUTION FACTOR
Acetone	BQL	10	1
Benzene	BQL	5	1
Bromodichloromethane	BQL	5	1
Bromoform	BQL	5	1
Bromomethane	BQL	5	1
2-Butanone	BQL	10	1
Carbon Disulfide	BQL	5	1
Carbon Tetrachloride	BQL	5	1
Chlorobenzene	BQL	5	1
Chlorodibromomethane	BQL	5	1
Chloroethane	BQL	5	1
Chloroform	BQL	5	1
Chloromethane	BQL	5	1
1,4-Dichlorobenzene	BQL	5	1
1,3-Dichlorobenzene	BQL	5	1
1,2-Dichlorobenzene	BQL	5	1
1,1-Dichloroethane	BQL	5	1
1,2-Dichloroethane	BQL	5	1
1,1-Dichloroethene	BQL	5	1
trans-1,2-Dichloroethene	BQL	5	1
1,2-dichloropropane	BQL	5	1
cis-1,3-dichloropropene	BQL	5	1
trans-1,3-dichloropropene	BQL	5	1
Ethylbenzene	BQL	5	1
2-Hexanone	BQL	10	1
Methylene Chloride	BQL	5	1
4-Methyl-2-pentanone	BQL	10	1
Styrene	BQL	5	1
1,1,2,2-Tetrachloroethane	BQL	5	1
Tetrachloroethene	BQL	5	1
Toluene	BQL	5	1
1,1,1-Trichloroethane	BQL	5	1
1,1,2-Trichloroethane	BQL	5	1
Trichloroethylene	BQL	5	1
Trichlorofluoromethane	BQL	5	1
Vinyl Acetate	BQL	10	1
Vinyl Chloride	BQL	5	1
Xylenes	BQL	5	1



empty lot

Linden Ave.

X = sample points from soil piles

samples were composited into one testing sample

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SP - EvS

CHAIN-OF-CUSTODY RECORD

No. 10794

SP - Environmental Systems, Inc. • [illegible] Village Drive, Ste. 310 • Sacramento, CA 95827 • Phone 916-369-8971 • FAX 916-369-8370

PROJECT NAME: Orchard Service

PROJ. NO.: 05149

PROJECT CONTACT: Ann Nathe

CLIENT'S REPRESENTATIVE:

LOCATION: Hayward

PROJECT TELEPHONE NO.: 916 369 8971

PROJECT MANAGER/SUPERVISOR:

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) 8240 TPH w/out TO 4 + 8015 BTEX	REMARKS
1	0001	4/30/91	1000			from EXCAVATION, 18'	2	X X	VOA SAMPLES
2	0002	4/30/91	1115			EXCAVATION EAST SIDE 15'	1	X X	BRASS TUBE
3	0003	4/30/91	1120			EXCAVATION EAST SIDE 18'	1	X X	BRASS TUBE
4	0004	4/30/91	1170			EXCAVATION SOUTH WALL 17'	1	X X	BRASS TUBE
5						SECTION 1			
6									
7									
8									
9									
10									

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS ACCEPTED BY	DATE	TIME
1	5	[illegible]	4/30/91	1500
2				
3				
4				

REMARKS: * Do not include EDC / EDB

24 hr T.A.

SAMPLER'S NAME: BRIGITTE LIEVENS

SAMPLER'S SIGNATURE:

TRANSFER 1

www.lawcopyinc.com

Coast-to-Coast Analytical Services

Coast-to-Coast Analytical Services, Inc.
751 S. Kellogg Avenue, Suite A
Goleta, California 93117
(805) 964-7838

Lab Number : GE0735-4
Collected : 04/30/91
Received : 04/30/91
Tested : 04/30/91
Collected by: B. Lievens

FUEL FINGERPRINT ANALYSIS BY GC/MS FOR TPH
(Modified EPA 8240) as cited in CAL-LUFT, p. A18 (Oct. 1989)*
EXTRACTED BY EPA METHOD 5030 - Purge & Trap **

ATTN: Ana Nathe
SP Environmental Systems, Inc.
9719 Lincoln Village Drive
Suite 310
Sacramento, CA 95827

SAMPLE DESCRIPTION:
Project # 05149, Orchard Service, Soil
0004, Soil Excavation South Wall @ 17'

Section I

Compound Analyzed	Detection Limit (#PQL) in ppm	Concentration in ppm
Benzene	0.005	not found
Toluene	0.005	not found
Ethylbenzene	0.005	not found
Xylenes	0.005	not found
TOTAL PETROLEUM HYDROCARBONS (Gasoline, Stoddard Solvent, Diesel)	1.	<1.
BTX as a Percent of Fuel		not applicable
Percent Surrogate Recovery		92.

#PQL - Practical Quantitation Limit
* Cal DHS has approved use of this method for these analytes by this laboratory.
** Sonicated during Extraction

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Marissa C. Coronel

Marissa C. Coronel, Laboratory Director

Mary Havlicek

Mary Havlicek, Ph.D., President

ge0735f4.wr1
MH/mm/mc
msdg1/05/01/91

AIR, WATER and HAZARDOUS WASTE LABORATORY CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
751 S. Kellogg Ave., Suite A
Goleta, California 93117
(805) 964-7838

Lab Number : GE0735-3
Collected : 04/30/91
Received : 04/30/91
Tested : 04/30/91
Collected by: B. Lievens

FUEL FINGERPRINT ANALYSIS BY GC/MS FOR TPH
(Modified EPA 8240) as cited in CAL-LUFT, p. A18 (Oct. 1989)*
EXTRACTED BY EPA METHOD 5030 - Purge & Trap **

ATTN: Ana Nathe
SP Environmental Systems, Inc.
9719 Lincoln Village Drive
Suite 310
Sacramento, CA 95827

SAMPLE DESCRIPTION:
Project # 05149, Orchard Service, Soil
0003, Soil Excavation East Side @ 18'

Section 1

Compound Analyzed	Detection Limit (#PQL) in ppm	Concentration in ppm
Benzene	0.005	not found
Toluene	0.005	not found
Ethylbenzene	0.005	not found
Xylenes	0.005	not found
TOTAL PETROLEUM HYDROCARBONS (Gasoline, Stoddard Solvent, Diesel)	1.	<1.
BTX as a Percent of Fuel		not applicable
Percent Surrogate Recovery		99.

#PQL - Practical Quantitation Limit
* Cal DHS has approved use of this method for these analytes by this laboratory.
** Sonicated during Extraction

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Marissa C. Coronel, Laboratory Director

Mary Havlicek, Ph.D., President

ge0735f3.wr1
MH/mm/mc
madg1/05/01/91

AIR, WATER and HAZARDOUS WASTE LABORATORY CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
751 S. Kellogg Avenue, Suite A
Goleta, California 93117
(805) 964-7838

Lab Number : GE0735-2
Collected : 04/30/91
Received : 04/30/91
Tested : 04/30/91
Collected by: B. Lievens

FUEL FINGERPRINT ANALYSIS BY GC/MS FOR TPH
(Modified EPA 8240) as cited in CAL-LUFT, p. A18 (Oct. 1989)*
EXTRACTED BY EPA METHOD 5030 - Purge & Trap **

ATTN: Ana Nathe
SP Environmental Systems, Inc.
9719 Lincoln Village Drive
Suite 310
Sacramento, CA 95827

SAMPLE DESCRIPTION:
Project # 05149, Orchard Service, Soil
0002, Soil Excavation East Side @ 18'
Section 1

Compound Analyzed	Detection Limit (#PQL) in ppm	Concentration in ppm
Benzene	0.005	not found
Toluene	0.005	not found
Ethylbenzene	0.005	not found
Xylenes	0.005	not found
TOTAL PETROLEUM HYDROCARBONS (Gasoline, Stoddard Solvent, Diesel)	1.	<1.
BTX as a Percent of Fuel		not applicable
Percent Surrogate Recovery		99.

#PQL - Practical Quantitation Limit
* Cal DHS has approved use of this method for these analytes by this laboratory.
** Sonicated during Extraction

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Marissa C. Coronel
Marissa C. Coronel, Laboratory Director

Mary Havlicek
Mary Havlicek, Ph.D., President

ge0735f2.wr1
MH/mm/mc
madg1/05/01/91

SP - EvS

CHAIN-OF-CUSTODY RECORD

No. 10795

SP - Environmental Systems, Inc. • 9719 Lincoln Village Drive, Ste. 310 • Sacramento, CA 95827 • Phone 916-369-8971 • FAX 916-369-8370

PROJECT NAME: Richard Sellers | PROJECT LOCATION: Carpinteria

PROJ. NO.: 0849 | PROJECT CONTACT: Lisa Nottie | PROJECT TELEPHONE NO.: 916369 8971

CLIENT'S REPRESENTATIVE: | PROJECT MANAGER/SUPERVISOR:

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) 8240 TPH w/TCLP TPH and BTEX (*)	REMARKS
1	00066	5-1-91	1440		X	EAST wall 9½' (second section)	1	X X	Bytes into soil
2	00062	"	1445		X	N.E. wall 11' (second section)	1	X X	
3	00063	"	1430		X	Bottom Center 16' (second section)	1	X X	
4	00064	"	1500		X	Bottom side wall 16' west (second section)	1	X X	
5									
6									
7									
8									
9									
10									

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	4	BRIGITTE LIEVENS		5/1/91	
2					
3					
4					

REMARKS: 24 Hr. T.A.

(*) NO EDB + NO EDC

SAMPLER'S NAME: BRIGITTE LIEVENS | SAMPLER'S SIGNATURE:

TRANSFER 1

MAY 7 '91 8:43 FROM SP EVS PAGE.005

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Page 313 of 350

CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
751 S. Kellogg Avenue, Suite A
Goleta, California 93117
(805) 964-7838

Lab Number : GE0750-4
Collected : 05/01/91
Received : 05/01/91
Tested : 05/01/91
Collected by: B. Lievens

FUEL FINGERPRINT ANALYSIS BY GC/MS FOR TPH
(Modified EPA 8240) as cited in CAL-LUFT, p. A18 (Oct. 1989)*
EXTRACTED BY EPA METHOD 5030 - Purge & Trap **

ATTN: Ana Nathe
SP Environmental Systems, Inc.
9719 Lincoln Village Drive
Suite 310
Sacramento, CA 95827

SAMPLE DESCRIPTION:
Project # 05149, Orchard Service, Soil
00064, Bottom Side Wall 16' West (2nd section)

Compound Analyzed	Detection Limit (#PQL) in ppm	Concentration in ppm
Benzene	0.005	not found
Toluene	0.005	not found
Ethylbenzene	0.005	not found
Xylenes	0.005	not found
TOTAL PETROLEUM HYDROCARBONS (Gasoline, Stoddard Solvent, Diesel)	1.	<1.
BTX as a Percent of Fuel		not applicable
Percent Surrogate Recovery		99.

#PQL - Practical Quantitation Limit
* Cal DHS has approved use of this method for these analytes by this laboratory.
** Sonicated during Extraction

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Marissa C. Coronel, Laboratory Director

Mary Havlicek, Ph.D., President

ge0750f4.wr1
MH/mm/mc
msdg1/05/02/91

AIR, WATER and HAZARDOUS WASTE LABORATORY CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
751 S. Kellogg Avenue, Suite A
Goleta, California 93117
(805) 964-7838

Lab Number : GE0750-3
Collected : 05/01/91
Received : 05/01/91
Tested : 05/01/91
Collected by: B. Lievens

FUEL FINGERPRINT ANALYSIS BY GC/MS FOR TPH
(Modified EPA 8240) as cited in CAL-LUFT, p. A18 (Oct. 1989)*
EXTRACTED BY EPA METHOD 5030 - Purge & Trap **

ATTN: Ana Nathe
SP Environmental Systems, Inc.
9719 Lincoln Village Drive
Suite 310
Sacramento, CA 95827

SAMPLE DESCRIPTION:
Project # 05149, Orchard Service, Soil
00063, Bottom Center 16' (2nd section)

Compound Analyzed	Detection Limit (#PQL) in ppm	Concentration in ppm
Benzene	0.005	not found
Toluene	0.005	not found
Ethylbenzene	0.005	not found
Xylenes	0.005	not found
TOTAL PETROLEUM HYDROCARBONS (Gasoline, Stoddard Solvent, Diesel)	1.	<1.
BTX as a Percent of Fuel		not applicable
Percent Surrogate Recovery		92.

#PQL - Practical Quantitation Limit
* Cal DHS has approved use of this method for these analytes by this laboratory.
** Sonicated during Extraction

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Marissa C. Coronel, Laboratory Director

Mary Havlicek, Ph.D., President

ge0750f3.wr1
MH/mm/mc
msdg1/05/02/91

CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
751 S. Kellogg Avenue, Suite A
Goleta, California 93117
(805) 964-7838

Lab Number : GE0750-2
Collected : 05/01/91
Received : 05/01/91
Tested : 05/01/91
Collected by: B. Lievens

FUEL FINGERPRINT ANALYSIS BY GC/MS FOR TPH
(Modified EPA 8240) as cited in CAL-LUFT, p. A18 (Oct. 1989)*
EXTRACTED BY EPA METHOD 5030 - Purge & Trap **

ATTN: Ana Nathe
SP Environmental Systems, Inc.
9719 Lincoln Village Drive
Suite 310
Sacramento, CA 95827

SAMPLE DESCRIPTION:
Project # 05149, Orchard Service, Soil
00062, N.E. Wall 11' (2nd section)

Compound Analyzed	Detection Limit (#PQL) in ppm	Concentration in ppm
Benzene	0.005	not found
Toluene	0.005	not found
Ethylbenzene	0.005	not found
Xylenes	0.005	not found
TOTAL PETROLEUM HYDROCARBONS (Gasoline, Stoddard Solvent, Diesel)	1.	<1.
BTX as a Percent of Fuel		not applicable
Percent Surrogate Recovery		93.

#PQL - Practical Quantitation Limit
* Cal DHS has approved use of this method for these analytes by this laboratory.
** Sonicated during Extraction

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Marissa C. Coronel, Laboratory Director

Mary Havlicek, Ph.D., President

ge0750f2.wr1
MH/mm/mc
msdg1/05/02/91

AND WATER AND HAZARDOUS WASTE LABORATORY CERTIFIED BY CALIFORNIA DEPT OF HEALTH SERVICES

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
751 S. Kellogg Avenue, Suite A
Goleta, California 93117
(805) 964-7838

Lab Number : GE0750-1
Collected : 05/01/91
Received : 05/01/91
Tested : 05/01/91
Collected by: B. Lievens

FUEL FINGERPRINT ANALYSIS BY GC/MS FOR TPH
(Modified EPA 8240) as cited in CAL-LUFT, p. A18 (Oct. 1989)*
EXTRACTED BY EPA METHOD 5030 - Purge & Trap **

ATTN: Ana Nathe
SP Environmental Systems, Inc.
9719 Lincoln Village Drive
Suite 310
Sacramento, CA 95827

SAMPLE DESCRIPTION:
Project # 05149, Orchard Service, Soil
00061, East Wall 9.5' (2nd section)

Compound Analyzed	Detection Limit (#PQL) in ppm	Concentration in ppm
Benzene	0.005	not found
Toluene	0.005	not found
Ethylbenzene	0.005	not found
Xylenes	0.005	not found
TOTAL PETROLEUM HYDROCARBONS (Gasoline, Stoddard Solvent, Diesel)	1.	<1.
BTX as a Percent of Fuel		not applicable
Percent Surrogate Recovery		95.

#PQL - Practical Quantitation Limit
* Cal DHS has approved use of this method for these analytes by this laboratory.
** Sonicated during Extraction

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Marissa C. Coronel
Marissa C. Coronel, Laboratory Director

Mary Havlicek
Mary Havlicek, Ph.D., President

ge0750f1.wr1
MH/mm/mc
msdg1/05/02/91

SP - EvS

CHAIN-OF-CUSTODY RECORD

No. 10792

SP - Environmental Systems, Inc. • 9719 Lincoln Village Drive, Ste. 310 • Sacramento, CA 95827 • Phone 916-369-8971 • FAX 916-369-8370

PROJECT NAME: Richard Service	PROJECT LOCATION: Carpenteria
PROJ. NO.: 0879	PROJECT CONTACT: Tina Rothe
PROJECT TELEPHONE NO.: 916 369 8971	
CLIENT'S REPRESENTATIVE:	PROJECT MANAGER/SUPERVISOR:

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)	REMARKS
1	00065	5/6/91			X	Southwest 9' slope (Section 3)	1	X X	DHS note: Soil
2	00066	5/6/91	1330		X	Northwest 12' bottom (Section 3)	1	X X	
3									
4									
5									
6									
7									
8									
9									
10									

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	2	BRIGITTE LIEVENS			
2					
3					
4					

REMARKS: X NO EDB + NO EDC

24 HR TAT

SAMPLER'S NAME: BRIGITTE LIEVENS

SAMPLER'S SIGNATURE:

TRANSFER 1

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MAY 7 '91 8:46 FROM SP EVS PAGE.010

AIR, WATER and HAZARDOUS WASTE LABORATORY CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
751 S. Kellogg Avenue, Suite A
Goleta, California 93117
(805) 964-7838

Lab Number : GE0767-2
Collected : 05/02/91
Received : 05/02/91
Tested : 05/02/91
Collected by: B. Lievens

FUEL FINGERPRINT ANALYSIS BY GC/MS FOR TPH
(Modified EPA 8240) as cited in CAL-LUFT, p. A18 (Oct. 1989)*
EXTRACTED BY EPA METHOD 5030 - Purge & Trap **

ATTN: Ana Nathe
SP Environmental Systems, Inc.
9719 Lincoln Village Drive
Suite 310
Sacramento, CA 95827

SAMPLE DESCRIPTION:
Project # 05149, Orchard Service, Soil
00066, North Wall 13'/bottom (section 3)

Compound Analyzed	Detection Limit (#PQL) in ppm	Concentration in ppm
Benzene	0.005	not found
Toluene	0.005	0.012
Ethylbenzene	0.005	not found
Xylenes	0.005	0.016
TOTAL PETROLEUM HYDROCARBONS (Gasoline, Stoddard Solvent, Diesel)	1.	<1.
BTX as a Percent of Fuel		not applicable
Percent Surrogate Recovery		104.

#PQL - Practical Quantitation Limit
* Cal DHS has approved use of this method for these analytes by this laboratory.
** Sonicated during Extraction

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Marissa C. Coronel, Laboratory Director

Mary Havlicek, Ph.D., President

ge0767f2.wr1
MH/mm/mc
msdg1/05/03/91

AIR, WATER AND HAZARDOUS [redacted]TE LABORATORY CERTIFIED by CAL[redacted]ORNIA DEPT of HEALTH SERVICES

Coast-to-Coast Analytical Services

Coast-to-Coast
Analytical Services, Inc.
751 S. Kellogg Avenue, Suite A
Goleta, California 93117
(805) 964-7838

Lab Number : GE[illegible]67-1
Collected : 05/02/91
Received : 05/02/91
Tested : 05/02/91
Collected by: B. Lievens

FUEL FINGERPRINT ANALYSIS BY GC/MS FOR TPH
(Modified EPA 8240) as cited in CAL-LUFT, p. A18 (Oct. 1989)*
EXTRACTED BY EPA METHOD 5030 - Purge & Trap **

ATTN: Ana Nathe
SP Environmental Systems, Inc.
9719 Lincoln Village Drive
Suite 310
Sacramento, CA 95827

SAMPLE DESCRIPTION:
Project # 05149, Orchard Service, Soil
00065, North Wall 9'/side (section 3)

Compound Analyzed	Detection Limit (#PQL) in ppm	Concentration in ppm
Benzene	0.005	not found
Toluene	0.005	0.013
Ethylbenzene	0.005	not found
Xylenes	0.005	0.019
TOTAL PETROLEUM HYDROCARBONS (Gasoline, Stoddard Solvent, Diesel)	1.	<1.
BTX as a Percent of Fuel		not applicable
Percent Surrogate Recovery		98.

#PQL - Practical Quantitation Limit
* Cal DHS has approved use of this method for these analytes by this laboratory.
** Sonicated during Extraction

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES

Marissa C. Coronel, Laboratory Director

Mary Havlicek, Ph.D., President

ge0767f1.wr1
MH/mm/mc
medg1/05/03/91

SP ENVIRONMENTAL SYSTEMS, INC.

9719 LINCOLN VILLAGE DR., SUITE 310 SACRAMENTO, CA 95827 (916) 369-8971 FAX (916) 369-8370

February 11, 1991

RECEIVED
FEB 11 1991
Santa Barbara County
Environmental Health Services

Ms. Kate Sulka, Senior Specialist
LUFT Program
Environmental Health Services
County of Santa Barbara
5540 Ekwill Street, Suite B
Santa Barbara, California 93111

SUBJECT: Submittal of Work Plan for Additional Site Assessment Southern Pacific Transportation Company Property 399 Linden Avenue, Carpinteria, California County Site No. 50119 SPEvS Project No. 05149

Dear Ms. Sulka:

On behalf of the Southern Pacific Transportation Company (SPTCo), SP Environmental Systems, Inc. (SPEvS) does hereby submit the Additional Site Assessment Work Plan (Work Plan) for the above referenced site.

Upon approval of the Work Plan by the County of Santa Barbara (County), SPEvS will schedule and conduct the proposed scope of work. The County will be notified of the proposed date(s) of field activities at least one week prior to commencement.

Should you have any questions or comments, please contact me at (916)369-8971.

Sincerely,

Ana Nathe
Assistant Project Manager

AN:amn

Enclosure

cc: Doug Wubbena, SPTCo Real Estate, Monterey Park

RECEIVED
FEB 1 2 1991
Santa Barbara County
Environmental Health Services

ADDITIONAL SITE ASSESSMENT WORK PLAN

SOUTHERN PACIFIC TRANSPORTATION COMPANY PROPERTY

399 LINDEN AVENUE

CARPINTERIA, CALIFORNIA

SPEvS PROJECT NO. 05149

PREPARED BY:

SP ENVIRONMENTAL SYSTEMS, INC.

SACRAMENTO, CALIFORNIA

FEBRUARY 11, 1991

A Work Plan prepared for:

Southern Pacific Transportation Company
One Market Plaza
San Francisco, CA 94105

ADDITIONAL SITE ASSESSMENT WORK PLAN
SOUTHERN PACIFIC TRANSPORTATION COMPANY PROPERTY
399 LINDEN AVENUE
CARPINTERIA, CALIFORNIA

SPEvS Project No. 05149

Prepared by:

Ana Nathe
Assistant Project Manager

Todd A. Hook, P.E.
Project Manager

QA/QC by:

Mark S. Dockum, R.G.
Project Manager

SP Environmental Systems, Inc.
9719 Lincoln Village Drive, Suite 310
Sacramento, California 95827
(916) 369-8971

February 11, 1991

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FIGURES

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1.0 INTRODUCTION

This Additional Site Assessment Work Plan (Work Plan) presents SP Environmental Systems, Inc. (SPEvS) proposed scope of work for the Southern Pacific Transportation Company (SPTCo) former leased property located at 399 Linden Avenue, Carpinteria, California (Figure 1).

Since February of 1990, SPEvS has conducted site activities consisting of underground storage tank (UST) removals, soil excavation and disposal, soil sampling and monitoring well installation and sampling. To date, the petroleum-affected soil associated with the removed USTs has been remediated to below the County's action levels with the exception of one soil sample in the northeastern wall of the excavation at 10 feet below the ground surface.

This Work Plan has been prepared in response to a request from the County of Santa Barbara (County) (dated December 21, 1990) to assess the extent of petroleum hydrocarbon affected soil in the northeastern wall of the excavation at the above referenced facility.

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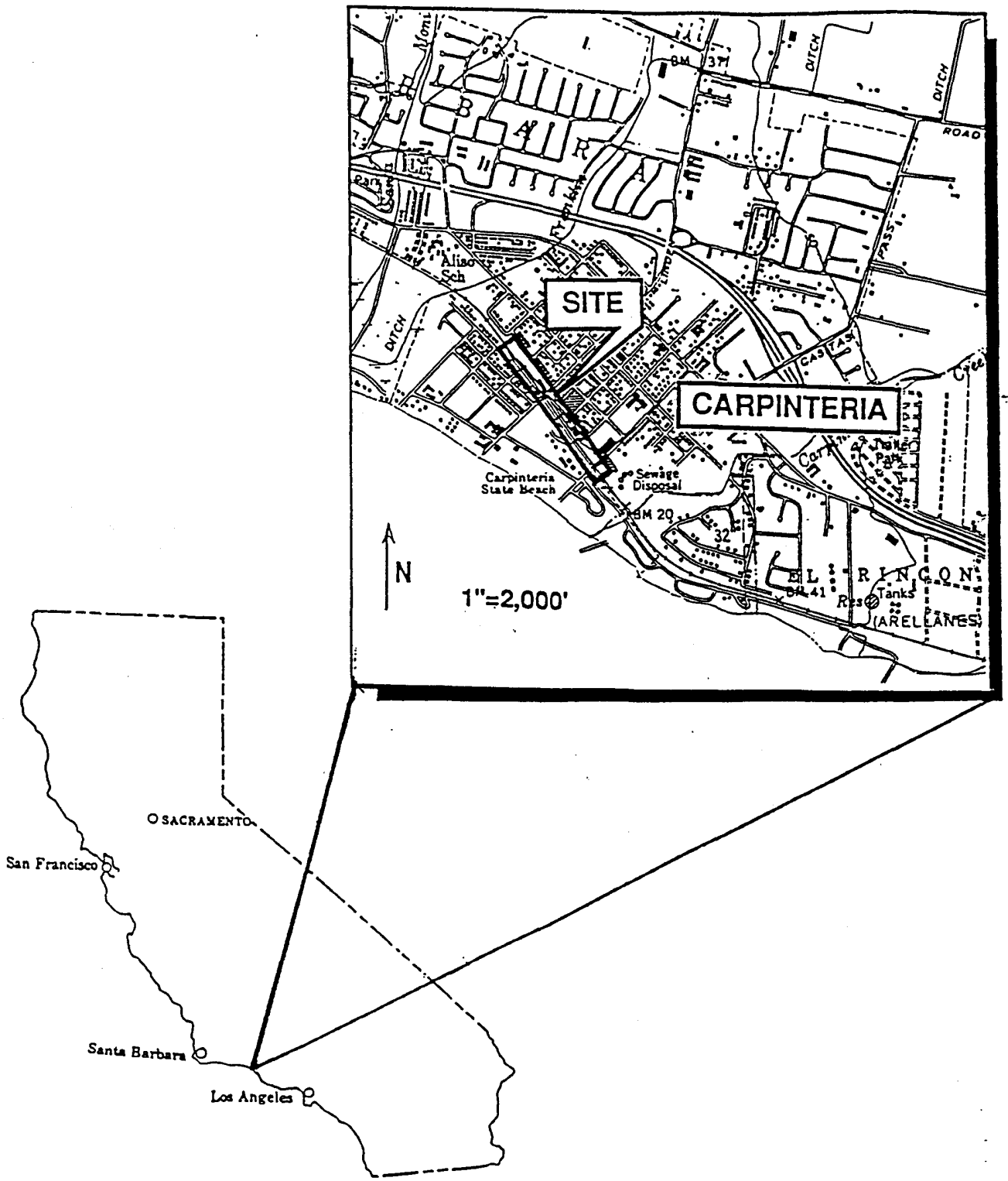


SP ENVIRONMENTAL SYSTEMS, INC.		SITE LOCATION MAP **399 LINDEN AVENUE AND ADJACENT PROPERTY** SOUTHERN PACIFIC TRANSPORTATION CO. CARPINTERIA, CALIFORNIA	FIGURE: 1
PROJECT NO: 05149	DATE: 01/28/91		SCALE: as shown
DRAWN BY: PD	CHECKED BY: MH		

2.0 BACKGROUND

SPEvS has been conducting site investigation and remediation activities at the former Orchard Services facility located at 399 Linden Avenue in Carpinteria, since February of 1990. A summary of the site activities and SPEvS document submittals to the County are presented below:

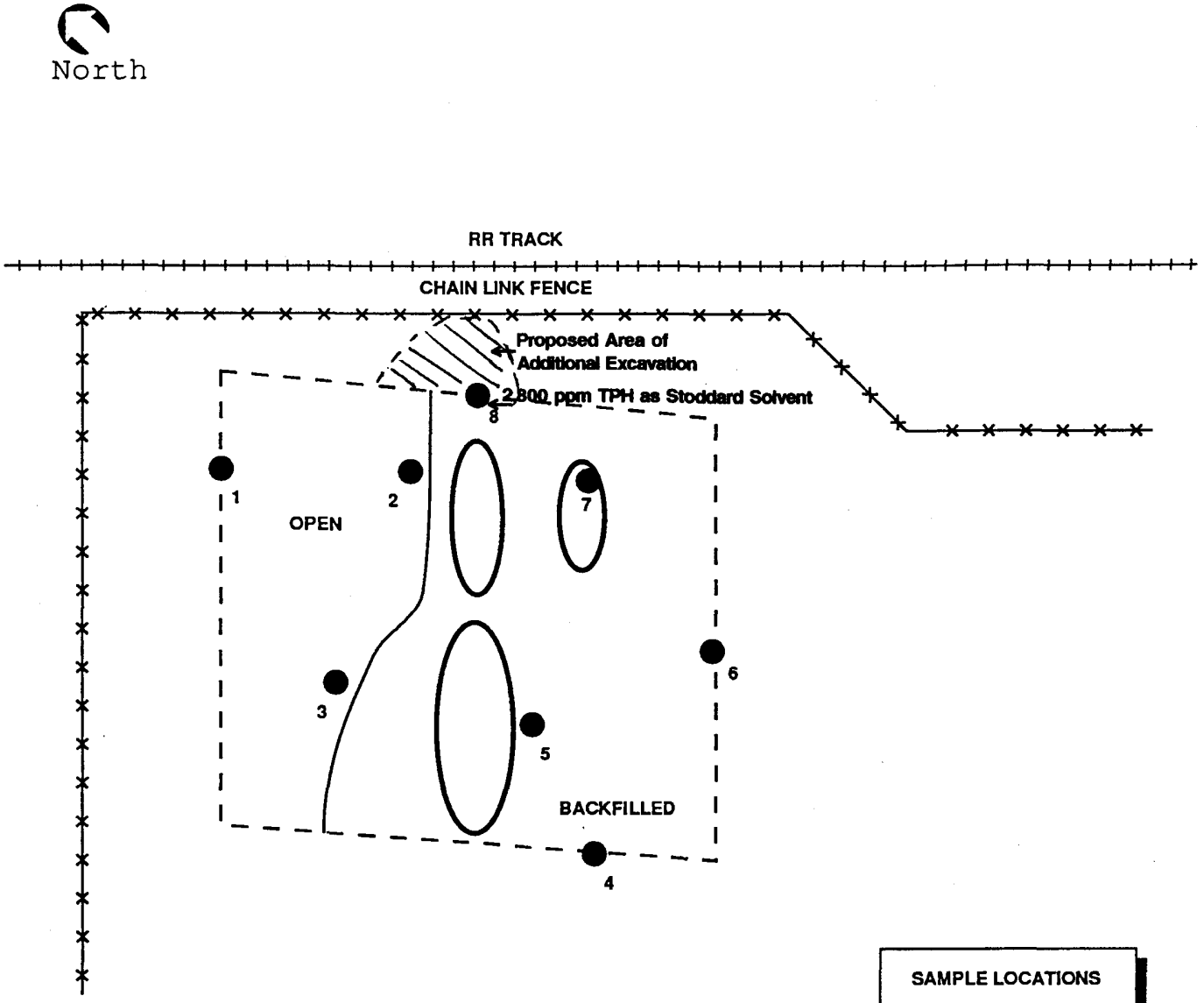
Site Activities/Submittals	DATES
• UST removal, soil excavation and soil sampling	2/15&16/90
• SPEvS UST Removal Report	3/21/90
• SPEvS Phase II Work Plan	6/1/90
• Implementation of Phase II Work Plan	7/23-25/90
• SPEvS Revised Phase II Work Plan	8/14/90
• Implementation of Revised Phase II Work Plan	10/17-26/90
• SPEvS Site Investigation and Remediation Report	11/21/90

Upon receipt of analytical results for confirmation soil samples from the October 1990 activities, only one soil sample indicated petroleum hydrocarbons above the County's action levels. One sidewall sample from the northeastern side of the excavation (at a depth of 10 feet below ground surface [BGS]) indicated 2,800 parts per million (ppm) of total petroleum hydrocarbons (TPH) which was identified as being in the stoddard solvent range (Figure 2).

Three monitoring wells were installed during the October 1990 activities. The wells were sampled and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and TPH by EPA Method 8240 with fuel identification. The analytical results indicated that no constituents were above the laboratory detection limits (Refer to SPEvS Report dated November 21, 1990).

In correspondence dated December 21, 1990, the County requested that additional assessment activities be conducted in the northeastern portion of the excavation, owing to the aforementioned TPH result of 2,800 ppm as stoddard solvent. The County has not requested additional assessment of the groundwater at this time.

www.lawcopyinc.com Page 327 of 350



SAMPLE LOCATIONS

1 = 11881
2 = 11882
3 = 11883
4 = 11884
5 = 11885
6 = 11886
7 = 11887
8 = 11888

LEGEND

FORMER UST LOCATION

1 SAMPLE LOCATION

SP ENVIRONMENTAL SYSTEMS, INC.	**SITE MAP** **SOUTHERN PACIFIC TRANSPORTATION CO.** **399 LINDEN AVENUE** **CARPINTERIA, CALIFORNIA**	**FIGURE** **2**
PROJECT NO: 05149 / DATE: 11/16/90		**N.T.S.** **SCALE**
DRAWN BY: PD / CHECKED BY: DCG		

05149 Fig 2/Disc 1/FNL REM RPT 11-90

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3.0 SCOPE OF WORK

Based on the extensive work previously conducted at this site (refer to Section 2.0), SPEvS proposes the following scope of work for completion of the investigation and remediation activities at this site.

3.1 Additional Soil Remediation

Owing to the presence of TPH concentrations above the County's action level in the northeastern portion of the excavation (Figure 2), SPEvS proposes to excavate an additional 20 to 30 cubic yards of material in order to remove the petroleum-affected soil, thus remediating the site. Excavation activities will be coordinated in conjunction with the SPTCo area railmaster and flagman due to the close proximity of the active railroad tracks.

A backhoe will be utilized to remove soil from the excavation. The soil will be visually inspected and screened with a photo-ionization detector (PID) for volatile constituents. The soil will be stockpiled onsite in two separate areas (a petroleum-affected soil pile, and an unaffected soil pile) based on the visual observations and PID readings.

The petroleum-affected soil will be disposed in a similar manner as the previously removed soil (i.e., transported under manifest to Liquid Waste Management, McKittrick Landfill). The unaffected soil will be used as backfill, if confirmation analytical results allow.

Upon removal of the apparent petroleum-affected soil from the excavation, confirmation soil sampling of the excavation will commence.

3.2 Confirmation Soil Sampling

Confirmation soil sampling will be conducted by obtaining soil from a specified location in the excavation by means of the backhoe bucket. Sample locations will be selected from various sidewall locations as well as from the bottom of the excavation. If the County representative is present, sample locations may be selected in accordance with the County's recommendations.

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Sample collection protocol consists of obtaining the soil from the desired location by means of the backhoe bucket. The bucket is brought to the ground surface so it may be accessed by SPEvS personnel. SPEvS personnel will scrape away the top portion of the material in the bucket in order to access a relatively undisturbed portion of the soil. A sample will be collected for chemical analysis by driving a pre-cleaned 2-inch-diameter by 6-inch-long brass tube into the soil with a rubber mallet. Upon filling, the tube will be retracted from the soil. Each end of the tube will be sealed with Teflon sheeting and tight-fitting plastic end caps, labeled, logged on a chain-of-custody form, and placed in an iced cooler until delivery to the analytical laboratory.

A maximum of five confirmation soil samples from the excavation and one (composite) confirmation soil sample from the unaffected soil pile will be collected and analyzed for BTEX and TPH by EPA Method 8240 Modified with fuel identification (as cited in CAL-LUFT, p. A18 [October, 1989]).

Upon receipt of the analytical results from the excavation and the stockpiled soil confirming that the petroleum-affected soil has been remediated, the excavation will be backfilled with imported fill material in addition to the unaffected soil pile, and compacted in accordance with City of Carpinteria requirements.

3.3 Monitoring Well Abandonment

Through the implementation of the Revised Phase II Work Plan, SPEvS obtained groundwater samples from the three monitoring wells installed on the property (refer to SPEvS submittal dated November 21, 1990: Site Investigation and Remediation Report). The water samples were analyzed for BTEX and TPH by EPA Method 8240 Modified with fuel identification.

All of the groundwater sample analytical results were below the laboratory detection limits of 0.5 parts per billion (ppb) for the BTEX constituents and below 50 ppb for the TPH constituents (gasoline, diesel and stoddard solvent).

Upon receipt of the confirmation soil samples indicating that soil remediation

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at this site is complete, and based upon the above referenced laboratory results, SPEvS recommends abandonment of the three monitoring wells at the site.

The monitoring wells shall be abandoned in accordance with the standards found in California Code of Regulations Title 23, Section 2647 and 2648, and County Ordinance Number 3458. Permits shall be obtained from the County prior to commencement of well destruction activities.

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4.0 REPORT OF FINDINGS

Upon completion of the field activities and receipt and interpretation of the analytical results, SPEvS will submit a report of findings to the County. The report shall include SPEvS' field procedures and observations, a summary of the analytical results (as well as the complete laboratory report), and SPEvS' conclusions and recommendations for the subject property.

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SP ENVIRONMENTAL SYSTEMS, INC.

9719 LINCOLN VILLAGE DR., SUITE 310 SACRAMENTO, CA 95827 (916) 369-8971 FAX (916) 369-8370

January 21, 1991
Via Facsimile

Ms. Kate Sulka
Senior Specialist/LUFT Program
Environmental Health Department
County of Santa Barbara
5540 Ekwill Street, Suite B
Santa Barbara, California 93111

SUBJECT: Request for Extension
Additional Site Assessment Workplan Submittal
Southern Pacific Transportation Company
399 Linden Avenue, Carpinteria, California
Santa Barbara County, Site Reference No. 50119
SPEvS Project No. 05149

Dear Ms. Sulka:

On behalf of the Southern Pacific Transportation Company (SPTCo), SP Environmental Systems, Inc. (SPEvS) does hereby respond to the County of Santa Barbara (County) letter dated December 21, 1990.

In response to item number 3 in the County letter, the underground storage tank removed during the October excavation activities is currently onsite. This tank will be properly disposed in conjunction with the proposed additional site assessment work.

With respect to the submittal of the manifests for the soil hauled to McKittrick, a copy of the manifests are hereby enclosed for your records.

In regard to the request for submittal of a workplan by January 21, 1991, SPEvS is in the process of receiving approval from the SPTCo Real Estate department for the proposed scope of work to be conducted at the referenced site. SPEvS expects to receive approval from SPTCo within the next 10 to 15 days. Therefore, SPEvS requests an extension for the submittal of the additional site assessment workplan until February 11, 1991.

SPEvS appreciates your continued cooperation and understanding with respect to this project. If you have any question or comments regarding the enclosed data, or the requested extension, please contact me at (916)369-8971.

Sincerely,

Ana Nathe
Assistant Project Manager

TH/AN/amn

Enclosures

cc: D. Wubbena (without enclosures)

** TOTAL PAGE.001 **

SP ENVIRONMENTAL SYSTEMS, INC.

9719 LINCOLN VILLAGE DR., SUITE 310 SACRAMENTO, CA 95827 (916) 369-8971 FAX (916) 369-8370

January 21, 1991
Via Facsimile

RECEIVED
JAN 23 1991
Santa Barbara County
Environmental Health Services

Ms. Kate Sulka
Senior Specialist/LUFT Program
Environmental Health Department
County of Santa Barbara
5540 Ekwill Street, Suite B
Santa Barbara, California 93111

SUBJECT: Request for Extension
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SPEvS appreciates your continued cooperation and understanding with respect to this project. If you have any question or comments regarding the enclosed data, or the requested extension, please contact me at (916)369-8971.

Sincerely,

Ana Nathe
Assistant Project Manager

TH/AN/amn

Enclosures

cc: D. Wubbena (without enclosures)

Unit 40155

KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

Well, Tank No. _____

Field or Area 0514 9

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388
(805) 589-5220

No 14712

Kern Vacuum

NON-HAZARDOUS WASTE HAULER RECORD
TO BE USED FOR NON-HAZARDOUS WASTES ONLY

GENERATOR (Generator Must Complete)

1
Name S. P. TRANSPORTATION CO.
Field Address 9719 LINCOLN VILLAGE DRIVE
City, State, Zip SACRAMENTO, CALIFORNIA 95827
Phone (916)369-8971
Order Placed By LIZ GILLIS
Signature of Authorized Agent [signature]
Date 10/31/90
Title Field Eng

2
WASTE TO BE DISPOSED
Type Non Haz Soil
Generating Location CARPENTERIA, CALIFORNIA
Special Handling Instructions:
☐ Gloves ☐ Goggles ☒ Other NONE
Quantity _____ Bbls

3
DESIGNATED FACILITY
Name LIQUID WASTE MANAGEMENT, INC.
Address STAR ROUTE BOX 4
City, State, Zip MC KITTRICK, CALIFORNIA 93251
Phone (805)762-7607

TRANSPORTER (Hauler Must Complete)

Name K.V.S. TRANSPORTATION, INC.
Address POST OFFICE BOX 5295
City, State, Zip BAKERSFIELD, CALIFORNIA 93388
Phone (805)589-5220
Signature of Authorized Agent or Driver [signature]
Date 10/31/90

Tons x 0.8428 = yds^3
24.09 tons x 0.8428 = 20.3 Cubic Yards

Ticket # 29 Unit No. 331 / 334
Pick Up Date 10/31/90 Time 12:00 ☐ AM ☒ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:
L.W.M. ACCEPTANCE NO. 103590-879

DISPOSAL FACILITY (Facility Operator Must Complete)

Name L.W.M. Inc
Address Star Rt. Box 41
City, State, Zip Mc Kittrick, Ca. 93251
Phone 805-762-7607 / Disp. Ticket # 11545
Signature of Authorized Agent [signature] Date 10-31-90

DISPOSAL COPY

Ph. 6.0
$1,015.41

Quantity Received 24.09 Tons Bbls. Date 10-31-90
Time _____ ☐ AM ☐ PM

DISPOSAL METHOD: ☐ Surface Impoundment ☐ Injection ☒ Landfill ☐ Other _____

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services.
NO HAZARDOUS FEES SHOULD BE LEVIED

www.lawcopyinc.com

KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

40162

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388
(805) 589-5220

Well, Tank No. _____
Field or Area C 3119

Nº 14718

Kern Vacuum

NON-HAZARDOUS WASTE HAULER RECORD

TO BE USED FOR NON-HAZARDOUS WASTES ONLY

GENERATOR (Generator Must Complete)

1
Name S. P. TRANSPORTATION CO.
Field Address 9719 LINCOLN VILLAGE DRIVE
City, State, Zip SACRAMENTO, CALIFORNIA 95827
Phone (916)369-8971
Order Placed By LIZ GILLIS
Signature of Authorized Agent
Date
Title

2
WASTE TO BE DISPOSED
Type Soil
Generating Location CARPENTERIA, CALIFORNIA
Special Handling Instructions:
☐ Gloves ☐ Goggles ☒ Other NONE
Quantity _____ Bbls

3
DESIGNATED FACILITY
Name LIQUID WASTE MANAGEMENT, INC.
Address STAR ROUTE BOX 4
City, State, Zip MC KITTRICK, CALIFORNIA 93251
Phone (805)762-7607

TRANSPORTER (Hauler Must Complete)

Name K.V.S. TRANSPORTATION, INC.
Address POST OFFICE BOX 5295
City, State, Zip BAKERSFIELD, CALIFORNIA 93388
Phone (805)589-5220
Signature of Authorized Agent or Driver
Date 10-31-90

Ticket # 101886 Unit No. 185 / 189
Pick Up Date 10-31-90 Time 1:20 ☐ AM ☑ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:
L.W.M. ACCEPTANCE NO. 102590-879

DISPOSAL FACILITY (Facility Operator Must Complete)

Name L. W. M. Inc
Address Star Rt. 1 - Box 1
City, State, Zip Mc Kittrick, Ca. - 93251
Phone Cal. 762-7111 / Disp. Ticket # 47162
Signature of Authorized Agent Date

Ph. 6.0
$1,379.41

Quantity Received 22.99 Bbls. Date 10-31-90
Time _____ ☐ AM ☐ PM

DISPOSAL METHOD: ☐ Surface Impoundment ☐ Injection ☑ Landfill ☐ Other _____

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services.
NO HAZARDOUS FEES SHOULD BE LEVIED

DISPOSAL COPY

www.lawcopyinc.com

KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

40161

Well, Tank No. _____

Field or Area CS149

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388
(805) 589-5220

Nº 14717

Kern Vacuum

NON-HAZARDOUS WASTE HAULER RECORD

TO BE USED FOR NON-HAZARDOUS WASTES ONLY

GENERATOR (Generator Must Complete)

1
Name S. P. TRANSPORTATION CO.
Field Address 9719 LINCOLN VILLAGE DRIVE
City, State, Zip SACRAMENTO, CALIFORNIA 95827
Phone (916)369-8971
Order Placed By LIZ GILLIS
Signature of Authorized Agent _____
Date _____
Title _____

WASTE TO BE DISPOSED

2
Type _____
Generating Location CARPENTERIA, CALIFORNIA
Special Handling Instructions:
☐ Gloves ☐ Goggles ☒ Other NONE
Quantity _____ Bbls

DESIGNATED FACILITY

3
Name LIQUID WASTE MANAGEMENT, INC.
Address STAR ROUTE BOX 4
City, State, Zip MC KITTRICK, CALIFORNIA 93251
Phone (805)762-7607

TRANSPORTER (Hauler Must Complete)

Name K.V.S. TRANSPORTATION, INC.
Address POST OFFICE BOX 5295
City, State, Zip BAKERSFIELD, CALIFORNIA 93388
Phone (805)589-5220
Signature of Authorized Agent or Driver _____
Date _____

Ticket # _____ Unit No. _____

Pick Up Date _____ Time _____ ☐ AM ☒ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:

L.W.M. ACCEPTANCE NO. 02590-879

DISPOSAL FACILITY (Facility Operator Must Complete)

Ph. 6.0

Name _____
Address _____
City, State, Zip _____
Phone _____ / Disp. Ticket # _____
Signature of Authorized Agent _____ Date _____

#1,318.00

Quantity Received 22.50 TNS Bbls. Date 10-31-

Time _____ ☐ AM ☐ PM

DISPOSAL METHOD: ☐ Surface Impoundment ☐ Injection ☒ Landfill ☐ Other _____

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services.
NO HAZARDOUS FEES SHOULD BE LEVIED

DISPOSAL COPY

www.lawcopyinc.com

KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

40157

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388
(805) 589-5220

Well, Tank No. _____

Field or Area 25 19

Nº 14716

Kern Vacuum

NON-HAZARDOUS WASTE HAULER RECORD

TO BE USED FOR NON-HAZARDOUS WASTES ONLY

GENERATOR (Generator Must Complete)

1
Name S. P. TRANSPORTATION CO.
Field Address 9719 LINCOLN VILLAGE DRIVE
City, State, Zip SACRAMENTO, CALIFORNIA 95827
Phone (916)369-8971
Order Placed By LIZ GILLIS
Signature of Authorized Agent
Date 10/31/90
Title Field Tech

WASTE TO BE DISPOSED

2
Type [illegible]
Generating Location CARPENTERIA, CALIFORNIA
Special Handling Instructions:
☐ Gloves ☐ Goggles ☒ Other NONE
Quantity _____ Bbls

DESIGNATED FACILITY

3
Name LIQUID WASTE MANAGEMENT, INC.
Address STAR ROUTE BOX 4
City, State, Zip MC KITTRICK, CALIFORNIA 93251
Phone (805)762-7607

TRANSPORTER (Hauler Must Complete)

Name K.V.S. TRANSPORTATION, INC.
Address POST OFFICE BOX 5295
City, State, Zip BAKERSFIELD, CALIFORNIA 93388
Phone (805)589-5220
Signature of Authorized Agent or Driver
Date 10-31-90

Ticket # 100417 Unit No. 371 / 374
Pick Up Date 10-31-90 Time 1:00 ☐ AM ☒ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:
L.W.M. ACCEPTANCE NO. 10-2590-879

DISPOSAL FACILITY (Facility Operator Must Complete) Ph. 6.0

Name [illegible]
Address [illegible]
City, State, Zip [illegible]
Phone [illegible] / Disp. Ticket # 41157
Signature of Authorized Agent Date 10-31-90

Quantity Received 22.67 Bbls. Date 10-31-90
Time _____ ☐ AM ☐ PM

DISPOSAL METHOD: ☐ Surface Impoundment ☐ Injection ☒ Landfill ☐ Other _____

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services.
NO HAZARDOUS FEES SHOULD BE LEVIED

DISPOSAL COPY

12/86

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KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

40159

Well, Tank No. _____

Field or Area C S Hill

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388

(805) 589-5220

Nº 14715

Kern Vacuum

NON-HAZARDOUS WASTE HAULER RECORD

TO BE USED FOR NON-HAZARDOUS WASTES ONLY

GENERATOR (Generator Must Complete)

1

Name S. P. TRANSPORTATION CO.

Field Address 9719 LINCOLN VILLAGE DRIVE

City, State, Zip SACRAMENTO, CALIFORNIA 95827

Phone (916)369-8971

Order Placed By LIZ GILLIS

Signature of Authorized Agent _____

Date 10-31-90

Title Field Tech

2

WASTE TO BE DISPOSED

Type Drill Pit Soil

Generating Location CARPENTERIA, CALIFORNIA

Special Handling Instructions:

☐ Gloves ☐ Goggles ☒ Other NONE

Quantity _____ Bbls.

3

DESIGNATED FACILITY

Name LIQUID WASTE MANAGEMENT, INC.

Address STAR ROUTE BOX 4

City, State, Zip MC KITTRICK, CALIFORNIA 93251

Phone (805)762-7607

TRANSPORTER (Hauler Must Complete)

Name K.V.S. TRANSPORTATION, INC.

Address POST OFFICE BOX 5295

City, State, Zip BAKERSFIELD, CALIFORNIA 93388

Phone (805)589-5220

Signature of Authorized Agent or Driver _____

Date 10-31-90

Ticket # 1C1575 Unit No. T-31 / 3000

Pick Up Date 10-31-90 Time 1200 ☐ AM ☑ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:

L.W.M. ACCEPTANCE NO. 0259-579

DISPOSAL FACILITY (Facility Operator Must Complete)

Name _____

Address _____

City, State, Zip _____

Phone _____ / Disp. Ticket # _____

Signature of Authorized Agent _____ Date _____

P.O. # 1,355.11

Quantity Received 22.59 (TN) Bbls. Date 10-31-90

Time _____ ☐ AM ☐ PM

DISPOSAL METHOD: ☐ Surface Impoundment ☐ Injection ☑ Landfill ☐ Other _____

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services. NO HAZARDOUS FEES SHOULD BE LEVIED

www.lawcopyinc.com

KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

40158

Well, Tank No. _____

Field or Area _____

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388

(805) 589-5220

No 14714

KERN VACUUM

NON-HAZARDOUS WASTE HAULER RECORD

TO BE USED FOR NON-HAZARDOUS WASTES ONLY

GENERATOR (Generator Must Complete)

1

Name S. P. TRANSPORTATION CO.

Field Address 9719 LINCOLN VILLAGE DRIVE

City, State, Zip SACRAMENTO, CALIFORNIA 95827

Phone (916)369-8971

Order Placed By LIZ GILLIS

Signature of Authorized Agent _____

Date _____

Title _____

2

WASTE TO BE DISPOSED

Type _____

Generating Location CARPENTERIA, CALIFORNIA

Special Handling Instructions:

☐ Gloves ☐ Goggles ☒ Other NONE

Quantity _____ Bbls.

3

DESIGNATED FACILITY

Name LIQUID WASTE MANAGEMENT, INC.

Address STAR ROUTE BOX 4

City, State, Zip MC KITTRICK, CALIFORNIA 93251

Phone (805)762-7607

TRANSPORTER (Hauler Must Complete)

Name K.V.S. TRANSPORTATION, INC.

Address POST OFFICE BOX 5295

City, State, Zip BAKERSFIELD, CALIFORNIA 93388

Phone (805)589-5220

Signature of Authorized Agent or Driver Mike Kirby

Date 10-31-90

Ticket # 100281 Unit No. 112 / 087

Pick Up Date 10-31-90 Time _____ ☐ AM ☐ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:

L.W.M. ACCEPTANCE NO. 102590-579

DISPOSAL FACILITY (Facility Operator Must Complete)

Name _____

Address _____

City, State, Zip _____

Phone _____ / Disp. Ticket # _____

Signature of Authorized Agent _____ Date _____

Quantity Received 25.50 Bbls. Date 10-31-90

Time _____ ☐ AM ☐ PM

DISPOSAL METHOD: ☐ Surface Impoundment ☐ Injection ☒ Landfill ☐ Other _____

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services.
NO HAZARDOUS FEES SHOULD BE LEVIED

www.lawcopyinc.com

KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

40156

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388
(805) 589-5220

Well, Tank No. _____
Field or Area C5147

Nº 14713

KERN VACUUM

NON-HAZARDOUS WASTE HAULER RECORD

TO BE USED FOR NON-HAZARDOUS WASTES ONLY

GENERATOR (Generator Must Complete)

1
Name S. P. TRANSPORTATION CO.
Field Address 9719 LINCOLN VILLAGE DRIVE
City, State, Zip SACRAMENTO, CALIFORNIA 95827
Phone (916)369-8971
Order Placed By LIZ GILLIS
Signature of Authorized Agent _____
Date _____
Title _____

2
WASTE TO BE DISPOSED
Type _____ soil
Generating Location CARPENTERIA, CALIFORNIA
Special Handling Instructions:
☐ Gloves ☐ Goggles ☒ Other NONE
Quantity _____ Bbls.

3
DESIGNATED FACILITY
Name LIQUID WASTE MANAGEMENT, INC.
Address STAR ROUTE BOX 4
City, State, Zip MC KITTRICK, CALIFORNIA 93251
Phone (805)762-7607

TRANSPORTER (Hauler Must Complete)

Name K.V.S. TRANSPORTATION, INC.
Address POST OFFICE BOX 5295
City, State, Zip BAKERSFIELD, CALIFORNIA 93388
Phone (805)589-5220
Signature of Authorized Agent or Driver _____
Date 10-31-90

Ticket # 101388 Unit No. T40 / T43
☐ AM
Pick Up Date 10-31-90 Time _____ ☒ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:
L.W.M. ACCEPTANCE NO. 10290-179

DISPOSAL FACILITY (Facility Operator Must Complete)

Name _____
Address _____
City, State, Zip _____
Phone _____ / Disp. Ticket # _____

Quantity Received 22.27 Bbls. Date 10 31 90
☐ AM
Time _____ ☐ PM

DISPOSAL METHOD: ☐ Surface Impoundment ☐ Injection ☑ Landfill ☐ Other _____

GENERATOR UNLESS OTHERWISE SPECIFIED

www.lawcopyinc.com

KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

Well, Tank No. _____

Field or Area C5149

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388
(805) 589-5220

No 14711

40118

NON-HAZARDOUS WASTE HAULER RECORD
TO BE USED FOR NON-HAZARDOUS WASTES ONLY

GENERATOR (Generator Must Complete)

1
Name S. P. TRANSPORTATION CO.
Field Address 9719 LINCOLN VILLAGE DRIVE
City, State, Zip SACRAMENTO, CALIFORNIA 95827
Phone (916)369-8971
Order Placed By LIZ GILLIS
Signature of Authorized Agent _____
Date _____
Title _____

WASTE TO BE DISPOSED

2
Type _____
Generating Location CARPENTERIA, CALIFORNIA
Special Handling Instructions:
☐ Gloves ☐ Goggles ☒ Other NONE
Quantity _____ Bbls.

DESIGNATED FACILITY

3
Name LIQUID WASTE MANAGEMENT, INC.
Address STAR ROUTE BOX 4
City, State, Zip MC KITTRICK, CALIFORNIA 93251
Phone (805)762-7607

TRANSPORTER (Hauler Must Complete)

Name K.V.S. TRANSPORTATION, INC.
Address POST OFFICE BOX 5295
City, State, Zip BAKERSFIELD, CALIFORNIA 93388
Phone (805)589-5220
Signature of Authorized Agent or Driver _____
Date 10-30-90

Ticket # 101833 Unit No. 196 / 197
Pick Up Date 10/30/90 Time 9:30 ☒ AM ☐ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:
L.W.M. ACCEPTANCE NO. 10[illegible]579

DISPOSAL FACILITY (Facility Operator Must Complete)

Name [illegible] Ph. 6.0 1,428.29
Address Star Rt. Box 4
City, State, Zip [illegible]
Phone _____ / Disp. Ticket # _____
Signature of Authorized Agent _____ Date _____

Quantity Received 23.97 Tons Bbls. Date 10-30-90
Time _____ ☐ AM ☐ PM

DISPOSAL METHOD: ☐ Surface Impoundment ☐ Injection ☒ Landfill ☐ Other _____

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services.
NO HAZARDOUS FEES SHOULD BE LEVIED

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KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

Well, Tank No. _____

Field or Area C.S.H.G.

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388
(805) 589-5220

No 14710

40117

NON-HAZARDOUS WASTE HAULER RECORD
TO BE USED FOR NON-HAZARDOUS WASTES ONLY

GENERATOR (Generator Must Complete)

1
Name S. P. TRANSPORTATION CO.
Field Address 9719 LINCOLN VILLAGE DRIVE
City, State, Zip SACRAMENTO, CALIFORNIA 95827
Phone (916)369-8971
Order Placed By LIZ GILLIS
Signature of Authorized Agent
Date 10-30-90
Title Field Tech

2
WASTE TO BE DISPOSED
Type Non Haz Soil
Generating Location CARPENTERIA, CALIFORNIA
Special Handling Instructions:
☐ Gloves ☐ Goggles ☒ Other NONE
Quantity _____ Bbls.

3
DESIGNATED FACILITY
Name LIQUID WASTE MANAGEMENT, INC.
Address STAR ROUTE BOX 4
City, State, Zip MC KITTRICK, CALIFORNIA 93251
Phone (805)762-7607

TRANSPORTER (Hauler Must Complete)

Name K.V.S. TRANSPORTATION, INC.
Address POST OFFICE BOX 5295
City, State, Zip BAKERSFIELD, CALIFORNIA 93388
Phone (805)589-5220
Signature of Authorized Agent or Driver
Date 10-30-90

Ticket # _____ Unit No. 391/394
Pick Up Date 10-30-90 Time 9:15 ☑ AM ☐ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:
L.W.M. ACCEPTANCE NO. 102590-379

DISPOSAL FACILITY (Facility Operator Must Complete)

Name L.W.M. Class I
Address Star Route 4
City, State, Zip McKittrick, Ca 93251
Phone 805-762-7616 / Disp. Ticket # 40117
Signature of Authorized Agent _____ Date 10-30-90

1,537# Quantity Received 25.75 Tons Bbls. Date 10-30-90
Time _____ ☐ AM ☐ PM

DISPOSAL METHOD: ☐ Surface Impoundment ☐ Injection ☒ Landfill ☐ Other _____

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services.
NO HAZARDOUS FEES SHOULD BE LEVIED

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Well, Tank No. _____

Field or Area 0519

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388
(805) 589-5220

Nº 14709

NON-HAZARDOUS WASTE HAULER RECORD

TO BE USED FOR NON-HAZARDOUS WASTES ONLY

40116

GENERATOR (Generator Must Complete)

1
Name S. P. TRANSPORTATION CO.
Field Address 9719 LINCOLN VILLAGE DRIVE
City, State, Zip SACRAMENTO, CALIFORNIA 95827
Phone (916)369-8971
Order Placed By LIZ GILLIS
Signature of Authorized Agent
Date 10/30/90
Title Field Tech

WASTE TO BE DISPOSED
Type Non Haz - soil

2
Generating Location CARPENTERIA, CALIFORNIA
Special Handling Instructions:
☐ Gloves ☐ Goggles ☒ Other NONE
Quantity _____ Bbls.

DESIGNATED FACILITY

3
Name LIQUID WASTE MANAGEMENT, INC.
Address STAR ROUTE BOX 4
City, State, Zip MC KITTRICK, CALIFORNIA 93251
Phone (805)762-7607

TRANSPORTER (Hauler Must Complete)

Name K.V.S. TRANSPORTATION, INC.
Address POST OFFICE BOX 5295
City, State, Zip BAKERSFIELD, CALIFORNIA 93388
Phone (805)589-5220
Signature of Authorized Agent or Driver Mike Priddy Mike Priddy
Date 10-30-90

Ticket # 10280 Unit No. 412 / 292
Pick Up Date 10-30-90 Time _____ ☐ AM ☐ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:
L.W.M. ACCEPTANCE NO. 102590-879

DISPOSAL FACILITY (Facility Operator Must Complete)

Name L.W.M. Inc. ph # 6
Address Star Rt Box 4
City, State, Zip McKittrick Ca 93251
Phone 805-762-7364 / Disp. Ticket # 40116
Signature of Authorized Agent Peggy Barlow Date 10-30-90

Quantity Received 28.14 ~~Tons~~ Bbls. Date 10-30-90
Time _____ ☐ AM ☐ PM

DISPOSAL METHOD: ☐ Surface Impoundment ☐ Injection ☒ Landfill ☐ Other _____

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services.
NO HAZARDOUS FEES SHOULD BE LEVIED

GENERATOR COPY

FORM 20 12/86

Reorder From Curtis 1000 Curtis Walnut, CA 91789 (714) 598-8776 84190

www.lawcopyinc.com

KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388
(805) 589-5220

Well, Tank No. _____
Field or Area 05149

No. 14708

NON-HAZARDOUS WASTE HAULER RECORD

TO BE USED FOR NON-HAZARDOUS WASTES ONLY

40115

GENERATOR (Generator Must Complete)

1
Name S. P. TRANSPORTATION CO.
Field Address 9719 LINCOLN VILLAGE DRIVE
City, State, Zip SACRAMENTO, CALIFORNIA 95827
Phone (916)369-8971
Order Placed By LIZ GILLIS
Signature of Authorized Agent [signature]
Date 10/30/90
Title Fuld Tech

2
WASTE TO BE DISPOSED
Type Non Haz. Soil
Generating Location CARPENTERIA, CALIFORNIA
Special Handling Instructions:
☐ Gloves ☐ Goggles ☒ Other NONE
Quantity _____ Bbls.

3
DESIGNATED FACILITY
Name LIQUID WASTE MANAGEMENT, INC.
Address STAR ROUTE BOX 4
City, State, Zip MC KITTRICK, CALIFORNIA 93251
Phone (805)762-7607

TRANSPORTER (Hauler Must Complete)

Name K.V.S. TRANSPORTATION, INC.
Address POST OFFICE BOX 5295
City, State, Zip BAKERSFIELD, CALIFORNIA 93388
Phone (805)589-5220
Signature of Authorized Agent or Driver [signature]
Date 10/30/90

Ticket # 106828 Unit No. 384 / 1395
Pick Up Date 10/30/90 Time 9:30 ☑ AM ☐ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:
L.W.M. ACCEPTANCE NO. 10 2590 · 879

DISPOSAL FACILITY (Facility Operator Must Complete)

Name L. W. M. Inc
Address Star Rt Box 4
City, State, Zip McKittrick, Ca 93251
Phone 805-762-7366 / Disp. Ticket # 40115
Signature of Authorized Agent [signature] Date 10-30-90

Quantity Received 96.95 ~~Tons~~ Bbls. Date 10-30-90
Time _____ ☐ AM ☐ PM

DISPOSAL METHOD: ☐ Surface Impoundment ☐ Injection ☒ Landfill ☐ Other _____

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services.
NO HAZARDOUS FEES SHOULD BE LEVIED

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Well, Tank No. _____

Field or Area 05149

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388
(805) 589-5220

No 14707

40114

NON-HAZARDOUS WASTE HAULER RECORD

TO BE USED FOR NON-HAZARDOUS WASTES ONLY

GENERATOR (Generator Must Complete)

1
Name S. P. TRANSPORTATION CO.
Field Address 9719 LINCOLN VILLAGE DRIVE
City, State, Zip SACRAMENTO, CALIFORNIA 95827
Phone (916)369-8971
Order Placed By LIZ GILLIS
Signature of Authorized Agent
Date 10/30/90
Title Field Tech

2
WASTE TO BE DISPOSED
Type Non Haz. Soil
Generating Location CARPENTERIA, CALIFORNIA
Special Handling Instructions:
☐ Gloves ☐ Goggles ☒ Other NONE
Quantity 18 yards. Bbls.

3
DESIGNATED FACILITY
Name LIQUID WASTE MANAGEMENT, INC.
Address STAR ROUTE BOX 4
City, State, Zip MC KITTRICK, CALIFORNIA 93251
Phone (805)762-7607

TRANSPORTER (Hauler Must Complete)

Name K.V.S. TRANSPORTATION, INC.
Address POST OFFICE BOX 5295
City, State, Zip BAKERSFIELD, CALIFORNIA 93388
Phone (805)589-5220
Signature of Authorized Agent or Driver
Date 10-30-90

Ticket # 10387 Unit No. T40 / T43
Pick Up Date 10-30-90 Time _____ ☐ AM ☐ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:
L.W.M. ACCEPTANCE NO. 102590-879

DISPOSAL FACILITY (Facility Operator Must Complete)

Name Liquid Waste Mgmt., Inc. pit #6
Address Star Rte Box 4
City, State, Zip McKittrick CA. 93251
Phone 762-7366 / Disp. Ticket # 40114
Signature of Authorized Agent Joyce Palmer Date 10-30-90

Quantity Received 25.84 TON Bbls. Date 10-30-90
Time _____ ☐ AM ☐ PM

DISPOSAL METHOD: ☐ Surface Impoundment ☐ Injection ☒ Landfill ☐ Other _____

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services.
NO HAZARDOUS FEES SHOULD BE LEVIED

GENERATOR COPY

FORM 20 12/86

Reorder From Curtis 1000 Walnut, CA 91789 (714) 598-8776 84190

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KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

Well, Tank No. _____

Field or Area 05149

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388

(805) 589-5220

No 14702

40014

NON-HAZARDOUS WASTE HAULER RECORD

TO BE USED FOR NON-HAZARDOUS WASTES ONLY

GENERATOR (Generator Must Complete)

1
Name S. P. TRANSPORTATION CO.
Field Address 9719 LINCOLN VILLAGE DRIVE
City, State, Zip SACRAMENTO, CALIFORNIA 95827
Phone (916) 369-8971
Order Placed By LIZ GILLIS
Signature of Authorized Agent [signature]
Date 10/26/90
Title Field Tech

2
WASTE TO BE DISPOSED
Type NON - HAZARDOUS
Generating Location CARPENTERIA, CALIFORNIA
Special Handling Instructions:
☐ Gloves ☐ Goggles ☒ Other NONE
Quantity _____ Bbls

3
DESIGNATED FACILITY
Name LIQUID WASTE MANAGEMENT, INC.
Address STAR ROUTE BOX 4
City, State, Zip MC KITTRICK, CALIFORNIA 93251
Phone (805) 762-7607

TRANSPORTER (Hauler Must Complete)

Name K.V.S. TRANSPORTATION, INC.
Address POST OFFICE BOX 5295
City, State, Zip BAKERSFIELD, CALIFORNIA 93388
Phone (805) 589-5220
Signature of Authorized Agent or Driver [signature]
Date _____

Ticket # 100825 Unit No. 384 / 395
Pick Up Date 10/26/90 Time 4:15 ☒ AM ☐ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:
L.W.M. ACCEPTANCE NO. 102590 -879

DISPOSAL FACILITY (Facility Operator Must Complete)

P#465

Name L. W. M. Inc
Address Star Rt Box 4
City, State, Zip McKittrick, Ca 93251
Phone 805-762-7366 / Disp. Ticket # 40014
Signature of Authorized Agent [signature] Date 10-26-90

Quantity Received 23.54 Tons Bbls. Date 10-26-90
Time _____ ☐ AM ☐ PM

DISPOSAL METHOD: ☐ Surface Impoundment ☐ Injection ☒ Landfill ☐ Other _____

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services.
NO HAZARDOUS FEES SHOULD BE LEVIED

FORM 20 GENERATOR COPY 12/86

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KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

Well, Tank No. _____

Field or Area 05149

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388
(805) 589-5220

No 14703
40019

NON-HAZARDOUS WASTE HAULER RECORD
TO BE USED FOR NON-HAZARDOUS WASTES ONLY

GENERATOR (Generator Must Complete)

1
Name S. P. TRANSPORTATION CO.
Field Address 9719 LINCOLN VILLAGE DRIVE
City, State, Zip SACRAMENTO, CALIFORNIA 95827
Phone (916)369-8971
Order Placed By LIZ GILLIS
Signature of Authorized Agent
Date 10/26/90
Title Field Tech

2
WASTE TO BE DISPOSED
Type NON - HAZARDOUS soil
Generating Location CARPENTERIA, CALIFORNIA
Special Handling Instructions:
☐ Gloves ☐ Goggles ☒ Other NONE
Quantity _____ Bbls

3
DESIGNATED FACILITY
Name LIQUID WASTE MANAGEMENT, INC.
Address STAR ROUTE BOX 4
City, State, Zip MC KITTRICK, CALIFORNIA 93251
Phone (805)762-7607

TRANSPORTER (Hauler Must Complete)

Name K.V.S. TRANSPORTATION, INC.
Address POST OFFICE BOX 5295
City, State, Zip BAKERSFIELD, CALIFORNIA 93388
Phone (805)589-5220
Signature of Authorized Agent or Driver
Richard L. Cantu
Date 10-26-90

Ticket # 100414 Unit No. 391 / 394
Pick Up Date 10-26-90 Time 8:30 ☒ AM ☐ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:
L.W.M. ACCEPTANCE NO. 102590-879

DISPOSAL FACILITY (Facility Operator Must Complete) PH = 6.5

Name L.W.M. Inc.
Address Star Rt Box 4
City, State, Zip McKittrick, Ca 93251
Phone _____ / Disp. Ticket # 40019 ~~10-26-90~~
Signature of Authorized Agent
Peggy Barlow
Date 10-26-90

Quantity Received 20.28 TON ~~Bbls~~. Date 10-26-90
Time _____ ☐ AM ☐ PM

DISPOSAL METHOD: ☐ Surface Impoundment ☐ Injection ☒ Landfill ☐ Other _____

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services.
NO HAZARDOUS FEES SHOULD BE LEVIED

FORM 20 GENERATOR COPY 12/86

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KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

Well, Tank No. _____

Field or Area OILFIELD

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388
(805) 589-5220

No 14704

40020

NON-HAZARDOUS WASTE HAULER RECORD

TO BE USED FOR NON-HAZARDOUS WASTES ONLY

GENERATOR (Generator Must Complete)

1
Name S. P. TRANSPORTATION CO.
Field Address 9719 LINCOLN VILLAGE DRIVE
City, State, Zip SACRAMENTO, CALIFORNIA 95827
Phone (916)369-8971
Order Placed By LEE GILLIS
Signature of Authorized Agent
Date 10/26/90
Title Field Mgr

2
WASTE TO BE DISPOSED
Type NON HAZARDOUS SOIL
Generating Location CARPENTERIA, CALIFORNIA
Special Handling Instructions:
☐ Gloves ☐ Goggles ☒ Other NONE
Quantity _____ Bbls.

3
DESIGNATED FACILITY
Name LIQUID WASTE MANAGEMENT, INC.
Address STAR ROUTE BOX 4
City, State, Zip MC KITTRICK, CALIFORNIA 93251
Phone (805)762-7607

TRANSPORTER (Hauler Must Complete)

Name K.V.S. TRANSPORTATION, INC.
Address POST OFFICE BOX 5295
City, State, Zip BAKERSFIELD, CALIFORNIA 93388
Phone (805)589-5220
Signature of Authorized Agent or Driver
Arthur R. Cadlak (Arthur R. Cadlak)
Date 10-26-90

Ticket # _____ Unit No. 347 / 32
Pick Up Date 10-26-90 Time 8:45 ☒ AM ☐ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:
L.E.M. ACCEPTANCE NO. 102690-279

DISPOSAL FACILITY (Facility Operator Must Complete)

Name [illegible]
Address [illegible]
City, State, Zip [illegible]
Phone [illegible] / Disp. Ticket # [illegible]
Signature of Authorized Agent Date

Quantity Received [illegible] Bbls. Date [illegible]
Time _____ ☐ AM ☐ PM

DISPOSAL METHOD: ☐ Surface Impoundment ☐ Injection ☒ Landfill ☐ Other _____

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services.
NO HAZARDOUS FEES SHOULD BE LEVIED

FORM 20 DISPOSAL COPY 12/86

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KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388
(805) 589-5220

Well, Tank No. _____
Field or Area 05149

No 14706
40038

NON-HAZARDOUS WASTE HAULER RECORD
TO BE USED FOR NON-HAZARDOUS WASTES ONLY

GENERATOR (Generator Must Complete)

1
Name S. P. TRANSPORTATION CO.
Field Address 9719 LINCOLN VILLAGE DRIVE
City, State, Zip SACRAMENTO, CALIFORNIA 95827
Phone (916)369-8971
Order Placed By LIZ GILLIS
Signature of Authorized Agent
Date 10/26/90
Title Field Tech

2
WASTE TO BE DISPOSED
Type Non Hazardous - Soil
Generating Location CARPENTERIA, CALIFORNIA
Special Handling Instructions:
☐ Gloves ☐ Goggles ☒ Other NONE
Quantity _____ Bbls

3
DESIGNATED FACILITY
Name LIQUID WASTE MANAGEMENT, INC.
Address STAR ROUTE BOX 4
City, State, Zip MC KITTRICK, CALIFORNIA 93251
Phone (805)762-7607

TRANSPORTER (Hauler Must Complete)

Name K.V.S. TRANSPORTATION, INC.
Address POST OFFICE BOX 5295
City, State, Zip BAKERSFIELD, CALIFORNIA 93388
Phone (805)589-5220
Signature of Authorized Agent or Driver
Date 10-26-90

Ticket # 101572 Unit No. 4-36/88
Pick Up Date 10-26-90 Time 11:30 ☑ AM ☐ PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:
L.W.M. ACCEPTANCE NO. 102590-879

DISPOSAL FACILITY (Facility Operator Must Complete)

PH#6.5

Name L.W.M
Address Star Rt Box
City, State, Zip McKittrick Ca 93251
Phone 762-7366 / Disp. Ticket # _____
Signature of Authorized Agent Date
Thelma A Collins 10-26-90

Quantity Received 21.98 TONS ~~Bbls~~ Date 10-26-90
☐ AM ☐ PM
Time _____

DISPOSAL METHOD: ☒ Surface Impoundment ☐ Injection ☐ Landfill ☐ Other _____

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services.
NO HAZARDOUS FEES SHOULD BE LEVIED

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GEOMATRIX

PRELIMINARY SITE ASSESSMENT

Carpinteria, California

Prepared for:

Union Pacific Railroad Company
1416 Dodge Street, Room 930
Omaha, Nebraska 68179

July 1999

Project No. 4221.20

Geomatrix Consultants

2101 Webster Street
12th Floor
Oakland, CA 94612
(510) 663-4100 • FAX (510) 663-4141

GEOMATRIX

July 20, 1999
Project 4221.20

Mr. Norm Siler
Union Pacific Railroad
1416 Dodge Street, Room 930
Omaha, Nebraska 68179

Subject: Preliminary Site Assessment Report
Carpinteria Sale Properties
Carpinteria, California

Dear Norm:

Enclosed is a copy of the subject report prepared by Geomatrix Consultants, Inc. This report summarizes the preliminary site assessment performed for the Union Pacific Railroad (UPRR) properties in Carpinteria, California.

As we discussed, a future buyer of the property may choose to investigate the recognized environmental concerns identified in this report by performing a soil and grab groundwater sampling program. These recognized environmental conditions are attributed to potential impacts to the site from off-site sources and on-site activities by entities other than UPRR.

We appreciate the opportunity to continue providing UPRR with our consulting services. Please call either of the undersigned if you have any questions or require additional information.

Sincerely yours,
GEOMATRIX CONSULTANTS, INC.

Penny M. Tse, P.E.
Project Engineer

Susan M. Gallardo, P.E.
Principal Engineer

PMT/SMG
I:\Doc_Safe\4000s\4221.20\PSAcvrltr.doc

Enclosure

cc: Don Caldwell, UPRR Real Estate (2 copies)

SUMMARY – PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

Carpinteria Sale Properties	July 21, 1998
	Lat/Long:
Carpinteria, California	Project: 4221.020

Points of Contact

Union Pacific Real Estate: Don Caldwell (323) 980-6931
Union Pacific Environmental Management: Norm Siler (402) 271-4327
Geomatrix Consultants, Inc.: Penny Tse (510) 663-4100

Site Photo

See Appendix A

Current Status

- A bicycle rental operation was observed on the southern portion of the site.

Regulatory Status

None known at this time.

Summary of Potential Environmental Concerns

- Northeastern: None
- Northwestern: None
- Southern: Possible presence of gasoline UST and petroleum hydrocarbons in shallow soil in former Standard Oil Company operating area.
- Off-site Issues: Three nearby environmental cases were identified that could affect groundwater at the site

Site Description

Site and Vicinity Characteristics

- 4.7 acre site consisting of three portions: northeastern (0.7 acres), northwestern (1.5 acres), and southern (2.5 acres)
- Site area on sides of (north/south) railroad tracks
- Area surrounding site is commercial, residential, and recreational.

Primary Structures and Facilities

- The site is mostly vacant consisting of open vegetated fields, unpaved lots and maintained grass lawn
- Automobile encroachment by adjacent residences and wood chip waste pile was observed on the northwestern portion of the site

Geology/Hydrogeology

Geology –floodplain deposits of silt, sand, gravel and localized clay layers; the Rincon Creek Thrust Fault transects the southern portion of the site.

Groundwater Depth: ~7-25 feet bgs in site vicinity

Groundwater Flow Direction: primarily to the west

Historical Use

- Northeastern: industrial in area, no specific use indicated for site area itself.
- Northwestern: portions leased to nursery, three USTs were removed from this area and regulatory closure was obtained.
- Southern: used by Standard Oil Company with oil storage building, platform, pump house, and gasoline tank.

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FIGURES

Figure 1	Site Location Map
Figure 2	Site Plan

APPENDIXES

Appendix A	Site Photographs
Appendix B	Environmental Data Resources, Inc. Report
Appendix C	Site Maps and Closure Letter for 399 Linden Avenue

PRELIMINARY SITE ASSESSMENT
Union Pacific Railroad Sale Property
Carpinteria, California

1.0 INTRODUCTION

This report summarizes a preliminary assessment of environmental conditions at the Union Pacific Railroad Company (UPRR) sale property in Carpinteria, California (Figure 1). Geomatrix Consultants, Inc. (Geomatrix), performed the site assessment on behalf of UPRR according to the provisions of Service Order No. 2796 (Contract Audit No. 701140).

The objectives of the preliminary site assessment (PSA) were to: (1) evaluate whether past on-site and off-site activities may have affected soil and groundwater quality beneath the site; (2) evaluate whether current on-site activities may affect soil and groundwater quality at the site; and (3) assist UPRR in assessing whether a Phase II program consisting of soil and/or groundwater sampling and chemical analysis may be necessary to further evaluate site conditions.

To accomplish these objectives, the PSA was performed in general accordance with guidelines for PSAs set forth in ASTM[1] E 1527-97 entitled *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM guideline). This preliminary assessment did not include a property title search or identification of all previous tenants; collection and chemical analysis of samples of soil, groundwater, or on-site materials; an evaluation of the presence of asbestos and radon; or an evaluation of seismic characteristics. The major components of the PSA were:

- site reconnaissance to observe and document general conditions and activities at the site and immediately adjacent properties;
- review of available Sanborn Fire Insurance (Sanborn) maps, historical aerial photographs for the site, and information provided by the UPRR real estate department;

[1] American Society for Testing and Materials.

- review of information that is publicly maintained and available regarding documented on-site and off-site chemical releases that may affect soil or groundwater conditions at the site; and

- data evaluation and report preparation.

2.0 SITE SETTING

The site is located in Carpinteria, California, between Holly Avenue and approximately 200 feet south of Palm Avenue (Figure 1). The site is approximately 4.7 acres. For purposes of clarity and potential future division of the site into different sale properties (personal communication with Don Caldwell, UPRR Real Estate), we have divided the site into three areas. The northeastern portion of the site refers to approximately 0.7 acres that is east of the main line railroad tracks. The northwestern portion of the site is approximately 1.5 acres and is located on the west side of the tracks between Holly and Linden Avenues. The southern portion of the site is the remainder of the site that is west of the main line railroad tracks south of Linden Avenue. This portion is approximately 2.5 acres. The three areas are shown on Figure 2. General land use of the adjacent properties is commercial, residential and recreational

2.1 GEOLOGIC AND HYDROGEOLOGIC SETTING

Based on information available in reports from nearby sites that were reviewed by Geomatrix (Secor, 1996; Fluor Daniel GTI, 1997), the site is located within the Carpinteria Basin, an east-west trending alluvial basin bound by the Santa Ynez mountains on the north and the Pacific Ocean on the south. The Carpinteria Basin extends westward for the Ventura County line (approximately 2.8 miles east of the site) to Torro Canyon (approximately 3.5 miles west of the site). The Carpinteria Basin contains several thousand feet of unconsolidated Recent and Pleistocene floodplain deposits of silt, sand, gravel and localized clay layers. These unconsolidated deposits are underlain by the non-marine, Early to Middle Pleistocene Casitas Formation. According to Dibblee (1986), the east-west trending Rincon Creek Thrust Fault transects the southern portion of the site approximately 200 to 300 feet north of Palm Avenue. Based on the U.S. Geological Survey (U.S.G.S.) topographic map (Carpinteria Quadrangle), the elevation of the site is approximately 20 feet above mean sea level.

The Rincon Creek Fault divides the Carpinteria Basin into two separate groundwater storage units. Based on information from nearby sites located north of the Rincon Creek Fault defined as Storage Unit No. 1 (Secor, 1996; Fluor Daniel GTI, 1997), depth to groundwater in the site

vicinity ranges from approximately 7 to 25 feet below ground surface (bgs). Groundwater flow direction is toward the west with an average horizontal hydraulic gradient of 0.05 foot per foot. We did not obtain hydrogeologic information for the storage unit south of Rincon Creek Fault.

3.0 SITE HISTORY

3.1 SANBORN FIRE INSURANCE MAPS

Geomatrix retained EDR Sanborn, Inc. (EDR), of Southport, Connecticut, to identify and supply Sanborn Fire Insurance Maps (Sanborn Maps) of the site. EDR provided one Sanborn Map for the year 1929. This map was limited in coverage of the site area showing only a portion of the site between Linden and Palm Avenues. The on-site features shown on the Sanborn map are located adjacent to and south of Linden Avenue. Features located west of and adjacent to the railroad tracks include an oil storage building, platform, pump house, and a gasoline tank (possibly underground) associated with the Standard Oil Company.

According to EDR, no other Sanborn Maps were available for subsequent years or other areas of the site.

3.2 AERIAL PHOTOGRAPHS

Geomatrix retained EDR to identify and supply historical aerial photographs of the site. EDR provided aerial photographs of the site and vicinity from the years 1947, 1959, 1964, 1978, 1989, and 1994. The approximate scale of these photographs ranged between 1 inch = 666 feet to 1 inch = 1000 feet.

In the 1947 photograph, the majority of the site vicinity appeared to be undeveloped vacant land with the exception of two areas. Areas near the site between Linden and Maple Avenues and Linden and Elm Avenues appeared to be occupied by buildings or structures; however these structures do not appear to be on site. The use of these areas could not be determined due to the scale (1 inch = 1000 feet) of the photograph.

In the 1959 photograph, the features observed between Linden and Maple Avenues have been removed. In the area between Linden and Elm Avenues, structures were observed only on the northern half of the area; the remaining portion of this area appeared to be vacant. No significant changes were noted in the 1964 photograph.

In the 1978 photograph, the entire site appeared to be vacant. In the 1989 photograph, the area of the site between Linden and Palm Avenues appeared to be part of the Carpinteria State Beach with trees and some vegetation. Some structures might have been located on the area of the site between Linden and Elm Avenues; however the quality and resolution of the photograph were not adequate enough to clearly distinguish these potential features.

In the 1994 photograph, the site appeared to be vacant and unoccupied.

During the photograph review, general observations were made of the surrounding area. Carpinteria State Beach borders the western side of the site between Linden and Palm Avenues. The general use of the area appeared to include a mixture of undeveloped/agricultural, residential and commercial use. Over the time period reviewed, the density of residential and commercial features increased while undeveloped and agricultural areas appeared to decrease. Other significant changes observed in the 1959 photograph included the presence of: (1) a wastewater treatment plant south of the site; and (2) Highway 101 to the east of the site.

3.3 INFORMATION FROM UPRR

Information from the UPRR sale property program provided by the UPRR Real Estate department was reviewed. Per Don Caldwell, property east of the railroad tracks historically was industrial; the specific use of the northeastern portion of the site is not known. Additionally, parts of the northwestern and southern portions of the site were leased to a nursery. Specific historical operating areas were not identified in the information reviewed.

According to UPRR, a UST removal and subsequent sampling was performed for an adjacent UPRR parcel located east of the main line railroad tracks between Palm and Olive Avenues. Regulatory closure was obtained for this site in July 1997.

4.0 SITE RECONNAISSANCE

4.1 OBSERVATIONS AND CONDITIONS ON SITE

Geomatrix staff performed reconnaissance of the site and adjacent properties on June 29, 1999. With a few exceptions the site is primarily vacant with vegetation, unpaved lots and maintained grass lawn. A bicycle rental structure and two associated bicycle storage containers and a high voltage electrical box are located on the southern portion of the site. A wood chip waste pile (approximately 6 cubic yards) was observed just north of Linden Avenue on the northwestern portion of the site. Automobile parking encroachment by adjacent residences was observed

along the entire length of the northwestern portion of the site. Photographs of the site are included in Appendix A.

4.2 OBSERVATIONS AND CONDITIONS ADJACENT TO THE SITE

The site is divided by Union Pacific railroad track and easements. General usage of the area includes residential, industrial and California State park land. Underground fiber-optic cables are marked by PVC poles and run parallel to the railroad tracks. Property uses northeast of the site are primarily industrial (flag manufacturing) and commercial (warehousing, restaurants, building contracting and offices). On an adjacent property southeast of the site is a dirt lot with four 3-legged wooden pole structures of unknown use. The Carpinteria sewage treatment plant also is located southeast of the site. A recreational vehicle sewage dumping station lies to the south in the Carpinteria State Beach campground. A water pump station was observed to the west, also for the State Beach. The remainder of the western border is residential.

5.0 REVIEW OF AGENCY FILES

Geomatrix retained EDR to search applicable regulatory databases to identify properties with documented environmental releases and/or that use, store, or dispose of regulated chemicals. The radii of the database search corresponded to the recommended radii in the ASTM guideline. The EDR report is included in Appendix B.

EDR identified approximately 39 environmental cases located within the search radius. Geomatrix reviewed the EDR report to identify cases that may affect site soil and groundwater using a ¼-mile radius for permitted USTs cases and a ½-mile radius for toxic and fuel leak cases. Twelve of the 39 cases were documented leaking underground storage tank (LUST) cases. Based on the information provided by EDR, six of these cases have been closed by the overseeing regulatory and are inactive. Geomatrix reviewed files for the remaining six LUST cases for which their status was unclear or listed as active in the EDR report. Based on the database search information, these six cases appeared to have the highest potential to affect site soil and groundwater and are summarized on Table 1 and in Section 5.1 below. Geomatrix reviewed regulatory agency files for these sites to obtain additional information pertaining to their current status. Information was requested from records maintained by the County of Santa Barbara, Department of Environmental Health (SBDEH) and the California Regional Water Quality Control Board, Central Coast Region (RWQCB). The following section summarizes the information provided by EDR and obtained during the regulatory agency file review.

5.1 FUEL LEAK CASES

The EDR database search identified Orchard Services located at 399 Linden Avenue as a LUST case. This case was located on the site west of Linden Avenue on the northwestern portion of the site. SBDEH file information indicates that three fuel USTs were removed in 1990. Soil excavation and groundwater monitoring was initiated in 1990. Associated monitoring wells were abandoned and the site was granted closure by the SBDEH in 1996. Site maps and a copy of the closure letter for this case included in Appendix C.

The EDR database search identified Carpinteria Motor Transport located at 410 Palm Avenue as a LUST case. This property is located less that ¼ mile northeast of the site. Reports reviewed at the RWQCB indicate that three fuel USTs were removed in the mid-1980s and that excavation and soil treatment has been performed. The case was granted closure in 1989 by SBDEH[1]. Based on source removal activities at the property and the cross-gradient location of the property relative to the site, it is unlikely that this fuel leak case adversely impacted environmental conditions at this site.

The EDR database search identified Carpinteria Valley Lumber Company located at 915 Elm Street as a LUST case. This property is located approximately 1/4 mile north-northeast of the site. Information at SBDEH indicate that two fuel USTs were removed in 1988 and an "underground storage tank unauthorized release (leak)" report was filed associated with the tank removal activities. The leak report indicated that a remedial action to excavate and dispose would be implemented. No further information was available during the file review at SBDEH. Based on the information reviewed and the possible up- or cross-gradient location of the site, this case could have adversely impacted the environmental conditions at the site.

The EDR database search identified Chevron USA, Inc. located at 4991 Carpinteria Avenue as a LUST case approximately 1/2 mile northeast of the site. Reports at the SBDEH indicate that a gasoline spill occurred at this site and that subsequently, "adsorbed-phase hydrocarbons" were identified in the subsurface. After investigation and groundwater monitoring took place, the site was closed by the SBDEH and the RWQCB in 1998. Based on the results of groundwater monitoring and recent regulatory closure due to "compliance with RWQCB

[1] Information obtained during the Carpinteria Motor Transport file review at SBDEH indicated that affected soil was discovered from a petroleum UST located on UPRR property. Based on the location of the Carpinteria Motor Transport site and UPRR file information (Section 3.3), the referenced UST was likely located on the east side of the railroad track between Palm to Olive Avenues. As described in Section 3.3, this site was closed in July 1997.

groundwater clean up concentrations[2]", it is unlikely that this property adversely impacted the environmental conditions at the site.

The EDR database search identified Exxon/McDonald's located at 1115 Casitas Pass Road as a LUST case. This property is located approximately ½ mile northeast of the site. Reports at the SBDEH indicate that unleaded fuel was accidentally released and that free-product was found in groundwater associated with property's USTs between 1983 and 1985. Active soil and groundwater remediation activities for this case have been in operation since January 1999. Based on the information reviewed and the possible up- or cross-gradient location of the site, this case could have adversely impacted the environmental conditions at the site.

The EDR database search identified Arco Station #1980 located at 1116 Casitas Pass Road as a LUST case. This property is located approximately ½ mile northeast of the site. Information in SBDEH files indicate that four gasoline USTs were removed and quarterly groundwater monitoring was initiated in 1989. A 1998 document in the file indicated that the case required additional groundwater assessment, in particular, for methyl-tert-butyl-ether (MtBE) which was detected in a downgradient (specific location not identified) well. Soil sampling was performed in February 1999 in the vicinity of current operational pump islands. Three 12,000 gallon double-contained USTs are located at this property. Based on the information reviewed and the possible up- or cross-gradient location of the site, this case could have adversely impacted the environmental conditions at the site.

5.2 PERMITTED UNDERGROUND STORAGE TANKS

EDR identified five facilities with permitted underground storage tanks within ¼ mile of the center of the site. These sites are: Orchard Services at 399 Linden Avenue, Carpinteria at 5361 Sixth Street, Wullbrandt Welding at 655 Linden Avenue, Carpenteria Motor Transport at 410 Palm Avenue, and Maintenance Yard at 5361 6th Street.

There is no record of a permit or removal of a gasoline tank in the southern portion of the site. As previously indicated in Section 3.1, it is unknown whether the tank identified in the Sanborn map was an above- or underground storage tank.

[2] Specific cleanup concentrations are documented in a September 15, 1998 RWQCB letter.

6.0 SUMMARY

6.1 SUMMARY OF FINDINGS

The primary findings of the PSA that may be pertinent to potential environmental conditions at the site are summarized below:

- ***Hydrogeologic Conditions:*** Environmental investigations at nearby properties indicate that the groundwater flow direction is documented primarily to the west. The depth to groundwater for these sites range from approximately 7 to 25 feet bgs.
- ***Current Site Conditions:*** The site is mostly vacant consisting of open vegetated fields, unpaved lots and maintained grass lawn. A bicycle rental operation was observed on the southern portion of the site. Automobile encroachment by adjacent residences and a wood chip waste pile was observed on the northwestern portion of the site.
- ***Historic Operations/Use:*** Use of the northeastern portion of the site may have been industrial. Parts of the northwestern and southern portions of the site were leased to a nursery. In the area of the southern portion of the site just south of Linden Avenue, the property was used by Standard Oil Company including an oil storage building, platform, pump house, and a gasoline tank
- ***Off-Site Properties:*** Specific off-site issues that could affect groundwater at the site were identified from the information sources Geomatrix reviewed. These include Carpinteria Valley Lumber Company (915 Elm Street), Exxon/McDonald's (1115 Casitas Pass Road), and Arco Station #1980 (1116 Casitas Pass Road).

6.2 RECOGNIZED ENVIRONMENTAL CONDITIONS

Based on the primary findings identified in this report, the recognized environmental conditions that could affect the site are as follows:

- Northeastern portion of the site: No specific environmental conditions were identified for this portion of the site. Although the historical use of this area of the site was industrial, no specific information reviewed at this time indicates that this portion of the site was an active area.
- Northwestern portion of the site: No specific environmental conditions were identified for this portion of the site. Although the historical use of this area and the southern portion of the site were leased to a nursery, chemical usage associated with the site (fuel USTs) has been addressed and closed by the SBDEH. It is assumed that small quantities of pesticides may have been used as part of nursery operations; however, because the use of these chemicals likely was limited, no significant environmental impact would have occurred.

- Southern portion of the site: A gasoline UST may have been located south of Linden Avenue associated with the former Standard Oil Co. Additionally, operating areas of this facility could have affected with petroleum hydrocarbons and related constituents.

- Three off-site issues [Carpinteria Valley Lumber Company (915 Elm Street), Exxon/McDonald's (1115 Casitas Pass Road), and Arco Station #1980 (1116 Casitas Pass Road)] were identified that could affect groundwater at the site.

7.0 LIMITATIONS

This assessment reflects results of work performed in accordance with the terms and conditions of Service Order No. 2796 (Contract Audit No 701140). The observations and conclusions presented in this report are based on information obtained through the work described herein. The scope of services did not include sample collection and analysis for hazardous materials. In addition, this assessment did not evaluate asbestos, radon, or seismic risk. It must be recognized that any conclusions regarding the history and environmental conditions of the site and neighboring sites rely on the completeness and integrity of the information available at the time of the assessment and the cooperation of persons contacted. As such, no absolute determination can be made of all environmental risks. Opinions presented herein apply to conditions observed or data obtained at the time of our assessment and cannot apply to site conditions or changes of which we are not aware or which we have not had the opportunity to evaluate. This assessment is provided by Geomatrix for the specific use of Union Pacific Railroad Company and may not contain sufficient information for the purposes of other parties.

8.0 LIST OF REFERENCES

American Society for Testing and Materials (ASTM), 1997 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation: E 1527-97.

County of Santa Barbara, Protection Services Division, 1996, Letter to Mr. John Moe, Southern Pacific Transportation Company, 399 Linden Avenue, Carpinteria, California, LUFT Site #50119, May 13.

TerraNext, 1996, Report for Groundwater Monitoring at the Former Orchard Services Site, Southern Pacific Transportation Company, 399 Linden Avenue, Carpinteria, California, February 20.

SP Environmental Systems, Inc. (1990), Site Investigation and Remediation Report, Southern Pacific Transportation Company, Carpinteria, California, November 21, 1990.

Dibblee, Thomas W. Jr., 1986, Geologic Map of the Carpinteria Quadrangle, Santa Barbara County, California.

Flour Daniel GTI, 1997, Additional Site Investigation report for former Chevron Site No. 9-0796, 4991 Carpinteria Avenue, Carpinteria, California, October 15.

Secor International, Inc., 1996, Additional Assessment Workplan, ARCO Station 1980, 1116 Casitas Pass Road, Carpinteria, California, June 17.

TABLE

TABLE 1

SELECTED DOCUMENTED REGULATORY AGENCY SITES

Carpinteria Sale Property
Carpinteria, California

Site Map ID[1]	Site Name	Site Address	Source(s) of Information	Year(s) of Information	Site History and Description	Constituents Detected in Soil and Groundwater and Maximum Concentrations	Depth to Groundwater (feet below ground surface)	Direction of Groundwater Flow	Distance (miles) and Direction from Site
A1	Orchard Services	399 Linden Avenue	Santa Barbara County Fire Department	11/90 – 5/96	• 2/90: Two USTs removed and samples taken. Further investigation was required. • 1990-91: Two stages of soil excavation/remediation took place and a third tank was discovered and removed. • 4/92: Closure requested. More investigation was required by Santa Barbara County. • 5/96: Closure granted by Santa Barbara County. Investigations monitoring and remedial activity completed.	Soil (mg/kg) TPHms 3,800 Total Lead 120 B 0.06 T 0.59 E 2.8 X 0.86 Groundwater (µg/l) BTEX <0.5 TPH <50	8.0 – 9.3	Southwest	On-site
E14	Carpinteria Motor Transport	410 Palm Avenue	Santa Barbara County Fire Department	3/88-8/89	• mid-1980s: One gasoline and two diesel USTs were removed in mid 1980s. 180 cu yds of soil was excavated Accurate extent and source of affected soil not defined. Three monitoring wells installed after first excavation and tank removal. Two sources of contamination assumed (one on-site and one southwest of site). • 8/88: Additional investigation performed. 200 cu yds of soil treated with bacterial treatment process (Munox bacterial innoculant). • 2/89: Site granted closure by Santa Barbara County.	Soil (mg/kg): TRPH 1300 TVPH 230 Volatile Organics 150 Other VOCs 0 - 0.076 B 0.15 T 6.0 E 28.0 X 5.0 Groundwater (µg/l) TRPH 6.0 TVPH 53,000 B 1600 T 1700 X 6900	7 - 8	NR	<¼ mile Southeast
I26	Carpinteria Valley Lumber Company	915 Elm Street	Santa Barbara County Fire Department	1/86 – 9/88	• 5/88: Applied to abandon two USTs (diesel and gasoline). • 9/88: County found evidence of affected soil during UST abandonment inspection. • 9/88: Filed report for unauthorized release of gasoline indicating plan to excavate and dispose affected soil.	Soil (mg/kg) TPH 25	15 –20	NR	¼ mile North-Northeast

TABLE 1

SELECTED DOCUMENTED REGULATORY AGENCY SITES
Carpinteria Sale Property
Carpinteria, California

Site Map ID[1]	Site Name	Site Address	Source(s) of Information	Year(s) of Information	Site History and Description	Constituents Detected in Soil and Groundwater and Maximum Concentrations	Depth to Groundwater (feet below ground surface)	Direction of Groundwater Flow	Distance (miles) and Direction from Site
G29	Chevron USA, Inc	4991 Carpinteria Ave.	Santa Barbara County Fire Department	4/93 – 11/98	• 7/91: Accidental 20-gallon gasoline spill. • 3/93: Groundwater Technology, Inc. contracted to investigate soil. Borings were drilled and samples taken. • 8/95: Monitoring wells abandoned and closure granted. • 7/96: "Adsorbed-phase hydrocarbons" identified in subsurface, site became active LUFT site. Buildings and equipment removed. • 4/97: Geoprobe/Hydropunch indicated presence of hydrocarbons in soil and groundwater • 11/98: Closure granted by Santa Barbara County and the RWQCB based on "compliance with RWQCB groundwater cleanup concentrations".	Soil (mg/kg) B 75 T 740 E 370 X 2,400 TPHg 23,000 Total Lead 5.4 EFH 200 Groundwater (µg/l) B 1,500 T 14 E 2,300 X 2,000 TPHg 26,000 MTBE 1,600 Total Lead 94	9 - 9.5	West	~ 1/2 mile Northeast
M50	Exxon/McDonald's	1115 Casitas Pass Road	Santa Barbara County Fire Department	1983-1/99	• 1983: Accidential release of unleaded fuel from UST. Tank repaired and returned to service • 8/85: Assessment found free floating product in groundwater near fuel tanks. Three fuel and one waste oil UST removed and station demolished. • 6/97: AET (Applied Environmental Technologies Inc.) performed field testing for soil and groundwater remediation according to approved FS/RAP. • 8/98: Installation of soil and groundwater remediation systems (air sparging/venting and SVE). • 1/99: Site remediation and groundwater monitoring started.	Soil (mg/kg) B 17 T 170 E 62 X 320 TPH 5,100 Total Lead 16.8 MtBE 14.9 TRPH 6,800	22 – 25	West	½ mile Northeast

TABLE 1

SELECTED DOCUMENTED REGULATORY AGENCY SITES

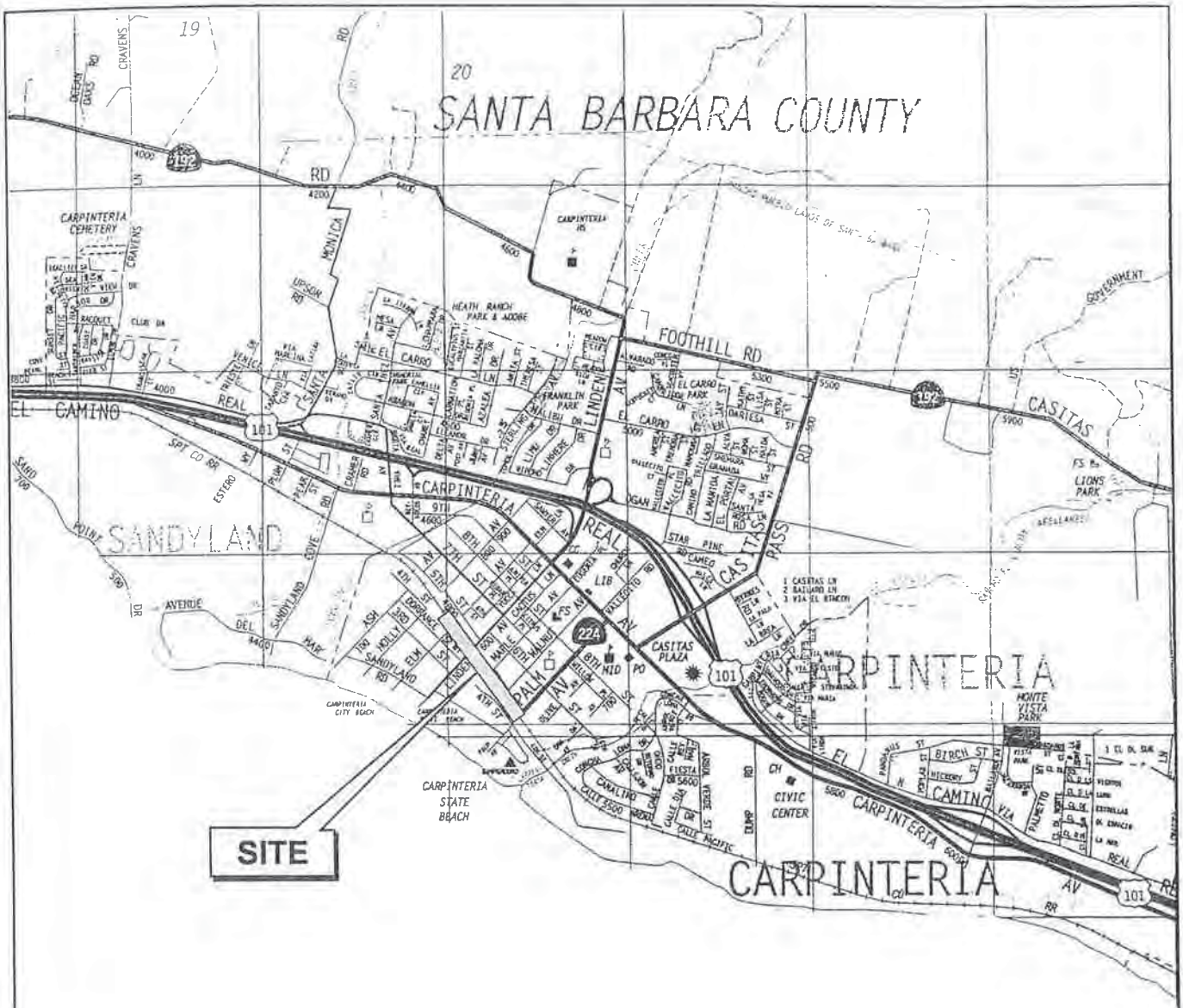
Carpinteria Sale Property
Carpinteria, California

Site Map ID[1]	Site Name	Site Address	Source(s) of Information	Year(s) of Information	Site History and Description	Constituents Detected in Soil and Groundwater and Maximum Concentrations	Depth to Groundwater (feet below ground surface)	Direction of Groundwater Flow	Distance (miles) and Direction from Site
M51	Arco Station #1980	1116 Casitas Pass Road	Santa Barbara County Fire Department	3/89 – 2/99	• 3/89: Applied to abandon four gasoline USTs. • 6/89: Tanks removed and excavation of soil began after site assessment. • 7/89: Quarterly groundwater monitoring program initiated. • 9/90: Conducted vapor extraction testing • 1/98: A "Determination of Low-Risk Groundwater Site " form was in file indicating that 1) extent of TPH and BTEX at site had been delineated but distribution of MtBE is not known; 2) no active remediation ongoing at this time; and 3) additional assessment was required. • 2/99: Soil sampling performed in the vicinity of currently operating pump islands. • 1999: Three 12,000-gallon fuel USTs with double containment on site.	Soil (mg/kg) – 1/7/99 B 4.3 T 160 E 220 X 1,000 TPHg 13,000 MTBE 7.4 Lead 11 Groundwater (µg/l) TPHg 1,000 Total Lead 5 B 140 T 1 E 77 X 19 MTBE 4,300	20 – 22	West	½ mile Northeast

Notes:

[1] Map ID = Map identification numbers as referenced in EDR Report
[2] EDR = Environmental Data Resources, Inc.
RWQCB = Water Quality Control Board, Central Coast Region
[3] UST = Underground storage tank
TPH = Total petroleum hydrocarbons
TPHms = Total petroleum hydrocarbons as mineral spirits
TRPH = Total recoverable petroleum hydrocarbons
TVPH = Total volatile petroleum hydrocarbons
TPHg = Total petroleum hydrocarbons as gasoline
TPHd = Total petroleum hydrocarbons as diesel
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MtBE = methyl-tert-butyl-ether
VOCs = volatile organic compounds
mg/kg = Milligrams per kilogram
µg/l = Micrograms per liter
NR = not reported

FIGURES



Base map from *The Thomas Bros Guide, Santa Barbara and San Luis Obispo Counties, 1997 Edition*
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GEOMATRIX

SITE LOCATION MAP
Union Pacific Railroad
Carpinteria, California

Figure
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4221.20

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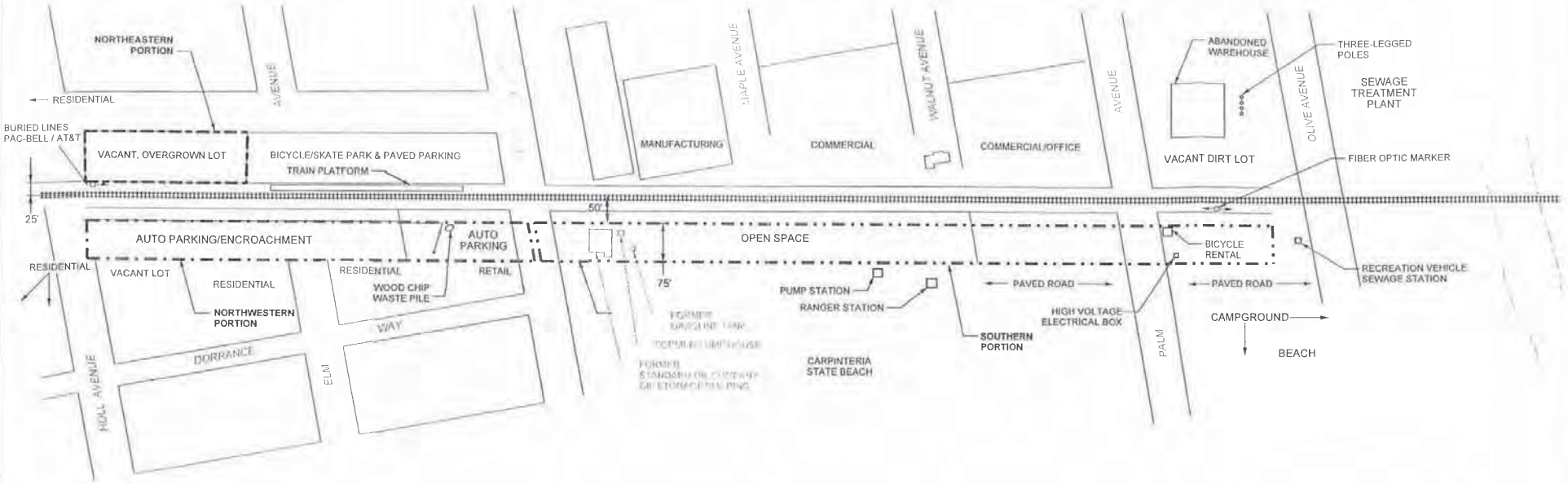

EXPLANATION

SALE PROPERTY BOUNDARIES:

– – – – NORTHEASTERN PORTION

– · — · — NORTHWESTERN PORTION

· — · · — SOUTHERN PORTION

0 200

SCALE IN FEET

Note:
1. Base map provided by Union Pacific Railroad Real Estate Department
2. Location of historical features based on 1929 Sanborn FIre Insurance Map
3. Site conditions and features based on June 29, 1999 Geomatrix field visit

SITE PLAN
Union Pacific Railroad
Carpinteria, California

GEOMATRIX | Project No 4221.20 K | Figure 2

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APPENDIXES



Photo 1. Southern portion of site: At Olive Avenue facing north (bicycle rental area).



Photo 2. Southern portion of site: Bicycle rental area near Palm Avenue (facing south).

Photos taken by Geomatrix on 6/29/99.



Photo 3. Southern portion of site: At Palm Avenue facing north.



Photo 4. Southern portion of site: Approximately 350 feet north of Palm Avenue, facing north.

Photos taken by Geomatrix on 6/29/99.

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Photo 5. Southern portion of site: Approximately 400 feet south of Maple, facing east towards site.



Photo 6. Southern portion of site: At Linden Avenue, facing south towards site.

Photos taken by Geomatrix on 6/29/99.

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Photo 7. Northwestern portion of site: At Linden Avenue facing north (woodchip wastepile and auto parking encroachment).



Photo 8. Northwestern portion of site: Approximately 400 feet north of Linden Avenue, facing site and train platform (parking encroachment).

Photos taken by Geomatrix on 6/29/99.

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Photo 9. At Holly Avenue facing south towards northwestern portion of site.



Photo 10. At Holly Avenue facing south towards northeastern portion of site.

Photos taken by Geomatrix on 6/29/99.

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Photo 11. At southern end of northeastern portion of site, facing north.

Photos taken by Geomatrix on 6/29/99.

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APPENDIX B

ENVIRONMENTAL DATA RESOURCES, INC. REPORT

GEOMATRIX

Results of Limited Phase II Investigation

Carpinteria, California

Prepared for:

Union Pacific Railroad Company
1416 Dodge Street, Room 930
Omaha, Nebraska 68179

September 1999

Project No. 4221.20

Geomatrix Consultants

2101 Webster Street
12th Floor
Oakland, CA 94612
(510) 663-4100 • FAX (510) 663-4141

GEOMATRIX

September 20, 1999
Project 4221.20

Mr. Norm Siler
Union Pacific Railroad
1416 Dodge Street, Room 930
Omaha, Nebraska 68179

Subject: Results of Limited Phase II Investigation
Carpinteria Sale Properties
Carpinteria, California

Dear Norm:

Enclosed is a copy of the subject report prepared by Geomatrix Consultants, Inc. This report summarizes the Results of Limited Phase II Investigation performed for the Union Pacific Railroad (UPRR) properties in Carpinteria, California.

We appreciate the opportunity to work with you on this project. Please call either of the undersigned if you have any questions or require additional information.

Sincerely yours,
GEOMATRIX CONSULTANTS, INC.

Penny M. Tse, P.E.
Project Engineer

Susan M. Gallardo, P.E.
Principal Engineer

PMT/SMG:ldu
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Enclosure

cc: Don Caldwell, UPRR Real Estate (2 copies)

GEOMATRIX

Results of Limited Phase II Investigation

Carpinteria, California

Prepared for:

Union Pacific Railroad Company
1416 Dodge Street, Room 930
Omaha, Nebraska 68179

September 1999

Project No. 4221.20

Geomatrix Consultants

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RESULTS OF LIMITED PHASE II INVESTIGATION
Union Pacific Railroad Sale Property
Carpinteria, California

1.0 INTRODUCTION

This report presents the results of a limited Phase II Investigation at the property located in Carpinteria, California (the site, Figure 1). This work was performed on behalf of Union Pacific Railroad Company (UPRR) by Geomatrix Consultants, Inc. (Geomatrix) in accordance with our July 29, 1999 Scope of Services and Cost Estimate, and Service Order No. 2796 (Contract Audit No. 701140).

2.0 SITE SETTING

The site consists of approximately 4.7 acres located in Carpinteria, California. The site parallels the UPPR main line tracks and extends from Holly Avenue on the northwest to approximately 200 feet south of Palm Avenue on the southeast (Figure 1). For purposes of clarity, we have divided the site into three areas. The northeastern portion of the site refers to approximately 0.7 acres that is east of the main line railroad tracks. The northwestern portion of the site is approximately 1.5 acres and is located on the west side of the tracks between Holly and Linden Avenues. The remaining southern portion of the site (approximately 2.5 acres) is west of the main line railroad tracks and south of Linden Avenue. The three areas are shown on Figure 2. General land use of the adjacent properties is commercial, residential and recreational. It is our understanding that Union Pacific Railroad plans to sell the southern portion of the site to the State of California.

3.0 GEOLOGIC AND HYDROGEOLOGIC SETTING

The site is located within the Carpinteria Basin, an east-west trending alluvial basin bound by the Santa Ynez mountains on the north and the Pacific Ocean on the south. The Carpinteria Basin contains unconsolidated Recent and Pleistocene floodplain deposits of silt, sand, gravel and localized clay layers. Based on the U.S. Geological Survey topographic map (Carpinteria Quadrangle), the elevation of the site is approximately 20 feet above mean sea level.

Depth to groundwater in the vicinity of the site ranges from approximately 7 to 25 feet below ground surface (bgs). Groundwater flow direction in this area is toward the west with an average horizontal hydraulic gradient of 0.05 foot per foot (Secor, 1996; Fluor Daniel, 1997).

4.0 SUMMARY OF SITE HISTORY

This section presents an overview of the history of the site complied from information obtained by Geomatrix during a previous Phase I investigation conducted in June and July 1999 (Geomatrix, 1999). This investigation found that the northeastern portion of the site might have been industrial, but that no specific information indicated that this was an active area. Parts of the northwestern and southern portions of the site were leased to a nursery, but it is unlikely that any significant environmental impact would have occurred from this operation. Standard Oil Company formerly operated in the southern portion of the site between Linden Avenue and Palm Avenue. The Standard Oil facility was adjacent to the Carpinteria State Beach and included an oil storage building, platform, pump house, and a gasoline tank. This facility could have affected soil or groundwater with petroleum hydrocarbons and related constituents.

Currently the site is mostly vacant consisting of open vegetated fields, unpaved lots and a grass lawn maintained by Carpinteria State Beach. A bicycle rental operation is located on the southern portion of the site. Automobile encroachment by adjacent residences and a wood chip waste pile is located on the northwestern portion of the site.

5.0 PHASE II INVESTIGATION

As described in our July 29, 1999 Scope of Services, the objective of the Phase II investigation was to evaluate whether past on-site activities associated with the former Standard Oil facility may have affected soil and groundwater quality beneath the southern portion of the site. This section presents the field and analytical methods used to conduct the investigation.

5.1 SOIL BORING SAMPLING METHODS

Prior to initiating fieldwork, Geomatrix contacted the Santa Barbara County Fire Department (SBCFD) in Buellton to determine whether drilling permits were necessary to perform the described scope of work. Based on telephone conversations with SBCFD no permits were required. Geomatrix prepared a site-specific Health and Safety Plan and notified Underground Service Alert of the planned drilling activities. Cruz Brothers, an independent underground utility locator of Santa Cruz, California, was contracted to clear the boring locations and to survey the area for the possible presence of an underground storage tank (UST) associated with the operations of the former Standard Oil facility.

Gregg Drilling and Testing, a licensed drilling contractor of Martinez, California, under the supervision by Geomatrix staff, drilled three soil borings on August 16, 1999. The borings (GMX-1 through GMX-3) were advanced using direct push technology to depths ranging from 16 to 20 feet bgs. The boring locations were in the approximate area of the former Standard Oil facility and are shown on Figure 2. The soil borings were continuously sampled and lithologic logs were prepared by Geomatrix staff. The lithologic descriptions of the soil were created in accordance with the Unified Soil Classification System as described in the American Society of Testing and Materials (ASTM) Standard D248890 (ASTM, 1990). Soil samples were collected for chemical analysis at approximately 2-foot intervals until first water was encountered (approximately 12 feet bgs). Lithologic information is included on the boring logs in Appendix A.

Soil samples were collected in butyl-acetate liners. Immediately after sample collection, the ends of the samples were sealed with Teflon sheeting, plastic end-caps, and duct tape. The soil samples were then labeled, placed in an ice-cooled chest, and delivered under Geomatrix chain-of-custody procedures to Entech Labs (Entech), of Sunnyvale, California (a state-certified analytical laboratory).

5.2 GRAB GROUNDWATER SAMPLING METHODS

Grab groundwater samples were collected by installing a ¾-inch diameter temporary polyvinyl chloride (PVC) casing consisting of approximately 10 feet of blank PVC and 5 to 10 feet of well screen (0.01 inch slot) attached to the blank PVC. The PVC was installed inside the drive casing, which was withdrawn thereby exposing the screen to water-yielding sediments. Groundwater samples were collected using dedicated disposable bailers and transferred into laboratory-supplied and appropriately preserved sample containers. The samples were labeled, placed in an ice-cooled chest, and transferred under chain-of-custody procedures to Entech.

After all the samples were collected, the borings were backfilled with bentonite chips and hydrated. Soil cuttings from the borings were contained in a 5-gallon labeled bucket and stored on site. The wash water generated during sampling activities was contained in a 55-gallon labeled drum and stored on site.

5.3 ANALYTICAL METHODS

Soil samples were analyzed for polynuclear aromatic hydrocarbons (PNAs) using United States Environmental Protection Agency (EPA) Method 8270 SIMS, total petroleum hydrocarbons quantified as gasoline (TPHg), as diesel (TPHd), and as motor oil (TPHm) using EPA Method 8015M.

Groundwater samples were analyzed for volatile organic compounds (VOCs) using EPA Method 8260; and TPHg, TPHd, and TPHm using EPA Method 8015M. A silica gel clean up procedure was performed prior to analysis of all TPHd and TPHm samples in order to remove polar biogenic material that could cause positive interference. Table 1 presents the sampling plan used for the investigation.

6.0 FINDINGS

6.1 LITHOLOGY AND FIELD OBSERVATIONS

The survey performed by Cruz Brothers did not detect the presence of an underground storage tank. However, some sheet metal and concrete debris was found buried 1-foot bgs in the area of the former gasoline tank identified in the Phase I investigation. Soil boring GMX-3 was located adjacent to the debris area.

The soil consisted primarily of silt and sand. Lithologic information is included on the boring logs in Appendix A. Groundwater was encountered during drilling at a depth of approximately 12 feet bgs.

6.2 SOIL AND GROUNDWATER SAMPLE RESULTS

PNAs, TPHg, TPHd, TPHm, and VOCs were not detected in any of the soil and groundwater samples analyzed. Table 2 summarizes the samples that were tested, the analytical methods used, and the respective reporting limits for each analysis. The laboratory analytical report and chain-of-custody records for the soil and groundwater samples are included in Appendix B.

7.0 SUMMARY OF FINDINGS

The results of the limited Phase II investigation are summarized as follows:

- Groundwater was encountered at a depth of approximately 12 feet bgs.
- An underground storage tank was not found in the area of the former Standard Oil facility.
- All analytical results for soil and groundwater samples were below laboratory reporting limits.

Based on the results from the Phase II investigation, it appears that no significant environmental impact has occurred at the site from the former presence of a Standard Oil facility on site.

8.0 REFERENCES

Flour Daniel GTI, 1997, Additional Site Investigation report for former Chevron Site No. 9-0796, 4991 Carpinteria Avenue, Carpinteria, California, June 15.

Geomatrix Consultants, Inc., 1999, Preliminary Site Assessment, Carpinteria Sale Property, Carpinteria, California, July 20, 1999.

Secor International, Inc., 1996, Additional Assessment Workplan, ARCO Station 1980, 1116 Casitas Pass Road, Carpinteria, California, June 17.

GEOMATRIX

TABLE 1

SAMPLING PLAN

Limited Phase II Investigation
Carpinteria, California

Boring Location	Depth of Soil Sample Analyzed				Groundwater		
		TPHd/m	TPHg	PNAs	TPHd/m	TPHg	VOCs
GMX-1	2	X		X	X	X	X
	6	X	X	X			
	to awt[1]	hold					
GMX-2	2	X		X	X	X	X
	6	X	X	X			
	to awt						
GMX-3	2	X		X	X	X	X
	6	X	X	X			
	to awt	hold					

Notes:

1. awt = Sample collected above the groundwater table; encountered at approxmiately 12 feet below ground surface.
2. hold = Sample collected and placed on hold pending results of initial analysis.

Abbreviations:

TPHg = total petroleum hydrocarbons quantified as gasoline analyzed by EPA Method 8015;TPH/dm = total petroleum hydrocarbons quantified as diesel and motor oil analyzed by EPA Method 8015 following silica gel cleanup procedures;
VOCs = volatile organic compounds analyzed by EPA Method 8260; PNAs = polynuclear aromatic compounds analyzed by EPA Method 8270 SIM.

GEOMATRIX

TABLE 2

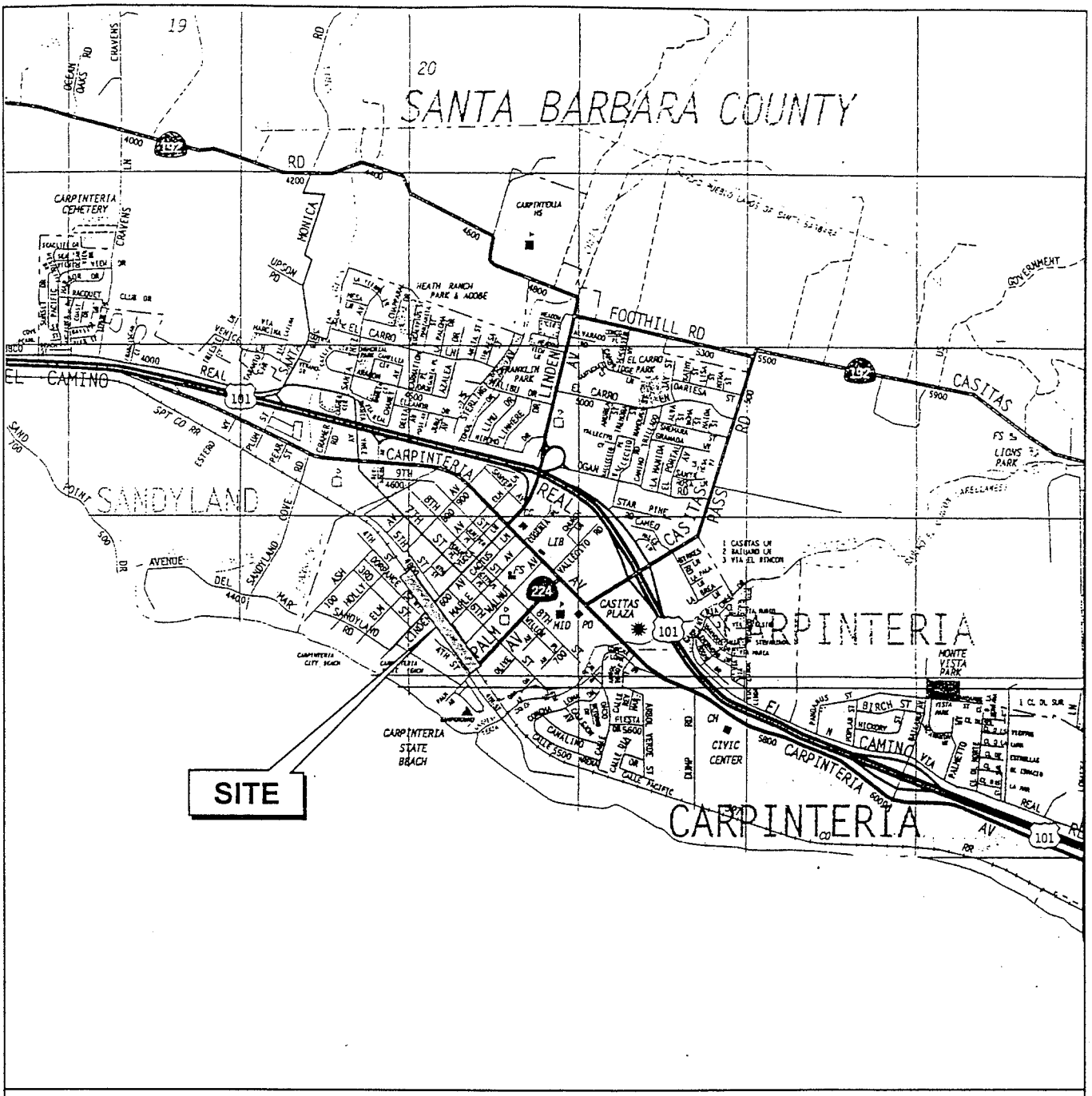
ANALYTICAL RESULTS

Limited Phase II Investigation
Carpinteria, California

Boring Location	Depth of Soil Sample Analyzed (feet)	Soil (mg/kg)				Groundwater (ug/l)			
		TPHd	TPHm	TPHg	PNAs	TPHd	TPHm	TPHg	VOCs
GMX-1	2	<1.0	<13		<.01	<50	<250	<50	All ND[1]
	6	<1.0	<13	<1.0	<.01				
GMX-2	2	<1.0	<13		<.01	<50	<250	<50	All ND
	6	<1.0	<13	<1.0	<.01				
GMX-3	2	<1.0	<13		<.01	<50	<250	<50	All ND
	6	<1.0	<13	<1.0	<.01				

Notes:
1. ND= not detected above laboratory detection limit; dectection limits ranged for VOCs from 5 to 100 ug/l.

Abbreviations:
TPHg = total petroleum hydrocarbons quantified as gasoline analyzed by EPA Method 8015;TPHd/m = total petroleum hydrocarbons quantified as diesel and motor oil analyzed by EPA Method 8015 following silica gel cleanup procedures; VOCs = volatile organic compounds analyzed by EPA Method 8260; PNAs = polynuclear aromatic compounds analyzed by EPA Method 8270 SIM.



Base map from *The Thomas Bros. Guide, Santa Barbara and San Luis Obispo Counties, 1997 Edition.*
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GEOMATRIX

SITE LOCATION MAP
Union Pacific Railroad
Carpinteria, California

Figure
1

Project No.
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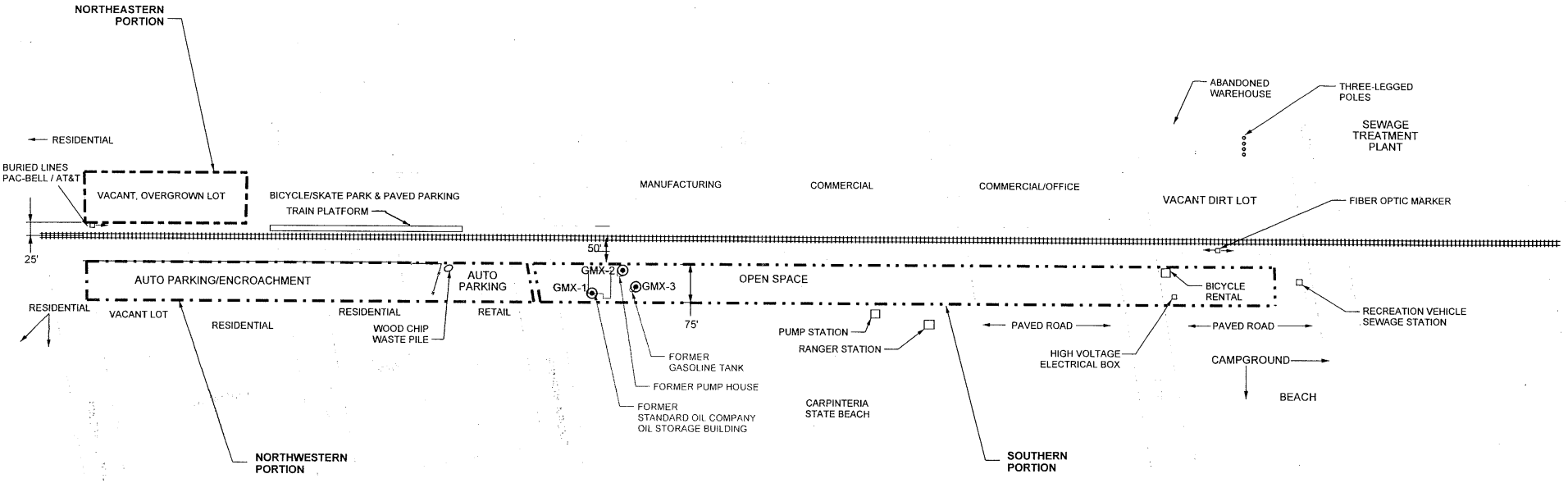

EXPLANATION

⊙ SOIL AND GRAB GROUNDWATER SAMPLE LOCATION

SALE PROPERTY BOUNDARIES:

– – – – NORTHEASTERN PORTION

– · – · – NORTHWESTERN PORTION

· – · · – SOUTHERN PORTION

0 200

SCALE IN FEET

Note:
1. Base map provided by Union Pacific Railroad Real Estate Department.
2. Location of historical features based on 1929 Sanborn FIre Insurance Map.
3. Site conditions and features based on June 29, 1999 Geomatrix field visit.

SITE PLAN AND SAMPLING LOCATIONS
Union Pacific Railroad
Carpinteria, California

GEOMATRIX

Project No. 4221.020 L

Figure 2

17-SEP-1999 14:59 plse
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MAP_4mr.pen

PROJECT: UPPR-Carpinteria	**Log of Boring No. GMX-2**
BORING LOCATION: By former pump house	ELEVATION AND DATUM: Ground Surface
DRILLING CONTRACTOR: Gregg Drilling and Testing, Inc.	DATE STARTED: 8/16/99 / DATE FINISHED: 8/16/99
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 20.0 / MEASURING POINT: Ground Surface
DRILLING EQUIPMENT: S27 Power Probe 9600+	DEPTH TO WATER: FIRST 14 / COMPL. NA
SAMPLING METHOD: Direct Push	LOGGED BY: Chris Posch
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: Gary Foote / REG. NO. RG 5044

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ Foot	PID READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Ground Surface	REMARKS
1					SILT with SAND (ML): Brown (10 YR 4/3), Moist, 85% fines, 15% fine sand, low plasticity, soft, roots present.	
2	GMX-2-2			0		OVM= Thermo Environmental Instruments 580 PID calibrated with 100 ppm isobutylene standard
3						
4	GMX-2-4			0		
5						
6	GMX-2-6				SANDY SILT (ML): brown (10 YR 4/3), Moist, 55% fines, 45% fine to coarse sand, low plasticity, soft.	
7						
8	GMX-2-8					
9						
10	GMX-2-10					
11					SILT with SAND (ML): brown (10 YR 4/3), Wet, 75% fines, 25% fine to coarse sand, medium plasticity, soft.	
12	GMX-2-12				No Soil Logging: from 12' to 20' pushed expendable tip without obtaining soil core	
13						
14						
15						

APPENDIX A

BORING LOGS

PROJECT: UPPR-Carpinteria		Log of Boring No. GMX-1	
BORING LOCATION: By former Storage Building		ELEVATION AND DATUM: Ground Surface	
DRILLING CONTRACTOR: Gregg Drilling and Testing, Inc.		DATE STARTED: 8/16/99	DATE FINISHED: 8/16/99
DRILLING METHOD: Direct Push		TOTAL DEPTH (ft.): 16.0	MEASURING POINT: Ground Surface
DRILLING EQUIPMENT: S27 Power Probe 9600+		DEPTH TO WATER: FIRST 12	COMPL. NA
SAMPLING METHOD: Direct Push		LOGGED BY: Chris Posch	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL: Gary Foote	REG. NO. RG 5044

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	PID READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Ground Surface	REMARKS
1					SILT with SAND (ML): Brown (10 YR 4/3), Moist, 85% fines, 15% fine sand, low plasticity, soft.	
2	GMX-1-2			0		
3						OVM= Thermo Environmental Instruments 580 PID calibrated with 100 ppm isobutylene standard
4	GMX-1-4					
5						
6	GMX-1-6					
7					SILTY SAND (SM): brown (10 YR 4/3), Moist, 85% fine to coarse sand, 15% low plasticity fines.	
8	GMX-1-8			0	SANDY SILT (ML): brown (10 YR 4/3), Moist, 55% fines, 45% fine to coarse sand, low plasticity, soft.	
9						
10	GMX-1-10				SILTY SAND (SM): brown (10 YR 4/3), Moist, 55% fine to medium sand, 45% low plasticity fines.	
11						
12	GMX-1-12			0		
13						
14	GMX-1-14					
15						

PROJECT: UPPR-Carpinteria

Log of Boring No. GMX-1 (cont'd)

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	PID READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
16	GMX-1-16				LEAN CLAY (CL): brown (10 YR 4/3), Wet, 80% fines, 20% fine to medium sand, medium plasticity, soft to firm.	
					Bottom of boring at 16 feet	Borehole destroyed using bentonite chips placed from total depth to ground surface and hydrated.
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						

OAKBOREV (REV. 7/99)

PROJECT: UPPR-Carpinteria

Log of Boring No. GMX-2 (cont'd)

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	PID READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
16						
17						
18						
19						
20					Bottom of boring at 20 feet	Borehole destroyed using bentonite chips placed from total depth to ground surface and hydrated.
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						

PROJECT: UPPR-Carpinteria	Log of Boring No. GMX-3	
BORING LOCATION: By former gasoline tank	ELEVATION AND DATUM: Ground Surface	
DRILLING CONTRACTOR: Gregg Drilling and Testing, Inc.	DATE STARTED: 8/16/99	DATE FINISHED: 8/16/99
DRILLING METHOD: Direct Push	TOTAL DEPTH (ft.): 16.0	MEASURING POINT: Ground Surface
DRILLING EQUIPMENT: S27 Power Probe 9600+	DEPTH TO WATER — FIRST: 14	COMPL.: NA
SAMPLING METHOD: Direct Push	LOGGED BY: Chris Posch	
HAMMER WEIGHT: NA — DROP: NA	RESPONSIBLE PROFESSIONAL: Gary Foote	REG. NO.: RG 5044

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	PID READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Ground Surface	REMARKS
0				0		
1					SILT with SAND (ML): Brown (10 YR 4/3), Moist, 85% fines, 15% fine to medium sand, low to medium plasticity, soft, metal pieces and rust from 0 to 2 feet.	OVM= Thermo Environmental Instruments 580 PID calibrated with 100 ppm isobutylene standard
2	GMX-3-2					
3						
4	GMX-3-4			0		
5						
6	GMX-3-6				SANDY SILT (ML): brown (10 YR 4/3), Moist, 55% fines, 45% fine to coarse sand, low plasticity, soft.	
7						
8	GMX-3-8					
9						
10	GMX-3-10					
11					Firm	
12	GMX-3-12					
13						
14	GMX-3-14				LEAN CLAY (CL): brown (10 YR 4/3), Wet, 80% fines, 20% fine to medium sand, medium plasticity, firm.	
15						

PROJECT: UPPR-Carpinteria

Log of Boring No. GMX-3 (cont'd)

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	PID READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
16	GMX-3-16	■			Bottom of boring at 16 feet	Borehole destroyed using bentonite chips placed from total depth to ground surface and hydrated.
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						

OAKBOREV (REV. 7/99)

APPENDIX B

CHAIN-OF-CUSTODY RECORD AND ANALYTICAL LABORATORY REPORT

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography
Matrix Spike and Matrix Spike Duplicate

QC Batch #: GBG1990818
Matrix: Water
Units: µg/Liter

Date Analyzed: 08/18/99
Quality Control Sample: 15857-001

PARAMETER	Method #	MB µg/Liter	SA µg/Liter	SR g/Liter	SP µg/Liter	**SP % R**	SPD µg/Liter	**SPD %R**	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	3.6	ND	3.2	**89**	3.1	**86**	3.2	25	69-118
Toluene	8020	<0.50	25.0	ND	25	**102**	25	**98**	3.6	25	79-122
Ethyl Benzene	8020	<0.50	5.0	ND	5.1	**102**	4.9	**98**	4.0	25	77-114
Xylenes	8020	<0.50	25.0	ND	28	**111**	27	**106**	4.1	25	79-129
Gasoline	8015	<50.0	500	ND	462	**92**	444	**89**	3.8	25	75-125
aaa-TFT(S.S.)-PID	8020			90%	99%		99%				65-135
aaa-TFT(S.S.)-FID	8015			103%	106%		107%				65-135

Calculated Recoveies Outside of Control Limits:

Definition of Terms:

na: Not Analyzed in QC batch
MB: Method Blank
SA: Spike Added
SR: Sample Result
RPD(%): Duplicate Analysis - Relative Percent Difference
SP: Spike Result
SP (%R): Spike % Recovery
SPD: Spike Duplicate Result
SPD (%R): Spike % Recovery
NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography
Laboratory Control Sample

QC Batch #: GBG1990818
Matrix: Water
Units: µg/Liter

Date Analyzed: 08/18/99
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/Liter	SA µg/Liter	SR µg/Liter	SP µg/Liter	**SP % R**	SPD µg/Liter	**SPD %R**	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	3.6	ND	3.1	**86**	3.3	**92**	6.2	25	69-118
Toluene	8020	<0.50	25.0	ND	25	**101**	26	**102**	1.2	25	82-122
Ethyl Benzene	8020	<0.50	5.0	ND	5.0	**100**	5.1	**102**	2.0	25	77-114
Xylenes	8020	<0.50	25.0	ND	27	**109**	28	**112**	2.2	25	85-125
Gasoline	8015	<50.0	500	ND	476	**95**	462	**92**	3.0	25	75-125
aaa-TFT(S.S.)-PID	8020			89%	98%		96%				65-135
aaa-TFT(S.S.)-FID	8015			102%	105%		106%				65-135

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- nc: Not Calculated

CHAIN-OF-CUSTODY RECORD

Nº 12202

Date: 8-16-99

Page 1 of 1

Project No.: 1221.02c

Samplers (Signatures): Chris Posch

Date	Time	Sample Number	EPA Method 8010	EPA Method 8020	EPA Method 8020 (BTEX only)	EPA Method 8240	EPA Method 8270	TPH as gasoline	TPH as diesel			TPH d/m		8260		HOLD				Cooled	Soil (S), Water (W), or Vapor (V)	Acidified	Number of containers
8-16	1230	GMX-1						X				X		X			15857	-001		Y	W	Y/N	3/2
	1300	GMX-2						X				X		X			15857	-002		Y	W	Y/N	3/2
	1530	GMX-3						X				X		X			15857	-003		Y	W	Y/N	3/1
	1600	Dup														X	15857	-005		Y	W	Y	3
8-4	725	Trip Blank						X						X			15857	-004		Y	W	Y	2

Turnaround time: Standard

Results to: Chris Posch

Total No. of containers: 19

REMARKS

Additional Comments

Union Pacific Sub - Bill directly!

TPH d/m by EPA 8015 following Silica Gel Cleanup

TPH g by 8015

Relinquished by (signature): Chris Posch
Printed Name: CHRIS Posch
Company: Geomatrix
Date: 8/17
Time: 1500

Relinquished by (signature):
Printed Name:
Company:
Date:
Time:

Relinquished by (signature):
Printed Name:
Company:
Date:
Time:

Received by (signature): Jennifer Durkin
Printed Name: Jennifer Durkin
Company: Entech
Date: 8/17
Time: 15:04

Received by (signature):
Printed Name:
Company:
Date:
Time:

Received by (signature):
Printed Name:
Company:
Date:
Time:

Method of Shipment: drop off

Laboratory Comments and Log No.:

5 Day TAT Firm

Geomatrix Consultants
100 Pine Street, 10th Floor
San Francisco, California 94111
415 434 9400

Entech Analytical Labs, Inc.

CA ELAP# I-2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Certified Analytical Report
Volatile Organic Compounds by EPA Method 8260B

Client: Geomatrix Consultants
Sample Matrix: Water
Sample Date/Time: 8/24/99
Lab #: Method Blank
Client ID:

Date Reported: 8/24/99
Date Received: 8/24/99
Date Analyzed: 8/24/99
Dilution Factor: 1

Compound	Value	PQL	DLR	Compound	Value	PQL	DLR
1,1-Dichloropropene	ND	5	5	Tetrachloroethene	ND	5	5
cis-1,3-Dichloropropene	ND	5	5	Toluene	ND	5	5
trans-1,3-Dichloropropene	ND	5	5	1,2,3-Trichlorobenzene	ND	5	5
Diisopropyl Ether	ND	5	5	1,2,4-Trichlorobenzene	ND	5	5
Ethyl Methacrylate	ND	5	5	1,2,3-Trichloropropane	ND	5	5
Ethylbenzene	ND	5	5	1,1,1-Trichloroethane	ND	5	5
Hexachlorobutadiene	ND	5	5	1,1,2-Trichloroethane	ND	5	5
2-Hexanone	ND	20	20	Trichloroethene	ND	5	5
Iodomethane	ND	5	5	Trichlorofluoromethane	ND	5	5
Isopropylbenzene	ND	5	5	1,2,4-Trimethylbenzene	ND	5	5
p-Isopropyltoluene	ND	5	5	1,3,5-Trimethylbenzene	ND	5	5
Methacrylonitrile	ND	5	5	Xylenes (total)	ND	5	5
Methyl Methacrylate	ND	5	5	Vinyl Chloride	ND	5	5
4-Methyl-2-Pentanone (MIBK)	ND	20	20				
Methyl-tert-butyl Ether	ND	5	5				
Methylene Chloride	ND	5	5				
Naphthalene	ND	5	5				
Pentachloroethane	ND	5	5				
2-Picoline	ND	5	5				
n-Propylbenzene	ND	5	5				
Styrene	ND	5	5				
1,1,1,2-Tetrachloroethane	ND	5	5				
1,1,2,2-Tetrachloroethane	ND	5	5				

Surrogate	Recovery (%)
Dibromofluoromethane	86
Toluene-d8	97
4-Bromofluorobenzene	86

1. Results are reported in ug/Liter (ppb)
2. DLR= DF x PQL
3. Analysis performed by Entech Analytical Labs. Inc. (CAELAP #I-2346)

Michelle L. Anderson, Lab Director

ND: None Detected at or above DLR
DLR: Detection Reporting Limit

PQL: Practical Quantitation Limit
DF: Dilution Factor

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

Volatile Organic Compounds
Laboratory Control Sample

QC Batch #: WGCMS990824
Matrix: Water
Units: µg/L

Date analyzed: 08/24/99
Spiked Sample: Blank Spike

PARAMETER	Method #	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
1,1- Dichloroethene	8240/8260	25	ND	31	**122**	26	**104**	16.6	25	50-150
Methyl-tert-butyl ether	8240/8260	25	ND	30	**119**	30	**121**	1.7	25	50-150
Benzene	8240/8260	25	ND	29	**116**	26	**105**	9.8	25	50-150
Trichloroethene	8240/8260	25	ND	32	**128**	29	**117**	9.1	25	50-150
Toluene	8240/8260	25	ND	29	**114**	26	**106**	8.0	25	50-150
Chlorobenzene	8240/8260	25	ND	29	**117**	27	**107**	8.9	25	50-150
Surrogates										
Dibromofluoromethane	8240/8260		86%	99%		96%				65-135
MTBE-d3	8240/8260		87%	119%		103%				65-135
Toluene -d8	8240/8260		97%	97%		99%				65-135
4-Bromofluorobenzene	8240/8260		86%	96%		99%				65-135

Definition of Terms:

na: Not Analyzed in QC batch
SA: Spike Added
SR: Sample Result
RPD(%): Duplicate Analysis - Relative Percent Difference
SP: Spike Result
SP (%R): Spike % Recovery
SPD: Spike Duplicate Result
SPD (%R): Spike Duplicate % Recovery

Client: Entech Analytical Labs, Inc.
Attn: Michelle Anderson

Client's Project: Geomatrix Consultants

Date Received: 08/18/99
Extraction Method: 3550B
Matrix: Soil
Units: ug/kg

EPA Method 8270C SIM (PAH's only)

Lab No.:	Method Blank	37759-001											
Client Sample I.D.:	--	15847-001											
Date Sampled:	--	08/16/99											
QC Batch #:	S998270S234	S998270S234											
Date Extracted:	08/19/99	08/19/99											
Date Analyzed:	08/19/99	08/19/99											
Analyst Initials:	HL	HL											
Dilution Factor:	1	1											

ANALYTE	MDL	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results
Naphthalene	10	10	ND	10	ND								
Acenaphthylene	10	10	ND	10	ND								
Acenaphthene	10	10	ND	10	ND								
Fluorene	10	10	ND	10	ND								
Phenanthrene	10	10	ND	10	ND								
Anthracene	10	10	ND	10	ND								
Fluoranthene	10	10	ND	10	ND								
Pyrene	10	10	ND	10	ND								
Benzo(a)anthracene	10	10	ND	10	ND								
Chrysene	10	10	ND	10	ND								
Benzo(b)fluoranthene	10	10	ND	10	ND								
Benzo(k)fluoranthene	10	10	ND	10	ND								
Benzo(a)pyrene	10	10	ND	10	ND								
Indeno(1,2,3-cd)pyrene	10	10	ND	10	ND								
Dibenzo(a,h)anthracene	10	10	ND	10	ND								
Benzo(ghi)perylene	10	10	ND	10	ND								

Surrogate Recovery	%Rec.	Limits	%Rec.	Limits								
1,2-Dichlorobenzene	81	17-97	93	17-97								
Nitrobenzene-d5	57	20-100	76	20-100								
2-Fluorobiphenyl	82	21-114	110	21-114								
Terphenyl-d14	118	17-130	140*	17-130								

MDL = Method Detection Limit
DLR = MDL X Dilution Factor
ND = Not Detected (Below DLR).
NA = Not Analyzed
* = High Surrogate recovery due to matrix interference

Approved/Reviewed By: _____ Date: 8/24/99

Sylvia Chan
Semi Volatiles Group Leader

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Michelle Anderson

Client's Project: Geomatrix Consultants

Date Received: 08/18/99
Extraction Method: 3550B
Matrix: Soil
Units: ug/kg

EPA Method 8270C SIM (PAH's only)

Lab No.:	37759-002
Client Sample I.D.:	15847-002
Date Sampled:	08/16/99
QC Batch #:	S998270S234
Date Extracted:	08/19/99
Date Analyzed:	08/19/99
Analyst Initials:	HL
Dilution Factor:	1

ANALYTE	MDL	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results
Naphthalene	10	10	ND										
Acenaphthylene	10	10	ND										
Acenaphthene	10	10	ND										
Fluorene	10	10	ND										
Phenanthrene	10	10	ND										
Anthracene	10	10	ND										
Fluoranthene	10	10	ND										
Pyrene	10	10	ND										
Benzo(a)anthracene	10	10	ND										
Chrysene	10	10	ND										
Benzo(b)fluoranthene	10	10	ND										
Benzo(k)fluoranthene	10	10	ND										
Benzo(a)pyrene	10	10	ND										
Indeno(1,2,3-cd)pyrene	10	10	ND										
Dibenzo(a,h)anthracene	10	10	ND										
Benzo(ghi)perylene	10	10	ND										

Surrogate Recovery	%Rec.	Limits
1,2-Dichlorobenzene	89	17-97
Nitrobenzene-d5	50	20-100
2-Fluorobiphenyl	90	21-114
Terphenyl-d14	112	17-130

MDL = Method Detection Limit
DLR = MDL X Dilution Factor

ND = Not Detected (Below DLR).
NA = Not Analyzed

Approved/Reviewed By: _____ Date: 8/24/99

Sylvia Chan
Semi Volatiles Group Leader

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Michelle Anderson

Client's Project: Geomatrix Consultants

Date Received: 08/18/99
Extraction Method: 3550B
Matrix: Soil
Units: ug/kg

EPA Method 8270C SIM (PAH's only)

Lab No.:	37759-003
Client Sample I.D.:	15847-003
Date Sampled:	08/16/99
QC Batch #:	S998270S234
Date Extracted:	08/19/99
Date Analyzed:	08/19/99
Analyst Initials:	HL
Dilution Factor:	1

ANALYTE	MDL	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results
Naphthalene	10	10	ND										
Acenaphthylene	10	10	ND										
Acenaphthene	10	10	ND										
Fluorene	10	10	ND										
Phenanthrene	10	10	ND										
Anthracene	10	10	ND										
Fluoranthene	10	10	ND										
Pyrene	10	10	ND										
Benzo(a)anthracene	10	10	ND										
Chrysene	10	10	ND										
Benzo(b)fluoranthene	10	10	ND										
Benzo(k)fluoranthene	10	10	ND										
Benzo(a)pyrene	10	10	ND										
Indeno(1,2,3-cd)pyrene	10	10	ND										
Dibenzo(a,h)anthracene	10	10	ND										
Benzo(ghi)perylene	10	10	ND										

Surrogate Recovery	%Rec.	Limits
1,2-Dichlorobenzene	85	17-97
Nitrobenzene-d5	85	20-100
2-Fluorobiphenyl	91	21-114
Terphenyl-d14	115	17-130

MDL = Method Detection Limit
DLR = MDL X Dilution Factor

ND = Not Detected (Below DLR).
NA = Not Analyzed

Approved/Reviewed By: _____ Date: 8/24/99

Sylvia Chan
Semi Volatiles Group Leader

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Michelle Anderson

Client's Project: Geomatrix Consultants

Date Received: 08/18/99
Extraction Method: 3550B
Matrix: Soil
Units: ug/kg

EPA Method 8270C SIM (PAH's only)

Lab No.:	37759-004
Client Sample I.D.:	15847-004
Date Sampled:	08/16/99
QC Batch #:	S998270S234
Date Extracted:	08/19/99
Date Analyzed:	08/19/99
Analyst Initials:	HL
Dilution Factor:	1

ANALYTE	MDL	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results
Naphthalene	10	10	ND										
Acenaphthylene	10	10	ND										
Acenaphthene	10	10	ND										
Fluorene	10	10	ND										
Phenanthrene	10	10	ND										
Anthracene	10	10	ND										
Fluoranthene	10	10	ND										
Pyrene	10	10	ND										
Benzo(a)anthracene	10	10	ND										
Chrysene	10	10	ND										
Benzo(b)fluoranthene	10	10	ND										
Benzo(k)fluoranthene	10	10	ND										
Benzo(a)pyrene	10	10	ND										
Indeno(1,2,3-cd)pyrene	10	10	ND										
Dibenzo(a,h)anthracene	10	10	ND										
Benzo(ghi)perylene	10	10	ND										

Surrogate Recovery	%Rec.	Limits
1,2-Dichlorobenzene	92	17-97
Nitrobenzene-d5	62	20-100
2-Fluorobiphenyl	65	21-114
Terphenyl-d14	126	17-130

MDL = Method Detection Limit
DLR = MDL X Dilution Factor

ND = Not Detected (Below DLR).
NA = Not Analyzed

Approved/Reviewed By: _____ Date: 8/24/99

Sylvia Chan
Semi Volatiles Group Leader

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Michelle Anderson

Client's Project: Geomatrix Consultants

Date Received: 08/18/99
Extraction Method: 3550B
Matrix: Soil
Units: ug/kg

EPA Method 8270C SIM (PAH's only)

Lab No.:	37759-005											
Client Sample I.D.:	15847-005											
Date Sampled:	08/16/99											
QC Batch #:	S998270S234											
Date Extracted:	08/19/99											
Date Analyzed:	08/19/99											
Analyst Initials:	HL											
Dilution Factor:	1											

ANALYTE	MDL	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results
Naphthalene	10	10	ND										
Acenaphthylene	10	10	ND										
Acenaphthene	10	10	ND										
Fluorene	10	10	ND										
Phenanthrene	10	10	ND										
Anthracene	10	10	ND										
Fluoranthene	10	10	ND										
Pyrene	10	10	ND										
Benzo(a)anthracene	10	10	ND										
Chrysene	10	10	ND										
Benzo(b)fluoranthene	10	10	ND										
Benzo(k)fluoranthene	10	10	ND										
Benzo(a)pyrene	10	10	ND										
Indeno(1,2,3-cd)pyrene	10	10	ND										
Dibenzo(a,h)anthracene	10	10	ND										
Benzo(ghi)perylene	10	10	ND										

Surrogate Recovery	%Rec.	Limits										
1,2-Dichlorobenzene	84	17-97										
Nitrobenzene-d5	60	20-100										
2-Fluorobiphenyl	90	21-114										
Terphenyl-d14	121	17-130										

MDL = Method Detection Limit
DLR = MDL X Dilution Factor

ND = Not Detected (Below DLR).
NA = Not Analyzed

Approved/Reviewed By: _____ Date: 8/24/99

Sylvia Chan
Semi Volatiles Group Leader

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Entech Analytical Labs, Inc.
Attn: Michelle Anderson

Client's Project: Geomatrix Consultants

Date Received: 08/18/99
Extraction Method: 3550B
Matrix: Soil
Units: ug/kg

EPA Method 8270C SIM (PAH's only)

Lab No.:	37759-006												
Client Sample I.D.:	15847-006												
Date Sampled:	08/16/99												
QC Batch #:	S998270S234												
Date Extracted:	08/18/99												
Date Analyzed:	08/19/99												
Analyst Initials:	HL												
Dilution Factor:	1												

ANALYTE	MDL	DLR	Results	DLR	Results	DLR	Results	DLR	Result	DLR	Results	DLR	Results
Naphthalene	10	10	ND										
Acenaphthylene	10	10	ND										
Acenaphthene	10	10	ND										
Fluorene	10	10	ND										
Phenanthrene	10	10	ND										
Anthracene	10	10	ND										
Fluoranthene	10	10	ND										
Pyrene	10	10	ND										
Benzo(a)anthracene	10	10	ND										
Chrysene	10	10	ND										
Benzo(b)fluoranthene	10	10	ND										
Benzo(k)fluoranthene	10	10	ND										
Benzo(a)pyrene	10	10	ND										
Indeno(1,2,3-cd)pyrene	10	10	ND										
Dibenzo(a,h)anthracene	10	10	ND										
Benzo(ghi)perylene	10	10	ND										

Surrogate Recovery	%Rec.	Limits										
1,2-Dichlorobenzene	88	17-97										
Nitrobenzene-d5	42	20-100										
2-Fluorobiphenyl	97	21-114										
Terphenyl-d14	102	17-130										

MDL = Method Detection Limit
DLR = MDL X Dilution Factor
ND = Not Detected (Below DLR).
NA = Not Analyzed

Approved/Reviewed By: _____ Date: 8/24/99

Sylvia Chan
Semi Volatiles Group Leader

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Michelle Anderson

Client's Project: Geomatrix Consultants

Date Received: 08/18/99
Extraction Method: 3550B
Matrix: ---
Units: ---

EPA Method 8270C SIM (PAH's only)

Lab No.:		LCS											
Client Sample I.D.:		---											
Date Sampled:		---											
QC Batch #:		S998270S234											
Date Extracted:		08/18/99											
Date Analyzed:		08/19/99											
Analyst Initials:		HL											
Dilution Factor:		1											
ANALYTE	MDL	Limits	%Rec	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results
Naphthalene	10	11-182	108										
Acenaphthylene	10	11-182	107										
Acenaphthene	10	11-182	96										
Fluorene	10	11-182	96										
Phenanthrene	10	11-182	119										
Anthracene	10	11-182	97										
Fluoranthene	10	11-182	129										
Pyrene	10	11-182	123										
Benzo(a)anthracene	10	11-182	146										
Chrysene	10	11-182	107										
Benzo(b)fluoranthene	10	11-182	151										
Benzo(k)fluoranthene	10	11-182	126										
Benzo(a)pyrene	10	11-182	134										
Indeno(1,2,3-cd)pyrene	10	11-182	119										
Dibenzo(a,h)anthracene	10	11-182	133										
Benzo(ghi)perylene	10	11-182	108										

MDL = Method Detection Limit
DLR = MDL X Dilution Factor

ND = Not Detected (Below DLR).
NA = Not Analyzed

Approved/Reviewed By: Sylvia Chan
Semi Volatiles Group Leader

Date: 08/26/99

The cover letter is an integral part of this analytical report.

Spike Recovery and RPD Summary Report - SOIL (NG/KG)

Method : D:\HPCHEM\1\METHODS\SIM0820.M (RTE Integrator)
Title : EPA 8270C Advanced Technology Laboratory
Last Update : Fri Jul 30 14:35:59 1999
Response via : Initial Calibration

Non-Spiked Sample: S0819016.D

	Spike Sample	Spike Duplicate Sample
File ID :	S0819009.D	S0819010.D
Sample :	S234 37759-06 MS	S234 37759-06 MSD
Acq Time:	19 Aug 1999 1:45 pm	19 Aug 1999 2:25 pm

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Acenaphthene	0.0	500	470	442	94	88	6	17	46- 94
Pyrene	0.0	500	612	509	122#	102	18#	16	36-114

QCBATCH# S99827S234
- Fails Limit Check, However, Lcs was within Qc limits.

Reviewed/Approved By: Compton Pernant Jr Date 08/24/99
Sylvia Chan
Semi-vol Group Leader

Entech Analytical Labs, Inc.

CA ELAP # I-2346

525 Del Rey Avenue, Suite E, Sunnyvale, CA 94086 (408) 735-1550 FAX (408) 735-1554

Subcontract Chain of Custody

Subcontract Lab:	Project Name:	Date Sent:	Due Date:
ATL	Geomatrix Consultans	8/17/99	8/24/99 FIRM

Sample Number:	Customer Sample Number:	Matrix:	Test:	Method:	Collect Date:	Collect Time:	Bottle Type:	Preservative:
15847-001	GMX-1-2	Soil	EPA 8270 PAH SIMS	EPA 8270	8/16/99	9:30 AM	4 oz Jar	4 C
15847-002	GMX-1-6	Soil	EPA 8270 PAH SIMS	EPA 8270	8/16/99	9:40 AM	4 oz Jar	4 C
15847-003	GMX-2-2	Soil	EPA 8270 PAH SIMS	EPA 8270	8/16/99	10:40 AM	4 oz Jar	4 C
15847-004	GMX-2-6	Soil	EPA 8270 PAH SIMS	EPA 8270	8/16/99	10:50 AM	4 oz Jar	4 C
15847-005	GMX-3-2	Soil	EPA 8270 PAH SIMS	EPA 8270	8/16/99	11:50 AM	4 oz Jar	4 C
15847-006	GMX-3-6	Soil	EPA 8270 PAH SIMS	EPA 8270	8/16/99	12:05 PM	4 oz Jar	4 C

Relinquished By:	Received By:	Date:	Time:
Jennifer Durkin	via CA Overnight	8/17/99	18:00
Relinquished By:	Received By:	Date:	Time:
	Julie Nielsen	8-18-99	0800
Relinquished By:	Received By:	Date:	Time:

Notes: Please spike one of these samples for MS/MSD. PAHs by EPA 8270SIM. Report surrogates

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography
Matrix Spike and Matrix Spike Duplicate

QC Batch #: GBG1990822
Matrix: Soil
Units: µg/kg

Date Analyzed: 08/22/99
Quality Control Sample: 15847-002

PARAMETER	Method #	MB µg/kg	SA µg/kg	SR µg/kg	SP µg/kg	SP % R	SPD µg/kg	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<5.0	18.0	ND	20	**111**	20	**111**	0.0	25	70-130
Toluene	8020	<5.0	125	ND	150	**120**	145	**116**	3.4	25	70-130
Ethyl Benzene	8020	<5.0	25.0	ND	25	**100**	25	**100**	0.0	25	70-130
Xylenes	8020	<5.0	125	ND	160	**128**	155	**124**	3.2	25	70-130
Gasoline	8015	<1000	2500	ND	2665	**107**	2610	**104**	2.1	25	75-125
aaa-TFT(S.S.)-PID	8020			99%	124%		115%				65-135
aaa-TFT(S.S.)-FID	8015			114%	125%		121%				65-135

Calculated Recoveries Outside of Control Limits:

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography
Laboratory Control Sample

QC Batch #: GBG1990822
Matrix: Soil
Units: µg/kg

Date Analyzed: 08/22/99
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/kg	SA µg/kg	SR µg/kg	SP	**SP % R**	SPD µg/kg	**SPD %R**	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<5.0	18.0	ND	15.0	**83**	15.0	**83**	0.0	25	70-130
Toluene	8020	<5.0	125	ND	130	**104**	135	**108**	3.8	25	70-130
Ethyl Benzene	8020	<5.0	25.0	ND	25.0	**100**	25.0	**100**	0.0	25	70-130
Xylenes	8020	<5.0	125	ND	140	**112**	145	**116**	3.5	25	70-130
Gasoline	8015	<1000	2500	ND	2355	**94**	2415	**97**	2.5	25	75-125
aaa-TFT(S.S.)-PID	8020			88%	97%		98%				65-135
aaa-TFT(S.S.)-FID	8015			101%	105%		107%				65-135

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

Matrix Spike/Matrix Spike Duplicate

QC Batch #: DS990817SiO2
Matrix: Soil
Units: mg/Kg

Date analyzed: 08/22/99
Date extracted: 08/20/99
Quality Control Sample: 15809-002

PARAMETER	Method #	MB mg/Kg	SA mg/Kg	SR mg/Kg	SP mg/Kg	**SP %R**	SPD mg/Kg	**SPD %R**	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<1.0	25	ND	13	**52**	19	**75**	35.8	25	44-119

Calculated Recovery Outside of RPD Control Limits:
Diesel

Hexocosane	83%	71%		80%		65-135

Definition of Terms:

MB: Method Blank
na: Not Analyzed in QC batch
SA: Spike Added
SR: Sample Result
RPD(%): Duplicate Analysis - Relative Percent Difference
SP: Spike Result
SP (%R): Spike % Recovery
SPD: Spike Duplicate Result
SPD (%R): Spike Duplicate % Recovery
NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY
Laboratory Control Spikes

QC Batch #: DS990817SiO2
Matrix: Soil
Units: mg/Kg

Date analyzed: 08/22/99
Date extracted: 08/20/99
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB mg/Kg	SA mg/Kg	SR mg/Kg	SP mg/Kg	**SP %R**	SPD mg/Kg	**SPD %R**	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<1.0	25	ND	20	**81**	21	**84**	2.8	25	44-119
Hexocosane				86%	93%		86%				65-135

Definition of Terms:

MB: Method Blank
na: Not Analyzed in QC batch
SA: Spike Added
SR: Sample Result
RPD(%): Duplicate Analysis - Relative Percent Difference
SP: Spike Result
SP (%R): Spike % Recovery
SPD: Spike Duplicate Result
SPD (%R): Spike Duplicate % Recovery
NC: Not Calculated

CHAIN-OF-CUSTODY RECORD

Nº 12207

Date: 8-16-99

Page 1 of 1

Project No.: 4221.020

Samplers (Signatures): Chris Pasch

Date	Time	Sample Number	EPA Method 8010	EPA Method 8020	EPA Method 8020 (BTEX only)	EPA Method 8240	EPA Method 8270	TPH as gasoline	TPH as diesel	HOLD	EPA 8270 SIMS	TPH d/m				Cooled	Soil (S), Water (W), or Vapor (V)	Acidified	Number of containers
8-16	430	GMX-1-2									X	X			15847-001	Y	S	N	1
	935	GMX-1-4								X					15847-007				
	940	GMX-1-6						X			X	X			15847-002				
	945	GMX-1-8								X					15847-008				
	950	GMX-1-10								X					15847-009				
	955	GMX-1-12								X					15847-010				
	1005	GMX-1-14								X					15847-011				
	1010	GMX-1-16								X					15847-012				
	1040	GMX-2-2									X	X			15847-003				
	1045	GMX-2-4								X					15847-013				
	1050	GMX-2-6						X			X	X			15847-004				
	1055	GMX-2-8								X					15847-014				

ANALYSES

REMARKS

Additional Comments

Union Pacific Job - Bill directly!

TPH d/m = diesel & motor oil by 8015 following Silica Gel Cleanup

PNAs by 8270 SIMS

TPHg by 8015

Turnaround time: Standard

Results to: Chris Pasch

Total No. of containers: 12

Relinquished by (signature): Chris Pasch	Date: 8/17	Relinquished by (signature):	Date:	Relinquished by (signature):	Date:	Method of Shipment: GMX drop off
Printed Name: CHRIS PASCH	Time: 1500	Printed Name:	Time:	Printed Name:	Time:	Laboratory Comments and Log No.: 5 Day TAT Firm.
Company: Geomatrix		Company:		Company:		
Received by (signature): Jennifer Durkin	Date: 8/17/99	Received by (signature):	Date:	Received by (signature):	Date:	
Printed Name: Jennifer Durkin	Time: 1507	Printed Name:	Time:	Printed Name:	Time:	
Company: Entech		Company:		Company:		

Geomatrix Consultants
100 Pine Street, 10th Floor
San Francisco, California 94111
415 434 9400

CHAIN-OF-CUSTODY RECORD

№ 12208

Date: 8-16-99

Page 1 of 1

Project No.: 4221.020

Samplers (Signatures): Chris Fosch

Date	Time	Sample Number	EPA Method 8010	EPA Method 8020	EPA Method 8020 (BTEX only)	EPA Method 8240	EPA Method 8270	TPH as gasoline	TPH as diesel	HOLD	EPA 8270 SIMS	TPH d/m	Lab No.	Cooled	Soil (S), Water (W), or Vapor (V)	Acidified	Number of containers
8-16	1100	GMX-2-10								X			15847-015	Y	S	N	1
	1105	GMX-2-12								X			15847-016				
	1150	GMX-3-2						X	ir		X	X	15847-005				
	1200	GMX-3-4								X			15847-017				
	1205	GMX-3-6						X			X	X	15847-006				
	1210	GMX-3-8								X			15847-018				
	1215	GMX-3-10								X			15847-019				
	1220	GMX-3-12								X			15847-020				
	1225	GMX-3-14								X			15847-021				
	1230	GMX-3-16								X			15847-022				

REMARKS

Additional Comments

Chris Fosch for Job Bill Directly!

TPH d/m = Total Petroleum hydrocarbons as diesel and motor oil by EPA 8015 following Silica Gel Cleanup

PNAs by 8270 SIMS

TPH g by 8015

Turnaround time: Standard

Results to: Chris Fosch

Total No. of containers: 10

Relinquished by (signature)	Date	Time	Relinquished by (signature)	Date	Time	Relinquished by (signature)	Date	Time
Chris Fosch	8/17	1500						
Printed Name: CHRIS FOSCH			Printed Name:			Printed Name:		
Company: GeomatriX			Company:			Company:		
Received by (signature): Jennifer Durkin	8/17/99	15:07	Received by (signature):			Received by (signature):		
Printed Name: Jennifer Durkin			Printed Name:			Printed Name:		
Company: Entech			Company:			Company:		

Method of Shipment: GMX-dropoff

Laboratory Comments and Log No.: 5 Day TAT Firm.

Geomatrix Consultants
100 Pine Street, 10th Floor
San Francisco, California 94111
415 434 9400

Entech Analytical Labs, Inc.

CA ELAP# I-2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

August 24, 1999

Chris Posch
Geomatrix Consultants
2101 Webster Street, 12th Floor
Oakland, CA 94612

Subject:	4 Water Samples
Lab #'s:	15857-001 – 15857-004
Project Name:	
Project Number:	4221.020
P.O. Number:	Invoice Union Pacific
Method(s):	EPA 8260B, EPA 8015M

Dear Chris Posch,

Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#I-2346). If you have any questions regarding procedures or results, please call me at 408-735-1550.

Sincerely,

Michelle L. Anderson
Lab Director

Entech Analytical Labs, Inc.

CA ELAP# 1-2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Geomatrix Consultants
2101 Webster Street, 12th Floor
Oakland, CA 94612
Attn: Chris Posch

Date: 8/24/99
Date Received: 8/17/99
Project: 4221.020
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	GMX-1			GMX-2			GMX-3				
Sample Date	8/16/99			8/16/99			8/16/99				
Sample Time	12:30			13:00			15:30				
Lab #	**15857-001**			**15857-002**			**15857-003**				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Extraction Date	8/20/99			8/20/99			8/20/99				
Analysis Date	8/22/99			8/22/99			8/22/99				
QC Batch #	DW990811SiO2			DW990811SiO2			DW990811SiO2				
TPH-Diesel	**ND**	1.0	50	**ND**	1.0	50	**ND**	1.0	50	50	8015M
TPH-Motor Oil	**ND**	1.0	250	**ND**	1.0	250	**ND**	1.0	250	250	8015M
Hexacosane	109%			100%			110%				
Analysis Date	8/19/99			8/18/99			8/18/99				
QC Batch #	GBG1990818			GBG1990818			GBG1990818				
TPH-Gas	**ND**	1.0	50	**ND**	1.0	50	**ND**	1.0	50	50	8015M
a,a,a-Trifluorotoluene	90%			87%			91%				

TPH-Diesel and TPH-Motor Oil extraction performed with silica gel cleanup (EPA 3630-Mod)

Michelle L. Anderson, Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

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Geomatrix Consultants
2101 Webster Street, 12th Floor
Oakland, CA 94612
Attn: Chris Posch

Date: 8/24/99
Date Received: 8/17/99
Project: 4221.020
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	**Trip Blank**										
Sample Date	8/4/99										
Sample Time	7:25										
Lab #	**15857-004**										
	Result	DF	DLR							PQL	Method
Results in µg/Liter:											
Analysis Date	8/18/99										
QC Batch #	GBG1990819										
TPH-Gas	**ND**	1.0	50							50	8015M
a,a,a-Trifluorotoluene	92%										

Michelle Anderson, Lab Director

Environmental Analysis Since 1983

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Certified Analytical Report
Volatile Organic Compounds by EPA Method 8260B

Client: Geomatrix Consultants
Sample Matrix: Water
Sample Date/Time: 8/16/99 12:30
Lab #: 15857-001
Client ID: GMX-1

Date Reported: 8/24/99
Date Received: 8/17/99
Date Analyzed: 8/24/99
Dilution Factor: 1
QC Batch #: WGCMS990824

Compound	Value	PQL	DLR	Compound	Value	PQL	DLR
Acetone	ND	100	100	Chloroform	ND	5	5
Acrylonitrile	ND	5	5	Chloromethane	ND	5	5
Allyl Chloride	ND	5	5	2-Chlorotoluene	ND	5	5
tert-Amyl Methyl Ether	ND	5	5	4-Chlorotoluene	ND	5	5
Benzene	ND	5	5	Dibromochloromethane	ND	5	5
Benzyl Chloride	ND	5	5	1,2-Dibromo-3-chloropropane	ND	5	5
Bromobenzene	ND	5	5	1,2-Dibromoethane	ND	5	5
Bromochloromethane	ND	5	5	Dibromomethane	ND	5	5
Bromodichloromethane	ND	5	5	cis-1,4-Dichloro-2-butene	ND	5	5
Bromoform	ND	5	5	trans-1,4-Dichloro-2-butene	ND	5	5
Bromomethane	ND	5	5	Dichlorodifluoromethane	ND	5	5
tert-Butanol	ND	20	20	1,2-Dichlorobenzene	ND	5	5
2-Butanone (MEK)	ND	20	20	1,3-Dichlorobenzene	ND	5	5
tert-Butyl Ethyl Ether	ND	5	5	1,4-Dichlorobenzene	ND	5	5
n-Butylbenzene	ND	5	5	1,1-Dichloroethane	ND	5	5
sec-Butylbenzene	ND	5	5	1,2-Dichloroethane	ND	5	5
tert-Butylbenzene	ND	5	5	1,1-Dichloroethene	ND	5	5
Carbon Disulfide	ND	5	5	cis-1,2-Dichloroethene	ND	5	5
Carbon Tetrachloride	ND	5	5	trans-1,2-Dichloroethene	ND	5	5
Chlorobenzene	ND	5	5	1,2-Dichloropropane	ND	5	5
Chloroethane	ND	5	5	1,3-Dichloropropane	ND	5	5
2-Chloroethyl Vinyl Ether	ND	5	5	2,2-Dichloropropane	ND	5	5

Surrogate	Recovery (%)
Dibromofluoromethane	100
Toluene-d8	99
4-Bromofluorobenzene	90

1. Results are reported in ug/Liter (ppb)
2. DLR= DF x PQL
3. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #I-2346)

Michelle L. Anderson, Lab Director

ND: None Detected at or above DLR
DLR: Detection Reporting Limit

PQL: Practical Quantitation Limit
DF: Dilution Factor

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# I-2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Certified Analytical Report
Volatile Organic Compounds by EPA Method 8260B

Client: Geomatrix Consultants
Sample Matrix: Water
Sample Date/Time: 8/16/99 12:30
Lab #: 15857-001
Client ID: GMX-1

Date Reported: 8/24/99
Date Received: 8/17/99
Date Analyzed: 8/24/99
Dilution Factor: 1
QC Batch #: WGCMS990824

Compound	Value	PQL	DLR	Compound	Value	PQL	DLR
1,1-Dichloropropene	ND	5	5	Tetrachloroethene	ND	5	5
cis-1,3-Dichloropropene	ND	5	5	Toluene	ND	5	5
trans-1,3-Dichloropropene	ND	5	5	1,2,3-Trichlorobenzene	ND	5	5
Diisopropyl Ether	ND	5	5	1,2,4-Trichlorobenzene	ND	5	5
Ethyl Methacrylate	ND	5	5	1,2,3-Trichloropropane	ND	5	5
Ethylbenzene	ND	5	5	1,1,1-Trichloroethane	ND	5	5
Hexachlorobutadiene	ND	5	5	1,1,2-Trichloroethane	ND	5	5
2-Hexanone	ND	20	20	Trichloroethene	ND	5	5
Iodomethane	ND	5	5	Trichlorofluoromethane	ND	5	5
Isopropylbenzene	ND	5	5	1,2,4-Trimethylbenzene	ND	5	5
p-Isopropyltoluene	ND	5	5	1,3,5-Trimethylbenzene	ND	5	5
Methacrylonitrile	ND	5	5	Xylenes (total)	ND	5	5
Methyl Methacrylate	ND	5	5	Vinyl Chloride	ND	5	5
4-Methyl-2-Pentanone (MIBK)	ND	20	20				
Methyl-tert-butyl Ether	ND	5	5				
Methylene Chloride	ND	5	5				
Naphthalene	ND	5	5				
Pentachloroethane	ND	5	5				
2-Picoline	ND	5	5				
n-Propylbenzene	ND	5	5				
Styrene	ND	5	5				
1,1,1,2-Tetrachloroethane	ND	5	5				
1,1,2,2-Tetrachloroethane	ND	5	5				

Surrogate	Recovery (%)
Dibromofluoromethane	100
Toluene-d8	99
4-Bromofluorobenzene	90

1. Results are reported in ug/Liter (ppb)
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PQL: Practical Quantitation Limit
DF: Dilution Factor

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Certified Analytical Report
Volatile Organic Compounds by EPA Method 8260B

Client: Geomatrix Consultants
Sample Matrix: Water
Sample Date/Time: 8/16/99 13:00
Lab #: 15857-002
Client ID: GMX-2

Date Reported: 8/24/99
Date Received: 8/17/99
Date Analyzed: 8/24/99
Dilution Factor: 1
QC Batch #: WGCMS990824

Compound	Value	PQL	DLR	Compound	Value	PQL	DLR
Acetone	ND	100	100	Chloroform	ND	5	5
Acrylonitrile	ND	5	5	Chloromethane	ND	5	5
Allyl Chloride	ND	5	5	2-Chlorotoluene	ND	5	5
tert-Amyl Methyl Ether	ND	5	5	4-Chlorotoluene	ND	5	5
Benzene	ND	5	5	Dibromochloromethane	ND	5	5
Benzyl Chloride	ND	5	5	1,2-Dibromo-3-chloropropane	ND	5	5
Bromobenzene	ND	5	5	1,2-Dibromoethane	ND	5	5
Bromochloromethane	ND	5	5	Dibromomethane	ND	5	5
Bromodichloromethane	ND	5	5	cis-1,4-Dichloro-2-butene	ND	5	5
Bromoform	ND	5	5	trans-1,4-Dichloro-2-butene	ND	5	5
Bromomethane	ND	5	5	Dichlorodifluoromethane	ND	5	5
tert-Butanol	ND	20	20	1,2-Dichlorobenzene	ND	5	5
2-Butanone (MEK)	ND	20	20	1,3-Dichlorobenzene	ND	5	5
tert-Butyl Ethyl Ether	ND	5	5	1,4-Dichlorobenzene	ND	5	5
n-Butylbenzene	ND	5	5	1,1-Dichloroethane	ND	5	5
sec-Butylbenzene	ND	5	5	1,2-Dichloroethane	ND	5	5
tert-Butylbenzene	ND	5	5	1,1-Dichloroethene	ND	5	5
Carbon Disulfide	ND	5	5	cis-1,2-Dichloroethene	ND	5	5
Carbon Tetrachloride	ND	5	5	trans-1,2-Dichloroethene	ND	5	5
Chlorobenzene	ND	5	5	1,2-Dichloropropane	ND	5	5
Chloroethane	ND	5	5	1,3-Dichloropropane	ND	5	5
2-Chloroethyl Vinyl Ether	ND	5	5	2,2-Dichloropropane	ND	5	5

Surrogate	Recovery (%)
Dibromofluoromethane	97
Toluene-d8	98
4-Bromofluorobenzene	93

1. Results are reported in ug/Liter (ppb)
2. DLR= DF x PQL
3. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #I-2346)

Michelle L. Anderson, Lab Director

ND: None Detected at or above DLR
DLR: Detection Reporting Limit

PQL: Practical Quantitation Limit
DF: Dilution Factor

Entech Analytical Labs, Inc.

CA ELAP= I-2346

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Certified Analytical Report
Volatile Organic Compounds by EPA Method 8260B

Client: Geomatrix Consultants
Sample Matrix: Water
Sample Date/Time: 8/16/99 13:00
Lab #: 15857-002
Client ID: GMX-2

Date Reported: 8/24/99
Date Received: 8/17/99
Date Analyzed: 8/24/99
Dilution Factor: 1
QC Batch #: WGCMS990824

Compound	Value	PQL	DLR	Compound	Value	PQL	DLR
1,1-Dichloropropene	ND	5	5	Tetrachloroethene	ND	5	5
cis-1,3-Dichloropropene	ND	5	5	Toluene	ND	5	5
trans-1,3-Dichloropropene	ND	5	5	1,2,3-Trichlorobenzene	ND	5	5
Diisopropyl Ether	ND	5	5	1,2,4-Trichlorobenzene	ND	5	5
Ethyl Methacrylate	ND	5	5	1,2,3-Trichloropropane	ND	5	5
Ethylbenzene	ND	5	5	1,1,1-Trichloroethane	ND	5	5
Hexachlorobutadiene	ND	5	5	1,1,2-Trichloroethane	ND	5	5
2-Hexanone	ND	20	20	Trichloroethene	ND	5	5
Iodomethane	ND	5	5	Trichlorofluoromethane	ND	5	5
Isopropylbenzene	ND	5	5	1,2,4-Trimethylbenzene	ND	5	5
p-Isopropyltoluene	ND	5	5	1,3,5-Trimethylbenzene	ND	5	5
Methacrylonitrile	ND	5	5	Xylenes (total)	ND	5	5
Methyl Methacrylate	ND	5	5	Vinyl Chloride	ND	5	5
4-Methyl-2-Pentanone (MIBK)	ND	20	20				
Methyl-tert-butyl Ether	ND	5	5				
Methylene Chloride	ND	5	5				
Naphthalene	ND	5	5				
Pentachloroethane	ND	5	5				
2-Picoline	ND	5	5				
n-Propylbenzene	ND	5	5				
Styrene	ND	5	5				
1,1,1,2-Tetrachloroethane	ND	5	5				
1,1,2,2-Tetrachloroethane	ND	5	5				

Surrogate	Recovery (%)
Dibromofluoromethane	97
Toluene-d8	98
4-Bromofluorobenzene	93

1. Results are reported in ug/Liter (ppb)
2. DLR= DF x PQL
3. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #I-2346)

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Certified Analytical Report
Volatile Organic Compounds by EPA Method 8260B

Client: Geomatrix Consultants
Sample Matrix: Water
Sample Date/Time: 8/16/99 15:30
Lab #: 15857-003
Client ID: GMX-3

Date Reported: 8/24/99
Date Received: 8/17/99
Date Analyzed: 8/24/99
Dilution Factor: 1
QC Batch #: WGCMS990824

Compound	Value	PQL	DLR	Compound	Value	PQL	DLR
Acetone	ND	100	100	Chloroform	ND	5	5
Acrylonitrile	ND	5	5	Chloromethane	ND	5	5
Allyl Chloride	ND	5	5	2-Chlorotoluene	ND	5	5
tert-Amyl Methyl Ether	ND	5	5	4-Chlorotoluene	ND	5	5
Benzene	ND	5	5	Dibromochloromethane	ND	5	5
Benzyl Chloride	ND	5	5	1,2-Dibromo-3-chloropropane	ND	5	5
Bromobenzene	ND	5	5	1,2-Dibromoethane	ND	5	5
Bromochloromethane	ND	5	5	Dibromomethane	ND	5	5
Bromodichloromethane	ND	5	5	cis-1,4-Dichloro-2-butene	ND	5	5
Bromoform	ND	5	5	trans-1,4-Dichloro-2-butene	ND	5	5
Bromomethane	ND	5	5	Dichlorodifluoromethane	ND	5	5
tert-Butanol	ND	20	20	1,2-Dichlorobenzene	ND	5	5
2-Butanone (MEK)	ND	20	20	1,3-Dichlorobenzene	ND	5	5
tert-Butyl Ethyl Ether	ND	5	5	1,4-Dichlorobenzene	ND	5	5
n-Butylbenzene	ND	5	5	1,1-Dichloroethane	ND	5	5
sec-Butylbenzene	ND	5	5	1,2-Dichloroethane	ND	5	5
tert-Butylbenzene	ND	5	5	1,1-Dichloroethene	ND	5	5
Carbon Disulfide	ND	5	5	cis-1,2-Dichloroethene	ND	5	5
Carbon Tetrachloride	ND	5	5	trans-1,2-Dichloroethene	ND	5	5
Chlorobenzene	ND	5	5	1,2-Dichloropropane	ND	5	5
Chloroethane	ND	5	5	1,3-Dichloropropane	ND	5	5
2-Chloroethyl Vinyl Ether	ND	5	5	2,2-Dichloropropane	ND	5	5

Surrogate	Recovery (%)
Dibromofluoromethane	100
Toluene-d8	96
4-Bromofluorobenzene	88

1. Results are reported in ug/Liter (ppb)
2. DLR= DF x PQL
3. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #I-2346)

Michelle L. Anderson, Lab Director

ND: None Detected at or above DLR
DLR: Detection Reporting Limit

PQL: Practical Quantitation Limit
DF: Dilution Factor

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Certified Analytical Report
Volatile Organic Compounds by EPA Method 8260B

Client: Geomatrix Consultants
Sample Matrix: Water
Sample Date/Time: 8/16/99 15:30
Lab #: 15857-003
Client ID: GMX-3

Date Reported: 8/24/99
Date Received: 8/17/99
Date Analyzed: 8/24/99
Dilution Factor: 1
QC Batch #: WGCMS990824

Compound	Value	PQL	DLR	Compound	Value	PQL	DLR
1,1-Dichloropropene	ND	5	5	Tetrachloroethene	ND	5	5
cis-1,3-Dichloropropene	ND	5	5	Toluene	ND	5	5
trans-1,3-Dichloropropene	ND	5	5	1,2,3-Trichlorobenzene	ND	5	5
Diisopropyl Ether	ND	5	5	1,2,4-Trichlorobenzene	ND	5	5
Ethyl Methacrylate	ND	5	5	1,2,3-Trichloropropane	ND	5	5
Ethylbenzene	ND	5	5	1,1,1-Trichloroethane	ND	5	5
Hexachlorobutadiene	ND	5	5	1,1,2-Trichloroethane	ND	5	5
2-Hexanone	ND	20	20	Trichloroethene	ND	5	5
Iodomethane	ND	5	5	Trichlorofluoromethane	ND	5	5
Isopropylbenzene	ND	5	5	1,2,4-Trimethylbenzene	ND	5	5
p-Isopropyltoluene	ND	5	5	1,3,5-Trimethylbenzene	ND	5	5
Methacrylonitrile	ND	5	5	Xylenes (total)	ND	5	5
Methyl Methacrylate	ND	5	5	Vinyl Chloride	ND	5	5
4-Methyl-2-Pentanone (MIBK)	ND	20	20				
Methyl-tert-butyl Ether	ND	5	5				
Methylene Chloride	ND	5	5				
Naphthalene	ND	5	5				
Pentachloroethane	ND	5	5				
2-Picoline	ND	5	5				
n-Propylbenzene	ND	5	5				
Styrene	ND	5	5				
1,1,1,2-Tetrachloroethane	ND	5	5				
1,1,2,2-Tetrachloroethane	ND	5	5				

Surrogate	Recovery (%)
Dibromofluoromethane	100
Toluene-d8	96
4-Bromofluorobenzene	88

1. Results are reported in ug/Liter (ppb)
2. DLR= DF x PQL
3. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #I-2346)

Michelle L. Anderson, Lab Director

ND: None Detected at or above DLR
DLR: Detection Reporting Limit

PQL: Practical Quantitation Limit
DF: Dilution Factor

Entech Analytical Labs, Inc.

CA ELAP= I-2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Certified Analytical Report
Volatile Organic Compounds by EPA Method 8260B

Client: Geomatrix Consultants
Sample Matrix: Water
Sample Date/Time: 8/4/99 7:25
Lab #: 15857-004
Client ID: Trip Blank

Date Reported: 8/24/99
Date Received: 8/17/99
Date Analyzed: 8/24/99
Dilution Factor: 1
QC Batch #: WGCMS990824

Compound	Value	PQL	DLR	Compound	Value	PQL	DLR
Acetone	ND	100	100	Chloroform	ND	5	5
Acrylonitrile	ND	5	5	Chloromethane	ND	5	5
Allyl Chloride	ND	5	5	2-Chlorotoluene	ND	5	5
tert-Amyl Methyl Ether	ND	5	5	4-Chlorotoluene	ND	5	5
Benzene	ND	5	5	Dibromochloromethane	ND	5	5
Benzyl Chloride	ND	5	5	1,2-Dibromo-3-chloropropane	ND	5	5
Bromobenzene	ND	5	5	1,2-Dibromoethane	ND	5	5
Bromochloromethane	ND	5	5	Dibromomethane	ND	5	5
Bromodichloromethane	ND	5	5	cis-1,4-Dichloro-2-butene	ND	5	5
Bromoform	ND	5	5	trans-1,4-Dichloro-2-butene	ND	5	5
Bromomethane	ND	5	5	Dichlorodifluoromethane	ND	5	5
tert-Butanol	ND	20	20	1,2-Dichlorobenzene	ND	5	5
2-Butanone (MEK)	ND	20	20	1,3-Dichlorobenzene	ND	5	5
tert-Butyl Ethyl Ether	ND	5	5	1,4-Dichlorobenzene	ND	5	5
n-Butylbenzene	ND	5	5	1,1-Dichloroethane	ND	5	5
sec-Butylbenzene	ND	5	5	1,2-Dichloroethane	ND	5	5
tert-Butylbenzene	ND	5	5	1,1-Dichloroethene	ND	5	5
Carbon Disulfide	ND	5	5	cis-1,2-Dichloroethene	ND	5	5
Carbon Tetrachloride	ND	5	5	trans-1,2-Dichloroethene	ND	5	5
Chlorobenzene	ND	5	5	1,2-Dichloropropane	ND	5	5
Chloroethane	ND	5	5	1,3-Dichloropropane	ND	5	5
2-Chloroethyl Vinyl Ether	ND	5	5	2,2-Dichloropropane	ND	5	5

Surrogate	Recovery (%)
Dibromofluoromethane	93
Toluene-d8	97
4-Bromofluorobenzene	87

1. Results are reported in ug/Liter (ppb)
2. DLR= DF x PQL
3. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #I-2346)

Michelle L. Anderson, Lab Director

ND: None Detected at or above DLR
DLR: Detection Reporting Limit

PQL: Practical Quantitation Limit
DF: Dilution Factor

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# I-2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Certified Analytical Report
Volatile Organic Compounds by EPA Method 8260B

Client: Geomatrix Consultants
Sample Matrix: Water
Sample Date/Time: 8/4/99 7:25
Lab #: 15857-004
Client ID: Trip Blank

Date Reported: 8/24/99
Date Received: 8/17/99
Date Analyzed: 8/24/99
Dilution Factor: 1
QC Batch #: WGCMS990824

Compound	Value	PQL	DLR	Compound	Value	PQL	DLR
1,1-Dichloropropene	ND	5	5	Tetrachloroethene	ND	5	5
cis-1,3-Dichloropropene	ND	5	5	Toluene	ND	5	5
trans-1,3-Dichloropropene	ND	5	5	1,2,3-Trichlorobenzene	ND	5	5
Diisopropyl Ether	ND	5	5	1,2,4-Trichlorobenzene	ND	5	5
Ethyl Methacrylate	ND	5	5	1,2,3-Trichloropropane	ND	5	5
Ethylbenzene	ND	5	5	1,1,1-Trichloroethane	ND	5	5
Hexachlorobutadiene	ND	5	5	1,1,2-Trichloroethane	ND	5	5
2-Hexanone	ND	20	20	Trichloroethene	ND	5	5
Iodomethane	ND	5	5	Trichlorofluoromethane	ND	5	5
Isopropylbenzene	ND	5	5	1,2,4-Trimethylbenzene	ND	5	5
p-Isopropyltoluene	ND	5	5	1,3,5-Trimethylbenzene	ND	5	5
Methacrylonitrile	ND	5	5	Xylenes (total)	ND	5	5
Methyl Methacrylate	ND	5	5	Vinyl Chloride	ND	5	5
4-Methyl-2-Pentanone (MIBK)	ND	20	20				
Methyl-tert-butyl Ether	ND	5	5				
Methylene Chloride	ND	5	5				
Naphthalene	ND	5	5				
Pentachloroethane	ND	5	5				
2-Picoline	ND	5	5				
n-Propylbenzene	ND	5	5				
Styrene	ND	5	5				
1,1,1,2-Tetrachloroethane	ND	5	5				
1,1,2,2-Tetrachloroethane	ND	5	5				

Surrogate	Recovery (%)
Dibromofluoromethane	93
Toluene-d8	97
4-Bromofluorobenzene	87

1. Results are reported in ug/Liter (ppb)
2. DLR= DF x PQL
3. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #I-2346)

Michelle L. Anderson, Lab Director

ND: None Detected at or above DLR
DLR: Detection Reporting Limit

PQL: Practical Quantitation Limit
DF: Dilution Factor

Entech Analytical Labs, Inc.

CA ELAP# I-2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Certified Analytical Report
Volatile Organic Compounds by EPA Method 8260B

Client: Geomatrix Consultants
Sample Matrix: Water
Sample Date/Time: 8/24/99
Lab #: Method Blank
Client ID:

Date Reported: 8/24/99
Date Received: 8/24/99
Date Analyzed: 8/24/99
Dilution Factor: 1

Compound	Value	PQL	DLR	Compound	Value	PQL	DLR
Acetone	ND	100	100	Chloroform	ND	5	5
Acrylonitrile	ND	5	5	Chloromethane	ND	5	5
Allyl Chloride	ND	5	5	2-Chlorotoluene	ND	5	5
tert-Amyl Methyl Ether	ND	5	5	4-Chlorotoluene	ND	5	5
Benzene	ND	5	5	Dibromochloromethane	ND	5	5
Benzyl Chloride	ND	5	5	1,2-Dibromo-3-chloropropane	ND	5	5
Bromobenzene	ND	5	5	1,2-Dibromoethane	ND	5	5
Bromochloromethane	ND	5	5	Dibromomethane	ND	5	5
Bromodichloromethane	ND	5	5	cis-1,4-Dichloro-2-butene	ND	5	5
Bromoform	ND	5	5	trans-1,4-Dichloro-2-butene	ND	5	5
Bromomethane	ND	5	5	Dichlorodifluoromethane	ND	5	5
tert-Butanol	ND	20	20	1,2-Dichlorobenzene	ND	5	5
2-Butanone (MEK)	ND	20	20	1,3-Dichlorobenzene	ND	5	5
tert-Butyl Ethyl Ether	ND	5	5	1,4-Dichlorobenzene	ND	5	5
n-Butylbenzene	ND	5	5	1,1-Dichloroethane	ND	5	5
sec-Butylbenzene	ND	5	5	1,2-Dichloroethane	ND	5	5
tert-Butylbenzene	ND	5	5	1,1-Dichloroethene	ND	5	5
Carbon Disulfide	ND	5	5	cis-1,2-Dichloroethene	ND	5	5
Carbon Tetrachloride	ND	5	5	trans-1,2-Dichloroethene	ND	5	5
Chlorobenzene	ND	5	5	1,2-Dichloropropane	ND	5	5
Chloroethane	ND	5	5	1,3-Dichloropropane	ND	5	5
2-Chloroethyl Vinyl Ether	ND	5	5	2,2-Dichloropropane	ND	5	5

Surrogate	Recovery (%)
Dibromofluoromethane	86
Toluene-d8	97
4-Bromofluorobenzene	86

1. Results are reported in ug/Liter (ppb)
2. DLR= DF x PQL
3. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #I-2346)

Michelle L. Anderson, Lab Director

ND: None Detected at or above DLR
DLR: Detection Reporting Limit

PQL: Practical Quantitation Limit
DF: Dilution Factor

:ntech Analytical Labs, Inc.

CA ELAP= I-2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Geomatrix Consultants
2101 Webster Street, 12th Floor
Oakland, CA 94612
Attn: Chris Posch

Date: 8/24/99
Date Received: 8/17/99
Project: 4221.020
PO #:
Sampled By: Client

Certified Analytical Report

Soil Sample Analysis: (All results in mg/kg)

Sample ID	GMX-1-2			GMX-2-2			GMX-3-2				
Sample Date	8/16/99			8/16/99			8/16/99				
Sample Time	9:30			10:40			11:50				
Lab #	**15847-001**			**15847-003**			**15847-005**				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Extraction Date	8/20/99			8/20/99			8/20/99				
Analysis Date	8/22/99			8/22/99			8/22/99				
QC Batch #	DS990817SiO2			DS990817SiO2			DS990817SiO2				
TPH-Diesel	**ND**	1.0	1.0	**ND**	1.0	1.0	**ND**	1.0	1.0	1.0	8015M
TPH-Motor Oil	**ND**	1.0	13	**ND**	1.0	13	**ND**	1.0	13	13	8015M
Hexacosane	80%			79%			86%				

TPH-Diesel and TPH-Motor Oil extraction performed with silica gel cleanup (EPA 3630-Mod)

Michelle L. Anderson, Lab Director

Entech Analytical Labs, Inc.

CA ELAP# I-2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Geomatrix Consultants
2101 Webster Street, 12th Floor
Oakland, CA 94612
Attn: Chris Posch

Date: 8/24/99
Date Received: 8/17/99
Project: 4221.020
PO #:
Sampled By: Client

Certified Analytical Report

Soil Sample Analysis: All results in mg/kg)

Sample ID	**GMX-1-6**			**GMX-2-6**			**GMX-3-6**				
Sample Date	8/16/99			8/16/99			8/16/99				
Sample Time	9:40			10:50			12:05				
Lab #	**15847-002**			**15847-004**			**15847-006**				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Extraction Date	8/20/99			8/20/99			8/20/99				
Analysis Date	8/22/99			8/22/99			8/22/99				
QC Batch #	DS990817SiO2			DS990817SiO2			DS990817SiO2				
TPH-Diesel	**ND**	1.0	1.0	**ND**	1.0	1.0	**ND**	1.0	1.0	1.0	8015M
TPH-Motor Oil	**ND**	1.0	13	**ND**	1.0	13	**ND**	1.0	13	13	8015M
Hexacosane	77%			93%			88%				
Analysis Date	8/22/99			8/22/99			8/22/99				
QC Batch #	GBG1990822			GBG1990822			GBG1990822				
TPH-Gas	**ND**	1.0	1.0	**ND**	1.0	1.0	**ND**	1.0	1.0	1.0	8015M
a,a,a-Trifluorotoluene	99%			100%			98%				

TPH-Diesel and TPH-Motor Oil extraction performed with silica gel cleanup (EPA 3630-Mod)

Michelle L. Anderson, Lab Director

Entech Analytical Labs, Inc.

CA ELAP= I-2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

August 24, 1999

Chris Posch
Geomatrix Consultants
2101 Webster Street, 12th Floor
Oakland, CA 94612

Subject:	6 Soil Samples
Lab #'s:	15847-001 – 15847-006
Project Name:	
Project Number:	4221.020
P.O. Number:	Invoice Union Pacific
Method(s):	EPA 8015M
	EPA 8270 - ATL
Subcontract Lab:	Advanced Technology Laboratories (CAELAP #1838)

Dear Chris Posch,

Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#I-2346). If you have any questions regarding procedures or results, please call me at 408-735-1550.

Sincerely,

Michelle L. Anderson
Lab Director

August 23, 1999 ELAP No.: 1838

Entech Analytical Labs, Inc.
525 Del Rey Avenue,
Sunyvale, CA 94806

ATTN: Michelle Anderson

Client's Project: Geomatrix Consultants
Lab No.: 37759-001/006

Enclosed are the results for sample(s) received by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company. Please feel free to call me at (562) 989 - 4045 if I can be of further assistance to your company.

Sincerely,

Cheryl De Los Reyes
Technical Operations Manager
CDR/jh

Enclosures

This cover letter is an integral part of this analytical report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purpose without authorization is prohibited.

Appendix G
Preliminary Drainage Study

Ashley & Vance ENGINEERING, INC

210 E. Cota Street
Santa Barbara, CA 93101

(805) 962-9966

Job No. 221784

May 23, 2025

Whitt Hollis
499 Linden Managers, LLC
1072 Casitas Pass Road, #172
Carpinteria, CA 93013

Re: The Surfliner Inn
499 Linden Avenue
Carpinteria, CA 93013
APN's 004-105-011 & 004-105-026

Dear Mr. Hollis:

The purpose of this letter is to provide a preliminary drainage study for each of the two separate disconnected parcels for the subject project and whether there is an overall increase in the runoff generated from each parcel.

The parcel with APN number 004-105-011 and addressed at 499 Linden Avenue is an existing parking lot where a portion of the existing parking lot will be redeveloped into a new Hotel. The generated site runoff is being mitigated with a reduction in impervious area. See the table below for a summary of the peak runoff generated on the site for the 2-year through the 100-year storm for the pre-construction and post-construction conditions.

Hydrology Comparison Table (Hotel)						
	Generated Runoff (cfs)					
	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year
Pre-Construction	1.65	2.46	3.00	3.68	4.18	4.67
Post-Construction	1.56	2.35	2.89	3.56	4.06	4.55

The parcel with APN 004-105-026, which does not currently have an assigned address, is currently undeveloped land with a DG path running through it that will be developed into a new parking lot with a public restroom. The generated site runoff is being mitigated with the use of permeable pavers. See the table below for a summary of the peak runoff generated on the site for the 2-year through the 100-year storm for the pre-construction and post-construction conditions.

Hydrology Comparison Table (Parking Lot)						
	Generated Runoff (cfs)					
	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year
Pre-Construction	1.52	2.52	3.19	4.03	4.64	5.23
Post-Construction	1.49	2.47	3.13	3.96	4.57	5.15

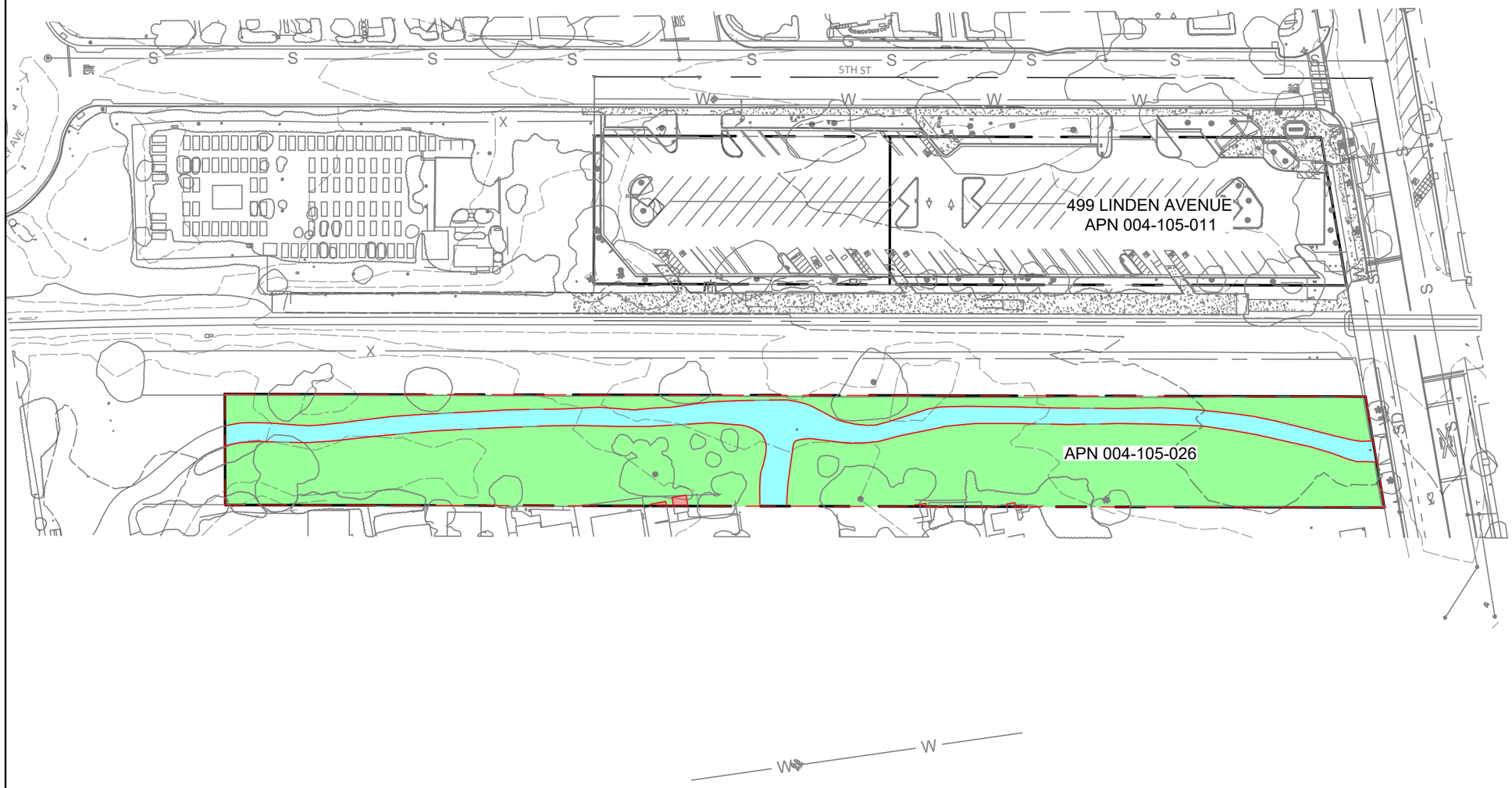
Based on the proposed site improvement runoff, these storm conditions are mitigated to not exceed the pre-project runoff.

Attached are drainage exhibit maps for each of these parcels showing the pre-project and post-project impervious surfacing and HydroCAD calculations.

Sincerely,

Brett Voyles
Project Engineer

Jason J. Gotsis, P.E.
Principal Engineer



LEGEND

A — DMA DESCRIPTION

FLOW DIRECTION

SUBCATCHMENT BOUNDARY

PERVIOUS AREA	47,325 SF
PERVIOUS AREA - HARDSCAPE	0 SF
IMPERVIOUS AREA - ROOF	99 SF
IMPERVIOUS AREA - HARDSCAPE	10,870 SF
IMPERVIOUS AREA - OTHER	0 SF
WATER FEATURE (NO RUNOFF)	0 SF

SUMMARY

TOTAL PERVIOUS	47,325 SF
TOTAL IMPERVIOUS	10,969 SF
WATER FEATURE	0 SF
TOTAL AREA	58,294 SF

56.00°

HORIZONTAL SCALE: 1" = 80'

80 0 80 160

PRE-PROJECT DRAINAGE EXHIBIT

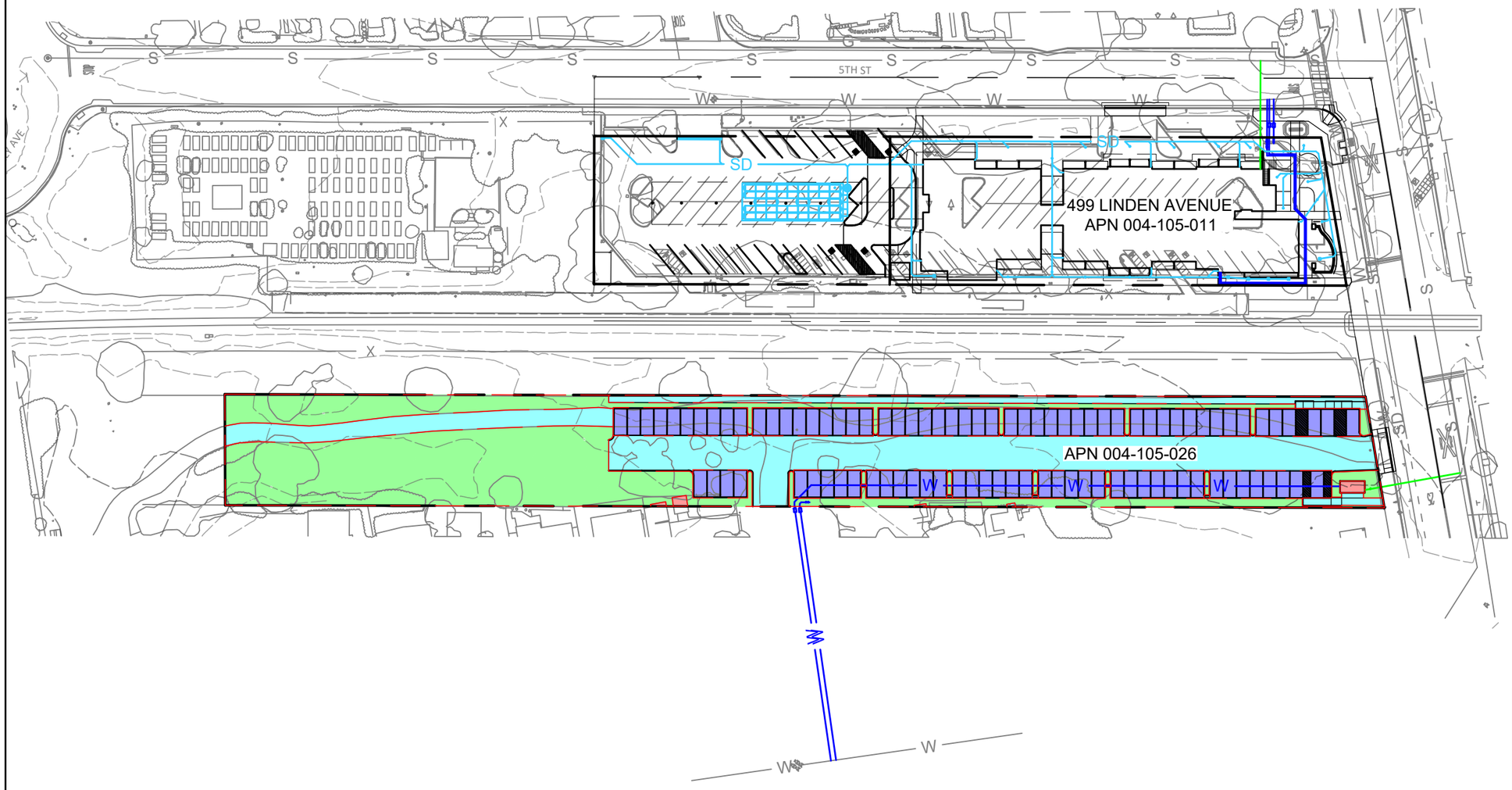
THE SURFLINER INN - PARKING LOT

APN: 004-105-026
CARPINTERIA, CA 93013

Ashley&Vance ENGINEERING, INC.
210 East Cota Street
Santa Barbara, CA 93101
www.ashleyvance.com (805) 962-9966 • (805) 545-0010
CIVIL • STRUCTURAL

05/22/2025 221784

S:\All Jobs\2022 All Jobs\221784 - Surfliner Inn (Civil) - AB Design\03_Calcs\SWMP\Surfliner - Parking Lot - Pre-project Exhibit.dwg, PRE, May 23, 2025 12:08pm, Brett



LEGEND

A — DMA DESCRIPTION

FLOW DIRECTION

SUBCATCHMENT BOUNDARY

	PERVIOUS AREA	22,542 SF
	PERVIOUS AREA - PERMEABLE PAVER	16,621 SF
	IMPERVIOUS AREA - ROOF	235 SF
	IMPERVIOUS AREA - HARDSCAPE	18,896 SF
	IMPERVIOUS AREA - OTHER	0 SF
	WATER FEATURE (NO RUNOFF)	0 SF

SUMMARY

TOTAL PERVIOUS	39,163 SF
TOTAL IMPERVIOUS	19,131 SF
WATER FEATURE	0 SF
TOTAL AREA	58,294 SF

56.00°'

N

HORIZONTAL SCALE: 1" = 80'

80 0 80 160

POST-PROJECT DRAINAGE EXHIBIT

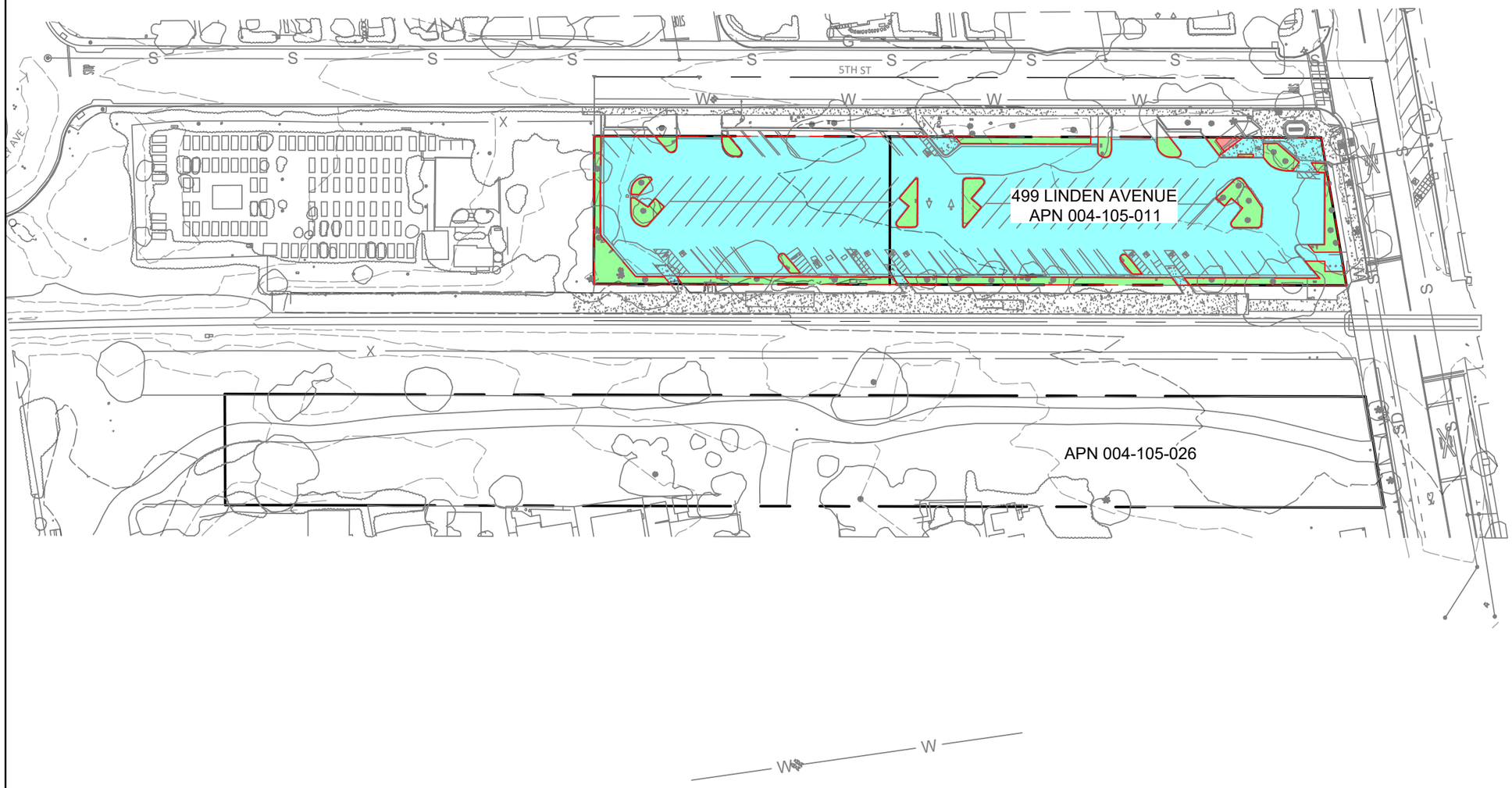
THE SURFLINER INN - PARKING LOT

APN: 004-105-026
CARPINTERIA, CA 93013

Ashley&Vance ENGINEERING, INC.
210 East Cota Street
Santa Barbara, CA 93101
www.ashleyvance.com (805) 962-9966 • (805) 545-0010
CIVIL • STRUCTURAL

05/22/2025 221784

S:\All Jobs\2022 All Jobs\221784 - Surfliner Inn (Civil) - AB Design\03_Calcs\SWMP\Surfliner - Parking Lot - Post-project Exhibit.dwg, POST, May 23, 2025 12:09pm, Brett



LEGEND

A — DMA DESCRIPTION

FLOW DIRECTION

SUBCATCHMENT BOUNDARY

	PERVIOUS AREA	6,608 SF
	PERVIOUS AREA - HARDSCAPE	0 SF
	IMPERVIOUS AREA - ROOF	96 SF
	IMPERVIOUS AREA - HARDSCAPE	43,296 SF
	IMPERVIOUS AREA - OTHER	0 SF
	WATER FEATURE (NO RUNOFF)	0 SF

SUMMARY

TOTAL PERVIOUS	6,608 SF
TOTAL IMPERVIOUS	43,392 SF
WATER FEATURE	0 SF
TOTAL AREA	50,000 SF

56.00°'

N

HORIZONTAL SCALE: 1" = 80'

80 0 80 160

PRE-PROJECT DRAINAGE EXHIBIT

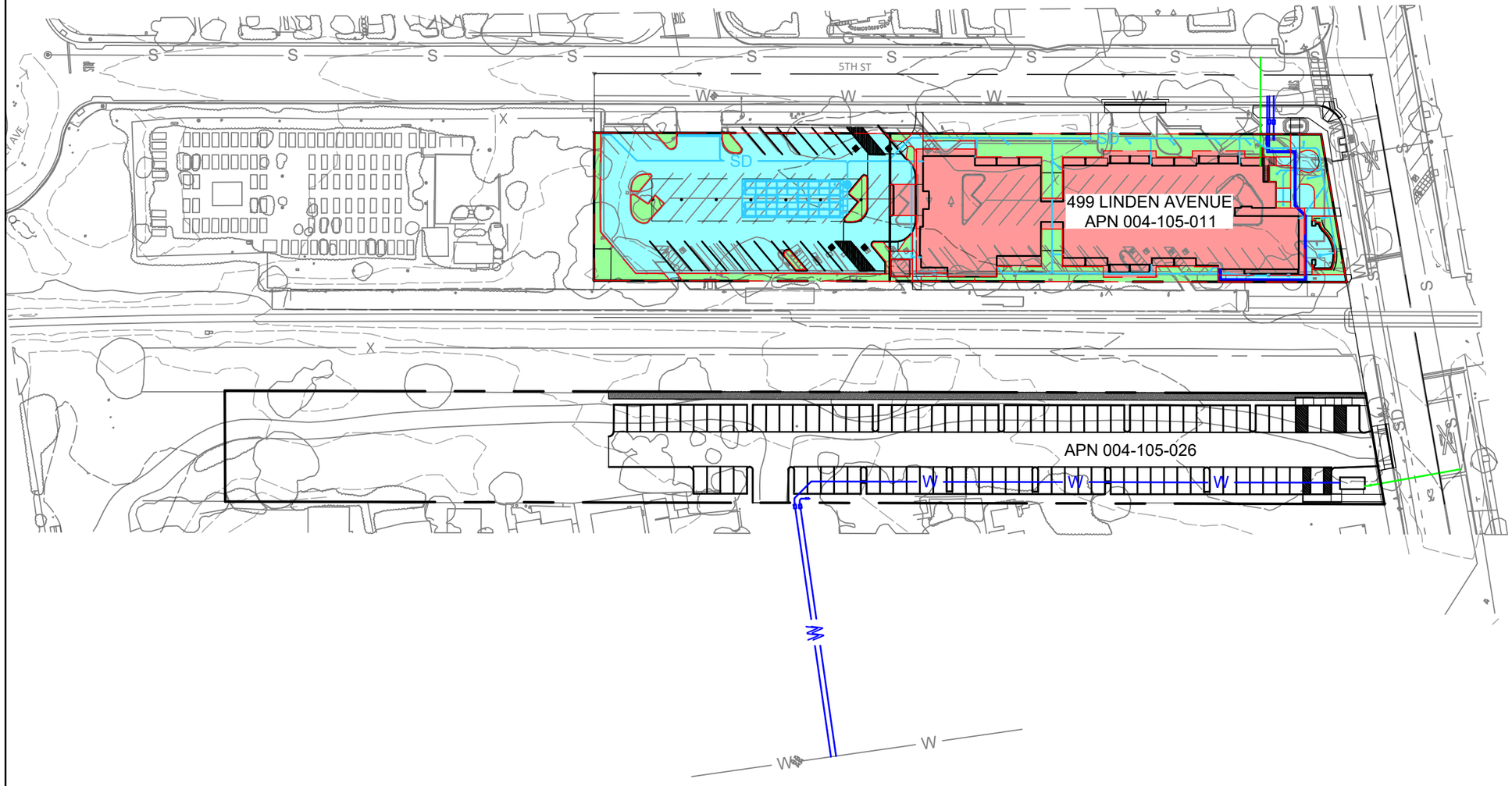
THE SURFLINER INN

499 LINDEN AVENUE
CARPINTERIA, CA 93013

Ashley&Vance ENGINEERING, INC.
210 East Cota Street
Santa Barbara, CA 93101
www.ashleyvance.com (805) 962-9966 • (805) 545-0010
CIVIL • STRUCTURAL

05/22/2023 221784

S:\All Jobs\2022 All Jobs\221784 - Surfliner Inn (Civil) - AB Design\03_Calcs\SWMP\Surfliner - Hotel - Pre-project Exhibit.dwg, PRE, May 23, 2025 12:07pm, Brett



LEGEND

A — DMA DESCRIPTION

FLOW DIRECTION

SUBCATCHMENT BOUNDARY

	PERVIOUS AREA	9,579 SF
	PERVIOUS AREA - PERMEABLE PAVER	0 SF
	IMPERVIOUS AREA - ROOF	19,959 SF
	IMPERVIOUS AREA - HARDSCAPE	20,462 SF
	IMPERVIOUS AREA - OTHER	0 SF
	WATER FEATURE (NO RUNOFF)	0 SF

SUMMARY

TOTAL PERVIOUS	9,579 SF
TOTAL IMPERVIOUS	40,421 SF
WATER FEATURE	0 SF
TOTAL AREA	50,000 SF

56.00°

HORIZONTAL SCALE: 1" = 80'

80 0 80 160

POST-PROJECT DRAINAGE EXHIBIT

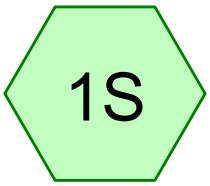
THE SURFLINER INN

499 LINDEN AVENUE
CARPINTERIA, CA 93013

Ashley & Vance ENGINEERING, INC.
210 East Cota Street
Santa Barbara, CA 93101
www.ashleyvance.com (805) 962-9966 • (805) 545-0010
CIVIL • STRUCTURAL

05/22/2025 221784

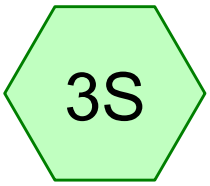
S:\All Jobs\2022 All Jobs\221784 - Surfliner Inn (Civil) - AB Design\03_Calcs\SWMP\Surfliner - Hotel - Post-project Exhibit.dwg, POST, May 23, 2025 12:08pm, Brett



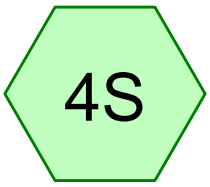
Pre-Construction (Lot 4 Parking Lot)



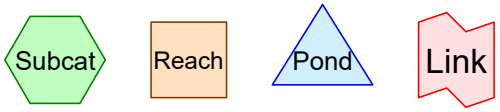
Post-Construction (Lot 4 Parking Lot)



Pre-Construction (Hotel)



Pre-Construction (Hotel)



Routing Diagram for HydroCAD_SBUH_Template_South Coast
Prepared by Ashley & Vance Engineering Inc, Printed 5/22/2025
HydroCAD® 10.20-5c s/n 08034 © 2023 HydroCAD Software Solutions LLC

Summary for Subcatchment 1S: Pre-Construction (Lot 4 Parking Lot)

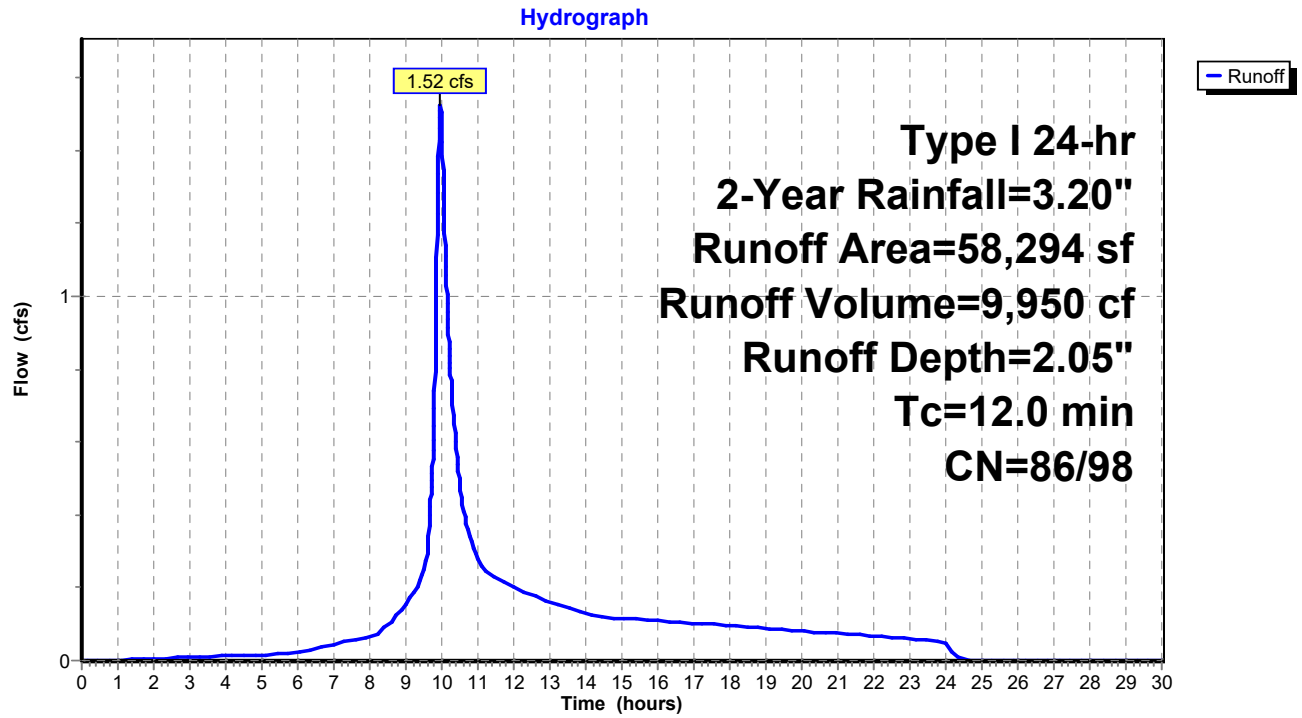
Runoff = 1.52 cfs @ 9.97 hrs, Volume= 9,950 cf, Depth= 2.05"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 2-Year Rainfall=3.20"

	Area (sf)	CN	Description
	99	98	Roofs, HSG C
	10,870	98	Paved parking, HSG C
	47,325	86	<50% Grass cover, Poor, HSG C
*	0	82	Permeable Pavers, HSG C
	58,294	88	Weighted Average
	47,325	86	81.18% Pervious Area
	10,969	98	18.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 1S: Pre-Construction (Lot 4 Parking Lot)



Summary for Subcatchment 2S: Post-Construction (Lot 4 Parking Lot)

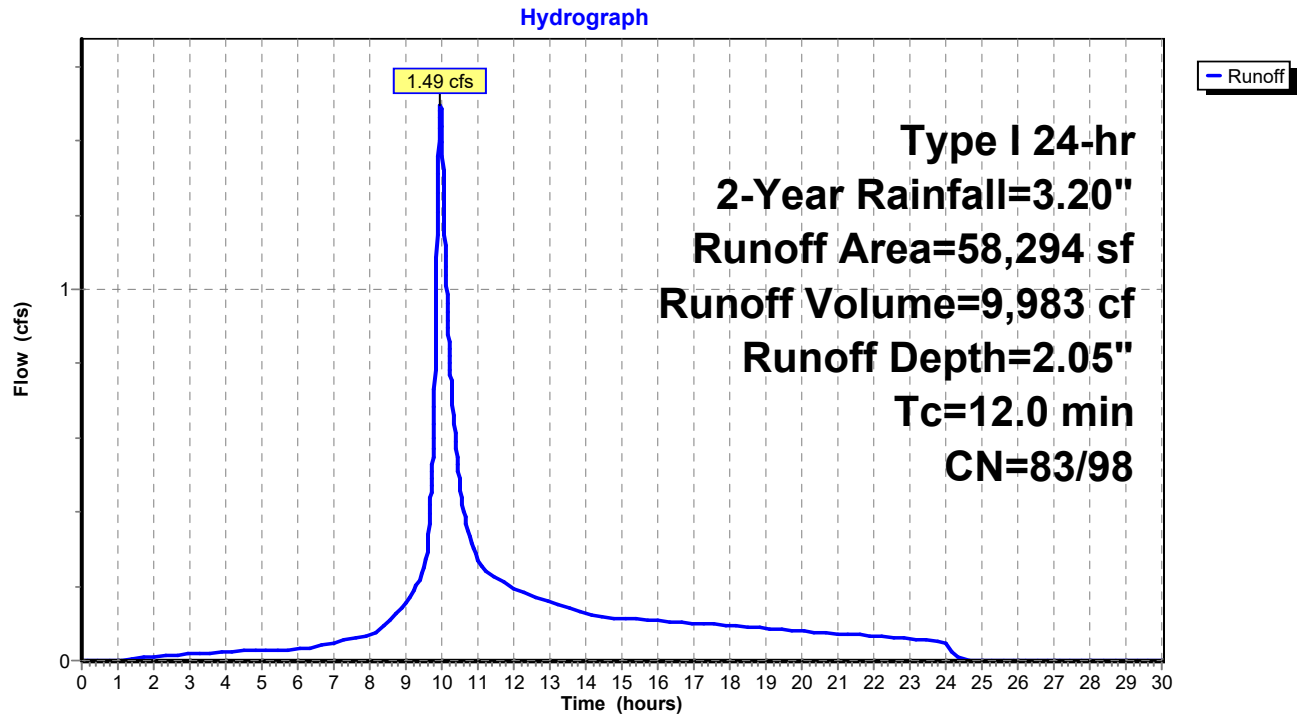
Runoff = 1.49 cfs @ 9.97 hrs, Volume= 9,983 cf, Depth= 2.05"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 2-Year Rainfall=3.20"

	Area (sf)	CN	Description
	235	98	Roofs, HSG C
	18,896	98	Paved parking, HSG C
	22,542	86	<50% Grass cover, Poor, HSG C
*	16,621	80	Permeable Pavers, HSG C
	58,294	88	Weighted Average
	39,163	83	67.18% Pervious Area
	19,131	98	32.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 2S: Post-Construction (Lot 4 Parking Lot)



Summary for Subcatchment 3S: Pre-Construction (Hotel)

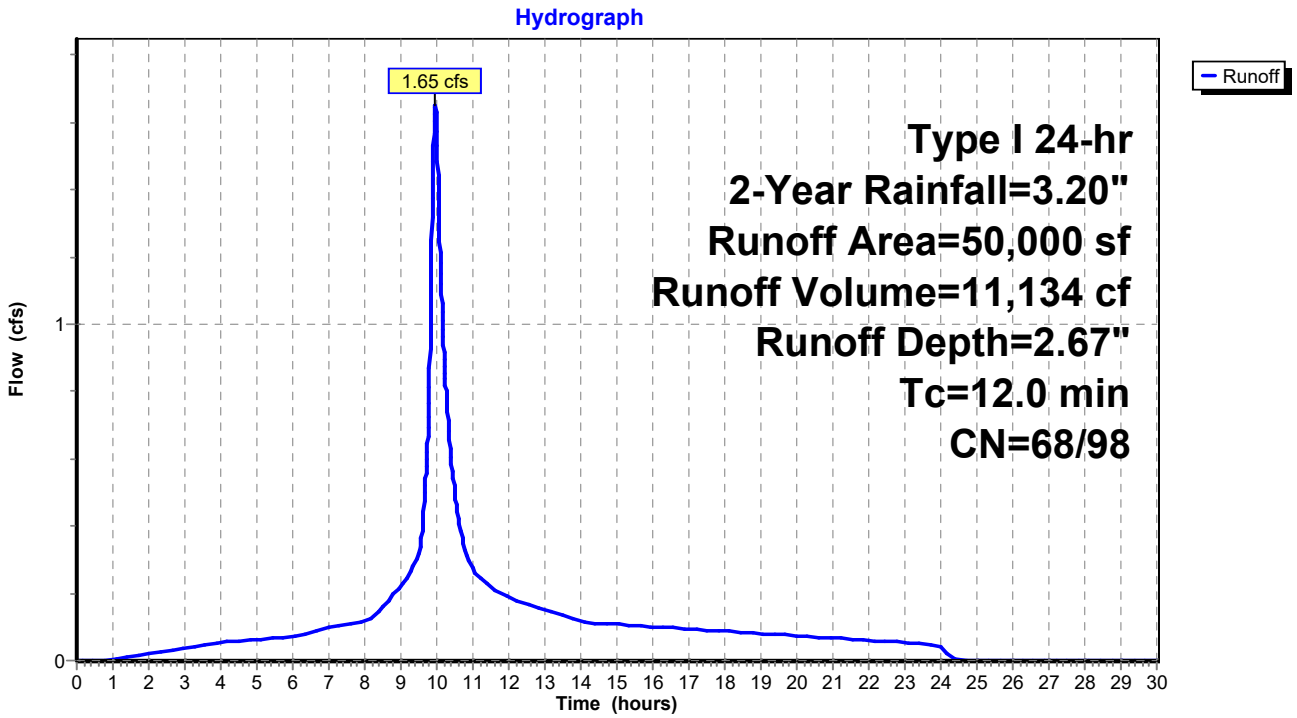
Runoff = 1.65 cfs @ 9.96 hrs, Volume= 11,134 cf, Depth= 2.67"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 2-Year Rainfall=3.20"

	Area (sf)	CN	Description
	96	98	Roofs, HSG A
	43,296	98	Paved parking, HSG A
	6,608	68	<50% Grass cover, Poor, HSG A
*	0	64	Permeable Pavers, HSG C
	50,000	94	Weighted Average
	6,608	68	13.22% Pervious Area
	43,392	98	86.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 3S: Pre-Construction (Hotel)



Summary for Subcatchment 4S: Pre-Construction (Hotel)

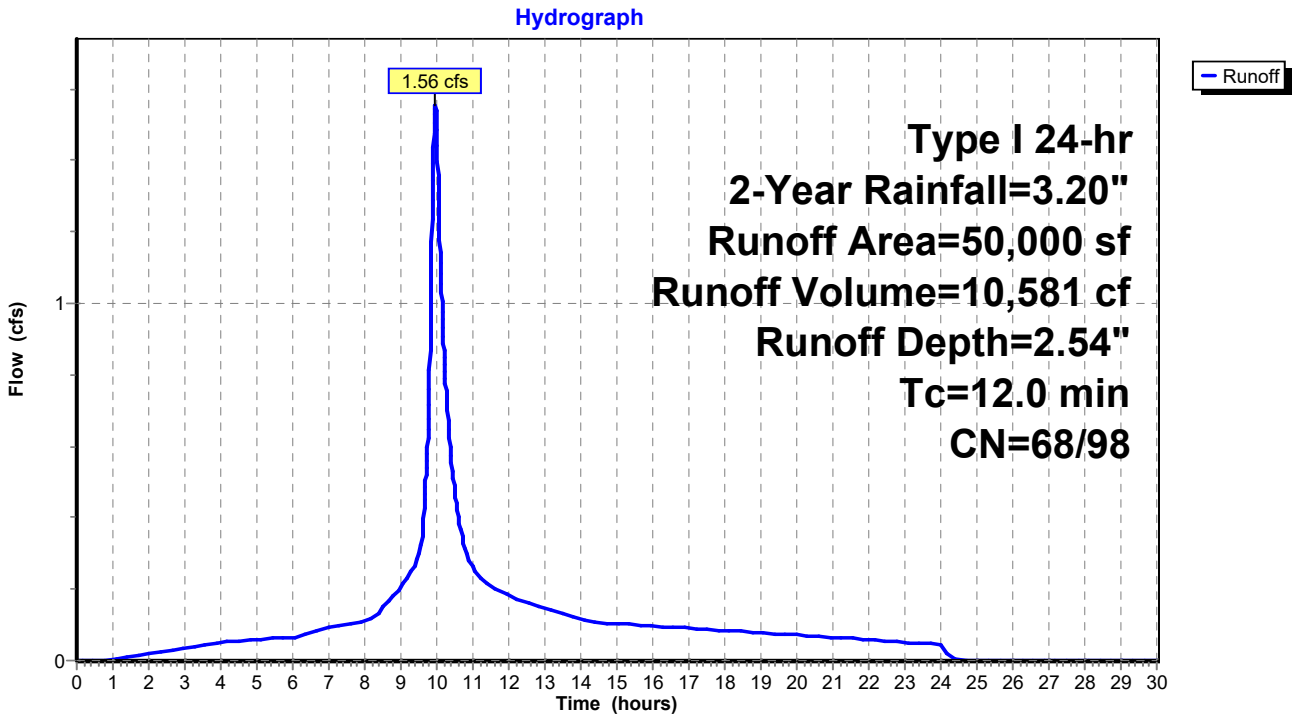
Runoff = 1.56 cfs @ 9.96 hrs, Volume= 10,581 cf, Depth= 2.54"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 2-Year Rainfall=3.20"

	Area (sf)	CN	Description
	19,959	98	Roofs, HSG A
	20,462	98	Paved parking, HSG A
	9,579	68	<50% Grass cover, Poor, HSG A
*	0	64	Permeable Pavers, HSG A
	50,000	92	Weighted Average
	9,579	68	19.16% Pervious Area
	40,421	98	80.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 4S: Pre-Construction (Hotel)



Summary for Subcatchment 1S: Pre-Construction (Lot 4 Parking Lot)

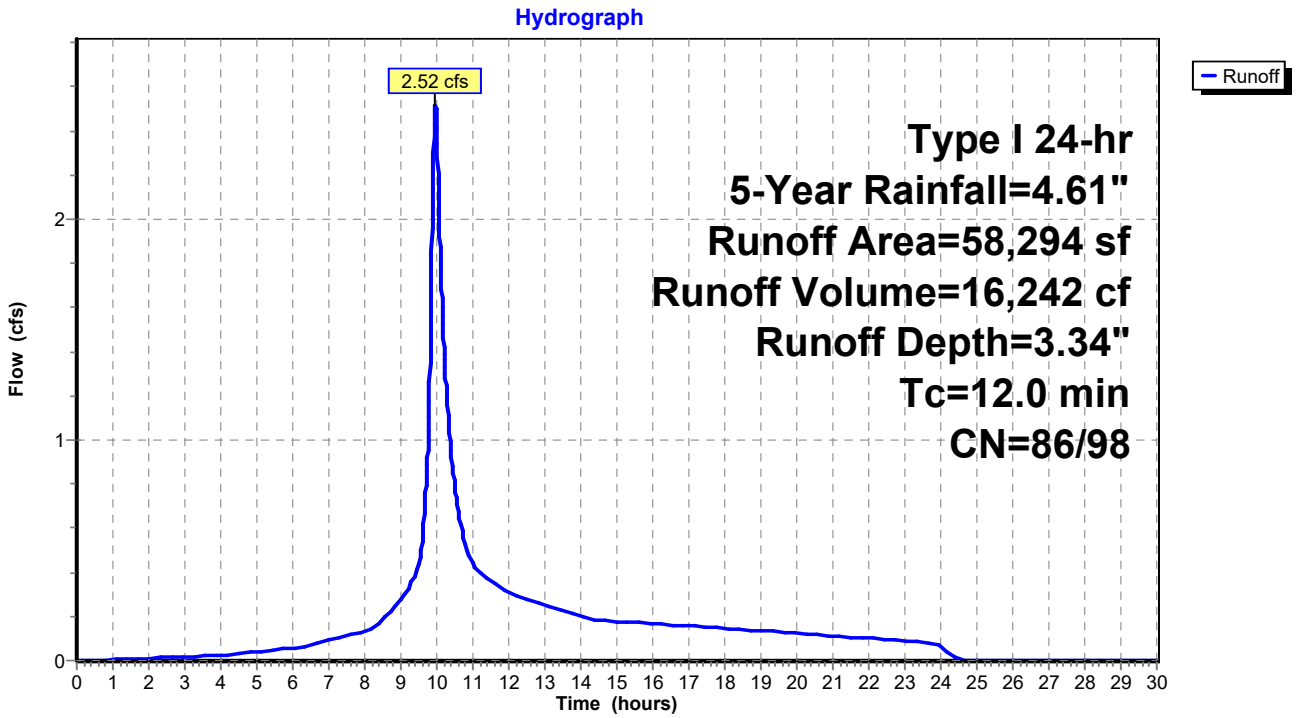
Runoff = 2.52 cfs @ 9.96 hrs, Volume= 16,242 cf, Depth= 3.34"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 5-Year Rainfall=4.61"

	Area (sf)	CN	Description
	99	98	Roofs, HSG C
	10,870	98	Paved parking, HSG C
	47,325	86	<50% Grass cover, Poor, HSG C
*	0	82	Permeable Pavers, HSG C
	58,294	88	Weighted Average
	47,325	86	81.18% Pervious Area
	10,969	98	18.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 1S: Pre-Construction (Lot 4 Parking Lot)



Summary for Subcatchment 2S: Post-Construction (Lot 4 Parking Lot)

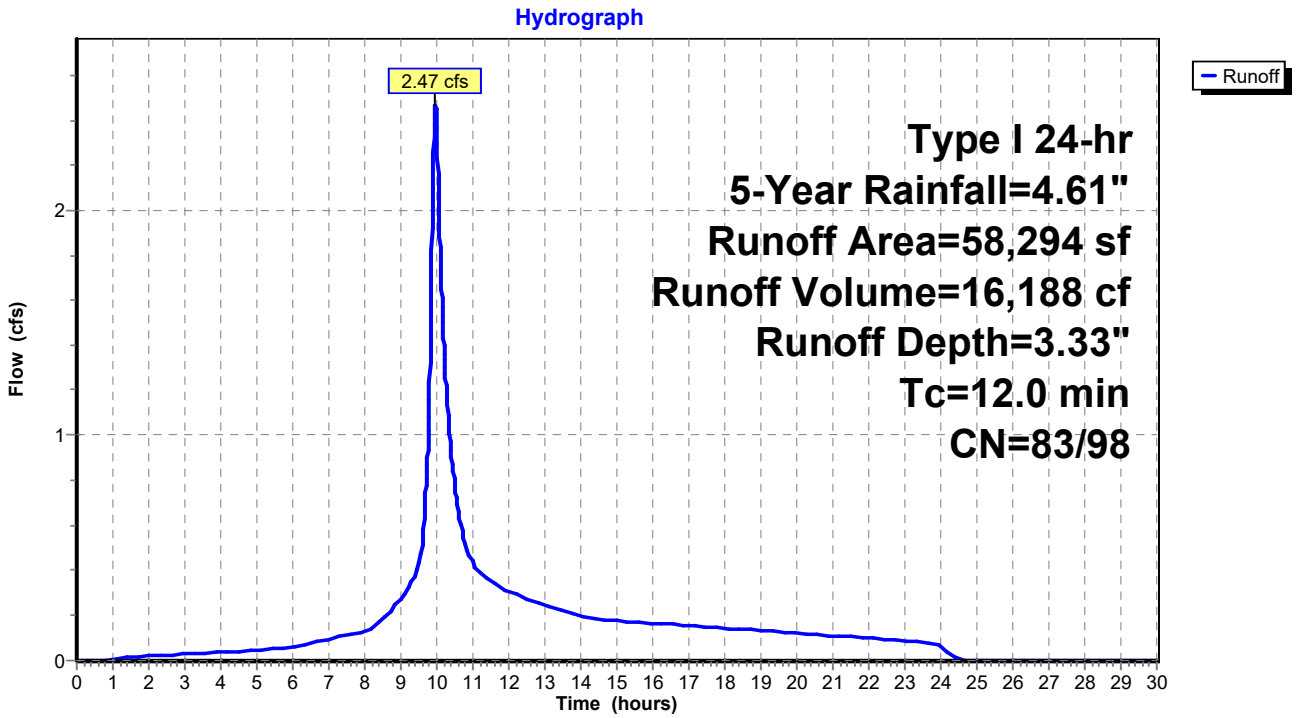
Runoff = 2.47 cfs @ 9.97 hrs, Volume= 16,188 cf, Depth= 3.33"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 5-Year Rainfall=4.61"

	Area (sf)	CN	Description
	235	98	Roofs, HSG C
	18,896	98	Paved parking, HSG C
	22,542	86	<50% Grass cover, Poor, HSG C
*	16,621	80	Permeable Pavers, HSG C
	58,294	88	Weighted Average
	39,163	83	67.18% Pervious Area
	19,131	98	32.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 2S: Post-Construction (Lot 4 Parking Lot)



Summary for Subcatchment 3S: Pre-Construction (Hotel)

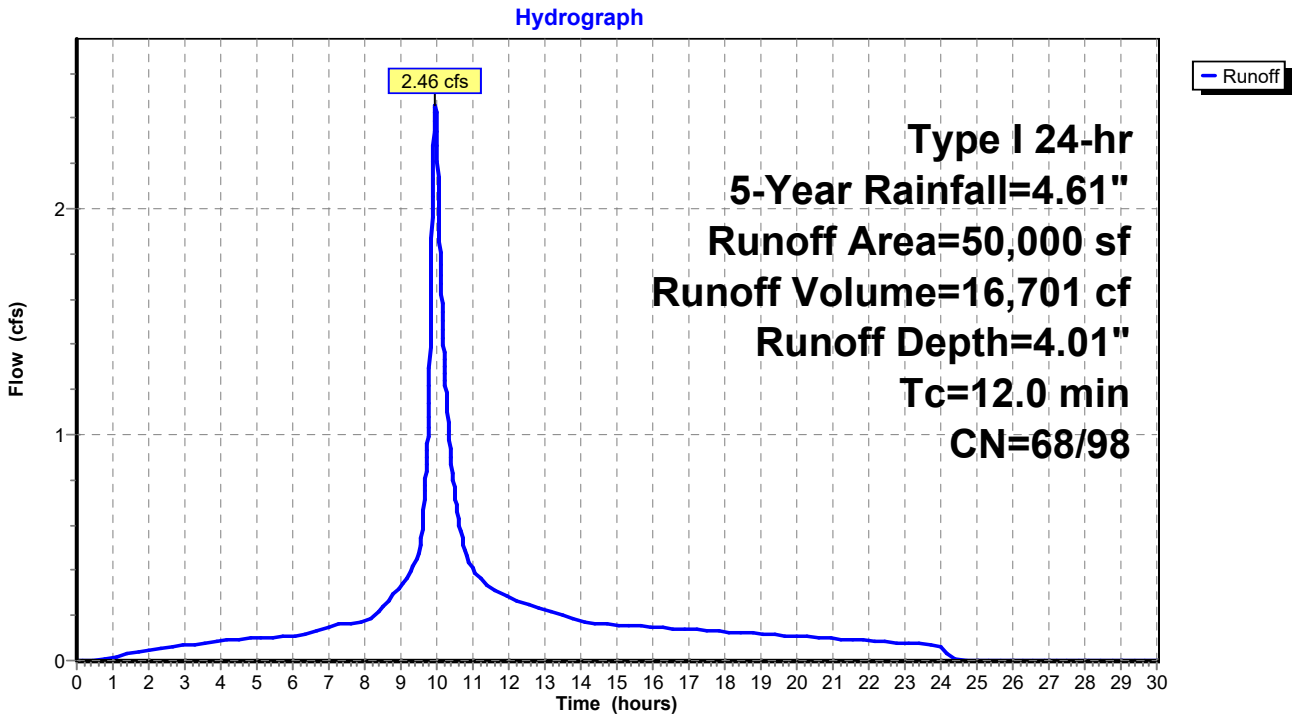
Runoff = 2.46 cfs @ 9.96 hrs, Volume= 16,701 cf, Depth= 4.01"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 5-Year Rainfall=4.61"

	Area (sf)	CN	Description
	96	98	Roofs, HSG A
	43,296	98	Paved parking, HSG A
	6,608	68	<50% Grass cover, Poor, HSG A
*	0	64	Permeable Pavers, HSG C
	50,000	94	Weighted Average
	6,608	68	13.22% Pervious Area
	43,392	98	86.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 3S: Pre-Construction (Hotel)



Summary for Subcatchment 4S: Pre-Construction (Hotel)

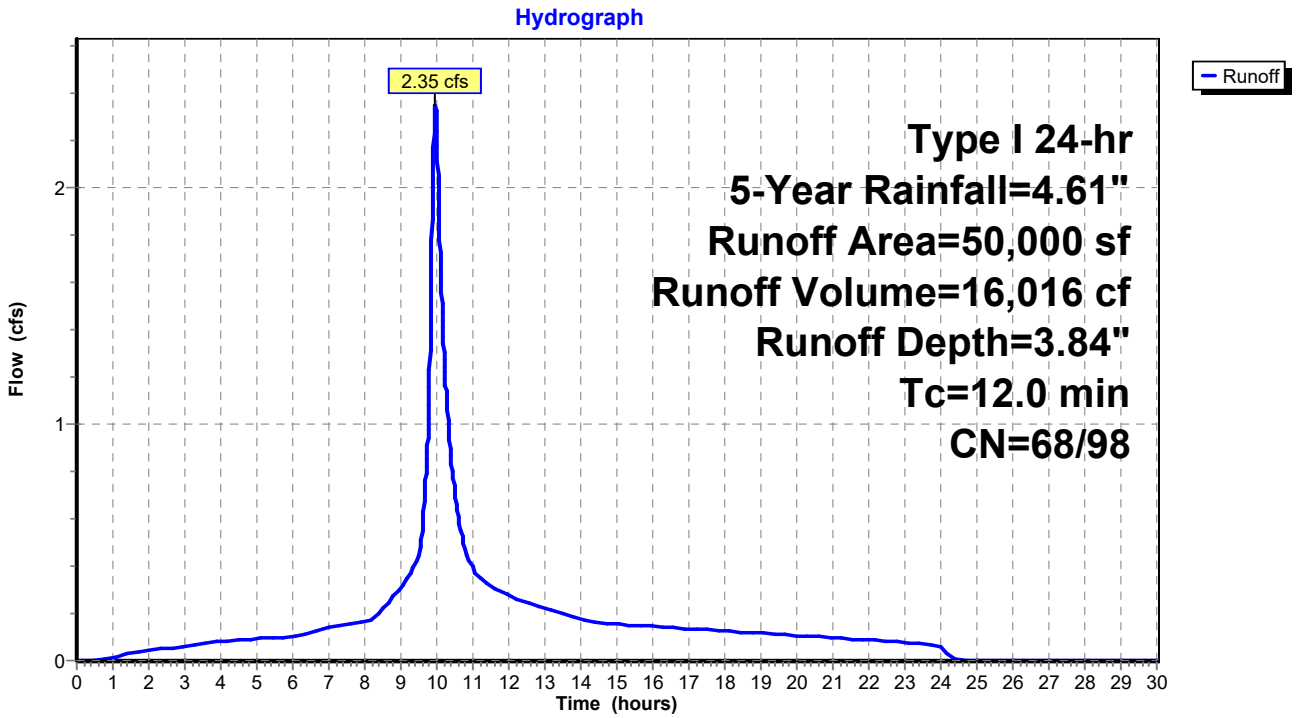
Runoff = 2.35 cfs @ 9.96 hrs, Volume= 16,016 cf, Depth= 3.84"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 5-Year Rainfall=4.61"

	Area (sf)	CN	Description
	19,959	98	Roofs, HSG A
	20,462	98	Paved parking, HSG A
	9,579	68	<50% Grass cover, Poor, HSG A
*	0	64	Permeable Pavers, HSG A
	50,000	92	Weighted Average
	9,579	68	19.16% Pervious Area
	40,421	98	80.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 4S: Pre-Construction (Hotel)



Summary for Subcatchment 1S: Pre-Construction (Lot 4 Parking Lot)

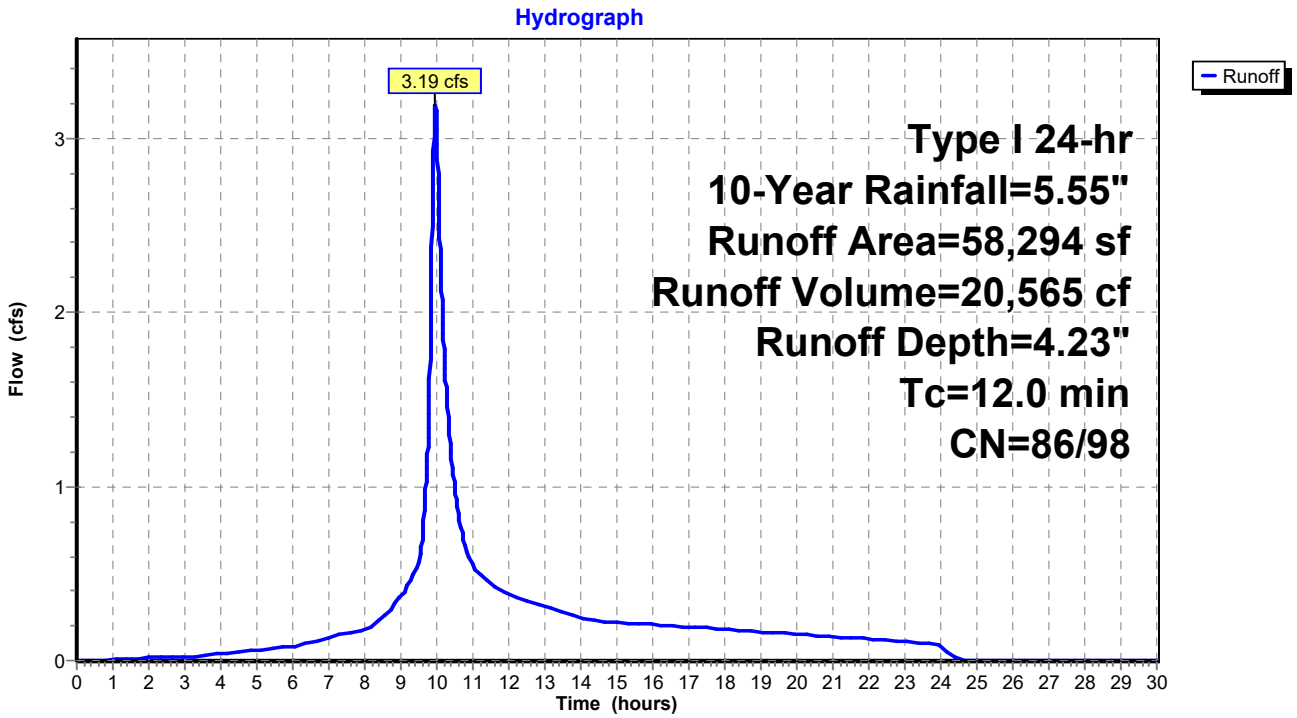
Runoff = 3.19 cfs @ 9.96 hrs, Volume= 20,565 cf, Depth= 4.23"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 10-Year Rainfall=5.55"

	Area (sf)	CN	Description
	99	98	Roofs, HSG C
	10,870	98	Paved parking, HSG C
	47,325	86	<50% Grass cover, Poor, HSG C
*	0	82	Permeable Pavers, HSG C
	58,294	88	Weighted Average
	47,325	86	81.18% Pervious Area
	10,969	98	18.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 1S: Pre-Construction (Lot 4 Parking Lot)



Summary for Subcatchment 2S: Post-Construction (Lot 4 Parking Lot)

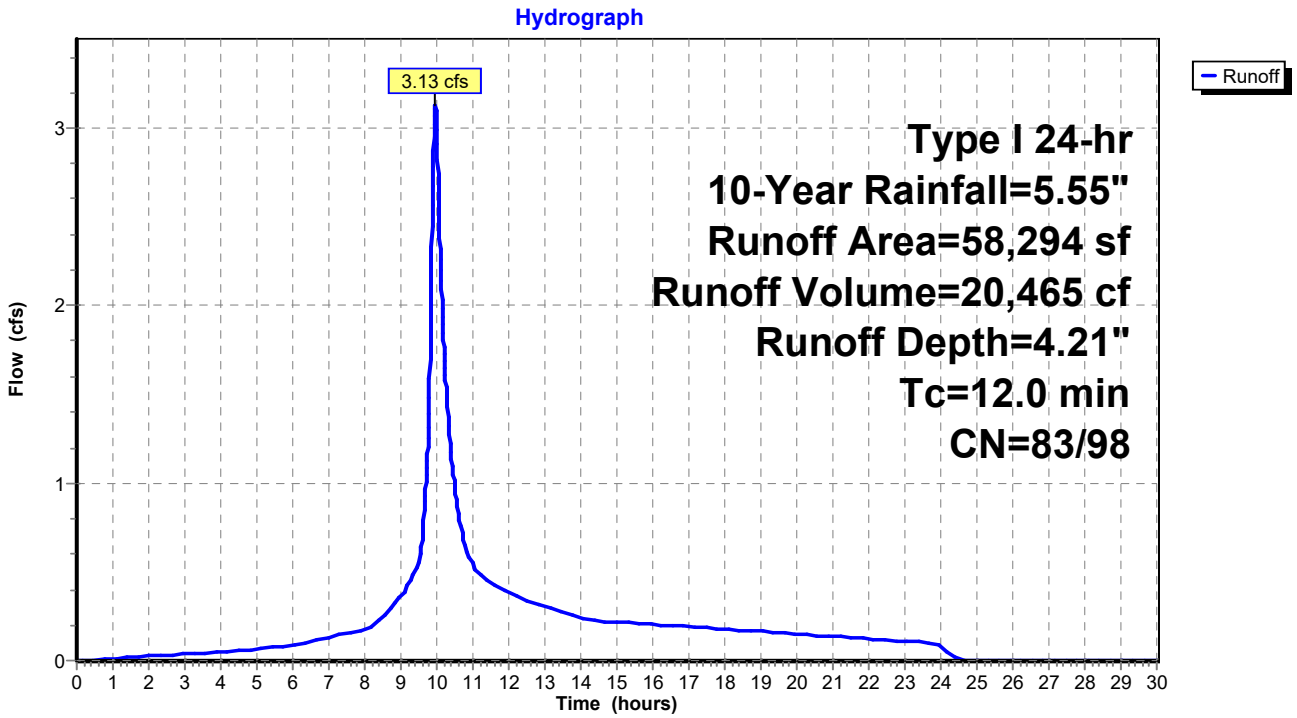
Runoff = 3.13 cfs @ 9.96 hrs, Volume= 20,465 cf, Depth= 4.21"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 10-Year Rainfall=5.55"

	Area (sf)	CN	Description
	235	98	Roofs, HSG C
	18,896	98	Paved parking, HSG C
	22,542	86	<50% Grass cover, Poor, HSG C
*	16,621	80	Permeable Pavers, HSG C
	58,294	88	Weighted Average
	39,163	83	67.18% Pervious Area
	19,131	98	32.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 2S: Post-Construction (Lot 4 Parking Lot)



Summary for Subcatchment 3S: Pre-Construction (Hotel)

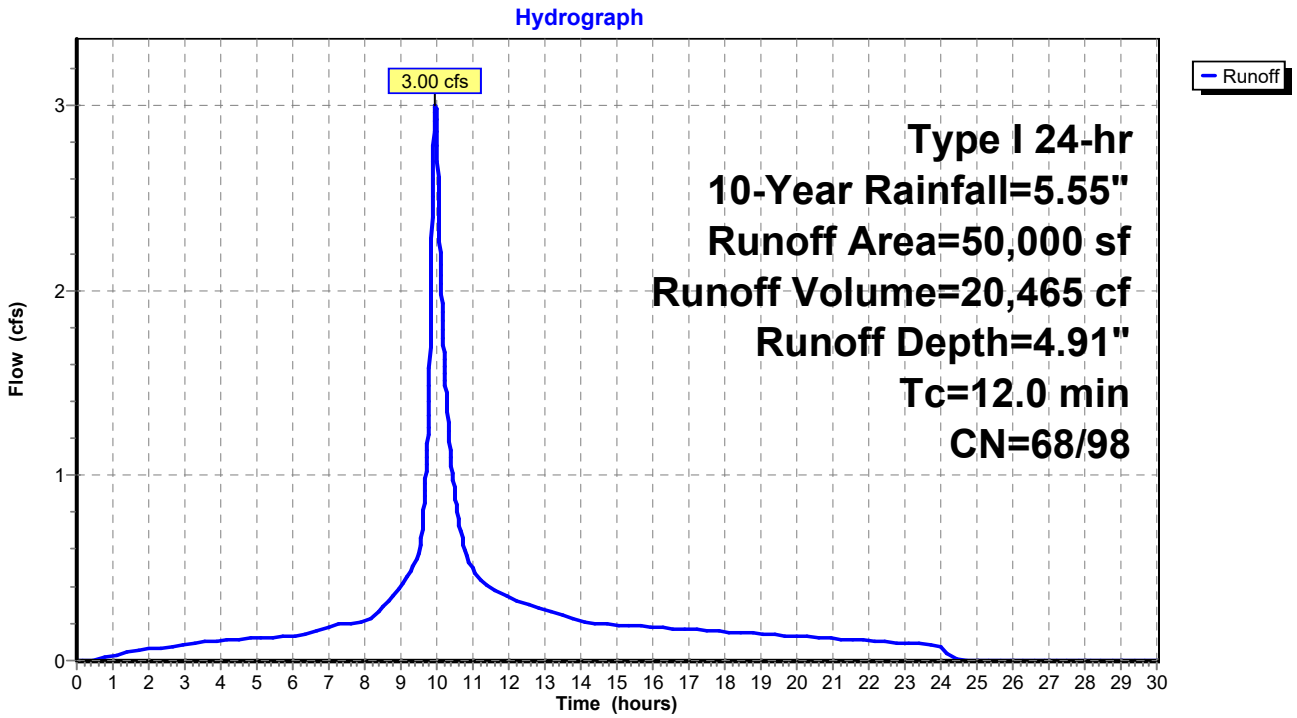
Runoff = 3.00 cfs @ 9.96 hrs, Volume= 20,465 cf, Depth= 4.91"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 10-Year Rainfall=5.55"

	Area (sf)	CN	Description
	96	98	Roofs, HSG A
	43,296	98	Paved parking, HSG A
	6,608	68	<50% Grass cover, Poor, HSG A
*	0	64	Permeable Pavers, HSG C
	50,000	94	Weighted Average
	6,608	68	13.22% Pervious Area
	43,392	98	86.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 3S: Pre-Construction (Hotel)



Summary for Subcatchment 4S: Pre-Construction (Hotel)

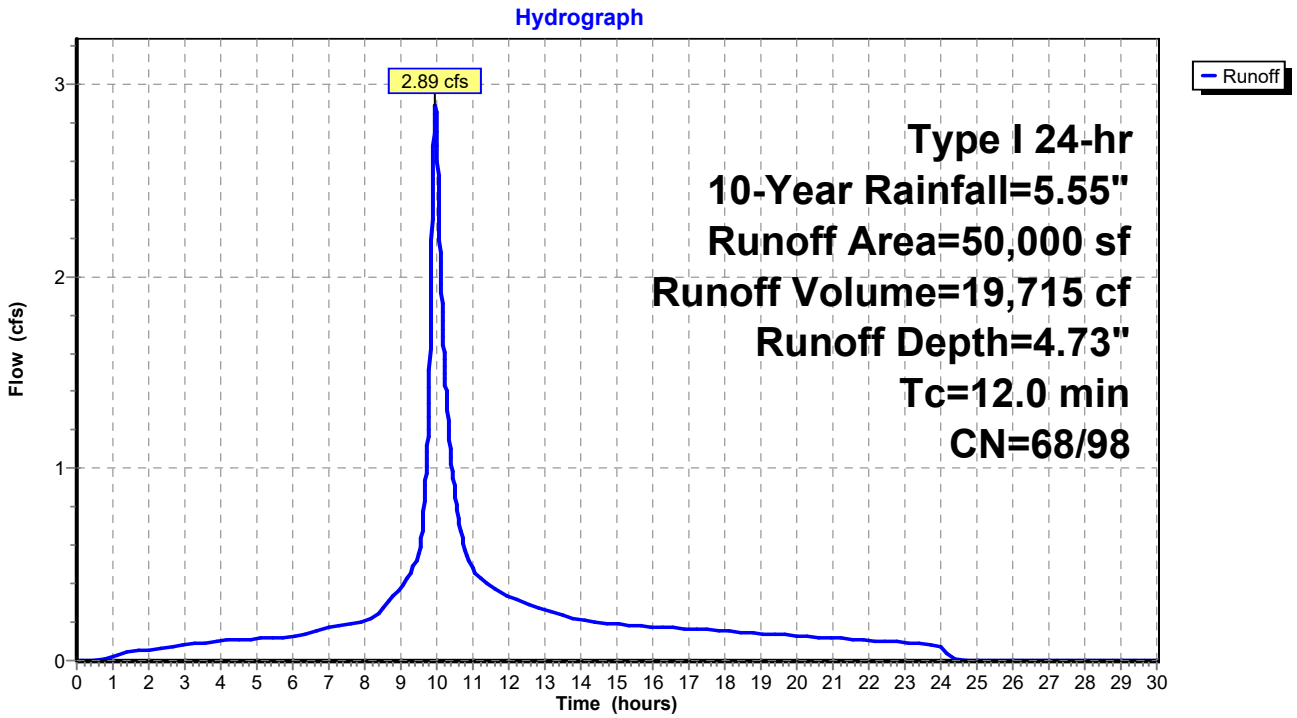
Runoff = 2.89 cfs @ 9.96 hrs, Volume= 19,715 cf, Depth= 4.73"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 10-Year Rainfall=5.55"

	Area (sf)	CN	Description
	19,959	98	Roofs, HSG A
	20,462	98	Paved parking, HSG A
	9,579	68	<50% Grass cover, Poor, HSG A
*	0	64	Permeable Pavers, HSG A
	50,000	92	Weighted Average
	9,579	68	19.16% Pervious Area
	40,421	98	80.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 4S: Pre-Construction (Hotel)



Summary for Subcatchment 1S: Pre-Construction (Lot 4 Parking Lot)

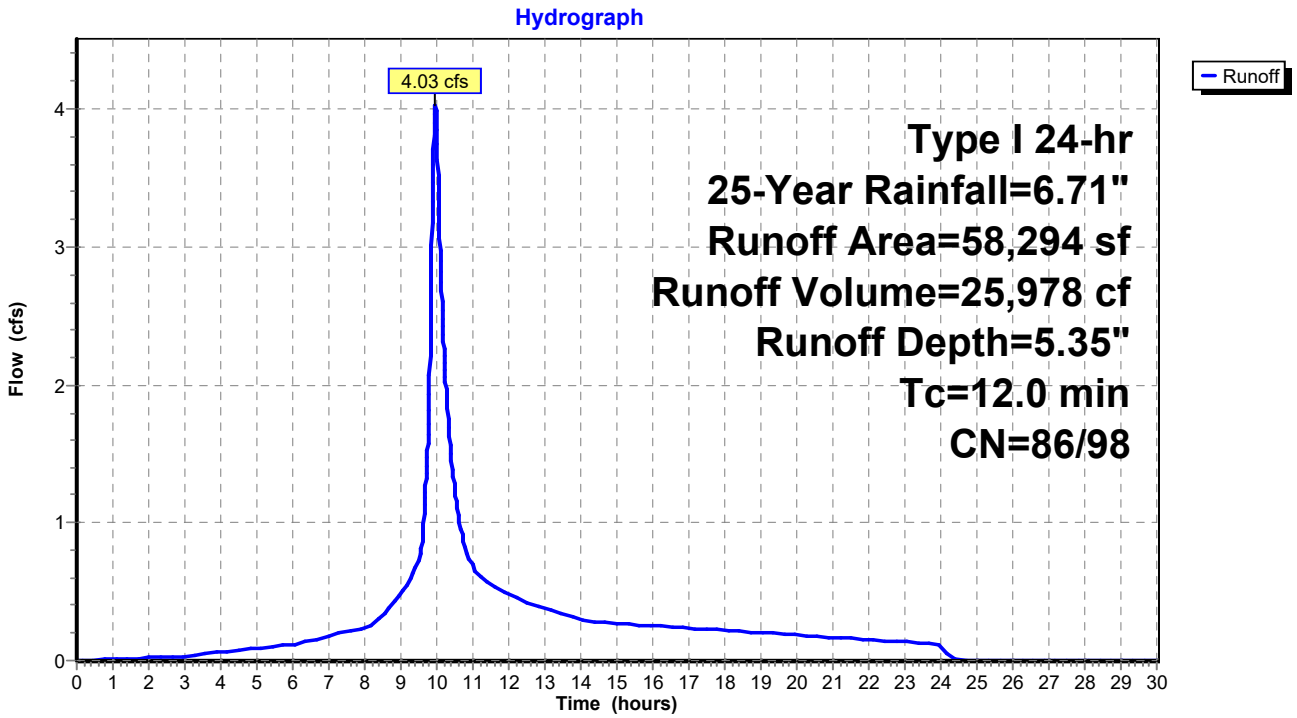
Runoff = 4.03 cfs @ 9.96 hrs, Volume= 25,978 cf, Depth= 5.35"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 25-Year Rainfall=6.71"

	Area (sf)	CN	Description
	99	98	Roofs, HSG C
	10,870	98	Paved parking, HSG C
	47,325	86	<50% Grass cover, Poor, HSG C
*	0	82	Permeable Pavers, HSG C
	58,294	88	Weighted Average
	47,325	86	81.18% Pervious Area
	10,969	98	18.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 1S: Pre-Construction (Lot 4 Parking Lot)



Summary for Subcatchment 2S: Post-Construction (Lot 4 Parking Lot)

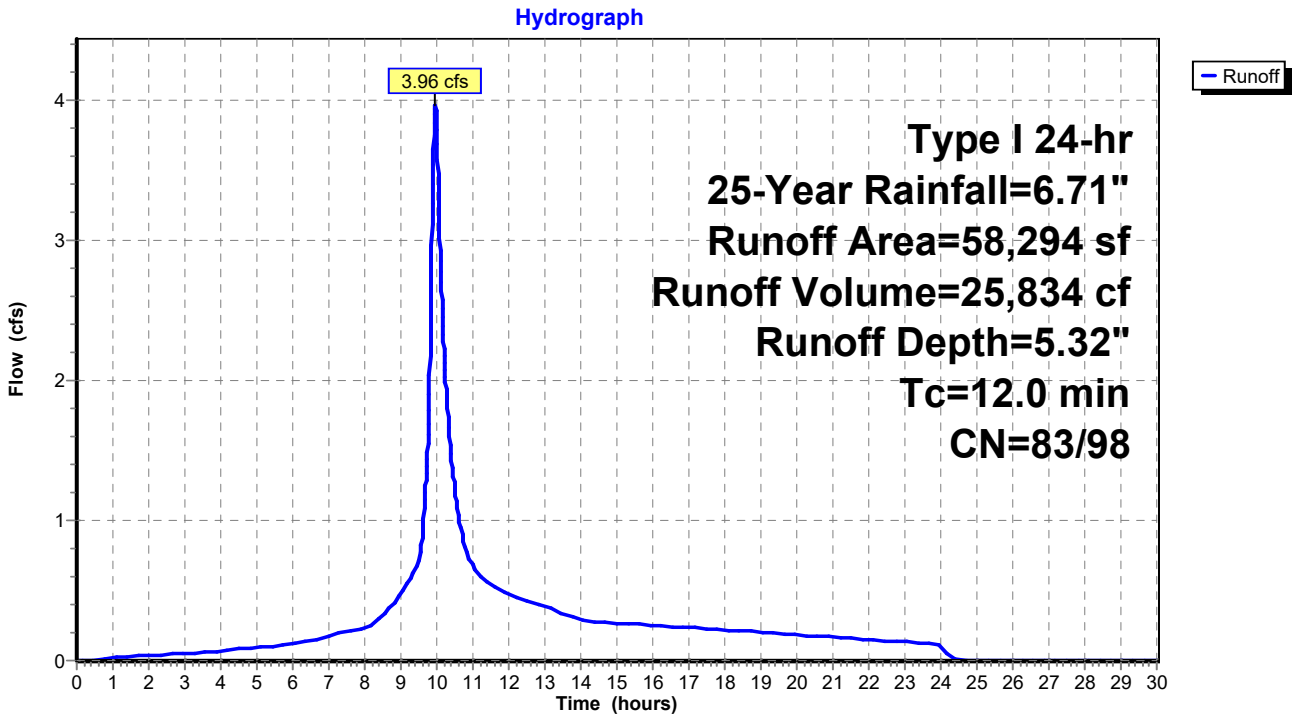
Runoff = 3.96 cfs @ 9.96 hrs, Volume= 25,834 cf, Depth= 5.32"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 25-Year Rainfall=6.71"

	Area (sf)	CN	Description
	235	98	Roofs, HSG C
	18,896	98	Paved parking, HSG C
	22,542	86	<50% Grass cover, Poor, HSG C
*	16,621	80	Permeable Pavers, HSG C
	58,294	88	Weighted Average
	39,163	83	67.18% Pervious Area
	19,131	98	32.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 2S: Post-Construction (Lot 4 Parking Lot)



Summary for Subcatchment 3S: Pre-Construction (Hotel)

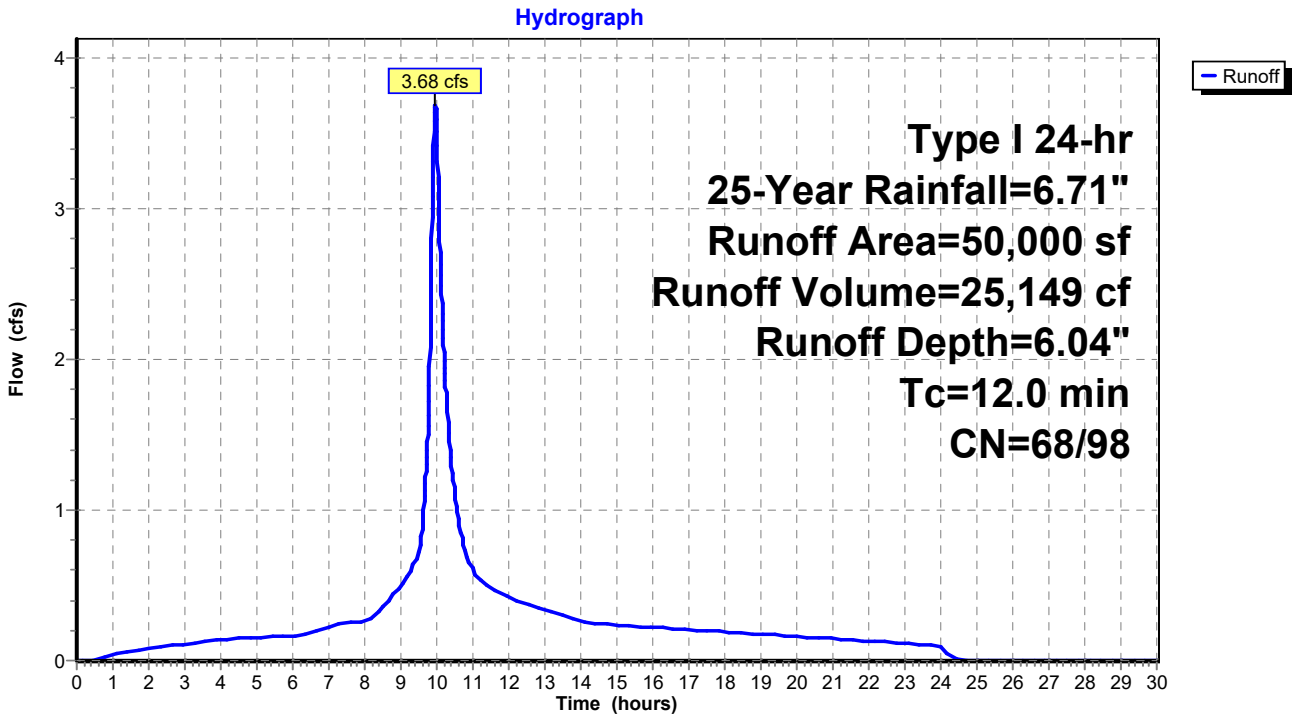
Runoff = 3.68 cfs @ 9.96 hrs, Volume= 25,149 cf, Depth= 6.04"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 25-Year Rainfall=6.71"

	Area (sf)	CN	Description
	96	98	Roofs, HSG A
	43,296	98	Paved parking, HSG A
	6,608	68	<50% Grass cover, Poor, HSG A
*	0	64	Permeable Pavers, HSG C
	50,000	94	Weighted Average
	6,608	68	13.22% Pervious Area
	43,392	98	86.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 3S: Pre-Construction (Hotel)



Summary for Subcatchment 4S: Pre-Construction (Hotel)

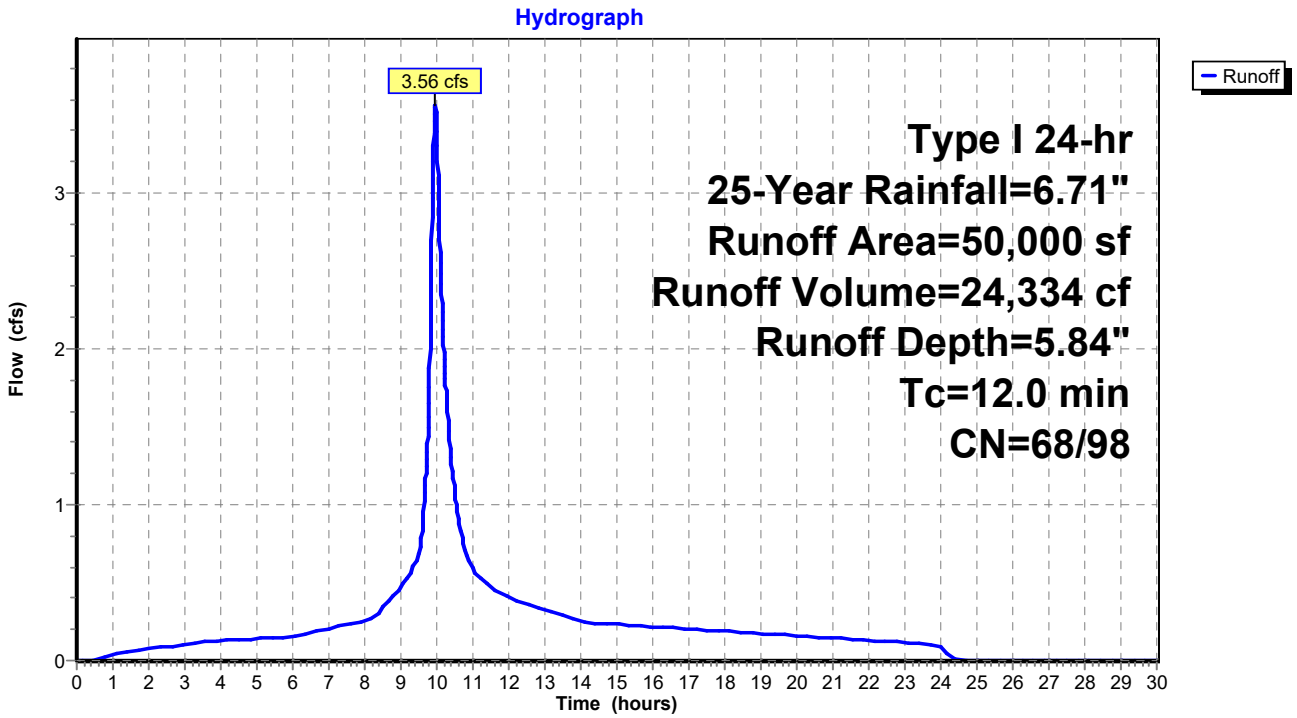
Runoff = 3.56 cfs @ 9.96 hrs, Volume= 24,334 cf, Depth= 5.84"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 25-Year Rainfall=6.71"

	Area (sf)	CN	Description
	19,959	98	Roofs, HSG A
	20,462	98	Paved parking, HSG A
	9,579	68	<50% Grass cover, Poor, HSG A
*	0	64	Permeable Pavers, HSG A
	50,000	92	Weighted Average
	9,579	68	19.16% Pervious Area
	40,421	98	80.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 4S: Pre-Construction (Hotel)



Summary for Subcatchment 1S: Pre-Construction (Lot 4 Parking Lot)

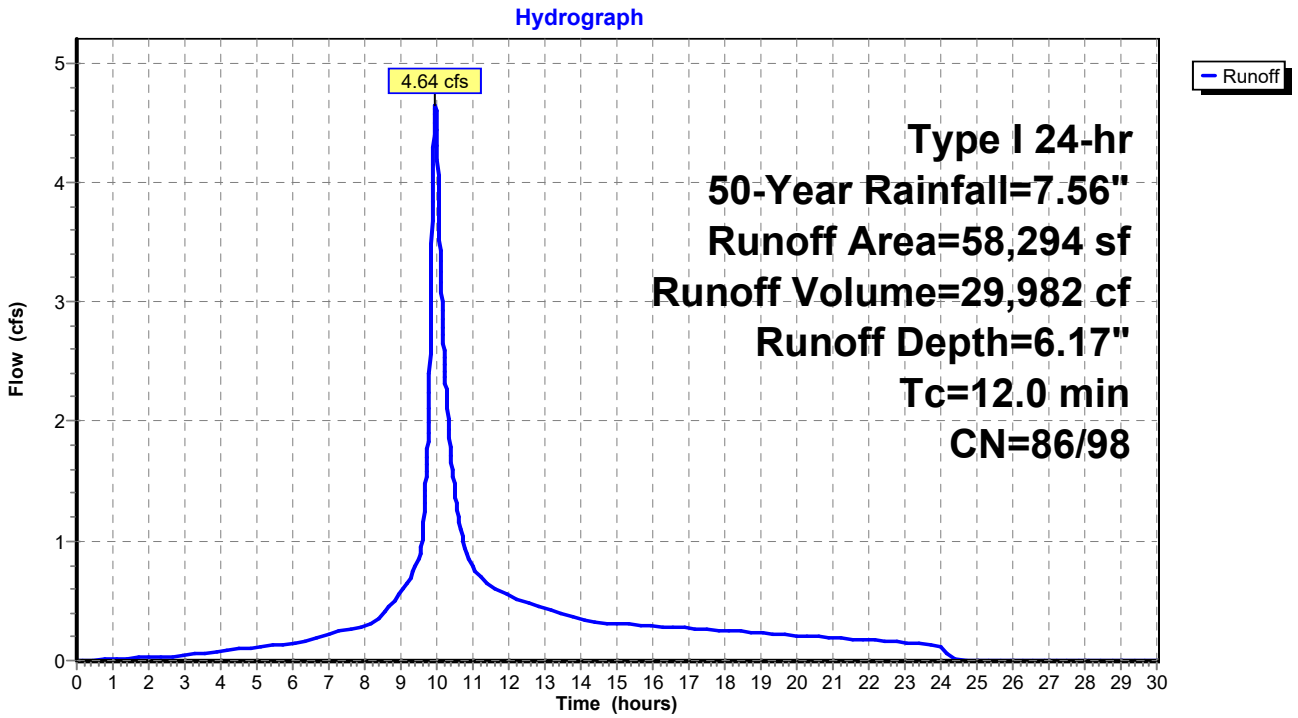
Runoff = 4.64 cfs @ 9.96 hrs, Volume= 29,982 cf, Depth= 6.17"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 50-Year Rainfall=7.56"

	Area (sf)	CN	Description
	99	98	Roofs, HSG C
	10,870	98	Paved parking, HSG C
	47,325	86	<50% Grass cover, Poor, HSG C
*	0	82	Permeable Pavers, HSG C
	58,294	88	Weighted Average
	47,325	86	81.18% Pervious Area
	10,969	98	18.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 1S: Pre-Construction (Lot 4 Parking Lot)



Summary for Subcatchment 2S: Post-Construction (Lot 4 Parking Lot)

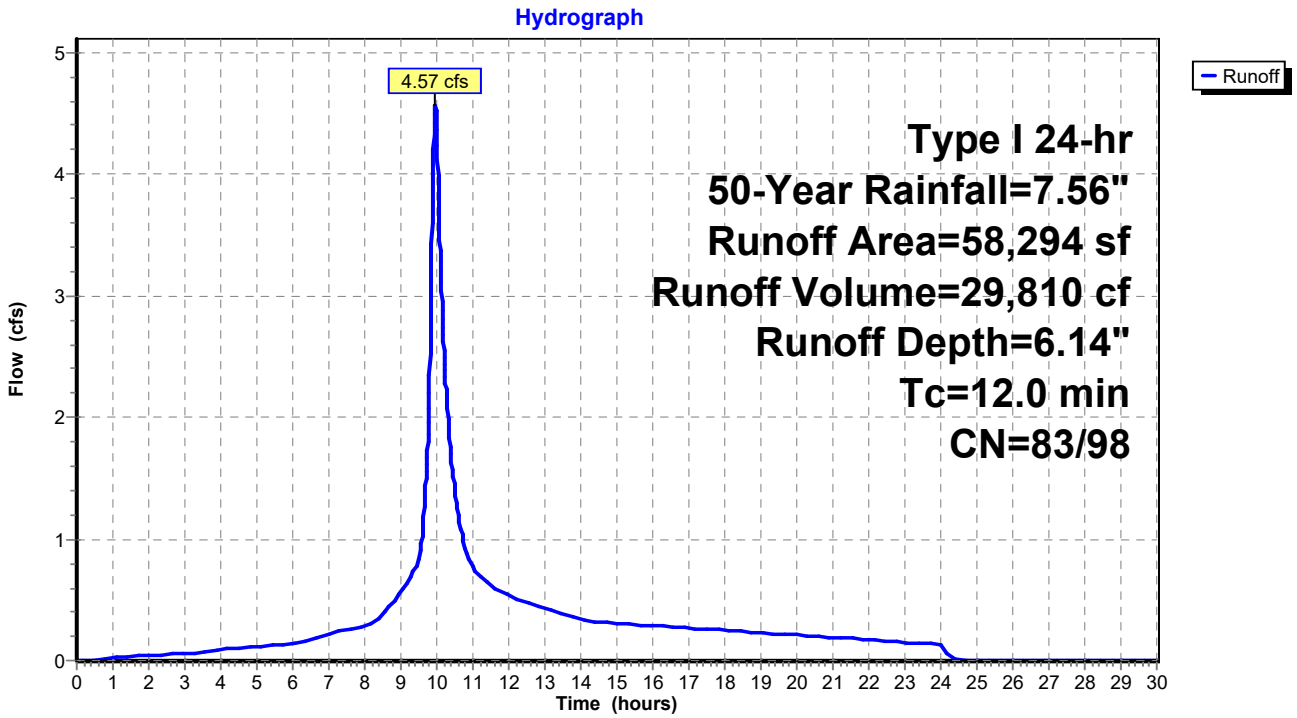
Runoff = 4.57 cfs @ 9.96 hrs, Volume= 29,810 cf, Depth= 6.14"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 50-Year Rainfall=7.56"

	Area (sf)	CN	Description
	235	98	Roofs, HSG C
	18,896	98	Paved parking, HSG C
	22,542	86	<50% Grass cover, Poor, HSG C
*	16,621	80	Permeable Pavers, HSG C
	58,294	88	Weighted Average
	39,163	83	67.18% Pervious Area
	19,131	98	32.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 2S: Post-Construction (Lot 4 Parking Lot)



Summary for Subcatchment 3S: Pre-Construction (Hotel)

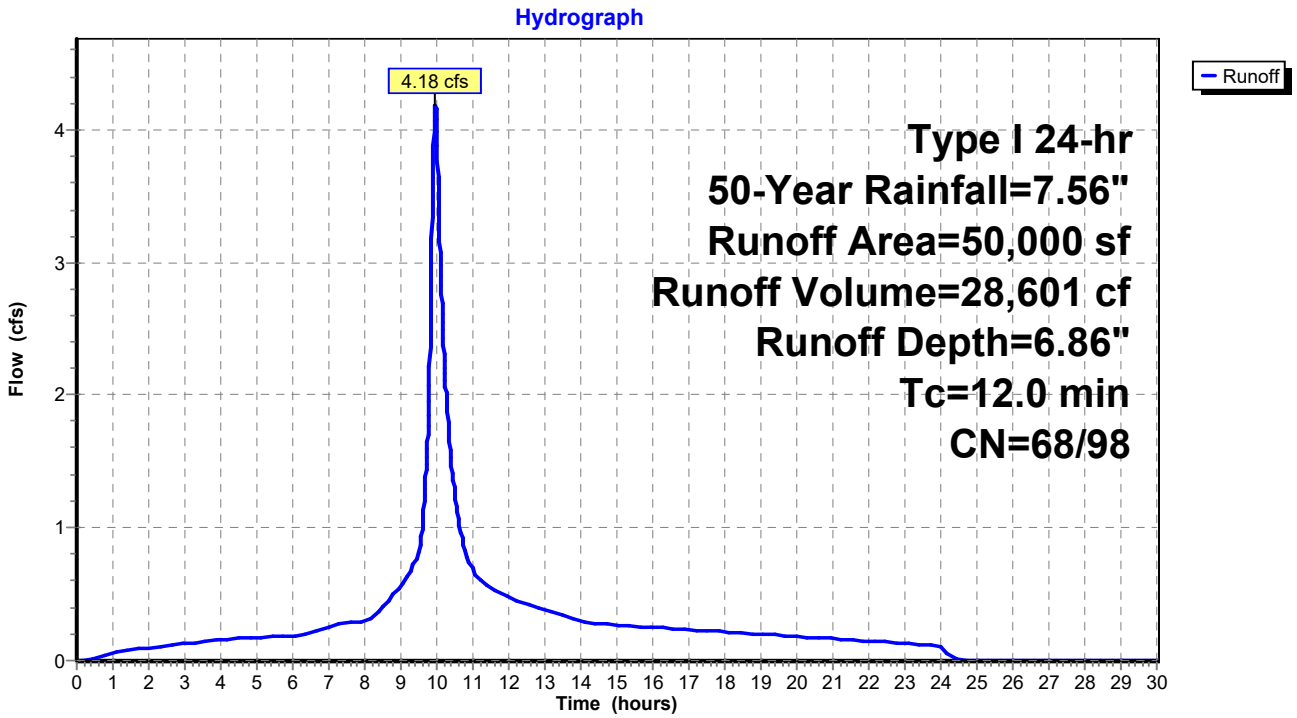
Runoff = 4.18 cfs @ 9.96 hrs, Volume= 28,601 cf, Depth= 6.86"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 50-Year Rainfall=7.56"

	Area (sf)	CN	Description
	96	98	Roofs, HSG A
	43,296	98	Paved parking, HSG A
	6,608	68	<50% Grass cover, Poor, HSG A
*	0	64	Permeable Pavers, HSG C
	50,000	94	Weighted Average
	6,608	68	13.22% Pervious Area
	43,392	98	86.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 3S: Pre-Construction (Hotel)



Summary for Subcatchment 4S: Pre-Construction (Hotel)

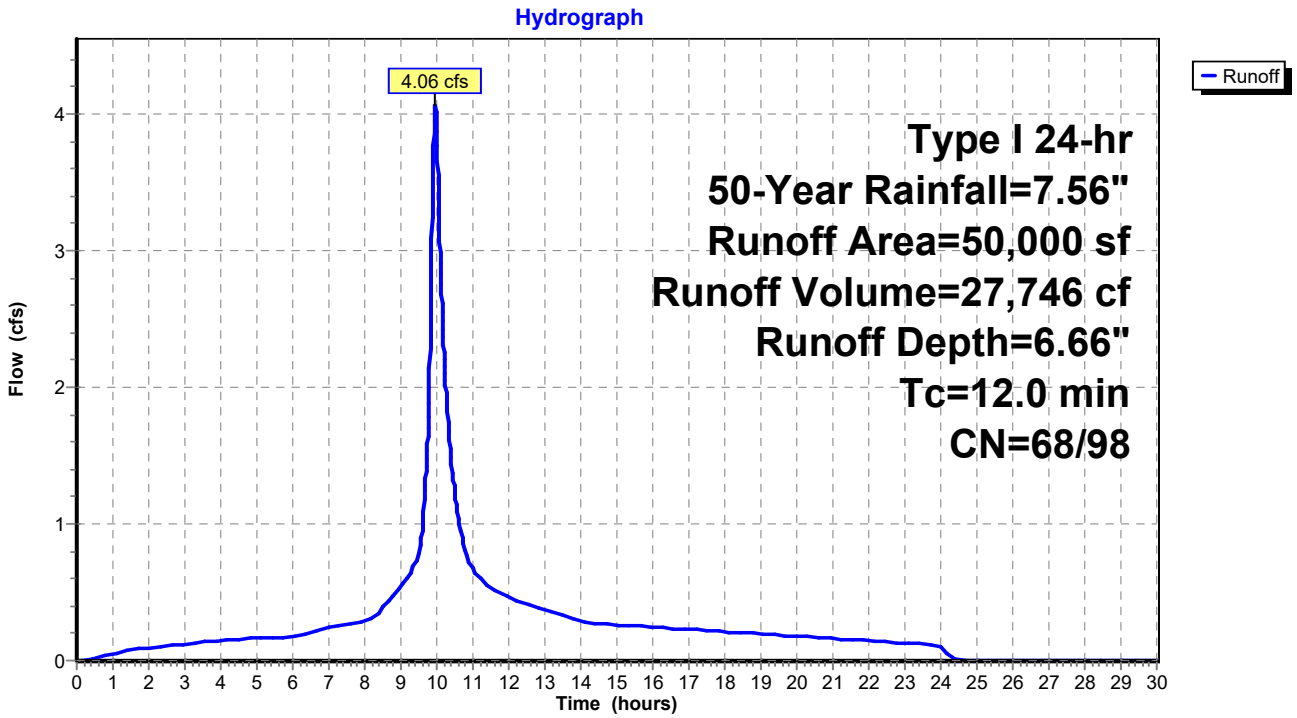
Runoff = 4.06 cfs @ 9.96 hrs, Volume= 27,746 cf, Depth= 6.66"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 50-Year Rainfall=7.56"

	Area (sf)	CN	Description
	19,959	98	Roofs, HSG A
	20,462	98	Paved parking, HSG A
	9,579	68	<50% Grass cover, Poor, HSG A
*	0	64	Permeable Pavers, HSG A
	50,000	92	Weighted Average
	9,579	68	19.16% Pervious Area
	40,421	98	80.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 4S: Pre-Construction (Hotel)



Summary for Subcatchment 1S: Pre-Construction (Lot 4 Parking Lot)

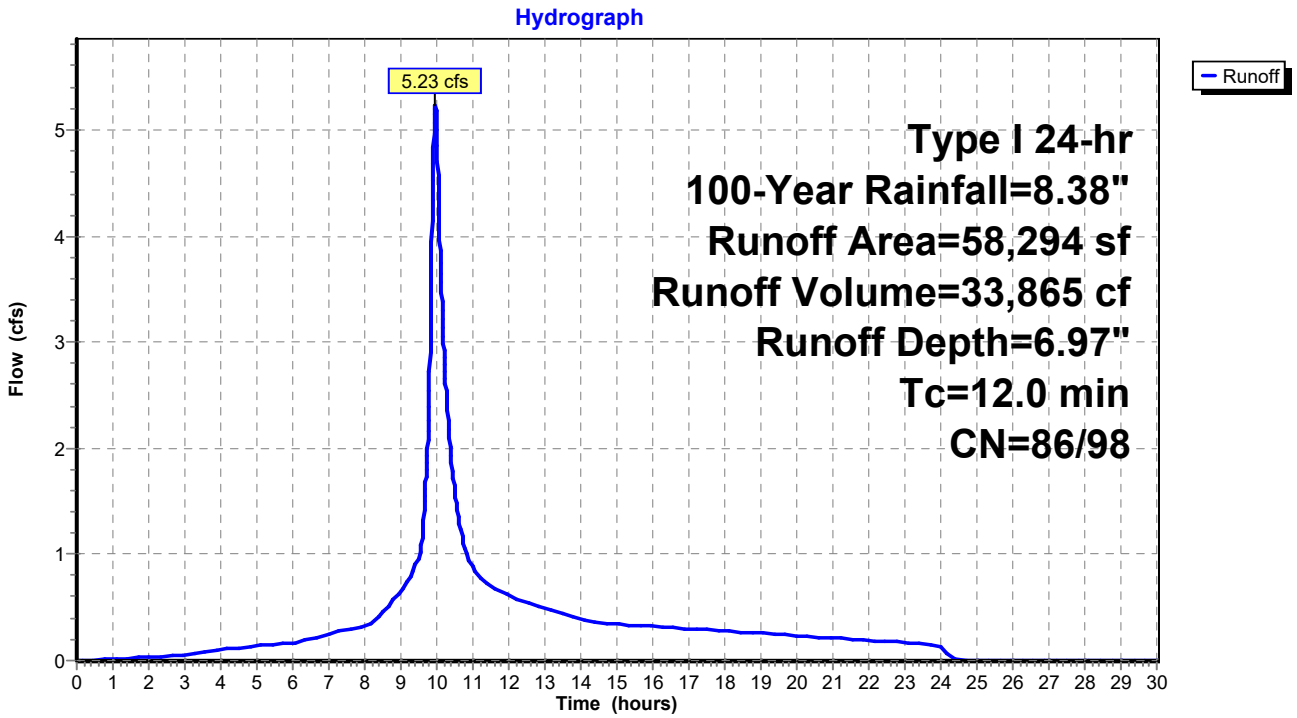
Runoff = 5.23 cfs @ 9.96 hrs, Volume= 33,865 cf, Depth= 6.97"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 100-Year Rainfall=8.38"

	Area (sf)	CN	Description
	99	98	Roofs, HSG C
	10,870	98	Paved parking, HSG C
	47,325	86	<50% Grass cover, Poor, HSG C
*	0	82	Permeable Pavers, HSG C
	58,294	88	Weighted Average
	47,325	86	81.18% Pervious Area
	10,969	98	18.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 1S: Pre-Construction (Lot 4 Parking Lot)



Summary for Subcatchment 2S: Post-Construction (Lot 4 Parking Lot)

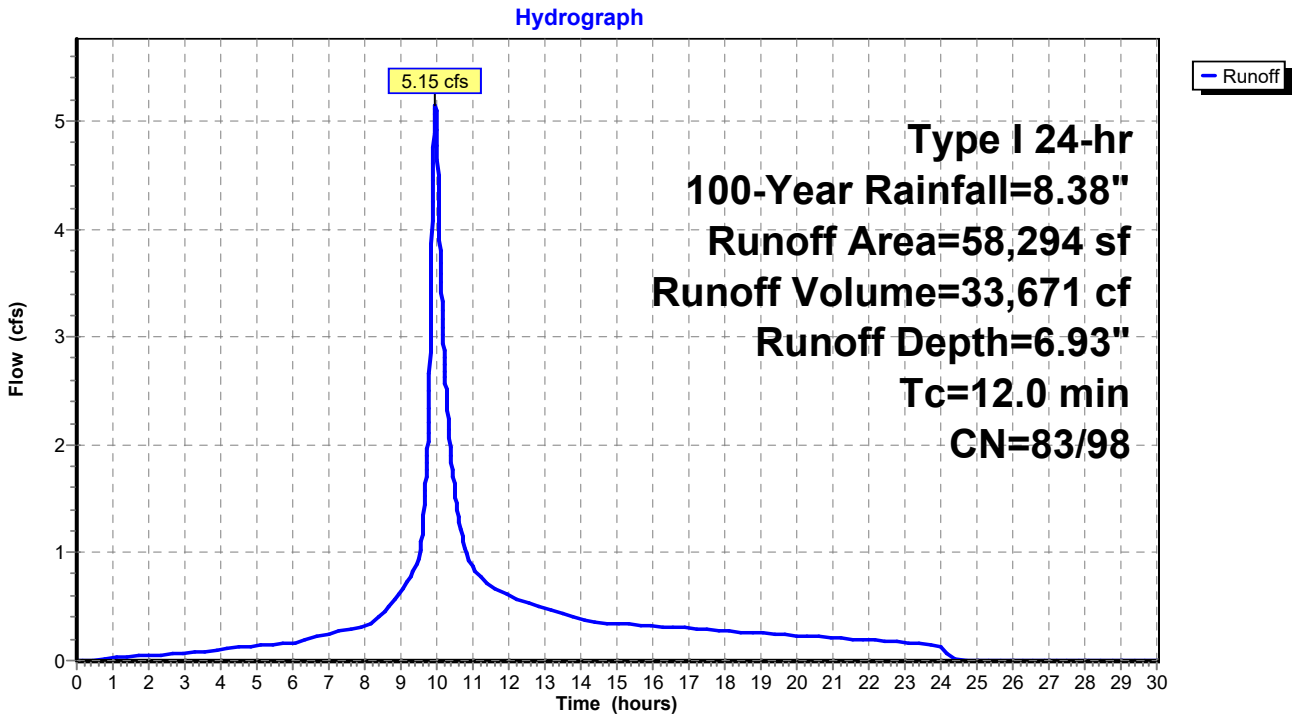
Runoff = 5.15 cfs @ 9.96 hrs, Volume= 33,671 cf, Depth= 6.93"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 100-Year Rainfall=8.38"

	Area (sf)	CN	Description
	235	98	Roofs, HSG C
	18,896	98	Paved parking, HSG C
	22,542	86	<50% Grass cover, Poor, HSG C
*	16,621	80	Permeable Pavers, HSG C
	58,294	88	Weighted Average
	39,163	83	67.18% Pervious Area
	19,131	98	32.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 2S: Post-Construction (Lot 4 Parking Lot)



Summary for Subcatchment 3S: Pre-Construction (Hotel)

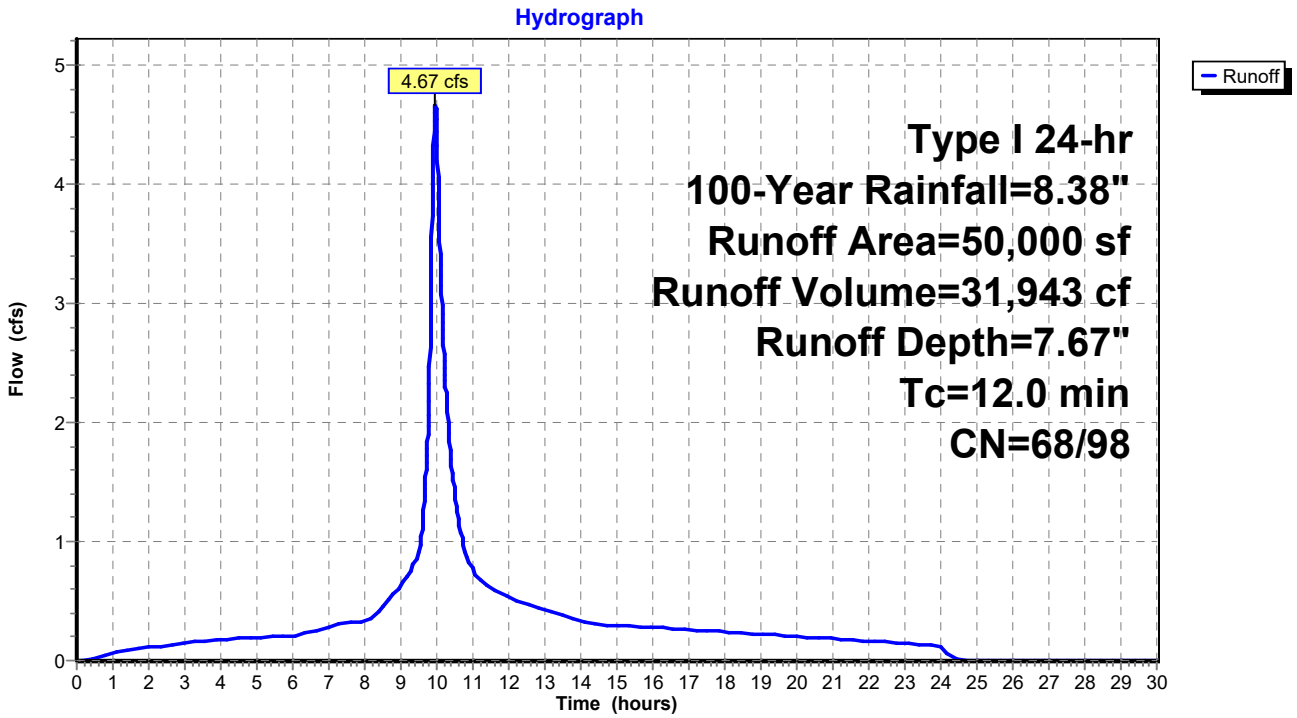
Runoff = 4.67 cfs @ 9.96 hrs, Volume= 31,943 cf, Depth= 7.67"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 100-Year Rainfall=8.38"

	Area (sf)	CN	Description
	96	98	Roofs, HSG A
	43,296	98	Paved parking, HSG A
	6,608	68	<50% Grass cover, Poor, HSG A
*	0	64	Permeable Pavers, HSG C
	50,000	94	Weighted Average
	6,608	68	13.22% Pervious Area
	43,392	98	86.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 3S: Pre-Construction (Hotel)



Summary for Subcatchment 4S: Pre-Construction (Hotel)

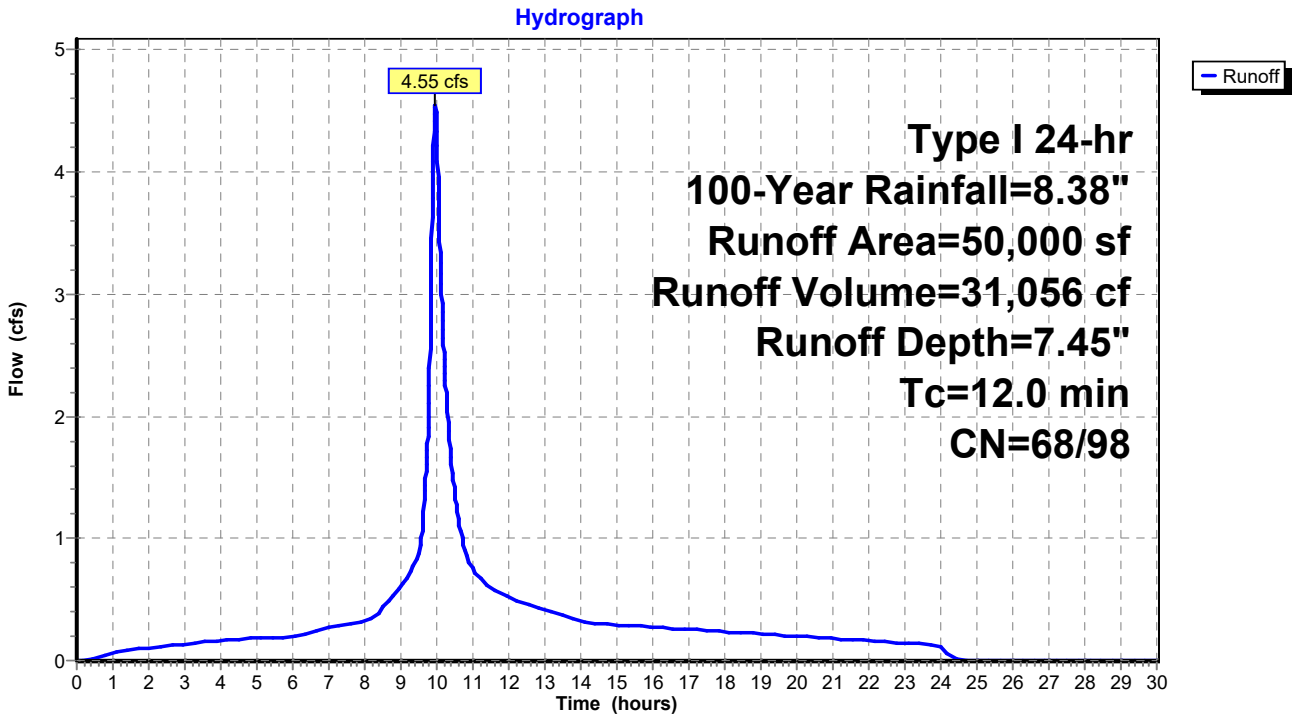
Runoff = 4.55 cfs @ 9.96 hrs, Volume= 31,056 cf, Depth= 7.45"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type I 24-hr 100-Year Rainfall=8.38"

	Area (sf)	CN	Description
	19,959	98	Roofs, HSG A
	20,462	98	Paved parking, HSG A
	9,579	68	<50% Grass cover, Poor, HSG A
*	0	64	Permeable Pavers, HSG A
	50,000	92	Weighted Average
	9,579	68	19.16% Pervious Area
	40,421	98	80.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					**Direct Entry,**

Subcatchment 4S: Pre-Construction (Hotel)



Appendix H

Noise and Vibration Technical Memorandum

DUDEK
3760 STATE STREET, SUITE 101
SANTA BARBARA, CALIFORNIA 93105
T 805.963.0651

MEMORANDUM

To:	Whitt Hollis, 499 Linden Managers, LLC
From:	Jonathan V. Leech, INCE
Subject:	Noise and Vibration Technical Memorandum for the Surfliner Inn Project – 2ND REVISION
Date:	November 21, 2025
cc:	Mark Storm, Dudek
Attachments:	A. Architecture Plan Sheets - Floor Plans & Elevations
	B. Ambient Noise Monitoring Data
	C. Construction Noise Modeling Data
	D. Traffic Noise Modeling Data
	E. On-site Operations Noise Modeling Data
	F. Associated Transportation Engineers Surfliner Inn ADT Memo (February 2024)

Dudek has prepared this noise and vibration assessment to assist 499 Linden Managers, LLC (applicant) in satisfying initial development review and environmental planning requirements for the Surfliner Inn Project (project) in Carpinteria, California. This memo addresses potential noise associated with project construction, increases in traffic noise from project trip contributions, noise resulting from on-site mechanical equipment and outdoor entertainment areas, and exposure of future hotel guests to transportation related noise levels. Vibration effects from project construction and operation are also addressed.

The contents and organization of this memorandum are as follows:

- Section 1, Project Description
- Section 2, Noise and Vibration Background / Terminology
- Section 3, Applicable Noise Regulations
- Section 4, Existing Noise Environment
- Section 5, Noise and Vibration Assessment
- Section 6. Policy Compliance (Non-CEQA)
- Section 7, References Cited

Figures supporting the discussion in this memorandum are provided at the end of the narrative portion of the memo.

1 Project Description

The applicant proposes a 36-room hotel, managers suite, café/restaurant, and visitor center. Additionally, it includes landscaping, access improvements, and typical ancillary uses such as a pool/spa and back of house, office and break room, bike storage, 139-spaces within two surface parking lots, and coastal trail improvement. The project would be developed on approximately 30,000 square feet (SF), with a first level (ground level) including 17

guest rooms and decks; lobby; café/restaurant, including back of house (open to the public); manager's unit; visitor center (open to the public); break room; office; bike storage; and luggage storage. The second level is proposed to include: 5 junior suites with decks; 14 guest rooms with decks; mechanical attic for the café; and public restrooms. The roof level includes landscape plantings; public lounge area; public flex space; guest lounge; and pool, spa, and deck.

The Project would include 18 bicycle storage and parking spaces. It would also provide 25 electric vehicle car charging stations, situated beneath a carport structure with solar panel roof. An energy storage component with batteries and inverters would be provided in association with the solar panels. Vehicle access to the hotel site would continue to be provided via the existing western access at Fifth Street and Elm Avenue. Parking Lot #3's eastern access would be removed. Parking Lot #4 would be accessed from Linden Avenue with emergency access only to Elm Avenue. On City parking Lot #4, a new surface parking lot would be constructed, prior to commencement of construction of the hotel, to avoid any temporary reduction of the availability of existing parking (60 spaces are located within the proposed 30,000 SF hotel site). The surface of the parking lot is designed with permeable and impermeable surfaces. The 46 parking spaces currently located west of the proposed 30,000 SF hotel site would remain under the proposed project.

Figure 1 (at the end of this memo) provides the Local Setting for the project site. As illustrated in Figure 1, the adjacent properties are Fifth Street, Linden Avenue, and the Union Pacific Railroad tracks. On the northerly side of Fifth Street is a commercial business and parking lot, a two-story apartment building, and one-story residences and apartments. On the east side of Linden Avenue are commercial warehouses. The Union Pacific Railroad tracks are located along the southerly boundary of the hotel site, with the area for proposed improvements to City Parking Lot #4 adjacent to the southerly side of the Union Pacific Railroad tracks. A two-story apartment building and two residences are present along the southern boundary of the Parking Lot #4 property boundary.

Figure 2 (at the end of this memo) provides the Site Plan for the project. Attachment A contains sheets from the architecture plan set (AB Design Studio, March 2024) illustrating the floor plans for each level of the hotel, as well as elevations for the hotel structure.

2 Noise and Vibration Background

2.1 Fundamentals of Environmental Noise

Vibrations, traveling as waves through air from a source, exert a force perceived by the human ear as sound. Sound pressure level (referred to as sound level) is measured on a logarithmic scale in decibel (dB) that represents the fluctuation of air pressure above and below atmospheric pressure. Frequency, or pitch, is a physical characteristic of sound and is expressed in units of cycles per second or hertz. The normal frequency range of hearing for most people extends from about 20 to 20,000 hertz. The human ear is more sensitive to middle and high frequencies, especially when the noise levels are quieter. As noise levels get louder, the human ear starts to hear the frequency spectrum more evenly. To accommodate for this phenomenon, a weighting system to evaluate how loud a noise level is to a human was developed. The frequency weighting, called "A" weighting, is typically used for quieter noise levels, which de-emphasizes the low-frequency components of the sound in a manner similar to the response of a human ear. This A-weighted sound level is called the "noise level" and is referenced in units of A-weighted decibel (dBA). Table 1 presents typical noise levels for common outdoor and indoor activities.

Table 1. Typical Noise Levels Associated with Common Activities

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet Flyover at 1,000 feet	105	
	100	
Gas Lawn Mower at three feet	95	
	90	
Diesel Truck at 50 feet, 50 miles per hour	85	Food Blender at 3 feet
	80	Garbage Disposal at 3 feet
Noisy Urban Area, Daytime	75	
	70	Vacuum Cleaner at 10 feet
Commercial Area	65	Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
	55	Large Business Office
Quiet Urban Daytime	50	Dishwasher (in next room)
	45	
Quiet Urban Nighttime	40	Theater, Conference Room (background)
Quiet Suburban Nighttime	35	
	30	Library
Quiet Rural Nighttime	25	Bedroom at Night, Concert Hall (background)
	20	
	15	Broadcast/Recording Studio
	10	
	5	
Lowest Threshold of Human Hearing (Healthy)	0	Lowest Threshold of Human Hearing (Healthy)

Source: Caltrans 2020a. **Notes:** dBA = A-weighted decibel.

Since sound is measured on a logarithmic scale, a doubling of sound energy results in a 3-dBA increase in the noise level. Changes in a community noise level of less than 3 dBA are not typically noticed by the human ear (Caltrans 2020a). Changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. A 5-dBA increase is readily noticeable (EPA 1974). The human ear perceives a 10-dBA increase in sound level as a doubling of the sound level (i.e., 65 dBA sounds twice as loud as 55 dBA to a human ear).

An individual's noise exposure occurs over time; however, noise level is a measure of noise at a given instant in time. Community noise sources vary continuously, being the product of many noise sources at various distances, all of which constitute a relatively stable background or ambient noise environment. The background, or ambient, noise level gradually changes throughout a typical day, corresponding to distant noise sources such as traffic volume and changes in atmospheric conditions. The time-varying character of environmental noise is often described with use of statistical or percentile noise descriptors including L_{10}, L_{50}, and L_{90}. These are the noise levels equaled or exceeded during 10, 50, and 90 percent of the measured time interval. Sound levels associated with L_{10} typically describe transient or short-term events, such as the noise from distinct passing cars and trucks. L_{50} represents the median sound level during the measurement. Levels will be above and below this value exactly one-half of the accumulated measurement time. L_{90} is the sound level exceeded 90 percent of the time, and often is used to describe background noise conditions or sources that are continuous or "steady-state" in character.

Noise levels are generally higher during the daytime and early evening when traffic (including airplanes), commercial, and industrial activity is the greatest. However, noise sources experienced during nighttime hours when background levels are generally lower can be potentially more conspicuous and irritating to the receiver. To evaluate noise in a way that considers periodic fluctuations experienced throughout the day and night, a concept termed "community noise equivalent level" (CNEL) was developed, wherein noise measurements are weighted, added, and averaged over a 24-hour period to reflect magnitude, duration, frequency, and time of occurrence.

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (L_{eq}), the minimum and maximum sound levels (L_{min} and L_{max}, respectively), percentile-exceeded sound level (L_{xx}), the day-night sound level (L_{dn}), and the CNEL. The following list provides brief definitions of noise terminology used in this report.

- **Decibel** (dB) is a unitless measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micropascals.
- **A-weighted decibel** (dBA) is an overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Equivalent sound level** (L_{eq}) is the constant level that, over a given time period, transmits the same amount of acoustic energy as the actual time-varying sound. Equivalent sound levels are the basis for both the L_{dn} and CNEL scales.
- **Maximum sound level** (L_{max}) is the maximum sound level measured during the measurement period.
- **Minimum sound level** (L_{min}) is the minimum sound level measured during the measurement period.
- **Percentile-exceeded sound level** (L_{xx}) is the sound level exceeded X% of a specific time period. L_{10} is the sound level exceeded 10% of the time.
- **Day-Night Average Sound Level** (L_{dn}) is a 24-hour average A-weighted sound level with a 10 dB penalty added each of the hourly average noise levels occurring in the nighttime hours from 10:00 p.m. to 7:00 a.m. The 10 dB penalty is applied to account for increased noise sensitivity during the nighttime hours.
- **Community Noise Equivalent Level** (CNEL) is the average equivalent A-weighted sound level during a 24-hour day. CNEL accounts for the increased noise sensitivity during the evening hours (7:00 p.m. to 10:00 p.m.) and nighttime hours (10:00 p.m. to 7:00 a.m.) by adding 5 dB to the recorded hourly average sound levels in the evening and 10 dB to the hourly average sound levels at night.

2.1.1 Exterior Noise Distance Attenuation

Noise sources are classified in two forms: (1) point sources, such as stationary equipment or a group of construction vehicles and equipment working within a spatially limited area at a given time; and (2) line sources, such as a roadway with a large number of pass-by sources (motor vehicles). Sound generated by a point source typically diminishes (attenuates) at a rate of 6.0 dBA for each doubling of distance from the source to the receptor at acoustically "hard" sites and at a rate of 7.5 dBA for each doubling of distance from source to receptor at acoustically "soft" sites (Caltrans 2020a). Sound generated by a line source (i.e., a roadway) typically attenuates at a rate of 3 dBA and 4.5 dBA per doubling distance, for hard and soft sites, respectively (Caltrans 2020a). Sound levels can also be attenuated by human-made or natural barriers. For the purpose of a sound attenuation discussion, a hard or reflective site does not provide any excess ground-effect attenuation and is characteristic of asphalt or concrete ground surfaces, as well as very hard-packed soils. An acoustically soft or absorptive site is characteristic of unpaved loose soil or vegetated ground.

With respect to examples of this distance-attenuation relationship for exterior noise, a 60-dBA noise level measured at 50 feet from a tractor installing fenceposts within a packed earth feedlot site would diminish to 54 dBA at 100 feet from the source, and to 48 dBA at 200 feet from the source. This scenario is addressed by the point source attenuation for a hard site (6 dBA with each doubling of the distance). For the scenario where soft-site conditions exist between the point source and receptor, represented by natural vegetation, planted row crop, or plowed furrows adjacent to the work area, an attenuation rate of 7.5 dBA per doubling of distance would apply; the tractor noise measured as 60 dBA at 50 feet would diminish to 52.5 dBA at 100 feet from the source and to 45 dBA at 200 feet from the source, where soft ground exists between the sound source and the receptor location.

2.1.2 Structural Noise Attenuation

Sound levels can also be attenuated by human-made or natural barriers. Solid walls, berms, or elevation differences typically reduce noise levels in the range of approximately 5 to 15 dBA (Caltrans 2020a). Structures can also provide noise reduction by insulating interior spaces from outdoor noise. The outside-to-inside noise attenuation provided by typical structures in California ranges between 17 to 30 dBA with open and closed windows, respectively, as shown in Table 2.

Table 2. Outside-to-Inside Noise Attenuation (dBA)

Building Type	Open Windows	Closed Windows
Residences	17	25
Schools	17	25
Churches	20	30
Hospitals/offices/hotels	17	25
Theaters	17	25

Source: Transportation Research Board, National Research Council 1971.
Notes: dBA = A-weighted decibel.
As shown, structures with closed windows can attenuate exterior noise by a minimum of 25 to 30 dBA

2.2 Fundamentals of Vibration

Vibration is an oscillatory motion that can be described in terms of displacement, velocity, or acceleration. Heavy equipment operation, including stationary equipment that produces substantial oscillation or construction equipment that causes percussive action against the ground surface, may be experienced by building occupants as perceptible vibration. It is also common for groundborne vibration to cause windows, pictures on walls, or items on shelves to rattle. Although the perceived vibration from such equipment operation can be intrusive to building occupants, the vibration is seldom of sufficient magnitude to cause even minor cosmetic damage to buildings.

Peak particle velocity (PPV) that describes particle movement over time (in terms of physical displacement of mass, expressed as inches/second or in/sec) is generally employed for the discussion of vibration impacts on people and structures. Groundborne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities. Next to pile driving and soil compacting, grading activity has the greatest potential for vibration impacts when earthwork involves large bulldozers, large trucks, or other heavy equipment.

2.3 Health Effects of Noise

Excessively noisy conditions can affect an individual's quality of life, health, and well-being. The effects of noise can be organized into six broad categories: sleep disturbance, permanent hearing loss, human performance and behavior, social interaction or communication, extra-auditory health effects, and general annoyance. An individual's reaction to noise and its level of disturbance depends on many factors such as the source of the noise, its loudness relative to the background noise level, time of day, whether the noise is temporary or permanent, and subjective sensitivity.

3 Noise Regulation and Management

3.1 Federal

3.1.1 Federal Transit Administration (FTA)

In its Transit Noise and Vibration Impact Assessment guidance manual, the FTA recommends a daytime construction noise level threshold of 80 dBA $_{Leq}$ over an eight-hour period when detailed construction noise assessments are performed to evaluate potential impacts to community residences surrounding a project (FTA 2018). Although this FTA guidance is not a regulation, it can serve as a quantified standard in the absence of such limits at the state and local jurisdictional levels.

3.2 State

3.2.1 California Department of Transportation Vibration Standards

The California Department of Transportation (Caltrans) conducted extensive research on human annoyance and damage to structures caused by vibration from short term construction activities and from long term highway operations and has published criteria for vibration management (Transportation and Construction Vibration Guidance Manual 2020). These criteria established by Caltrans are commonly used to assess vibration impacts from all types of projects and activities. Caltrans uses a threshold of 0.2 in/sec (ips) PPV for annoyance to persons, where a continuous vibration source is involved; for transient sources (represented by construction activities), Caltrans uses a threshold of 0.24 ips PPV (which equates to a distinctly perceptible level). For commercial buildings constructed of concrete and steel, Caltrans identifies a damage threshold of 0.5 ips PPV. For residential structures employing concrete foundation and wood frame construction, Caltrans identifies a conservative damage threshold vibration level standard of 0.3 ips PPV (Caltrans 2020b).

3.2.2 California Noise Control Act of 1973

Sections 46000 through 46080 of the California Health and Safety Code, known as the California Noise Control Act of 1973, declares that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also identifies a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the state to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

3.2.3 California Noise Insulation Standards (CCR Title 24)

In 1974, the California Commission on Housing and Community Development adopted noise insulation standards for hotels, motels, dormitories, and multifamily residential buildings (CCR Title 24, Part 2). Title 24 sets standards for interior room noise (attributable to outside noise sources). The regulations also specify that acoustic studies must be prepared whenever a multifamily residential building or structure is proposed in an area with CNEL (or L_{dn}) of 60 dBA or greater. Such acoustical analysis must demonstrate that the residence has been designed to limit intruding noise to an interior CNEL (or L_{dn}) of at least 45 dBA (California's Title 24 Noise Standards, Chap. 2-35).

3.3 Local

3.3.1 City of Carpinteria General Plan/Local Coastal Land Use Plan 2003

The Noise Element of the *City of Carpinteria General Plan/Local Coastal Land Use Plan* provides objectives, policies, and programs regarding Noise, including the following:

Objective N-5: The City will minimize the effects of nuisance noise effects on sensitive land uses.

- **N-5a.** The City will address nuisance on a case-by-case basis and develop appropriate mitigation measures such as scheduling of events or activities during hours when effects would be minimal.
- **N-5b.** The City will require that construction activities adjacent to sensitive noise receptors be limited as necessary to prevent adverse noise impacts.
- **N-5c.** The City will require that construction activities employ techniques that minimize the noise impacts on adjacent uses.

The *City of Carpinteria General Plan/Local Coastal Land Use Plan* provides guidelines for determining whether or not ambient noise levels are compatible with certain land uses in the City. The guidelines indicate the compatibility of noise-sensitive land uses in areas subject to noise levels of 55 to 80 dB CNEL or L_{dn}. Residential uses and transient lodging facilities are normally unacceptable in areas exceeding 70 dB CNEL; and conditionally acceptable between 60 - 70 dB CNEL. Schools, libraries, hospitals, and nursing homes are also treated as noise-sensitive land uses, with normally acceptable levels up 60 dB CNEL, and conditionally acceptable levels up to 70 dB CNEL. Commercial/professional office buildings and recreational uses such as golf courses and water recreation have normally acceptable levels up 75 dB CNEL (City of Carpinteria 2003).

3.3.2 City of Carpinteria Municipal Code

The *City of Carpinteria Municipal Code Title 12 – Streets, Sidewalks, and Public Places,* including *Chapter 12.04 – Street Construction and Excavation, Section 12.04.410 – Noise, dust, and debris requirements,* describes the noise standards that are applicable public works construction activity within the City. In addition, *Section 15.16.170 – Hours during which construction may occur, and Section 15.16.180 Exemption — after-hours or emergency permits,* apply to any construction for which a permit is required by the City. The following excerpts from the municipal code are applicable to the project (City of Carpinteria 2020):

12.04.410 – Noise, dust, and debris requirements

Each permittee shall conduct and carry out work permitted under this chapter in such manner as to avoid unnecessary inconvenience and annoyance to the general public and occupants of neighboring property. The permittee shall take appropriate measures to reduce to the fullest extent practicable in the

performance of the work, noise, dust and unsightly debris. During the hours of ten p.m. to seven a.m. the permittee shall not use, except with the express written permission of the engineer, or in case of an emergency as otherwise provided in this chapter, any tool, appliance or equipment producing noise of sufficient volume to disturb the sleep or repose of occupants of the neighboring property.

15.16.170 - Hours during which construction may occur.

Any person conducting construction work for which a permit is required pursuant to Titles 14 and 15 shall comply with the following:

A. Construction activities shall be allowed Mondays through Fridays from 7:00 a.m. to 8:00 p.m.;

B. Construction activities shall be allowed on Saturdays from 8:00 a.m. to 8:00 p.m.;

C. Construction activities shall be allowed on Sundays from 10:00 a.m. to 8:00 p.m.

15.16.180 - Exemption; after-hours or emergency permits.

A. The community development director or designee may issue an after-hours construction permit authorizing work, if the director determines that the public interest will be served by such a permit or in the case of an emergency. An after-hours construction permit may be revoked or suspended by the director, or his designee, if it is determined that the activity detrimentally affects the public health, safety, and welfare.

B. The planning commission, or community development director, may impose more restrictive hours of construction as a condition of approval in its action on permits issued pursuant to Titles 14 and 15 hereof.

3.3.3 Local Vibration Standards

Carpinteria has not adopted standards regulating vibration levels from construction activities. As such, guidance from Caltrans is used for the assessment of project-related vibration impacts. Caltrans uses a threshold of 0.2 ips PPV for annoyance to persons, where a continuous vibration source is involved; for transient sources (represented by construction activities), Caltrans uses a threshold of 0.24 ips PPV (which equates to a distinctly perceptible level). For residential structures employing concrete foundation and wood frame construction, Caltrans identifies a conservative damage threshold vibration level standard of 0.3 ips PPV (Caltrans 2020b).

3.4 Significance Criteria

Appendix G of the CEQA Guidelines contains analysis guidelines related to noise and vibration impacts. These guidelines have been used as thresholds of significance for this analysis. A project would create a significant environmental impact if it would:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generate excessive groundborne vibration or groundborne noise levels; and
- 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, expose people residing or working in the project area to excessive noise levels.

4 Existing Noise Environment

4.1 Sensitive Receptors

Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound or vibration could adversely affect the use of the land. Residences, hospitals, nursing care or assisted living facilities, guest lodging, and churches would be considered noise- and vibration-sensitive. In addition, vibration-sensitive land uses also include institutional uses such as laboratories where the activities within the building are particularly sensitive to vibration. Noise and vibration-sensitive receptors in the Project vicinity are represented by residential units, including apartments and single-family homes. The closest off-site sensitive receptors to the hotel component of the project are located on the north side of 5th Street and include an apartment building (approximately 110 feet from the future hotel construction zone boundary, identified as R1 on Figure 3) and a single-family home (approximately 100 feet from the future hotel construction zone boundary, identified as R2 on Figure 3). Other apartment buildings and residences are also located along the north side of 5th Street at slightly greater distances from the Project site. The closest off-site sensitive receptors to the Parking Lot #4 component of the Project are a single-family home (located approximately 20 feet from the future parking lot construction boundary, identified as R3 in Figure 3) and an apartment building (located approximately 25 feet from the future parking lot construction boundary, identified as R4 in Figure 3). There are also other residences on Elm Avenue and Dorrance Way in this vicinity, but at greater distances from the Project Site.

4.2 Ambient Noise Survey

Sound-pressure level measurements of short duration (i.e., less than an hour apiece) and long duration (i.e., 24 hours) were conducted in the vicinity of the Project site on January 24 and 25, 2023 to quantify and characterize the existing outdoor noise levels. Short-term measurements were performed along the Project site boundary on Linden Avenue and 5th Street (illustrated as ST1 and ST2, respectively on Figure 4), at locations that afforded direct exposure to traffic noise from these roadways. These measurements were intended to characterize on-site ambient noise levels from these major roadways, as well as to collect data for calibrating the traffic noise model. Short-term measurement ST3 (see Figure 4) was located along Elm Avenue north of 5th Street, primarily to collect data for calibrating the noise model. The Dudek field investigator conducted manual traffic counts for vehicles passing the short-term measurement points for the duration of the measurements, for the traffic model calibration.

Table 3, Measured Short-Term Baseline Outdoor Noise Levels, provides the location, date, and time at which the short-term baseline noise level measurements were taken. The short-term sound-pressure level measurements were performed by an attending Dudek field investigator using a SoftdB Piccolo model sound level meter equipped with a 0.5-inch, pre-polarized condenser microphone with pre-amplifier. The sound level meter meets the current American National Standards Institute standard for a Type 2 (general purpose) sound level meter. The accuracy of the sound level meter was verified using a field calibrator before and after the measurements, and the measurements were conducted with the microphone positioned approximately five feet above the ground.

The L_{eq} and L_{max} noise levels measured at ST1 – ST3 are provided in Table 3. As mentioned previously, the primary noise source affecting the ST1 measurements (and the easterly boundary of the Project site) was traffic along Linden Avenue. As shown in Table 3, the average sound level over the measurement period was 66 dBA L_{eq} at ST1. Along the northerly Project boundary, 5th Street is the main noise source, and the average sound level over the measurement period was 54 dBA L_{eq} (ST2). Along Elm Ave, the average sound level over the measurement period was 50 dBA L_{eq} (ST3). Noise measurement data summarized in Table 3 is also included in Attachment B.

Table 3. Measured Short-Term Ambient Outdoor Noise Levels

Receptor	Location/Address	Date	Time	L_{eq} (dBA)	L_{max} (dBA)
ST1	Easterly Project Site Boundary, westerly side of Linden Avenue	1/24/23	11:59 AM to 12:14 PM	66	81
ST2	Northerly Project Site Boundary southerly side of 5th Street	1/24/23	12:22 PM to 12:53 PM	54	68
ST3	Easterly side of Elm Avenue, north of 5th Street	1/24/23	12:54 PM to 1:24 PM	50	67

Source: Appendix B
Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); L_{max} = maximum sound level during the measurement interval; dBA = A-weighted decibels; ST = short-term noise measurement locations.

The long-term measurements were performed along the northern edge of the Union Pacific Railroad (UPRR) right-of-way, at the southern boundary of the hotel component of the Project (illustrated as LT1 on Figure 4, Ambient Noise Measurement Locations). The long-term measurements were intended to characterize the on-site noise levels from rail operations. Table 4, Measured Long-Term Baseline Outdoor Noise Levels, provides the location and date at which the long-term baseline noise level measurements were taken. The unattended long-term sound-pressure level measurements were performed by a Dudek field investigator using a SoftdB Piccolo model sound level meter equipped with a 0.5-inch, pre-polarized condenser microphone with pre-amplifier (ANSI Type 2). The accuracy of the sound level meter was verified using a field calibrator before and after the measurements.

The L_{eq} over daytime, evening, and nighttime periods, as well as the calculated CNEL for the 24-hour measurements are provided in Table 4. As mentioned previously, the primary noise source affecting the LT1 measurements (and the southern boundary of the hotel component of the Project site) were rail operations along the UPRR corridor. As shown in Table 4, the measured existing daytime ambient sound level at LT1 was 65 dBA L_{eq}, 68 dBA L_{eq} during the evening, and 61 dBA L_{eq} overnight. Noise measurement data summarized in Table 4 is included in Appendix B.

Table 4. Measured Long-Term Ambient Outdoor Noise Levels

Receptor	Location/Address	Date	Daytime L_{eq} (dBA)	Evening L_{eq} dBA)	Nighttime L_{eq} dBA)	CNEL (dBA)
LT1	Adjacent to northern edge of UPRR R-O-W	1/24/23 – 1/25/23	65	68	61	69

Source: Appendix B
Notes: L_{eq} = equivalent continuous sound level (average sound level); Daytime = 7 AM – 7 PM; Evening = 7 PM – 10 PM; Nighttime = 11 PM – 7 AM; dBA = A-weighted decibels; LT = long-term noise measurement location. CNEL = Community Noise Exposure Level.

4.3 Existing Traffic Noise Levels

Associated Transportation Engineers (ATE) identified the existing average daily trips (ADT) on Linden Avenue, 5th Street, and Elm Avenue in the vicinity of the Project site (Surfliner Inn Project Traffic Volumes, ATE 2024); Refer to Attachment E for a copy of the ATE memo. Using this ADT data, Dudek modeled the existing traffic noise level along Linden Avenue at the Project site and adjacent to residences in the vicinity of Sawyer Avenue. Dudek also used the ADT data to model the existing traffic noise along 5th Street (adjacent to the closest noise-sensitive receptors to the project site) and along Elm Avenue north of 5th Street (where residences are also located). Dudek used the Federal Highway Administration (FHWA) Traffic Noise Model (TNM 2.5) for the modeling of existing traffic noise described above. The methodology for traffic noise assessment is explained in further detail in Section 5 of this memo. The traffic noise levels in Table 5 are based upon reported existing ADTs, and not on the manual traffic counts conducted during the short-term ambient noise measurements.

Table 5. Modeled Existing Traffic Noise Levels

Receiver Location	Noise Measurement Designation	CNEL (dBA)
Linden Avenue – Adjacent to Easterly Project Site Boundary	ST1	69
Linden Avenue – Vicinity of Sawyer Avenue	N / A	72
5th Street – Between Linden Avenue and Elm Avenue	ST2	55
Elm Avenue – North of 5th Street	ST3	52

NOTES: ST# = Short Term Measurement Location (Figure 4); ; dBA = A-weighted decibels; CNEL = Community Noise Equivalent Level; N/A = Not Applicable

5 Noise & Vibration Assessment

5.1 Methodology

5.1.1 Construction Noise

One of the most extensive and widely used databases for sound levels from motorized or powered equipment is the FHWA Roadway Construction Noise Model (RCNM). While the focus of data compilation was for equipment that would typically be employed for the construction of transportation facilities, the list is comprehensive enough to be useful in assessing sound levels for nearly every construction activity for which powered equipment is used. Table 6 provides an excerpt from RCNM of the sound levels generated by various powered equipment that could be associated with construction of the Project. Note that the equipment noise levels presented in Table 6 are maximum noise levels. Usually, construction equipment operates in alternating cycles of full power and low power, producing average noise levels over time that are less than the maximum noise level. The average sound level of construction activity also depends on the amount of time that the equipment operates and the intensity of construction activities during that time.

Table 6. Selected Powered Equipment Noise Emission Levels from RCNM

Equipment	Maximum Sound Level (dBA L_{max}) – 50 feet from Source
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Crane, Mobile	83
Dozer	85
Generator	81
Grader	85
Loader	85
Paver	89
Pneumatic Tool	85

Table 6. Selected Powered Equipment Noise Emission Levels from RCNM

Equipment	Maximum Sound Level (dBA L_{max}) – 50 feet from Source
Pump	76
Roller	74
Saw	76
Scraper	89
Truck	88

Source: FHWA 2006a, 2006b.
Notes: dBA = decibel (A-weighted).

Noise emissions from the construction phase of the Project were estimated based upon construction scenario information provided by the Project applicant, including phasing, equipment mix, and vehicle trips, and California Emissions Estimator Model (CalEEMod) default values when Project specifics were not known. The construction equipment mixes used for estimating the Project-generated construction noise emissions are found in Appendix C.

A Microsoft Excel–based noise prediction model emulating and using reference data from the FHWA RCNM was used to estimate construction noise levels at the nearest noise-sensitive land use (i.e., residence), based upon the distance between the closest Project construction boundary and this residence. Aggregate noise emission from Project construction activities, broken down by sequential phase of construction activity, was predicted for the worst-case construction activity occurring along the closest construction boundary to the off-site closest residence. Dudek compared predicted construction noise levels to the recommended FTA construction noise exposure standard and to measured ambient noise levels.

5.1.2 Project-Related Traffic Noise

ATE identified the existing average daily trips (ADT) on Linden Avenue, 5th Street and Elm Avenue in the Project vicinity (Surfliner Inn Project Traffic Volumes, ATE 2024), which were used to model existing traffic noise exposure levels for noise-sensitive land uses adjacent to each of these roadways. ATE also provided predicted ADT volumes for these roadways under several future scenarios. Project-related contributions to traffic noise level increases were modeled for these same roadway segments, based upon ADT predictions in the ATE memo. Acoustical calculations using standard noise modeling equations adapted from the FHWA noise prediction model were performed for the following scenarios: Existing, Existing Plus Project, Cumulative Traffic, and Cumulative Traffic Plus Project.

The modeling calculations take into account the posted vehicle speed, average daily traffic volumes for each scenario, and the estimated vehicle mix (i.e., automobiles, medium and heavy trucks). The model assumed hard-site propagation conditions, for a conservative analysis. The distance from roadway centerline to the short-term noise measurement location used to calibrate the noise model was used for the traffic noise analysis, traffic noise levels at existing residences further from the roadway centerline than the short-term noise measurement location would be lower due to attenuation provided by increased distance from the noise source. Generally, noise from heavily traveled roadways would experience a decrease of approximately 3 dBA for every doubling of distance from the roadway. The noise model does not take into account the sound-attenuating effect of intervening structures, barriers, vegetation, or topography. Therefore, the noise levels predicted by the model are conservative with respect to traffic noise exposure levels along these roadways.

5.1.3 Operational Noise Level Quantification

Stationary Source Reference Sound Levels

Long-term operational Project noise was assessed based upon the Project Site Plan indicating locations for each of the major components. For a commercial project, the most important noise sources tend to be equipment for heating, ventilation, or air conditioning (HVAC). This equipment is typically located outdoors and may run continuously or almost continuously in order to provide comfortable temperature conditions for indoor spaces of the development. The project architects provided specifications for the outdoor components of the HVAC systems for the hotel building. The outdoor equipment would consist of three Mitsubishi model PURY-P120TMJU-A units. The manufacturer sound rating for these units is 60 dBA at 1 meter. This equipment would be located in a mechanical equipment space on the southern face of the hotel (refer to Figure 2 Site Plan).

The project proposes to include photo-voltaic (PV) solar panels to generate electricity to offset some of the electric consumption of the project. The PV solar panels would be provided on the roof of a carport structure that would cover the electric vehicle charging spaces. An energy storage system would be provided, proposed to be a Motive Energy Watt.io model. According to the manufacturer, the sound level for this equipment is approximately 72 dBA L_{eq} at 1 meter (3.28 feet).

The proposed hotel also includes roof-top amenities for guests, including pool, large open deck (identified as Flex Space in the Roof Terrace Plan sheet), and smaller deck area with built-in seating and pergola cover (identified as Bar Area in the Roof Terrace Plan sheet). Inputs for guest activity noise in the roof-top area were based upon an applicable research paper presented at the 2011 Institute of Noise Control Engineers (INCE) national conference (Hayne et.al. 2011). The research paper examined noise from various size gatherings, at outdoor spaces configured for dining, cocktail bar, or informal recreation. The Hayne paper identifies an estimated noise level based upon the number of participants. For the assessment of the rooftop amenity area under routine circumstances, the model evaluated a total of 15 guests in the pool area, 25 guests in the Flex Space, and 10 guests in the Bar Area. To address a larger gathering, such as a wedding reception, the model evaluated a total of 90 guests in the Flex Space, and 10 guests in the Bar Area.

Dudek also included in the noise prediction model an audio system with permanent speakers (i.e., integrated into the perimeter walls) to deliver low-level background/ambient music to the three separate areas. The pool area was modeled with 3 speakers distributed around the area perimeter; the Flex Area and Bar area were modeled with 6 speakers apiece. The sound level for each speaker in each separate area was assigned as approximately 5 dBA L_{eq} greater than the guest activity noise level for that area (refer to the above paragraph for discussion of guest activity noise levels). As modeled, noise levels associated with the roof terrace for typical operating conditions include guest activity (for 50 assumed guests) and background music from the speakers in each area. This scenario is identified as “50 Guests – No Live Music” for the operational noise modeling.

The hotel could potentially offer occasional live music performances for guest enjoyment within the roof terrace space, in the Flex Area or Bar Area. Dudek evaluated two scenarios addressing live music. The first scenario includes a duo, consisting of one acoustic guitar and one vocalist (sound level of 78 dBA L_{eq} at 1 meter for guitar[1] and 80

[1] https://www.dpamicrophones.com/mic-university/background-knowledge/acoustical-characteristics-of-musical-instruments/

dBA L_{eq} at 1 meter for vocalist[2]), and the same 15 guests in the pool area, 25 guests in the flex area, and 10 guests in the bar area. To ensure absolute control over noise levels from the duo performance, no independent sound amplification equipment would be permitted. Instead, the performers would use microphones supplied by the hotel that connect to the permanent audio system. Speakers in each area of the roof terrace would project the live performance music at a maximum of 5 dBA L_{eq} greater than the modeled guest activity noise level in that area. This scenario is identified as "50 Guests – With Duo Live Music" for the operational noise modeling.

The other live music scenario Dudek evaluated is a three-piece band with two vocalists that could be associated with a large event such as a wedding reception. In this scenario, the pool area would be closed, and the speakers for the pool area would be tuned off. The band was modeled to include an acoustic guitar (sound level of 78 dBA L_{eq} at 1 meter[3]), a string bass (sound level of 95 dBA L_{eq} at 1 meter[4]), an electronic keyboard (which only produces sound through a cable connection to the audio system), a male vocalist (sound level of 80 dBA L_{eq} at 1 meter[5]), and a female vocalist (sound level of 80 dBA L_{eq} at 1 meter[6]). The large event population enjoying the band performance is modeled to include 90 guests in the flex area and 10 guests in the bar area. To ensure absolute control over noise levels from the band performance, no independent sound amplification equipment would be permitted. Instead, the performers would use microphones supplied by the hotel that connect to the permanent audio system. Speakers in each area of the roof terrace would project the live performance music at a maximum of 5 dBA L_{eq} greater than the modeled guest activity noise level in that area. This scenario is identified as "100 Guests – With 3 Piece Band Live Music" for the operational noise modeling.

Stationary Source Operational Sound Level Modeling

Prediction of operation noise for the Project involved creation of a of a unique model space under CadnaA, a commercially available noise prediction software. CadnaA is used for calculation, presentation, assessment, and prediction of environmental noise. Estimated sound emission from the HVAC equipment, solar energy battery, and guest activities and audio system (without and with live music performance) in the roof-top amenity areas (described above) were entered into the CadnaA model. The outdoor noise propagation formulas in CadnaA follow the International Organization of Standardization (ISO) Standard 9613-2, "Attenuation of Sound During Propagation Outdoors, Part 2: Engineering Method of Calculation" (ISO 2024).

Calculation parameters that establish how the NoisePro model predicts combined noise level from the above-listed Project sources include as follows:

- Sound propagation per International Organization of Standardization (ISO) 9613-2 (ISO 2024);
- Barrier attenuation per International Organization of Standardization (ISO) 9613-2 (ISO 2024);
- Default ground acoustical absorption coefficient = 0.5 (on a scale of 0 = reflective, 1 = absorptive); and;
- One order of reflection.

[2] Boren et al, 2013, Maximum Averaged and Peak Levels of Vocal Sound Pressure

[3] https://www.dpamicrophones.com/mic-university/background-knowledge/acoustical-characteristics-of-musical-instruments/

[4] Ibid.

[5] Boren et al, 2013, Maximum Averaged and Peak Levels of Vocal Sound Pressure

[6] Ibid.

5.1.4 Vibration Assessment Methodology

California Department of Transportation (Caltrans) has been assembling data for vibration levels generated by heavy construction equipment operation during the building of transportation projects for many years. The vibration levels from use of such equipment are representative for other types of construction efforts, not just transportation projects, and are therefore widely employed to assess vibration levels from heavy equipment use for any effort. According to Caltrans (2020b) the most important equipment relative to generation of vibration, and the vibration levels produced by such equipment, is illustrated in Table 7.

Table 7. Vibration Velocities for Typical Construction Equipment

Equipment	PPV at 25 Feet (Inches Per Second [ips])
Vibratory Roller	0.210
Large Bulldozer	0.089
Loaded Trucks	0.076
Drill Rig / Auger	0.089
Jackhammer	0.035
Small Bulldozer	0.003
Vibratory Pile Driver	0.650

Source: Caltrans 2020b.

Caltrans has adopted a human annoyance threshold of 0.2 ips PPV for continuous sources of vibration and 0.24 ips PPV for transient sources (including construction) and a residential structure damage threshold of 0.3 ips PPV. Employing the more stringent 0.24 ips PPV value for assessment of vibration impacts captures human annoyance potential and provides a small margin of safety for residential structure damage (compared to the adopted standard of 3.0 ips PPV). Using the vibration level value for each of the equipment listed in Table 7, the distance to the more stringent vibration level of 0.24 in/sec PPV was determined, using the following formula:

Peak particle velocity at distance (d) = peak particle velocity(d_{ref}) * (d_{ref}/d)$^{1.5}$

In the above equation, "d" is the distance between the receiver and a vibration source, "d_{ref}" is the reference distance that applies for the indicated vibration magnitude. The calculated distance to a vibration level of 0.24 ips PPV represents the radius from each equipment type within which potentially significant vibration impacts from Project construction could occur. Table 8 presents the results of applying the above equation to the equipment in Table 7.

As illustrated in Table 8, ground borne vibration levels for most construction equipment would attenuate to less than 0.24 in/sec PPV within approximately 23 feet from the equipment. For a vibratory pile driver, the distance at which ground borne vibration levels would attenuate to 0.24 in/sec PPV would be approximately 245 feet.

Table 8. Distance Radius From Construction Equipment to Vibration Level of 0.2 in/sec PPV

Equipment	Distance From Equipment Where Vibration Level is Reduced to 0.24 ips PPV (Feet)
Vibratory Roller	23
Large Bulldozer	13
Loaded Trucks	12
Drill Rig / Auger	13
Jackhammer	7
Small Bulldozer	2
Vibratory Pile Driver	245

Source: Caltrans 2020b

5.2 Impacts Analysis

5.2.1 Project Impacts – Increases in Ambient Noise Levels

Significance Criteria 1: Would the project result in 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?

5.2.1.1 Construction Noise Levels

As described under Section 5.1.1 (Construction Noise Methodology), construction noise modeling was performed to predict worst-case construction noise levels at the closest noise-sensitive uses to the site, including an apartment building and residence at distances of 110 feet (R1) and 100 feet (R2) north of future construction zone boundary for the hotel component of the project, and an apartment building and residence located at distances of 20 feet (R3) to 25 feet (R4) south of the future construction zone boundary for the Parking Lot #4 component of the Project.. The prediction is worst-case because it assumes all the equipment in a given phase is operating along the Project site boundary that is closest to the identified off-site receptor. Off-site receptor locations are illustrated in Figure 3.

The above minimum distance separation assumption would not be representative of more typical construction noise, because in general the construction activities would not take place either at the nearest or at the farthest portions of the project site, but somewhere in between. Thus, the construction noise analysis provides conservative, worst-case results in terms of construction noise exposure for the modeled off-site receptors.

Table 9 provides a summary of the construction noise modeling; detailed information is provided in Appendix C.

Table 9. Construction Noise Levels at Nearest Off-Site Receptors by Phase

Phase	Construction Noise Level $L_{eq\ 8\text{-}hr\ /\ 1\ hr}$ (dBA)			
	R1	R2	R3	R4
(1) Demolition	75	77	68	70
(2) Site Preparation	74	75	67	69
(3) Grading	75	76	67	69
(4) Hotel Construction	74	76	67	69
(5) Parking Lot #4 Construction	64	65	**92**	**90**
(6) Architectural Coating	65	66	57	59
(7) Paving – Parking Lot #4	65	66	**92**	**90**
Highest Noise Level Across All Phases	75	77	92	90

Source: Dudek (Attachment C)

Section 15.16.170 of the Carpinteria Municipal Code allows construction activities Mondays through Fridays from 7:00 a.m. to 8:00 p.m.; Saturdays from 8:00 a.m. to 8:00 p.m.; and Sundays from 10:00 a.m. to 8:00 p.m. As such, night-time Project construction activities should be prohibited.

While the City of Carpinteria has not adopted construction noise level limits for construction activities conducted during daytime hours. the FTA has adopted a guideline for daytime construction noise exposure at residential land uses. The FTA guideline is a maximum of 80 dBA L_{eq} which is averaged over a typical 8-hour construction day.

Assuming construction activity intensity is similar across the 8-hour construction day, the L_{eq} value for the FTA 8-hour averaging period would be equal to the $L_{eq\ 1hr}$ value for any given hour within the 8-hour construction window (hence the labeling of $L_{eq\ 8\text{-}hr\ /\ 1\ hr}$ in the right-hand column of Table 9). As reported in Table 9, construction noise levels are predicted to exceed the FTA recommended maximum of 80 dBA $L_{eq\ 8\text{-}hr}$ at receptors R3 and R4 during the construction and paving of the Parking Lot #4 component of the Project. Thus, Parking Lot #4 construction and paving could result in a **potentially significant short-term noise impact at R3 and R4**.

To address construction noise impacts at R3 and R4, a temporary construction noise barrier shall be erected along the southern boundary of Parking Lot #4 prior to the commencement of construction activities on Parking Lot #4 and maintained throughout the construction and paving of Parking Lot #4. This requirement is captured in mitigation **MM Noise-1** (refer to Section 5.2.1.4, Mitigations).

Refer to Figure 5 which illustrates the location and extent of the temporary construction noise barrier required by **MM Noise-1**. With the required 10-foot-high barrier installed during parking lot construction, the construction noise was modeled again with results reported in Table 10.

Table 10. Construction Noise Levels at Nearest Off-Site Receptors by Phase With 10-Foot-High Barrier Along Parking Lot #4 Southern Boundary Installed/Maintained Only During Parking Lot Construction

Phase	Construction Noise Level $L_{eq\ 8\text{-}hr\ /\ 1\ hr}$ (dBA)			
	R1	R2	R3	R4
(1) Demolition	75	77	68	70
(2) Site Preparation	74	75	67	69
(3) Grading	75	76	67	69
(4) Hotel Construction	74	76	67	69
(5) Parking Lot #4 Construction	64	65	76	74
(6) Architectural Coating	65	66	57	59
(7) Paving – Parking Lot #4	65	66	77	75
Highest Noise Level Across All Phases	75	77	77	75

Source: Dudek (Attachment C)

As reported in Table 10, mitigated construction noise levels for all construction phases would remain below the FTA recommended maximum of 80 dBA $L_{eq\ 8\text{-}hr}$ at all nearby receptors. Thus, a temporary noise barrier 10-feet in height along the southern property boundary for Parking Lot #4 (as required by **MM Noise-1**) would successfully reduce potentially significant construction noise impacts to less than significant levels.

While the 10-foot-high temporary noise barrier would only be required during Parking Lot #4 construction and paving, maintaining the barrier for the duration of all Project construction phases would also reduce noise levels at R3 and R4 during all Project construction. Additional construction modeling was completed to address voluntary installation and maintenance of the temporary construction noise barrier for the duration of all construction phases, rather than simply during parking lot #4 construction and paving. Table 11 reports construction noise levels at all receptors if the 10-foot-high temporary noise barrier along the southern boundary of Parking lot #4 was erected prior to construction commencement and maintained through all Project construction phases.

As seen in Table 11, installing and maintaining a 10-foot-high temporary barrier along the southern boundary of Parking Lot 4 (refer to Figure 5 for location and extent of the barrier) for the entire construction duration would result in Project construction phases noise levels at R3 ranging from 44 to 77 dBA $L_{eq\ 8\text{-}hr}$. and at R4 ranging from 47 to 75 dBA $L_{eq\ 8\text{-}hr}$. It should be noted **MM Noise-1** only requires the wall to be installed/maintained during Phase 5 (Parking Lot #4 Construction) and Phase 7 (Parking Lot #4 Paving), and therefore installation and maintenance of the temporary construction noise barrier for the remaining Project construction phases would be voluntary on the part of the Project sponsor.

Table 11. Construction Noise Levels at Nearest Off-Site Receptors by Phase With 10-Foot-High Barrier Along Southern Boundary of Parking Lot #4 Installed/Maintained for Entire Construction

Phase	Construction Noise Level $L_{eq\ 8\text{-}hr\ /\ 1\ hr}$ (dBA)			
	R1	R2	R3	R4
(1) Demolition	75	77	55	57
(2) Site Preparation	74	75	54	56
(3) Grading	75	76	54	57
(4) Hotel Construction	74	76	54	56
(5) Parking Lot #4 Construction	64	65	76	74
(6) Architectural Coating	65	66	44	47
(7) Paving – Parking Lot #4	65	66	77	75
Highest Noise Level Across All Phases	75	77	77	75

Source: Dudek (Attachment C)

With regard to daytime construction noise levels, comparing the predicted highest average (L_{eq}) construction noise level at the closest residence (R2) from Table 11 (77 dBA L_{eq}) to the measured daytime ambient noise level at LT1 from Table 4 (65 dBA L_{eq}), we see the construction noise level would reach up to 12 dBA L_{eq} over ambient, and would therefore be clearly noticeable and at times could result in annoyance. However, for residents that may be outside during construction, noise levels of 77 dBA L_{eq} are not considered hazardous or harmful (hearing protection for construction workers is required for noise levels greater than 80 dBA Leq). Also, the construction noise would occur only during the day (avoiding sleep disturbance), and would be temporary, lasting only until construction is completed. Finally, with windows closed for the area residential receptors, outdoor to indoor noise level attenuation would be approximately 25 dBA (refer to Table 2); therefore, indoor noise levels from Project construction activity would not be anticipated to exceed approximately 52 dBA L_{eq} which should not interfere with conversation or other daytime household activities. Consequently, with incorporation of the temporary construction noise barrier along the southern boundary of Parking Lot #4, construction noise impacts would be reduced to less than significant.

5.2.1.2 Project Traffic Noise

ATE quantified average daily trips on Linden Avenue, 5th Street, and Elm Avenue to which the Project would principally contribute trips, including scenarios for Existing, Existing Plus Project, Cumulative Traffic, and Cumulative Traffic Plus Project (Surfliner Inn Project Traffic Volumes, ATE 2024). Linden Avenue adjacent to the Project site currently carries approximately 4,447 average daily traffic (ADT), while the segment above Sawyer Avenue currently carries approximately 7,767 ADT. 5th Street adjacent to the Project Site currently carries approximately 713 ADT, while Elm Avenue north of 5th Street carries approximately 228 ADT. Dudek used these ADT volumes to model existing traffic noise levels.

The Project is expected to generate 346 new average daily trips, which would be distributed to Linden Avenue, 5th Street, and Elm Avenue. The ATD traffic memo identifies the resulting ADT volumes per segment of Linden Avenue, 5th Street and Elm Avenue, with and without Project contributions.

As described in Section 5.12 (Traffic Noise Methodology), acoustical calculations using standard noise modeling equations adapted from the FHWA noise prediction model were performed using the above ADT values for Existing Plus Project, Cumulative Traffic, and Cumulative Traffic Plus Project. Table 12 presents the results of the traffic noise modeling, detailed information is provided in Appendix D.

Table 12. Project Operational Traffic Noise Levels Compared to Opening Year and Horizon Year

Roadway Segment	Existing dBA CNEL	Existing + Project dBA CNEL	Increase Over Existing (dBA CNEL)	Cumulative Traffic dBA CNEL	Cumulative Traffic Plus Project dBA CNEL	Project Increase Compared to Cumulative (dBA CNEL)	Noticeable Increase?
Linden Avenue Adjacent to Project Site (5th Street)	69.4	69.6	0.2	69.5	69.7	0.2	No
Linden Avenue At Sawyer Avenue	71.8	71.9	0.1	72.0	72.1	0.1	No
5th Street Adjacent to Project Site	54.9	56.5	1.6	55.1	56.6	1.5	No
Elm Avenue North of 5th Street	51.8	52.6	0.8	51.9	52.7	0.8	No

Source: Appendix D

According to Caltrans (2020a) changes in a community noise level of less than 3 dBA are not typically noticed by the human ear, and therefore a significance threshold of 3 dBA CNEL is used to assess Project-related traffic noise increases. As indicated in Table 12, operation of the Project would involve trip generation that would result in traffic noise level increases on area roadways of no greater than 1.6 dBA CNEL, which would be below the significance threshold of 3 dBA. Consequently, operational traffic noise impacts would be **less than significant.**

5.2.1.3 Project Operational Noise

As described under Section 5.1.3 (Operational Noise Methodology), operational noise was modeled in the CadnaA model space. Mechanical Noise sources included HVAC units and a battery energy storge system. With regard to HVAC, three Mitsubishi model PURY-P120TMJU-A units are proposed to be located in a mechanical equipment space on the south façade of the ground floor (refer to Figure 2 Site Plan and Attachment A Floor Plans). The mechanical equipment space was modeled with a 6-foot-high wall on the west, east, and south sides, the full building height wall on the north side, and no roof or ceiling (open at the top for outdoor air exchange).

The proposed battery energy storage system is a Motive Energy model Watt.Io. This battery system is provided in a weather-proof container. The battery energy system was included in NoisePro as a ground-level source with no surrounding barriers.

For the roof-top amenity space, a separate noise source was entered to represent a routine population of 15 guests in the pool area, 25 guests in the Flex Space, and 10 guests in the Bar Area covered by a pergola. To represent a larger, less frequent scenario, a separate run of CadnaA included 90 guests in the Flex Space, and 10 guests in the Bar Area covered by a pergola The noise source for grouping of hotel guests was derived from a research paper presented at the 2011 Institute of Noise Control Engineers (INCE) national conference (Hayne et.al. 2011). With regard to the Hayne paper, the researchers conclude by providing an equation for predicting the sound power (L_{WAeq}) associated with a crowd size of "N" participants. The equation is:

$$L_{WAeq} = 15 \text{ Log } +64 \text{dB(A)}$$

A receiver was placed in the NoisePro Model to represent each of the four closest off-site receptors (R1 – R4), the same receptors that were employed for the construction noise modeling.

Operations Noise With Routine Use of Rooftop Amenities (50 Guests/Participants)

Table 13 and 14 present the results of the operational noise modeling based on a routine level of roof-top amenity use (50 guests – no live music) at R1 through R4 and compare these modeled operational noise levels to measured ambient noise levels (Table 13) and to limits contained in the Carpinteria General Plan/Local Coastal Program Noise Element (Table 14). With regard to Table 13, given the similarity of Dorrance Way to 5th Street in the Project vicinity, the measured ambient noise levels at ST2 (on 5th Street) are considered representative for not only R1 and R2 (on 5th Street) but also for R3 and R4 (on Dorrance Way). Detailed information for the operational noise modeling is provided in Appendix E.

Table 13. Project Operational Noise Levels (50 Guests on Rooftop – No Live Music) Compared to Ambient

Receiver ID	Measured Existing Ambient (dBA L_{eq}) [a]	Predicted Operational Noise Level (dBA L_{eq})	Existing + Project (dBA L_{eq})	Increase (dBA L_{eq})
R1	54	38	54	0
R2	54	37	54	0
R3	54	37	54	0
R4	54	36	54	0

Source: Appendix E.
Notes: [a] Daytime ambient average noise level from measurement data at ST2, refer to Table 3.

As indicated in Table 13, the Project would not result in an increase in the ambient noise level at the noise sensitive receptors closest to the Project site.

Table 14 Project Operational Noise Levels (50 Guests on Rooftop – No Live Music) Compared to General Plan Limits

Receiver ID	Predicted Operational Noise Level (dBA L_{eq})	Predicted Operational Noise Level (dBA CNEL)	Noise Element Policy Limit (dBA CNEL)	Limit Exceeded?
R1	38	45	60	No
R2	37	44		No
R3	37	44		No
R4	36	43		No

Source: Appendix E.

As indicated in Table 14, even if all of the HVAC equipment and battery energy storage system throughout the Project operated continuously over a 24-hour period, and 50 guests were using the roof-top amenity areas 24 hours per day with background music supplied to all roof top areas via the audio system, the predicted operational sound level at the noise-sensitive receptors closest to the Project site would fall well below the General Plan guidance of 60 dBA CNEL. Consequently, operational noise impacts of the Project with routine levels of rooftop amenity use would be **less than significant.**

CadnaA calculates the noise level across the entire grid that encompasses the Project site and adjacent areas. Figure 6 graphically represents the noise model results, providing noise contours extending outward from the proposed Project to illustrate the hourly noise level from operation of the Project (with 50 guests using the rooftop amenities, with no live music). As illustrated on Figure 6, the 50-55 dBA L_{eq} contour is essentially contained within the Project site, and the Project would therefore not create noise incompatibilities for nearby land uses.

Operations Noise With Routine Use of Rooftop Amenities and Music Duo Performance (50 Guests & Music Duo)

Table 15 and 16 present the results of the operational noise modeling based on a routine level of roof-top amenity use (50 guests) and also including a live music performance by a duo with guitarist and singer, at R1 through R4 and compare these modeled operational noise levels to measured ambient noise levels (Table 15) and to limits contained in the Carpinteria General Plan/Local Coastal Program Noise Element (Table 16). With regard to Table 15, given the similarity of Dorrance Way to 5th Street in the Project vicinity, the measured ambient noise levels at ST2 (on 5th Street) are considered representative for not only R1 and R2 (on 5th Street) but also for R3 and R4 (on Dorrance Way). Detailed information for the operational noise modeling is provided in Appendix E.

Table 15. Project Operational Noise Levels (50 Guests on Rooftop With Live Music Duo) Compared to Ambient

Receiver ID	Measured Existing Ambient (dBA L_{eq}) [a]	Predicted Operational Noise Level (dBA L_{eq})	Existing + Project (dBA L_{eq})	Increase (dBA L_{eq})
R1	54	42	54	0
R2	54	40	54	0
R3	54	41	54	0
R4	54	39	54	0

Source: Appendix E.
Notes: [a] Daytime ambient average noise level from measurement data at ST2, refer to Table 3.

As indicated in Table 13, the Project would not result in an increase in the ambient noise level at the noise sensitive receptors closest to the Project site.

Table 16 Project Operational Noise Levels (50 Guests on Rooftop With Live Music Duo) Compared to General Plan Limits

Receiver ID	Predicted Operational Noise Level (dBA L_{eq})	Predicted Operational Noise Level (dBA CNEL)	Noise Element Policy Limit (dBA CNEL)	Limit Exceeded?
R1	42	49	60	No
R2	40	47		No
R3	41	48		No
R4	39	46		No

Source: Appendix E.

As indicated in Table 16, even if all of the HVAC equipment and battery energy storage system throughout the Project operated continuously over a 24-hour period, and 50 guests were using the roof-top amenity areas 24 hours per day with sound from a live performance by a music duo present in all roof top areas via the audio system, the predicted operational sound level at the noise-sensitive receptors closest to the Project site would fall well below the General Plan guidance of 60 dBA CNEL. Consequently, operational noise impacts of the Project with routine levels of rooftop amenity use and a live musical duo performance would be **less than significant.**

CadnaA calculates the noise level across the entire grid that encompasses the Project site and adjacent areas. Figure 7 graphically represents the noise model results, providing noise contours extending outward from the proposed Project to illustrate the hourly noise level from operation of the Project (with 50 guests using the rooftop amenities, and music duo live performance). As illustrated on Figure 7, the 50-55 dBA L_{eq} contour is again essentially contained within the Project site, and the Project would therefore not create noise incompatibilities for nearby land uses.

Operations Noise With Large Event at Rooftop Amenities and Live 3-Piece Band Performance (100 Guests & 3-Piece Band)

Table 17 and 18 present the results of the operational noise modeling based on a maximum capacity level of roof-top amenity use (100 participants) including live music performed by a 3-piece band at R1 through R4 and compare these modeled operational noise levels to measured ambient noise levels (Table 17) and to limits contained in the Carpinteria General Plan/Local Coastal Program Noise Element (Table 18). With regard to Table 17, given the similarity of Dorrance Way to 5th Street in the Project vicinity, the measured ambient noise levels at ST2 (on 5th Street) are considered representative for not only R1 and R2 (on 5th Street) but also for R3 and R4 (on Dorrance Way). Detailed information for the operational noise modeling is provided in Appendix E.

Table 17. Project Operational Noise Levels (100 Guests on Rooftop and 3-Piece Live Band) Compared to Ambient

Receiver ID	Measured Existing Ambient (dBA L_{eq})	Predicted Operational Noise Level (dBA L_{eq})	Existing + Project (dBA L_{eq})	Increase (dBA L_{eq})
R1	54	52	56	2
R2	54	50	55	1
R3	54	50	55	1
R4	54	48	55	1

Source: Appendix E.
Notes: [a] Daytime ambient average noise level from measurement data at ST2, refer to Table 3.

As indicated in Table 17, under a large gathering scenario which includes live music from a 3-piece band, the Project would result in a maximum increase of 2 dBA L_{eq} in the ambient noise level at the noise sensitive receptors closest to the Project site. Since a 3 dBA increase in outdoor noise levels is the threshold for a noticeable change, the Project would not result in a noticeable increase to ambient noise levels at the closest residences, even during a large gathering in the roof top area.

Table 18 Project Operational Noise Levels (100 Guests on Rooftop and 3-Piece Live Band) Compared to General Plan Limits

Receiver ID	Predicted Operational Noise Level (dBA L_{eq})	Predicted Operational Noise Level (dBA CNEL)	Noise Element Policy Limit (dBA CNEL)	Limit Exceeded?
R1	52	59	60	No
R2	50	57		No
R3	50	57		No
R4	48	55		No

Source: Appendix E.

As indicated in Table 18, even if all of the HVAC equipment and battery energy storge system throughout the Project operated continuously over a 24-hour period, and 100 guests were using the roof-top amenity areas 24 hours per day entertained by a 3-piece band , the predicted operational sound level at the noise-sensitive receptors closest to the Project site would fall well below the General Plan guidance of 60 dBA CNEL. Consequently, operational noise impacts of the Project with maximum capacity levels of rooftop amenity use (including live music performance by 3-piece band) would be **less than significant.**

CadnaA calculates the noise level across the entire grid that encompasses the Project site and adjacent areas. Figure 8 graphically represents the noise model results, providing noise contours extending outward from the proposed Project to illustrate the hourly noise level from operation of the Project (with 100 guests using the rooftop amenities entertained by a 3-piece band). As illustrated on Figure 8, the 50-55 dBA L_{eq} contour (even with 100 guests using rooftop amenities and 3-piece band playing) is essentially contained within the Project site and adjacent transportation rights-of-way, and the Project would therefore not create noise incompatibilities for nearby land uses.

5.2.1.4 Modeling Assumptions for Audio System Control

Noise prediction modeling of the roof top amenity area operations is based on the following administrative controls and system design functions proposed by the Project.

- Portable/temporary sound amplification systems are prohibited within all areas of the roof top amenity space; live music performers must use microphones and instrument pick-ups connected to the permanent audio system for the roof top amenity space.
- The permanent audio system shall be equipped with a digital sound processor with relative sound level limits for speakers in the pool area, flex space, and bar area that are no more than 5 dBA L_{eq} over the guest activity noise levels within each area, and with absolute limits of 65 dBA L_{eq} at 1 meter for the pool area, absolute limits of 78 dBA L_{eq} at 1 meter for the flex space, and absolute limits of 63 dBA L_{eq} at 1 meter for the bar area.
- Live performances and use of the audio system in the roof top amenities space shall not be permitted between the hours of 10 PM and 8 AM.

5.2.1.5 Mitigation

Potentially significant construction noise impacts have been identified at existing residences adjacent to the southern side of the Parking Lot #4 component of the Project. The following mitigation measure would be required to avoid these impacts.

MM Noise 1 Prior to the commencement of construction activities on Parking Lot #4, a temporary noise barrier of a minimum ten feet in height shall be erected along the southern boundary of the Parking Lot #4 parcel (Refer to Figure 5 for the location and extent of the required noise barrier). The barrier may be constructed of solid plywood with minimum thickness of 3/4 inch or acoustic barrier material having a standard transmission class rating not less than 25 (STC 25). The barrier shall be maintained at least for the duration of the Parking Lot #4 construction and paving activities.

The incorporation of the above mitigation measure would reduce potentially significant noise impacts from Project construction to a less than significant level.

5.2.2 Project Impacts – Vibration Generation

Significance Criteria 2: Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

5.2.2.1 Construction Vibration

As discussed in Section 5.1.3 (Vibration Methodology), with the exception of a vibratory pile driver or vibratory roller, groundborne vibration generated from construction equipment would be attenuated to 0.24 ips PPV at a distance of no greater than 13 feet from construction activity. The significance threshold of 0.24 ips PPV applies to potential human annoyance, while the threshold for damage to residential structures is 0.3 ips PPV; using the 0.24 in/sec PPV threshold to address both types of vibration effects is therefore conservative with regard to potential residential structure damage. The closest existing structures to the future Project construction boundaries are located approximately 20 feet from the southern property boundary of Parking Lot #4. Consequently, for construction activities not involving a vibratory pile driver or vibratory roller, construction-related vibration levels would remain below the significance threshold (i.e., 0.24 in/sec PPV) avoiding both human annoyance and residential structure damage impacts.

For a vibratory roller, groundborne vibration generated from operation would be attenuated to 0.24 ips PPV at a distance of no greater than 23 feet from construction activity. Within 23 feet of the southern boundary of the future construction zone boundary for Parking Lot #4, there is one single family residential structure (R3) and one apartment building (R4). To avoid **potentially significant vibration annoyance impacts** for the occupants of these residential structures, the use of a vibratory roller should be restricted to a distance of 23 feet or greater. This minimum separation distance between existing residential structures and use of a vibratory roller is required under **MM Noise 2** (refer to Section 5.2.2.3 Mitigation). Given the threshold for damage to residential structures is only slightly higher than the annoyance threshold, **MM Noise 2** would also effectively avoid the potential for damage to residential structures associated with the potential use of a vibratory roller for Project construction.

For a vibratory pile driver, groundborne vibration generated from operation would be attenuated to 0.24 in/sec PPV at a distance of no greater than 250 feet from construction activity. Residential structures along the north side of 5th Street and the north side of Dorrance Way are each less than 250 feet from the future Project construction zone

boundaries. Consequently, the use of a vibratory pile driver for Project construction could result in **potentially significant human annoyance and residential structure damage at neighboring structures**. To mitigate this impact, any foundation piles that could be necessary for foundational support of the Project shall be installed using pre-drilled cast-in-place methods. This prohibition against the use of a pile driver in Project construction is contained in **MM Noise 3** (refer to Section 5.2.2.3 Mitigation).

5.2.2.2 Operation Phase Vibration

Vibration impacts associated with industrial and commercial facility operations are limited to large scale equipment with rotational components or involving repeated impact or "striking" movements (e.g., industrial grade compressors, stamping machines, printing presses), or with the maneuvering of heavy trucks or similar large-scale materials-transport equipment. The ongoing operation of the proposed Project would not involve rotational equipment, or impact equipment. Large trucks delivering supplies to the Project could occur, but potentially significant vibration impacts from a loaded truck operation would be limited to a distance of 18 feet, which would not extend beyond the road right-of-way for roads used by future trucks to access the site. Consequently, long-term operation of the Project would not be anticipated to generated perceptible vibration levels; operational vibration levels are therefore considered less than significant.

5.2.2.3 Mitigation Measures

Potentially significant short-term vibration impacts have been identified for certain Project construction activities. The following mitigation measures would be required to avoid these impacts.

MM Noise 2 The use of a vibratory roller shall be prohibited closer than 23 feet from any existing off-site residence (residential structures represented by R3 and R4 have portions that are at a distance of less than 23 feet from the potential future construction zone for the Project).

MM Noise 3 Any required foundation pile installation for the Project shall be limited to pre-drilled and cast-in-place methods (no impact or vibratory pile driving methods shall be employed.)

The incorporation of the above mitigation measures would reduce potentially significant vibration impacts from Project construction to a less than significant level.

6 Policy Compliance (Non-CEQA)

6.2 On-Site Transportation Noise Exposure

CEQA no longer includes the impacts of the environment on a Project, including exposure of Project residents to elevated community noise levels from transportation and other sources. However, the following discussion is provided regarding the Project compliance with maximum exterior noise exposure limits from the General Plan.

6.2.1 Methodology

Dudek modeled the future traffic noise exposure levels from Linden Avenue (along the easterly boundary of the Project Site) and from 5th Street (along the northerly boundary of the Project Site) using excel-based worksheets incorporating the distance attenuation calculations from the FHWA Transportation Noise Model (TNM 2.5). Based

on the Site Plan (AB Design Studio, Inc., March 2024), Dudek used a distance of 95 feet from the centerline of Linden Avenue to the closest guest room deck, and a distance of 40 feet from the centerline of 5th Street to the closest guest room deck. For the traffic noise exposure modeling at the Project Site, Dudek used traffic volume data for Linden Avenue and 5th Street from the ATE traffic memo (ATE 2024) under the Cumulative Traffic Plus Project scenario.

Dudek documented the noise levels from UPRR rail operations via a 24-hour measurement conducted along the northern UPRR right-of-way along the southern boundary of the hotel portion of the Project Site, Based upon the distance from the centerline of the rails to the measurement location, (LT1) Dudek used standard outdoor attenuation equations for a line source to calculate the train noise exposure at the closest proposed exterior use areas (i.e., guest room decks) and along the southern building façade. Based on the Site Plan (AB Design Studio, Inc., March 2024), Dudek used a distance of 32 feet from the centerline of the railroad tracks to the closest guest room deck, a distance of 37 feet to the next closest guest room decks, and a distance of 42 feet to the southerly façade of the hotel structure.

6.2.2 Results

Linden Avenue / 5th Street Traffic Noise

The modeled traffic noise exposure from Linden Avenue and 5th Street at the closest guest room decks to these roadways is presented in Table 19.

Table 19. Modeled Future Traffic Noise Levels Exposure in Guest Room Deck Areas

Receiver Location	CNEL (dBA)	General Plan Maximum Limit
Closest Guest Room Deck to Linden Avenue (Guest Room 121 / Jr Suite 221)	62	70
Closest Guest Room Deck to 5th Street (Lobby Terrace/Jr Suite 201)	52	

As reported in Table 19, the maximum predicted traffic noise exposure from Linden Avenue at the closest guest room deck/patio areas would be approximately 62 dBA CNEL, which would be compatible with the 70 dBA CNEL maximum conditionally acceptable limit for exterior use areas for hotels. The maximum predicted traffic noise levels from 5th Street at the closest guest room deck/patio areas would be approximately 52 dBA CNEL, which would be well below the applicable limit. Based upon standard construction techniques and materials (which typically provide up to 17 dBA attenuation from exterior to interior space even with windows open), interior noise in rooms that have windows in the westerly, northerly, and easterly façade of the hotel would not be anticipated to exceed 45 dBA CNEL with exterior noise exposure at or below the predicted maximum of 62 dBA CNEL. Thus, the proposed exterior patio and deck areas would comply with general plan noise policy limits, as would the interior areas of proposed guest rooms.

UPRR Rail Operations Noise Levels

The modeled UPRR rail operations noise exposure at the closest guest room patios/decks to the UPRR tracks is presented in Table 20. The predicted noise exposure level at the hotel southern façade (which faces the UPRR tracks) is also presented in Table 20.

Table 20. Modeled UPRR Operations Noise Levels Exposure in Guest Room Deck Areas

Receiver Location	CNEL (dBA)	General Plan Maximum Limit
Closest Guest Room Decks to UPRR Tracks (Guest Rooms 110, 112, 210, 212)	67	70
2nd Closest Guest Room Decks to UPRR Tracks (All Other Guest Rooms With Southern Façade Decks)	66	
Southern Façade of Hotel	66	

Based on noise exposure values reported in Table 20, guest room patios/decks on the southern façade of the hotel structure, as well as the southern facade itself, would not be exposed to UPRR operations noise that exceeds the conditionally acceptable maximum limit exterior limit for hotels. However, with exterior noise exposure at the southern building façade marginally exceeding 65 dBA CNEL, the interior areas of rooms that include windows and doors on the southern building façade could marginally exceed the interior noise standard of 45 dBA CNEL, under a "windows open" condition. Recommendations are provided below to address the potential for marginally elevated interior noise levels for these guest rooms.

6.2.3 Recommendations – On-site UPRR Operations Noise Exposure

Interior noise levels in guest rooms that contain a window/door in the hotel structure southern façade could experience interior noise levels greater than 45 dBA CNEL if care is not taken with selection of exterior door and window assemblies, The following recommendation is provided for these guest rooms.

- Exterior door and window assemblies on the southern building façade (facing the UPRR tracks) should have a minimum sound transmission class (STC) rating of 30.
- Because doors and windows would need to be in the closed position to achieve compliance with the interior noise level of 45 dBA CNEL, each guest room containing a window/door in the hotel structure southern should be equipped with air conditioning or mechanical ventilation to maintain comfortable interior temperatures when the doors and windows are closed.

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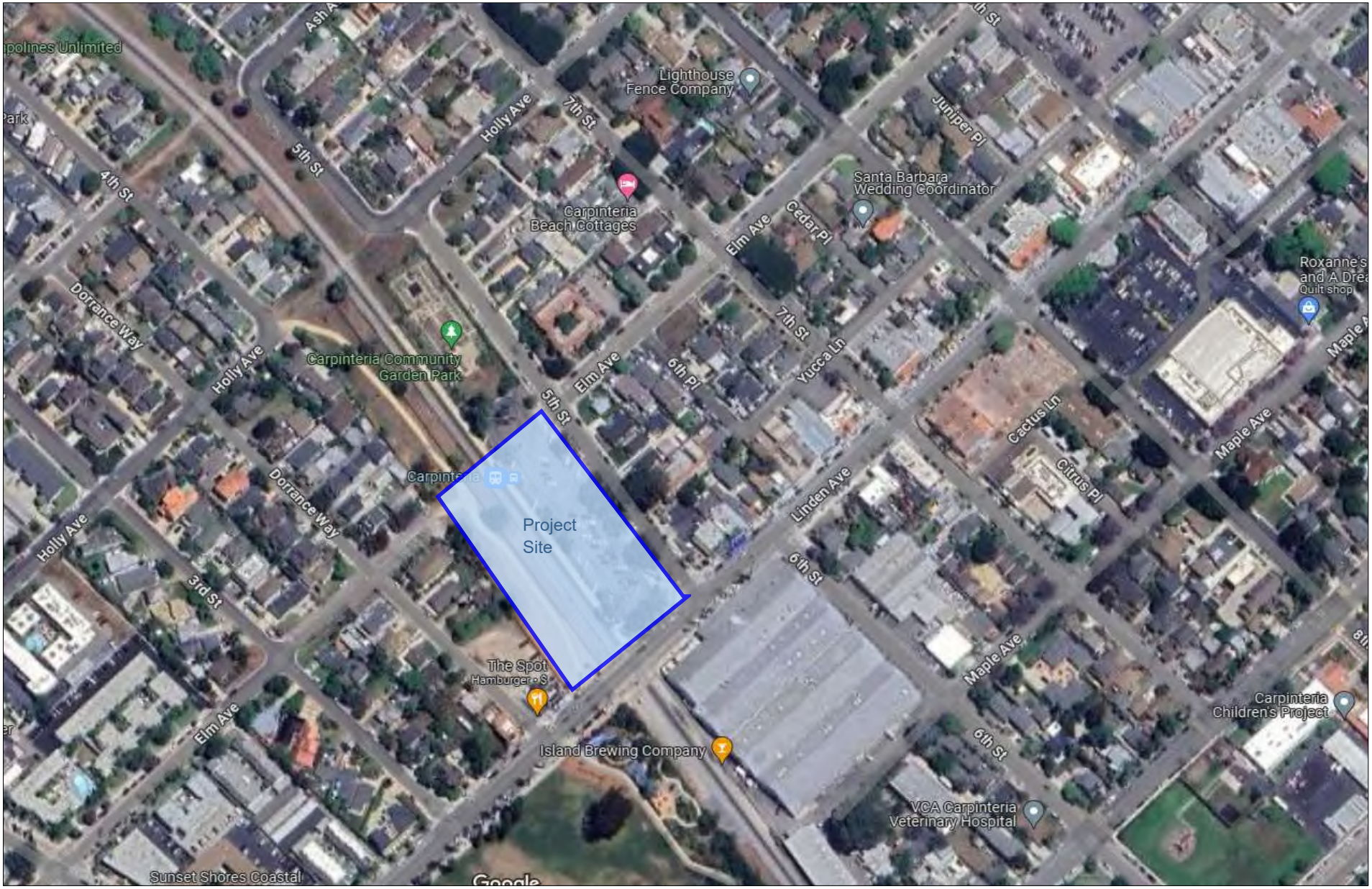


SOURCE: Google 2024; Dudek 2024

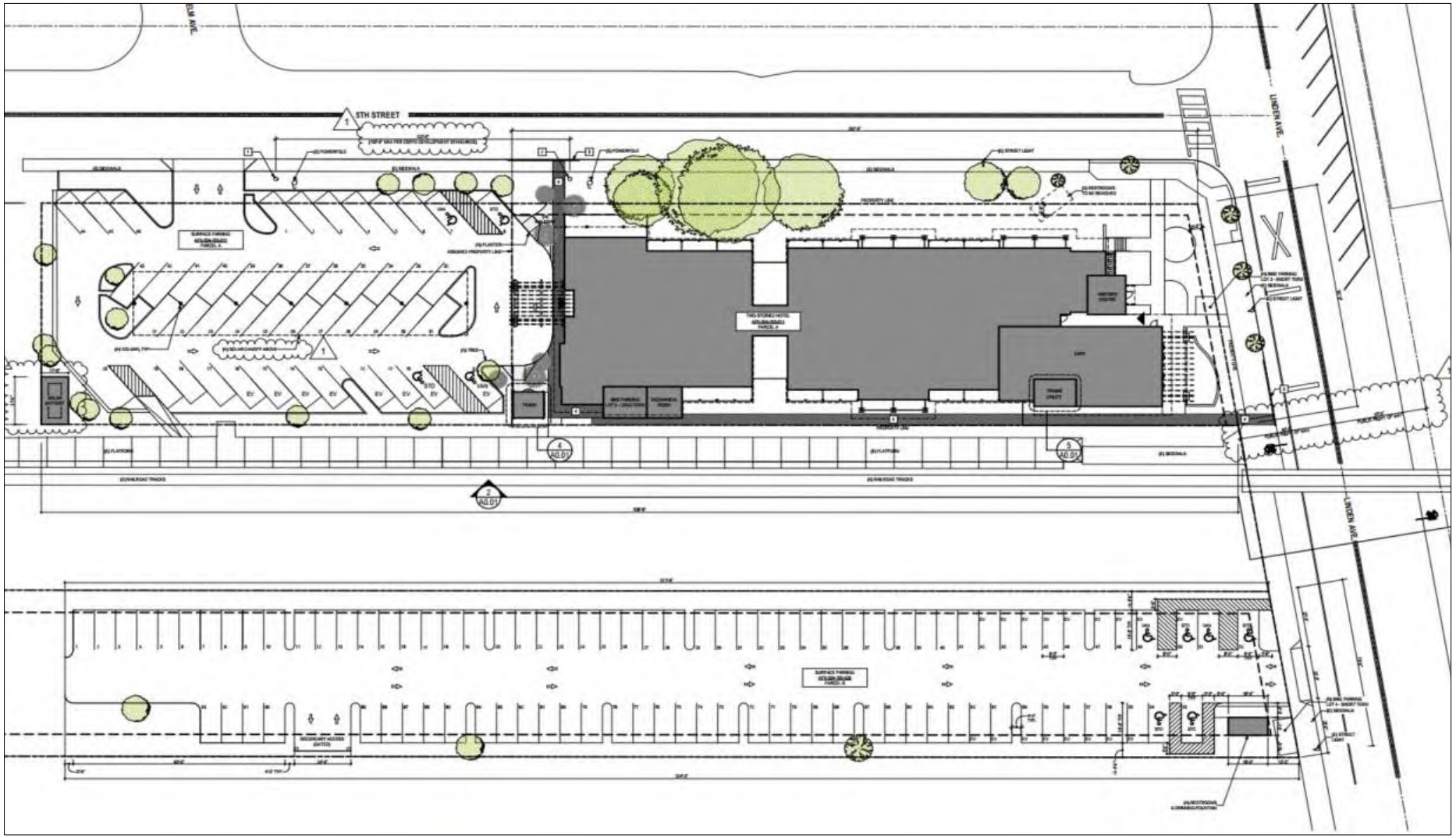
DUDEK

0 59.5 119 Feet

FIGURE 1

Project Location

Surfliner Inn Project



SOURCE: AB Design Studio, Inc. 2024

DUDEK

FIGURE 2

Site Plan

Surfliner Inn Project



SOURCE: Google Maps 2024; Dudek 2024

DUDEK

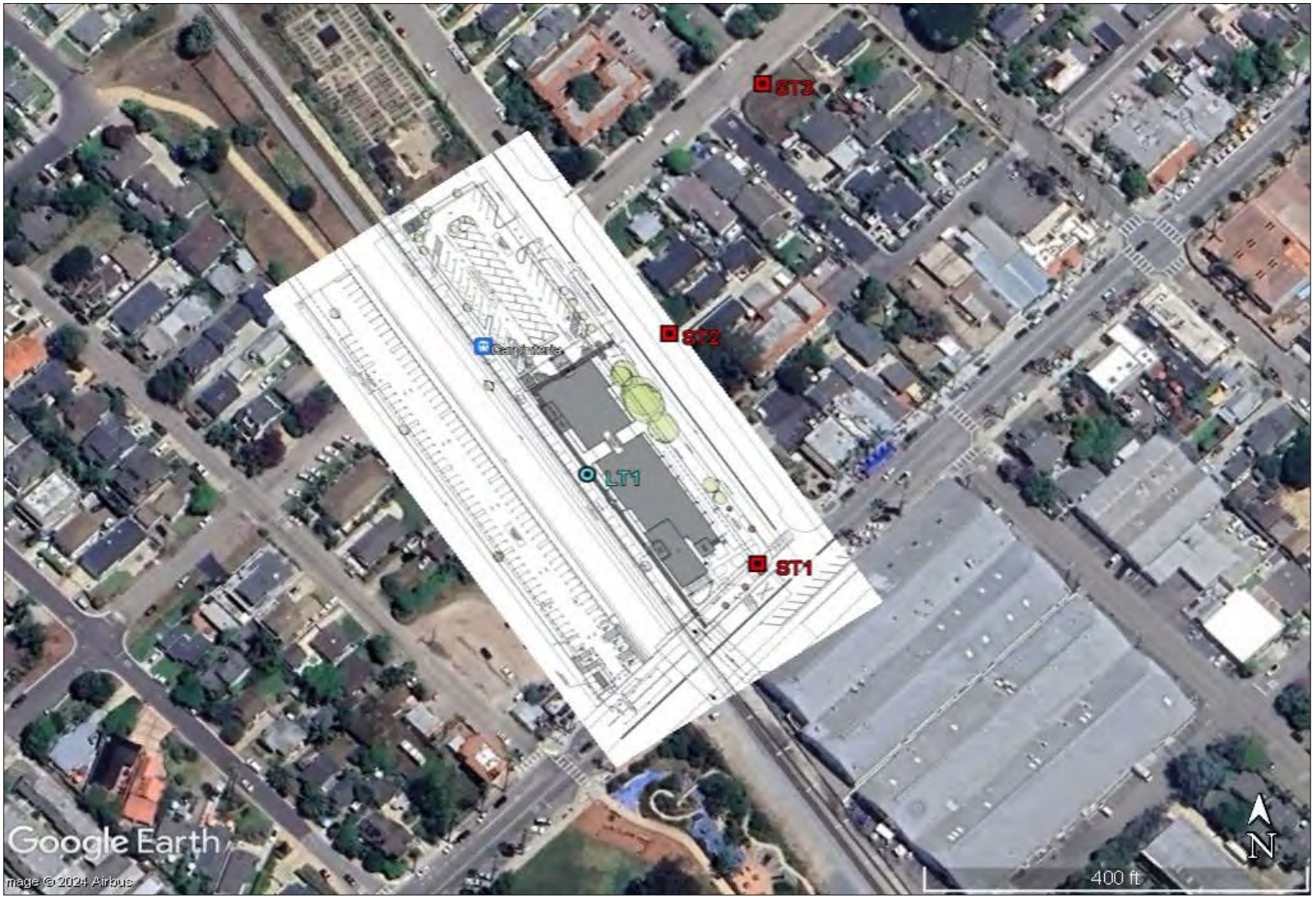
LEGEND

R# - Receiver Location

FIGURE 3

Vicinity Noise-Sensitve Receptors Used for Noise Modeling

Surfliner Inn Project



SOURCE: Google Maps 2024; AB Design Studio, Inc. 2024

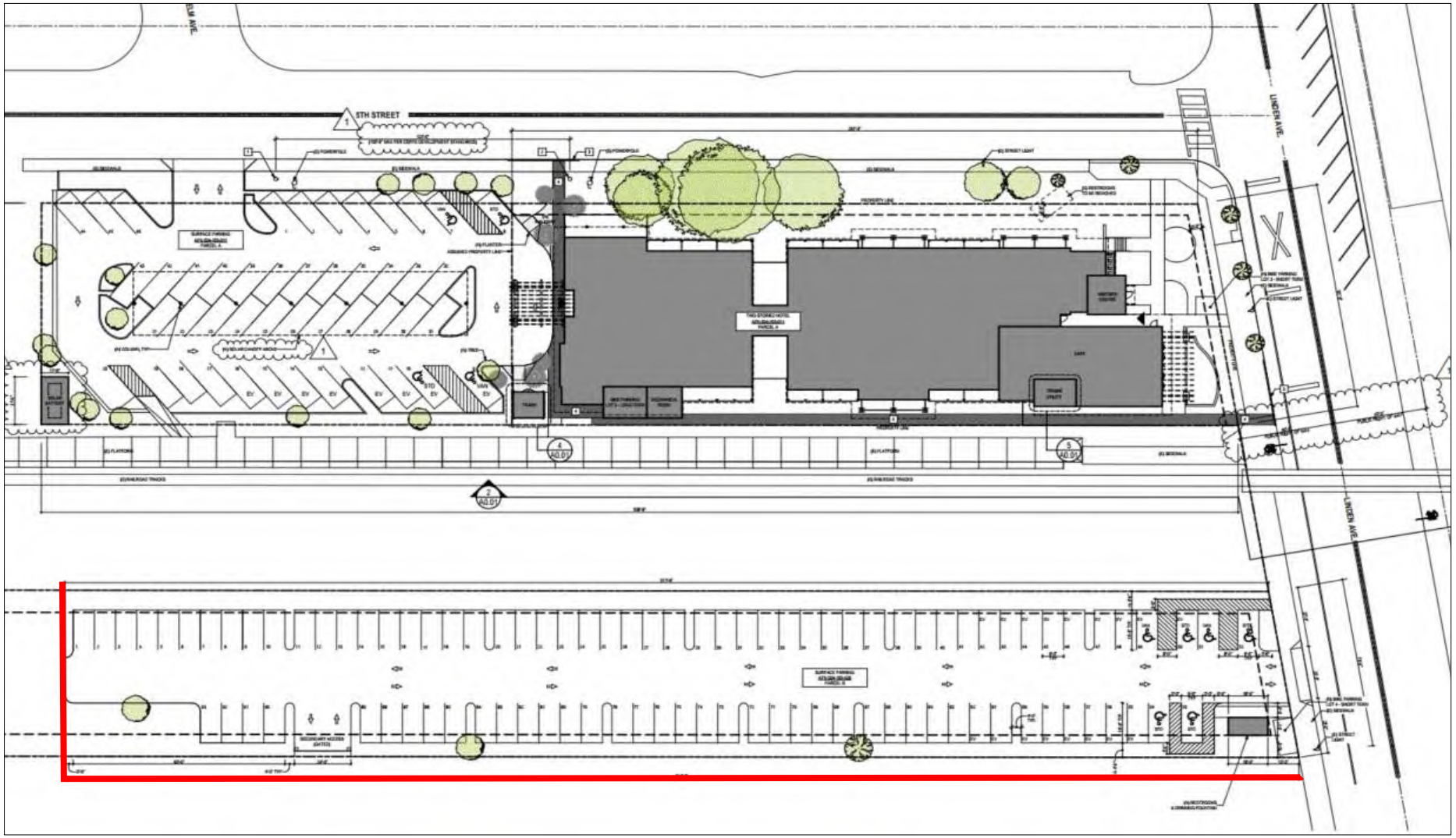
DUDEK

LEGEND
ST# - Short-term Measurement Location
LT# - Long-term Measurement Location

FIGURE 4

Ambient Noise Measurement Locations

Surfliner Inn Project



LEGEND

10-foot High Temporary Construction Noise Barrier

SOURCE: AB Design Studio, Inc. 2024

DUDEK

FIGURE 5

Location and Extent of Temporary Construction Noise Barrier Required Under MM-Noise-1

Surfliner Inn Project



SOURCES: Google 2025; Dudek 2025

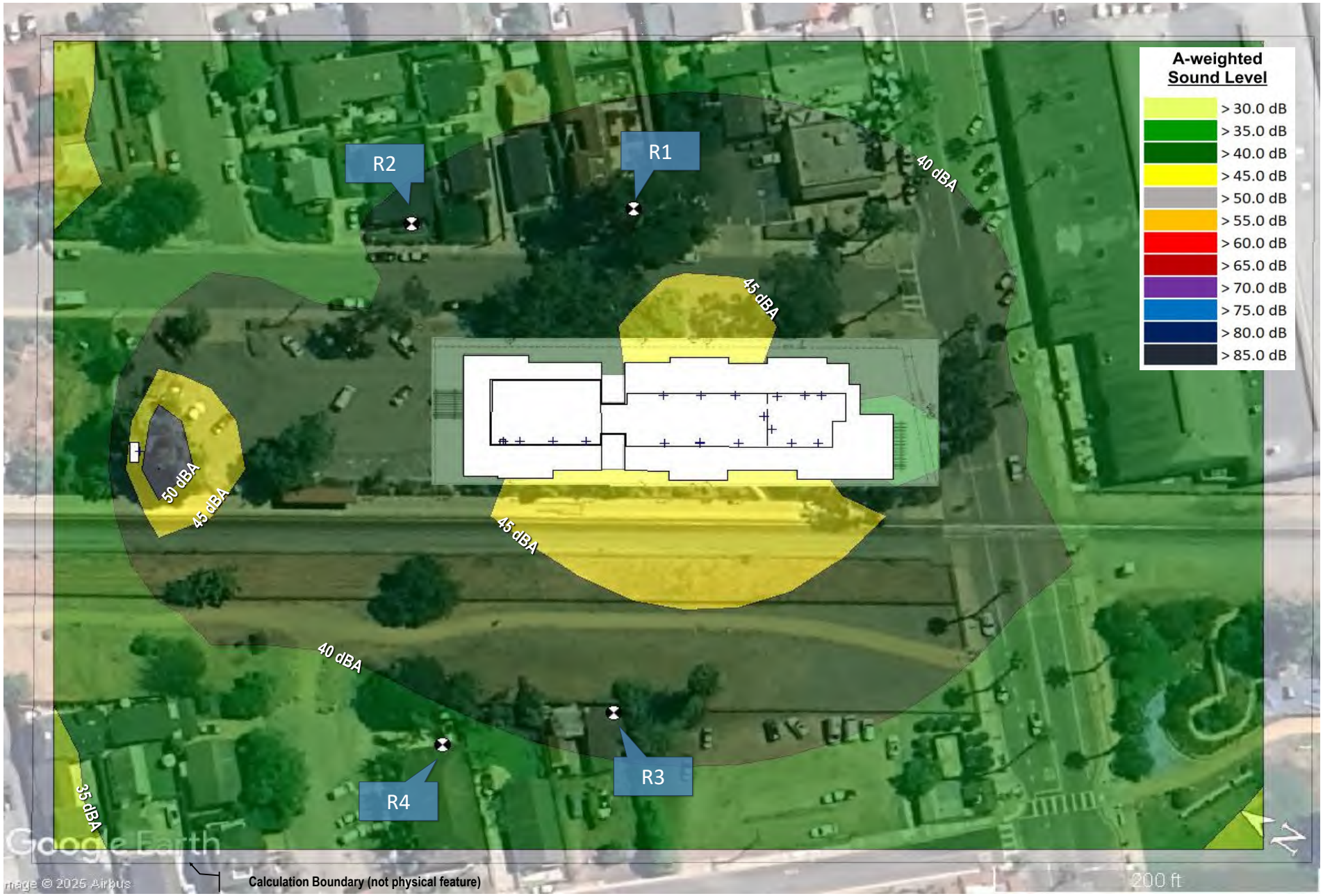
DUDEK

0 33 66 Feet

FIGURE 6

On-Site Source Modeled Noise Levels - 50 Guests, No Live Music

Surfliner Inn Project (Carpinteria, CA)



SOURCES: Google 2025; Dudek 2025

DUDEK

0 33 66 Feet

FIGURE 7

On-Site Source Modeled Noise Levels - 50 Guests, Acoustic Duo

Surfliner Inn Project (Carpinteria, CA)



SOURCES: Google 2025; Dudek 2025

DUDEK

0 33 66 Feet

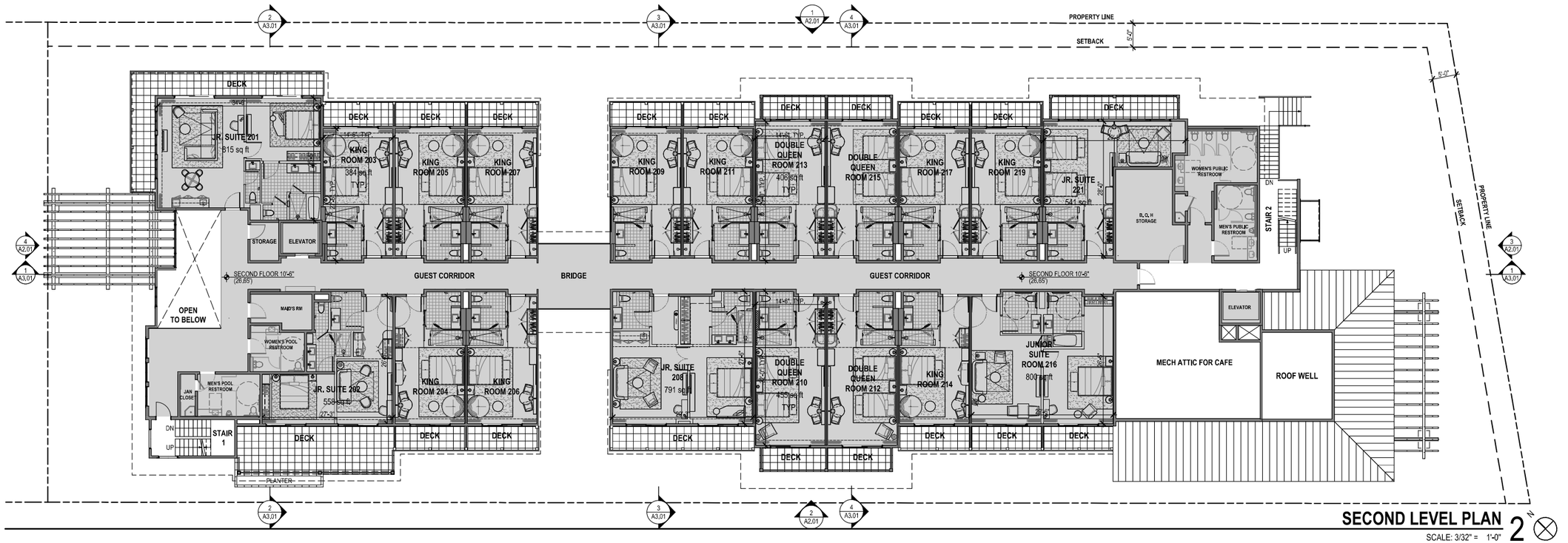
FIGURE 8

On-Site Source Modeled Noise Levels - 100 Guests, 3-Piece Band

Surfliner Inn Project (Carpinteria, CA)

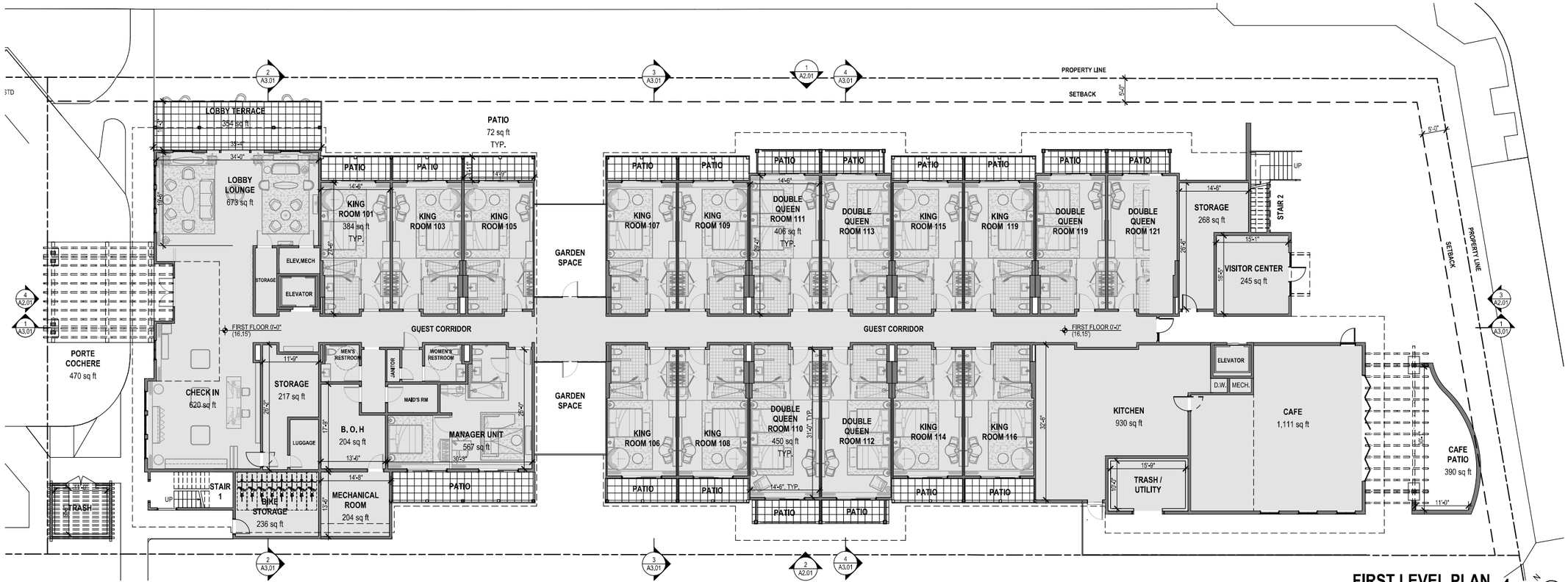
Attachment A

Selected Plan Sheets (Architecture Design Set)



SECOND LEVEL PLAN

SCALE: 3/32" = 1'-0"



FIRST LEVEL PLAN

SCALE: 3/32" = 1'-0"

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submittals / revisions

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[08.14.2023] PLANNING APPLICATION
[01.31.2024] 1 PLN SUBMITTAL 2

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A1.10

PROPOSED PLANS - FIRST & SECOND LEVELS

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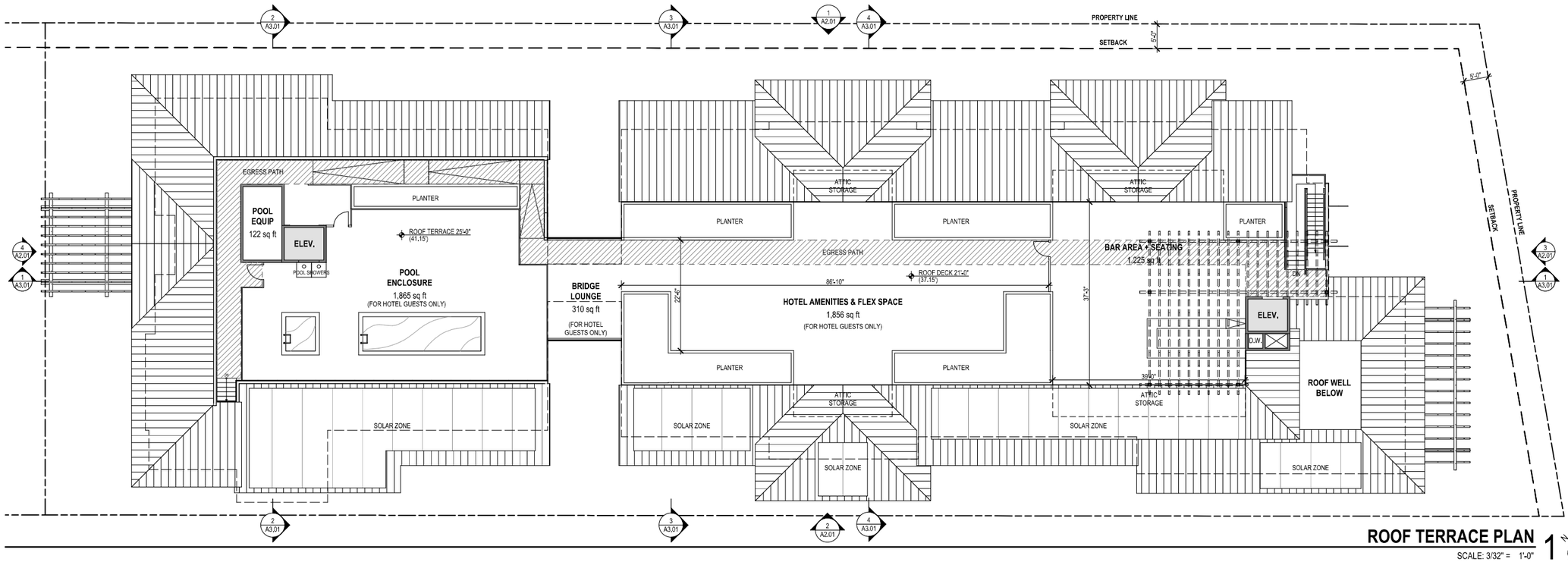
roof area calcs	
POOL AREA	1,855 SF
POOL EQUIPMENT	122 SF
BRIDGE LOUNGE	310 SF
AMENITIES & FLEX SPACE	1,856 SF
ROOFTOP LOUNGE	1,225 SF



ROOF TERRACE PLAN

SCALE: 3/32" = 1'-0"

1

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submittals / revisions

PRINT DATE: 3/7/2024

[10.14.2023]
PLANNING APPLICATION
[01.31.2024]
1 PLN SUBMITTAL 2

project info

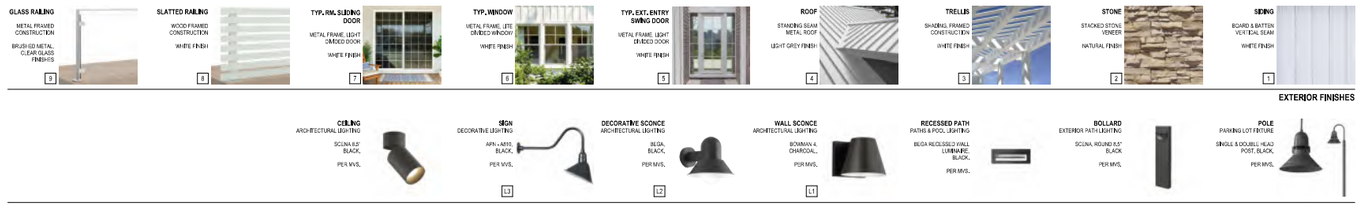
PROJECT 19006.08:
THE SURFLINER INN

PROJECT ADDRESS:
499 LINDEN AVENUE
CARPINTERIA, CA 93013

PROJECT APPLICANT/CONTACT:
499 LINDEN MANAGERS, LLC
1072 CASITAS PASS ROAD, #172
CARPINTERIA, CA 93013

A1.40

PROPOSED PLANS - ROOF TERRACE PLAN





WEST ELEVATION - PROPOSED DESIGN 4

SCALE: 3/32" = 1'-0"



EAST ELEVATION - PROPOSED DESIGN 3

SCALE: 3/32" = 1'-0"



SOUTH ELEVATION - PROPOSED DESIGN 2

SCALE: 3/32" = 1'-0"



NORTH ELEVATION - PROPOSED DESIGN 1

SCALE: 3/32" = 1'-0"

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submittals / revisions

PRINT DATE: 3/7/2024

[09.14.2023]
PLANNING APPLICATION
[01.31.2024]
1 PLN SUBMITTAL 2

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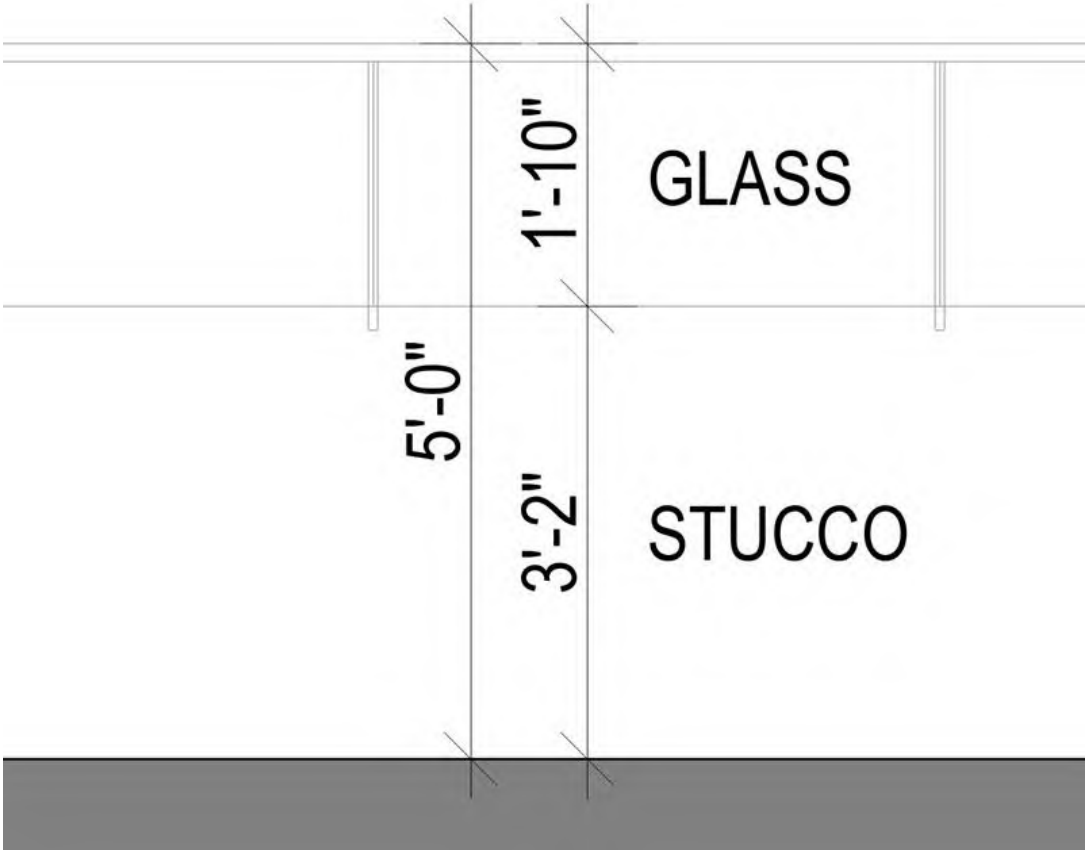
A2.01
PROPOSED EXTERIOR ELEVATIONS

Jonathan Leech

From: Justin Kurtz <jkurtz@abdesignstudioinc.com>
Sent: Tuesday, November 4, 2025 10:38 AM
To: Whitt Hollis; Jonathan Leech
Cc: Clay Aurell
Subject: RE: Surfliner Inn - Noise Analysis
Attachments: Surfliner - Rooftop Parapet.jpg

Whitt,

Attaching a view here from the drawing with a dimension and labeled materials. The overall height of the barrier is shown at 5’-0”.





Justin Kurtz, AIA, NCARB
Architect | Senior Project Manager, AB design studio, inc.

From: Whitt Hollis <whitt.hollis@gmail.com>
Sent: Monday, November 3, 2025 9:55 AM
To: Jonathan Leech <JLeech@dudek.com>

Attachment B

Ambient Noise Measurement Data

MEASUREMENT LOCATION ST1

Start Date	Start Time	End Time	Duration	SPL Rate	Freq Weight	Leq	Lmax	Lmin	Lpk	L10	L25	L50	L90
1/24/2023	11:59:00 AM	12:00:00 PM	0:01:00	Slow	dBA	63.9	69.8	52.6	83	68.5	64.9	62.8	54.4
1/24/2023	12:00:00 PM	12:01:00 PM	0:01:00	Slow	dBA	66.3	78.1	52	90.9	69.7	62.2	57.2	52.9
1/24/2023	12:01:00 PM	12:02:00 PM	0:01:00	Slow	dBA	70.3	77.8	55.6	90.1	74.9	71.9	66.8	57.8
1/24/2023	12:02:00 PM	12:03:00 PM	0:01:00	Slow	dBA	63.6	71.1	57.2	83.9	66.8	64.1	61.5	57.5
1/24/2023	12:03:00 PM	12:04:00 PM	0:01:00	Slow	dBA	58	64.4	48.6	77.1	62	60.3	55.2	49.5
1/24/2023	12:04:00 PM	12:05:00 PM	0:01:00	Slow	dBA	57.5	63.4	49.1	76.4	61.9	60.1	52.5	49.3
1/24/2023	12:05:00 PM	12:06:00 PM	0:01:00	Slow	dBA	58.8	68.8	49.3	81.8	61.5	59.5	53.4	50.1
1/24/2023	12:06:00 PM	12:07:00 PM	0:01:00	Slow	dBA	67.5	78.4	48.2	92.9	71.7	66.9	61.8	49
1/24/2023	12:07:00 PM	12:08:00 PM	0:01:00	Slow	dBA	59.9	67.1	48.1	81.5	65.2	62	52.2	48.8
1/24/2023	12:08:00 PM	12:09:00 PM	0:01:00	Slow	dBA	61.4	67.5	51.4	83.6	65.5	62.5	59.5	53.9
1/24/2023	12:09:00 PM	12:10:00 PM	0:01:00	Slow	dBA	66.7	75.4	55.9	89.4	70.3	65.6	62.2	58.2
1/24/2023	12:10:00 PM	12:11:00 PM	0:01:00	Slow	dBA	71.3	81.5	53.7	94.7	75.5	70.4	65.7	55
1/24/2023	12:11:00 PM	12:12:00 PM	0:01:00	Slow	dBA	65.8	74.3	56.4	87.4	69.9	65.7	62	57.7
1/24/2023	12:12:00 PM	12:13:00 PM	0:01:00	Slow	dBA	63.8	75	51.1	90.6	64.7	63	58.3	52.8
1/24/2023	12:13:00 PM	12:14:00 PM	0:01:00	Slow	dBA	65.9	76.6	55.2	93.6	67	64.1	60.8	56.5

	Leq			L10	L25	L50	L90
Values Averaged Across Measurement Period:	65.9			69.8	65.8	61.4	54.8
Lowest Value Recorded Across Period (Lmin)			48.1				
Highest Value Recorded Across Period (Lmax)		81.5					

MEASUREMENT LOCATION ST2

Start Date	Start Time	End Time	Duration	SPL Rate	Freq Weight	Leq	Lmax	Lmin	Lpk	L10	L25	L50	L90
1/24/2023	12:22:00 PM	12:23:00 PM	0:01:00	Slow	dBA	49.3	53.7	44.4	69	51.6	50.5	48.2	45.7
1/24/2023	12:23:00 PM	12:24:00 PM	0:01:00	Slow	dBA	55.9	65	42.6	84.8	60.1	56.8	50.9	42.9
1/24/2023	12:24:00 PM	12:25:00 PM	0:01:00	Slow	dBA	55.8	63.6	48.2	78.3	61.1	56.1	51.3	49.1
1/24/2023	12:25:00 PM	12:26:00 PM	0:01:00	Slow	dBA	53.1	62.9	40.7	77.1	57.8	53.2	47.8	41.7
1/24/2023	12:26:00 PM	12:27:00 PM	0:01:00	Slow	dBA	58.9	66.1	40.8	79.9	64	60.3	55.5	42.8
1/24/2023	12:27:00 PM	12:28:00 PM	0:01:00	Slow	dBA	42.8	50.8	39.6	66.5	44	42.8	42	40.3
1/24/2023	12:28:00 PM	12:29:00 PM	0:01:00	Slow	dBA	50.2	61.1	39.8	74.6	54.4	46	42.9	40.6
1/24/2023	12:29:00 PM	12:30:00 PM	0:01:00	Slow	dBA	44.8	51.2	41.2	69.5	47.8	44.4	43.1	41.9
1/24/2023	12:30:00 PM	12:31:00 PM	0:01:00	Slow	dBA	43.5	49.4	40.9	66.3	46.1	43.7	42.8	41.6
1/24/2023	12:31:00 PM	12:32:00 PM	0:01:00	Slow	dBA	51.1	63.6	41.2	79.8	47.4	45	43.4	41.6
1/24/2023	12:32:00 PM	12:33:00 PM	0:01:00	Slow	dBA	50.6	62.3	43.1	74.7	53.2	50.1	45.5	44
1/24/2023	12:33:00 PM	12:34:00 PM	0:01:00	Slow	dBA	56.3	65.1	44.9	84.9	61.6	56.2	52.6	47
1/24/2023	12:34:00 PM	12:35:00 PM	0:01:00	Slow	dBA	56.4	66.8	43.3	85.5	63.4	48.1	45.4	44.2
1/24/2023	12:35:00 PM	12:36:00 PM	0:01:00	Slow	dBA	51.5	61.6	43.4	75.1	56.7	48.9	45.4	44.3
1/24/2023	12:36:00 PM	12:37:00 PM	0:01:00	Slow	dBA	52.7	60.6	43.2	75.5	57.4	52.8	48.8	44.6
1/24/2023	12:37:00 PM	12:38:00 PM	0:01:00	Slow	dBA	54.8	63	45.7	79.3	59.7	55.3	50.6	46.9
1/24/2023	12:38:00 PM	12:39:00 PM	0:01:00	Slow	dBA	58	67.6	43.2	81.2	64.3	56.6	48.7	46.3
1/24/2023	12:39:00 PM	12:40:00 PM	0:01:00	Slow	dBA	56.9	64.9	45.1	78.6	62.3	59.4	49.7	46.4
1/24/2023	12:40:00 PM	12:41:00 PM	0:01:00	Slow	dBA	48.3	54.4	43	69.1	51.1	49.9	46.2	44.2
1/24/2023	12:41:00 PM	12:42:00 PM	0:01:00	Slow	dBA	47.4	55.5	41.3	72.3	52	46.6	44.4	42.2
1/24/2023	12:42:00 PM	12:43:00 PM	0:01:00	Slow	dBA	53.2	62.5	41.8	79	58.7	53.1	45.3	42.4
1/24/2023	12:43:00 PM	12:44:00 PM	0:01:00	Slow	dBA	51.9	64.1	41.3	77	52.3	45.1	43	41.6
1/24/2023	12:44:00 PM	12:45:00 PM	0:01:00	Slow	dBA	51.1	60.7	44	70.9	55.5	53	47.8	45.3
1/24/2023	12:45:00 PM	12:46:00 PM	0:01:00	Slow	dBA	48	56.2	41.2	84.4	52.6	49.6	44.4	42.3
1/24/2023	12:46:00 PM	12:47:00 PM	0:01:00	Slow	dBA	55.7	66.1	41.3	82	61.7	54.6	44.5	41.8
1/24/2023	12:47:00 PM	12:48:00 PM	0:01:00	Slow	dBA	54.2	64.6	41.1	80.4	59.6	50.3	43.7	41.6
1/24/2023	12:48:00 PM	12:49:00 PM	0:01:00	Slow	dBA	58.1	67.8	44.5	81.5	63.1	57.1	54.1	46
1/24/2023	12:49:00 PM	12:50:00 PM	0:01:00	Slow	dBA	49.3	60.3	43	72.8	53.7	46.4	45.6	43.8
1/24/2023	12:50:00 PM	12:51:00 PM	0:01:00	Slow	dBA	47.2	51.1	44.6	70.1	49	47.7	46.8	45.3
1/24/2023	12:51:00 PM	12:52:00 PM	0:01:00	Slow	dBA	56.9	65.8	43.7	79.2	62.1	56.7	51.3	44.9
1/24/2023	12:52:00 PM	12:53:00 PM	0:01:00	Slow	dBA	48.9	59.3	42.4	86.1	51.2	47.6	45.7	42.9

	Leq	L10	L25	L50	L90
Values Averaged Across Measurement Period:	53.9	59.0	53.6	48.6	44.3

Lowest Value Recorded Across Period (Lmin)		39.6
Highest Value Recorded Across Period (Lmax)	67.8	

MEASUREMENT LOCATION ST3

Start Date	Start Time	End Time	Duration	SPL Rate	Freq Weight	Leq	Lmax	Lmin	Lpk	L10	L25	L50	L90
1/24/2023	12:54:00 PM	12:55:00 PM	0:01:00	Slow	dBA	54.1	65.2	41	91.3	59.9	52.6	47	42.2
1/24/2023	12:55:00 PM	12:56:00 PM	0:01:00	Slow	dBA	44.6	48.8	39.4	62.8	47.1	46	43.7	40.5
1/24/2023	12:56:00 PM	12:57:00 PM	0:01:00	Slow	dBA	48.1	50.2	45.1	69.7	49.3	48.8	48	46.4
1/24/2023	12:57:00 PM	12:58:00 PM	0:01:00	Slow	dBA	47.2	52.1	42	66.7	49.7	48.6	46.4	43
1/24/2023	12:58:00 PM	12:59:00 PM	0:01:00	Slow	dBA	45.7	53.4	39.9	72.5	49.1	46.1	43.9	41.8
1/24/2023	12:59:00 PM	1:00:00 PM	0:01:00	Slow	dBA	50.4	59.5	42.1	81.2	53.8	50.9	46.3	43
1/24/2023	1:00:00 PM	1:01:00 PM	0:01:00	Slow	dBA	49.7	54.5	44.6	70.1	54	49.9	47.9	46.2
1/24/2023	1:01:00 PM	1:02:00 PM	0:01:00	Slow	dBA	51.1	58.3	41.8	71.2	56.1	51.4	46.6	43.1
1/24/2023	1:02:00 PM	1:03:00 PM	0:01:00	Slow	dBA	49.2	57.9	39.6	71	55.5	45.8	42.2	40.4
1/24/2023	1:03:00 PM	1:04:00 PM	0:01:00	Slow	dBA	43.9	53.3	39.6	74.1	46.1	44.3	42.2	40.3
1/24/2023	1:04:00 PM	1:05:00 PM	0:01:00	Slow	dBA	48.5	56.8	41.3	69.3	53.1	47.9	45.3	42.9
1/24/2023	1:05:00 PM	1:06:00 PM	0:01:00	Slow	dBA	52.6	62.7	40.7	75.8	57.1	48.7	45.9	41.8
1/24/2023	1:06:00 PM	1:07:00 PM	0:01:00	Slow	dBA	51.1	62.2	39.2	75	55	45.8	42.2	40.3
1/24/2023	1:07:00 PM	1:08:00 PM	0:01:00	Slow	dBA	44.4	51.6	38.6	69.5	47.3	44.3	42.9	39.7
1/24/2023	1:08:00 PM	1:09:00 PM	0:01:00	Slow	dBA	42.8	48.2	39.2	67	45.8	42.9	41.6	40.1
1/24/2023	1:09:00 PM	1:10:00 PM	0:01:00	Slow	dBA	43.3	51.4	38.4	74.4	46.5	43.8	41.3	39.7
1/24/2023	1:10:00 PM	1:11:00 PM	0:01:00	Slow	dBA	50.3	60.6	39.3	81.5	55	45.9	43	40.6
1/24/2023	1:11:00 PM	1:12:00 PM	0:01:00	Slow	dBA	52.9	63.2	40.3	76.6	57.7	49.3	46.5	41.2
1/24/2023	1:12:00 PM	1:13:00 PM	0:01:00	Slow	dBA	54	64	43.9	81.1	56.6	54.8	48.7	45.4
1/24/2023	1:13:00 PM	1:14:00 PM	0:01:00	Slow	dBA	55.9	67.3	44.7	85.4	59	50.1	49	47
1/24/2023	1:14:00 PM	1:15:00 PM	0:01:00	Slow	dBA	48.1	51.1	43.9	68.1	49.5	49	48.2	45.4
1/24/2023	1:15:00 PM	1:16:00 PM	0:01:00	Slow	dBA	55.5	64.6	42	82.9	60	53.8	49.7	44.5
1/24/2023	1:16:00 PM	1:17:00 PM	0:01:00	Slow	dBA	46.6	55.9	40	69.8	50.4	45.1	43.9	41.6
1/24/2023	1:17:00 PM	1:18:00 PM	0:01:00	Slow	dBA	45	54.3	39	78.4	48.4	44.8	42.7	40.2
1/24/2023	1:18:00 PM	1:19:00 PM	0:01:00	Slow	dBA	42.8	48.3	38.8	65.5	45.8	43.4	41.1	39.7
1/24/2023	1:19:00 PM	1:20:00 PM	0:01:00	Slow	dBA	52.6	62.2	39.4	76.2	57.9	51.6	45.8	40.7
1/24/2023	1:20:00 PM	1:21:00 PM	0:01:00	Slow	dBA	42.4	46	38.2	60.7	44	43.1	42.2	40.1
1/24/2023	1:21:00 PM	1:22:00 PM	0:01:00	Slow	dBA	45.1	50.1	40.2	69.6	48.2	46.3	43.6	41.2
1/24/2023	1:22:00 PM	1:23:00 PM	0:01:00	Slow	dBA	46.5	52.9	41.1	82.9	49.6	47.4	45.2	42.3
1/24/2023	1:23:00 PM	1:24:00 PM	0:01:00	Slow	dBA	44.4	51.6	38.6	69.5	47.3	44.3	42.9	39.7

	Leq			L10	L25	L50	L90
Values Averaged Across Measurement Period:	50.1			54.3	48.8	45.6	42.7
Lowest Value Recorded Across Period (Lmin)			38.2				
Highest Value Recorded Across Period (Lmax)		67.3					

MEASUREMENT LOCATION LT1

Start Date	Start Time	End Time	Duration	SPL Rate	Freq Weight	Leq	Lmax	Lmin	Lpk	L10	L25	L50	L90
1/24/2023	12:00:00 PM	1:00:00 PM	60.00	Slow	dBA	52.7	68.8	44.4	87.5	55.7	53	50.6	47.2
1/24/2023	1:00:00 PM	2:00:00 PM	60.00	Slow	dBA	55.2	76.6	43.9	92.2	56.4	53.5	50.2	46.3
1/24/2023	2:00:00 PM	3:00:00 PM	60.00	Slow	dBA	63.4	91.7	43.5	107.4	56.5	53.7	50	46
1/24/2023	3:00:00 PM	4:00:00 PM	60.00	Slow	dBA	54.5	70.3	44.3	87.4	57.4	55.3	52.3	47.5
1/24/2023	4:00:00 PM	5:00:00 PM	60.00	Slow	dBA	53.5	76	44.8	95.4	56.3	54	51.2	47.9
1/24/2023	5:00:00 PM	6:00:00 PM	60.00	Slow	dBA	60.6	84.3	44.9	99.8	58.6	55.5	52.9	49.2
1/24/2023	6:00:00 PM	7:00:00 PM	60.00	Slow	dBA	54.5	67.9	48.9	81.6	56.5	55.1	53.5	51.2
1/24/2023	7:00:00 PM	8:00:00 PM	60.00	Slow	dBA	70.9	100.8	52.9	114	60.9	59.5	58.4	56.4
1/24/2023	8:00:00 PM	9:00:00 PM	60.00	Slow	dBA	59.8	66.1	53.8	86	61.4	60.6	59.5	57.3
1/24/2023	9:00:00 PM	10:00:00 PM	60.00	Slow	dBA	67.2	94	54	107.6	62.9	61.3	59.5	57
1/24/2023	10:00:00 PM	11:00:00 PM	60.00	Slow	dBA	60.3	66.5	53.8	83.6	62.7	61.2	59.5	56.7
1/24/2023	11:00:00 PM	12:00:00 AM	60.00	Slow	dBA	60.2	67.3	52.9	86.5	62.6	61.2	59.6	56.1
1/25/2023	12:00:00 AM	1:00:00 AM	60.00	Slow	dBA	59.8	67.9	52.1	84.4	62.4	61	59.1	55.7
1/25/2023	1:00:00 AM	2:00:00 AM	60.00	Slow	dBA	58.7	65.8	50.4	81.9	61.6	59.8	57.7	54.6
1/25/2023	2:00:00 AM	3:00:00 AM	60.00	Slow	dBA	60.5	66.3	51.2	81.5	62.7	61.5	60.1	57
1/25/2023	3:00:00 AM	4:00:00 AM	60.00	Slow	dBA	59.6	65.5	54.2	80.4	61.7	60.4	59.1	56.8
1/25/2023	4:00:00 AM	5:00:00 AM	60.00	Slow	dBA	64.2	90.6	55.5	108.1	62.8	61.6	60.4	58.1
1/25/2023	5:00:00 AM	6:00:00 AM	60.00	Slow	dBA	62.9	84.3	56.7	98.2	63.5	62.3	61.2	59.1
1/25/2023	6:00:00 AM	7:00:00 AM	60.00	Slow	dBA	61.8	67.7	57.1	85.4	63.7	62.5	61.4	59.5
1/25/2023	7:00:00 AM	8:00:00 AM	60.00	Slow	dBA	74.4	106.1	56.7	116.6	65	63.3	61.7	59.3
1/25/2023	8:00:00 AM	9:00:00 AM	60.00	Slow	dBA	57.6	68.3	46.1	88.3	60.3	58.7	56.9	50.9
1/25/2023	9:00:00 AM	10:00:00 AM	60.00	Slow	dBA	55	70	46.4	93.9	57.8	55.5	53.2	48.8
1/25/2023	10:00:00 AM	11:00:00 AM	60.00	Slow	dBA	58.5	77.8	44.7	95.2	59.3	56.2	52.5	48
1/25/2023	11:00:00 AM	12:00:00 PM	60.00	Slow	dBA	61.6	87.8	43.5	100.1	57.1	54	50.6	47

	dBA L_{eq}
Daytime Average (7 AM - 7 PM)	64.7
Evening Average (7 PM - 10 PM)	67.9
Nighttime Average (10 PM - 7 AM)	61.2

Leq	Time	Adjustment					
59.8	Midnight	10	69.8	69.8			
58.7	1	10	68.7	68.7			
60.5	2	10	70.5	70.5			
59.6	3	10	69.6	69.6			
64.2	4	10	74.2	74.2			
62.9	5	10	72.9	72.9			
61.8	6	10	71.8	71.8			
74.4	7am		74.4	74.4			
57.6	8		57.6	57.6			
55.0	9		55	55			
58.5	10		58.5	58.5			
61.6	11		61.6	61.6			
52.7	noon		52.7	52.7			
55.2	1		55.2	55.2			
63.4	2		63.4	63.4			
54.5	3		54.5	54.5			
53.5	4		53.5	53.5			
60.6	5		60.6	60.6			
54.5	6		54.5	54.5			
70.9	7	5	75.9	70.9			
59.8	8	5	64.8	59.8			
67.2	9	5	72.2	67.2			
60.3	10	10	70.3	70.3			
60.2	11	10	70.2	70.2			
			69.5	68.6			
			CNEL	LDN			

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT	SURFLINER INN	PROJECT #	15690
SITE ID	ST1		
SITE ADDRESS	LINDEN AVENUE	OBSERVER(S)	NL
START DATE	1/24/23	END DATE	1/24/23
START TIME	11:59 AM	END TIME	12:14 PM

METEOROLOGICAL CONDITIONS

TEMP 60 F | HUMIDITY 55 % R.H. | WIND CALM (LIGHT) MODERATE

WINDSPD 6 MPH | DIR. N (NE) S SE S SW W NW | (VARIABLE) STEADY GUSTY

SKY (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT SoftdB Piccolo II | TYPE 1 (2) | SERIAL # 1804

CALIBRATOR REED R8090 | SERIAL # 6321

CALIBRATION CHECK | PRE-TEST 94.0 dBA SPL | POST-TEST 94.0 dBA SPL | WINDSCRN X

SETTINGS (A-WTD) (SLOW) FAST (FRONTAL) RANDOM (ANSI) OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
1	11:59								
↓				REFER TO	LOGS	FOR	Picc	# 1804	
15		12:14							

COMMENTS

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:

ROADWAY TYPE: 2-LANE ARTERIAL | DIST. TO RDWY (C/L) OR EOP: 35'

TRAFFIC COUNT DURATION: 15 MIN SPEED ___ MIN SPEED

COUNT 1 (OR RDWY 1)	NB/EB	SB/WB	NB/EB	SB/WB	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE	COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	96									
MED TRKS	8									
HVY TRKS	11									
BUSES	1									
MOTRCLS	2									

SPEEDS ESTIMATED BY: RADAR (DRIVING THE PACE) 40 MPH

POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE

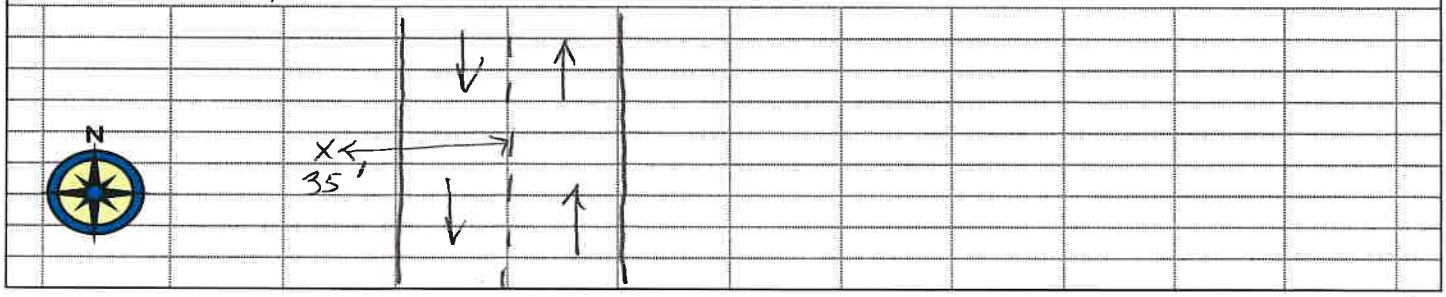
OTHER:

DESCRIPTION / SKETCH

TERRAIN (HARD) SOFT MIXED FLAT OTHER:

PHOTOS

OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT	SURFLINER INN	**PROJECT #**	15690
SITE ID	ST2		
SITE ADDRESS	5TH STREET	**OBSERVER(S)**	NL
START DATE	1/24/23	**END DATE**	1/24/23
START TIME	12:22	**END TIME**	12:52

METEOROLOGICAL CONDITIONS

TEMP 60 F **HUMIDITY** 55 % R.H. **WIND** CALM (LIGHT) MODERATE

WINDSPD 6 MPH **DIR.** N (NE) S SE S SW W NW (VARIABLE) STEADY GUSTY

SKY (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT SoftdB Piccolo II **TYPE** 1 (2) **SERIAL #** 1804

CALIBRATOR Rebo R80910 **SERIAL #** 63721

CALIBRATION CHECK PRE-TEST 94.0 dBA SPL POST-TEST 94.0 dBA SPL WINDSCRN X

SETTINGS (A-WTD) (SLOW) FAST (FRONTAL) RANDOM (ANSI) OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
1	12:22								
↓			REFER TO LOGS FOR PICC 1804						
30	12:52	→							

COMMENTS

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:

ROADWAY TYPE: 2-LANE COLLECTOR DIST. TO RDWY C/L OR EOP: 25'

TRAFFIC COUNT DURATION: ___ MIN SPEED ___ MIN SPEED

COUNT 1 (OR RDWY 1)	DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
	AUTOS	34			
	MED TRKS	2			
	HVY TRKS	0			
	BUSES	0			
	MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE X

COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB

SPEEDS ESTIMATED BY: RADAR / (DRIVING THE PACE) 30

POSTED SPEED LIMIT SIGNS SAY:

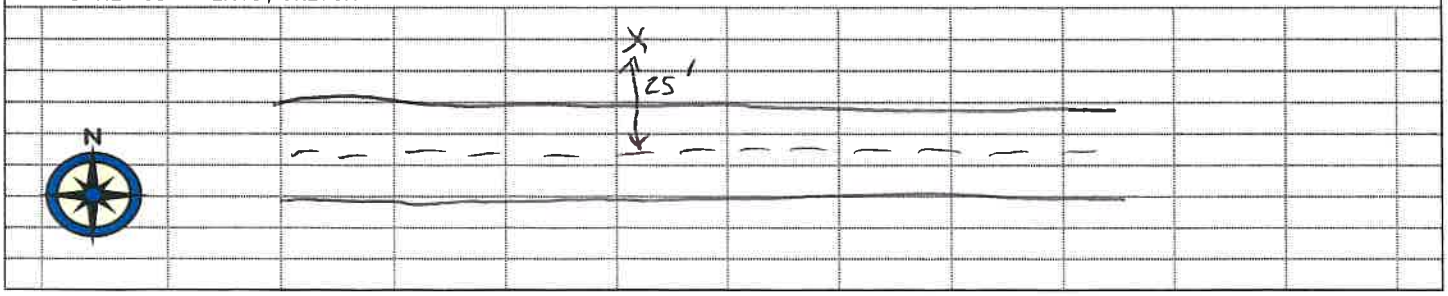
OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH

TERRAIN (HARD) SOFT MIXED FLAT OTHER:

PHOTOS

OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT	SURFLINER INN	**PROJECT #**	15690
SITE ID	ST3		
SITE ADDRESS	ELM AVENUE	**OBSERVER(S)**	NL
START DATE	1/24/23	**END DATE**	1/24/23
START TIME	12:54 PM	**END TIME**	1:24 PM

METEOROLOGICAL CONDITIONS

TEMP 60 F **HUMIDITY** 55 % R.H. **WIND** CALM (LIGHT) MODERATE

WINDSPD 6 MPH **DIR.** N (NE) S SE S SW W NW (VARIABLE) STEADY GUSTY

SKY (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT SoftdB Piccolo II **TYPE** 1 (2) **SERIAL #** 1804

CALIBRATOR Rebo R80910 **SERIAL #** 63721

CALIBRATION CHECK PRE-TEST 94.0 dBA SPL POST-TEST 94.0 dBA SPL WINDSCRN X

SETTINGS (A-WTD) (SLOW) FAST (FRONTAL) RANDOM (ANSI) OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
1	12:54								
↓				REFER TO LOGS FOR Piccolo II 1804					
30		1:24							

COMMENTS

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:

ROADWAY TYPE: 2 LANE COLLECTOR DIST. TO RDWY (C/L) OR EOP: 20 FEET

TRAFFIC COUNT DURATION: ____ MIN SPEED ____ MIN SPEED

COUNT 1 (OR RDWY 1)	NB/EB	SB/WB	NB/EB	SB/WB	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE	COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	10									
MED TRKS	2									
HVY TRKS	0									
BUSES	0									
MOTRCLS	0									

SPEEDS ESTIMATED BY: RADAR (DRIVING THE PACE) 25

POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE

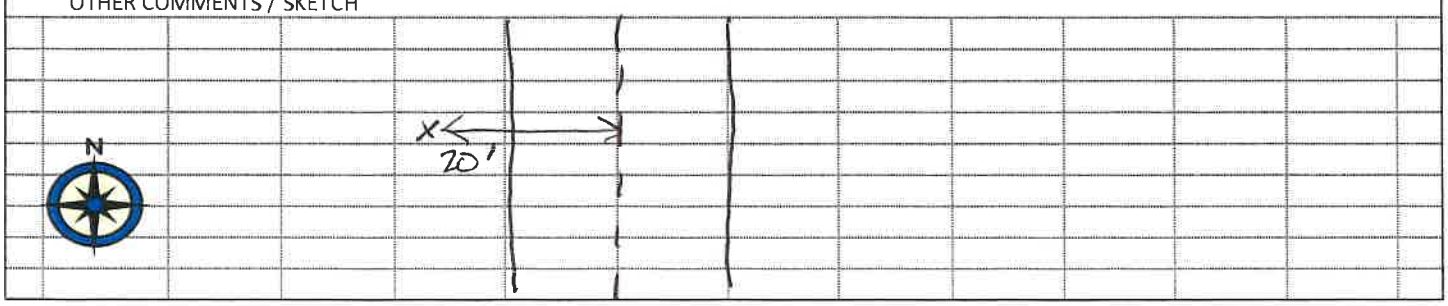
OTHER:

DESCRIPTION / SKETCH

TERRAIN (HARD) SOFT MIXED FLAT OTHER:

PHOTOS

OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT	SURFLINER INN	**PROJECT #**	15690
SITE ID	LT1		
SITE ADDRESS	RAILROAD ALIGNMENT	**OBSERVER(S)**	NL
START DATE	1/24/23	**END DATE**	1/25/23
START TIME	12:00 PM	**END TIME**	12:00 PM

METEOROLOGICAL CONDITIONS

TEMP 60 F **HUMIDITY** 55 % R.H. **WIND** CALM (LIGHT) MODERATE

WINDSPD 6 MPH **DIR.** N (NE) S SE S SW W NW (VARIABLE) STEADY GUSTY

SKY (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT SoftdB Piccolo II **TYPE** 1 (2) **SERIAL #** ~~[illegible]~~ 2801

CALIBRATOR Reed R8090 **SERIAL #** 63721

CALIBRATION CHECK PRE-TEST 94.0 dBA SPL POST-TEST 94.0 dBA SPL **WINDSCRN** X

SETTINGS (A-WTD) (SLOW) FAST (FRONTAL) RANDOM (ANSI) OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
1	12:00 PM								
				REFER TO LOGS FOR PICCOLO 2801					
24		12:00 PM							

COMMENTS

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE TRAFFIC AIRCRAFT (RAIL) INDUSTRIAL OTHER:

ROADWAY TYPE: DIST. TO RDWY (C/L) OR EOP: 33 FEET TO RAIL C.L.

TRAFFIC COUNT DURATION: ___ MIN

COUNT 1 (OR RDWY 1)	DIRECTION	SPEED NB/EB	SPEED SB/WB		
	AUTOS				
	MED TRKS				
	HVY TRKS				
	BUSES				
	MOTRCLS				

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ___

COUNT 2 (OR RDWY 2)	SPEED NB/EB	SPEED SB/WB		

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE

POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE

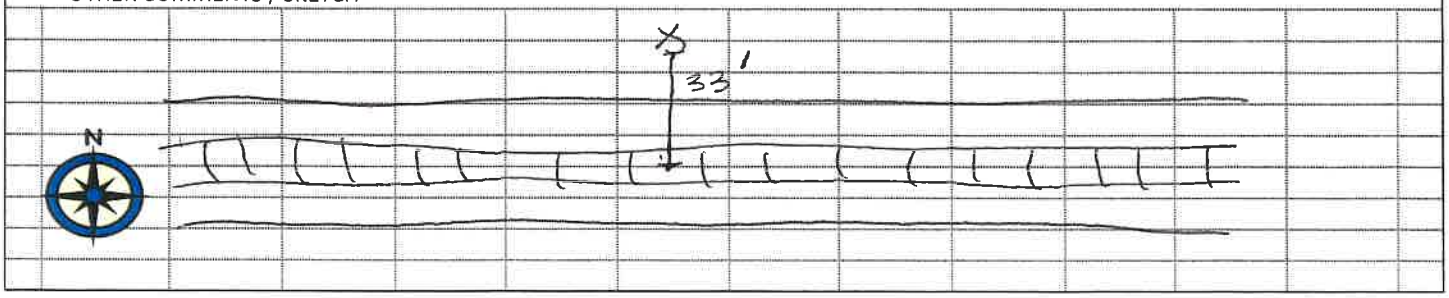
OTHER:

DESCRIPTION / SKETCH

TERRAIN (HARD) SOFT MIXED FLAT OTHER:

PHOTOS

OTHER COMMENTS / SKETCH



Attachment C

Construction Noise Modeling Data

To User: bordered cells are inputs, unbordered cells have formulae

FTA Recommended Limit (8 hour average) =	**80**
hours over which Leq is to be averaged =	8

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Lmax @ 50 ft. for quantify of equipment	Source to NSR Distance (ft.) [a]	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	front end loader	3	40	79	83.8	110	74.5	8	480	71
	concrete saw	1	20	90	90.0	110	80.8	8	480	74
					Total Lmax for phase:		**81.7**	**Total Leq 8hr for phase:**		**75.5**
Site Preparation	dozer	1	40	82	82.0	110	72.8	8	480	69
	front end loader	1	40	79	79.0	110	69.8	8	480	66
	grader	1	40	85	85.0	110	75.8	8	480	72
					Total Lmax for phase:		**78.2**	**Total Leq 8hr for phase:**		**74.2**
Grading	grader	1	40	85	85.0	110	75.8	8	480	72
	dozer	1	40	82	82.0	110	72.8	8	480	69
	front end loader	2	40	79	82.0	110	72.8	8	480	69
					Total Lmax for phase:		**78.8**	**Total Leq 8hr for phase:**		**74.8**
Hotel Construction	crane	1	16	81	81.0	110	71.8	8	480	64
	gradall	2	40	83	86.0	110	76.8	8	480	73
	generator	1	50	72	72.0	110	62.8	8	480	60
	backhoe	1	40	78	78.0	110	68.8	8	480	65
	welder / torch	3	40	73	77.8	110	68.5	8	480	65
					Total Lmax for phase:		**79.0**	**Total Leq 8hr for phase:**		**74.5**
Parking Lot 4 Construction	crane	1	16	81	81.0	285	61.5	8	480	54
	gradall	2	40	83	86.0	285	66.5	8	480	63
	generator	1	50	72	72.0	285	52.5	8	480	50
	backhoe	1	40	78	78.0	285	58.5	8	480	55
	welder / torch	3	40	73	77.8	285	58.3	8	480	54
					Total Lmax for phase:		**68.7**	**Total Leq 8hr for phase:**		**64.3**
Architectural Coating	compressor (air)	1	40	78	78.0	110	68.8	8	480	65
					Total Lmax for phase:		**68.8**			**64.8**
Paving - Lot 4	All Other Equipment > 5 HP	1	50	85	85.0	285	65.5	8	480	63
	paver	1	50	77	77.0	285	57.5	8	480	55
	backhoe	1	40	78	78.0	285	58.5	8	480	55
	concrete mixer truck	1	40	79	79.0	285	59.5	8	480	56
	roller	2	20	80	83.0	285	63.5	8	480	57
					Total Lmax for phase:		**69.0**	**Total Leq 8hr for phase:**		**65.0**

Footnotes:

[a] Source to Noise Sensitive Receiver (NSR) Distance is measured from the closest construction zone boundary of a given Project construction phase to the location of the identified residential receiver. This distance represents equipment working along that construction boundary (worst-case noise exposure at the NSR); average noise levels would be lower, given equipment would be distributed across the site at various distances while construction is carried out over that phase.

To User: bordered cells are inputs, unbordered cells have formulae

FTA Recommended Limit (8 hour average) =	**80**
hours over which Leq is to be averaged =	8

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Lmax @ 50 ft. for quantify of equipment	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	front end loader	3	40	79	83.8	100	75.7	8	480	72
	concrete saw	1	20	90	90.0	100	82.0	8	480	75
					Total Lmax for phase:		**82.9**	**Total Leq 8hr for phase:**		**76.7**
Site Preparation	dozer	1	40	82	82.0	100	74.0	8	480	70
	front end loader	1	40	79	79.0	100	71.0	8	480	67
	grader	1	40	85	85.0	100	77.0	8	480	73
					Total Lmax for phase:		**79.4**	**Total Leq 8hr for phase:**		**75.4**
Grading	grader	1	40	85	85.0	100	77.0	8	480	73
	dozer	1	40	82	82.0	100	74.0	8	480	70
	front end loader	2	40	79	82.0	100	74.0	8	480	70
					Total Lmax for phase:		**80.0**	**Total Leq 8hr for phase:**		**76.0**
Hotel Construction	crane	1	16	81	81.0	100	73.0	8	480	65
	gradall	2	40	83	86.0	100	78.0	8	480	74
	generator	1	50	72	72.0	100	64.0	8	480	61
	backhoe	1	40	78	78.0	100	70.0	8	480	66
	welder / torch	3	40	73	77.8	100	69.7	8	480	66
					Total Lmax for phase:		**80.2**	**Total Leq 8hr for phase:**		**75.7**
Parking Lot 4 Construction	crane	1	16	81	81.0	260	62.4	8	480	54
	gradall	2	40	83	86.0	260	67.4	8	480	63
	generator	1	50	72	72.0	260	53.4	8	480	50
	backhoe	1	40	78	78.0	260	59.4	8	480	55
	welder / torch	3	40	73	77.8	260	59.2	8	480	55
					Total Lmax for phase:		**69.7**	**Total Leq 8hr for phase:**		**65.2**
Architectural Coating	compressor (air)	1	40	78	78.0	100	70.0	8	480	66
					Total Lmax for phase:		**70.0**			**66.0**
Paving - Lot 4	All Other Equipment > 5 HP	1	50	85	85.0	260	66.4	8	480	63
	paver	1	50	77	77.0	260	58.4	8	480	55
	backhoe	1	40	78	78.0	260	59.4	8	480	55
	concrete mixer truck	1	40	79	79.0	260	60.4	8	480	56
	roller	2	20	80	83.0	260	64.4	8	480	57
					Total Lmax for phase:		**69.9**	**Total Leq 8hr for phase:**		**65.9**

Footnotes:

[a] Source to Noise Sensitive Receiver (NSR) Distance is measured from the closest construction zone boundary of a given Project construction phase to the location of the identified residential receiver. This distance represents equipment working along that construction boundary (worst-case noise exposure at the NSR); average noise levels would be lower, given equipment would be distributed across the site at various distances while construction is carried out over that phase.

To User: bordered cells are inputs, unbordered cells have formulae

FTA Recommended Limit (8 hour average) =	**80**
hours over which Leq is to be averaged =	8

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Lmax @ 50 ft. for quantify of equipment	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	front end loader	3	40	79	83.8	220	66.9	8	480	63
	concrete saw	1	20	90	90.0	220	73.1	8	480	66
					Total Lmax for phase:		**74.0**	**Total Leq 8hr for phase:**		**67.8**
Site Preparation	dozer	1	40	82	82.0	220	65.1	8	480	61
	front end loader	1	40	79	79.0	220	62.1	8	480	58
	grader	1	40	85	85.0	220	68.1	8	480	64
					Total Lmax for phase:		**70.6**	**Total Leq 8hr for phase:**		**66.6**
Grading	grader	1	40	85	85.0	220	68.1	8	480	64
	dozer	1	40	82	82.0	220	65.1	8	480	61
	front end loader	2	40	79	82.0	220	65.1	8	480	61
					Total Lmax for phase:		**71.1**	**Total Leq 8hr for phase:**		**67.2**
Hotel Construction	crane	1	16	81	81.0	220	64.1	8	480	56
	gradall	2	40	83	86.0	220	69.1	8	480	65
	generator	1	50	72	72.0	220	55.1	8	480	52
	backhoe	1	40	78	78.0	220	61.1	8	480	57
	welder / torch	3	40	73	77.8	220	60.9	8	480	57
					Total Lmax for phase:		**71.3**	**Total Leq 8hr for phase:**		**66.9**
Parking Lot 4 Construction	crane	1	16	81	81.0	20	88.9	8	480	81
	gradall	2	40	83	86.0	20	93.9	8	480	90
	generator	1	50	72	72.0	20	79.9	8	480	77
	backhoe	1	40	78	78.0	20	85.9	8	480	82
	welder / torch	3	40	73	77.8	20	85.6	8	480	82
					Total Lmax for phase:		**96.1**	**Total Leq 8hr for phase:**		**91.6**
Architectural Coating	compressor (air)	1	40	78	78.0	220	61.1	8	480	57
					Total Lmax for phase:		**61.1**			**57.1**
Paving - Lot 4	All Other Equipment > 5 HP	1	50	85	85.0	20	92.9	8	480	90
	paver	1	50	77	77.0	20	84.9	8	480	82
	backhoe	1	40	78	78.0	20	85.9	8	480	82
	concrete mixer truck	1	40	79	79.0	20	86.9	8	480	83
	roller	2	20	80	83.0	20	90.9	8	480	84
					Total Lmax for phase:		**96.4**	**Total Leq 8hr for phase:**		**92.3**

Footnotes:

[a] Source to Noise Sensitive Receiver (NSR) Distance is measured from the closest construction zone boundary of a given Project construction phase to the location of the identified residential receiver. This distance represents equipment working along that construction boundary (worst-case noise exposure at the NSR); average noise levels would be lower, given equipment would be distributed across the site at various distances while construction is carried out over that phase.

To User: bordered cells are inputs, unbordered cells have formulae

FTA Recommended Limit (8 hour average) = **80**
hours over which Leq is to be averaged = 8

0 = temporary barrier (TB) of input height inserted between source and receptor

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Lmax @ 50 ft. for quantify of equipment	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq	Source Elevation (ft)	Receiver Elevation (ft)	Barrier Height (ft)	Source to Barr. ("A") Horiz. (ft)	Rcvr. to Barr. ("B") Horiz. (ft)	Source to Rcvr. ("C") Horiz. (ft)	"A" (ft)	"B" (ft)	"C" (ft)	Path Length Diff. "P" (ft)	Abarr (dB)	Heff (with barrier)	Heff (wout barrier)	G (with barrier)	G (without barrier)	ILbarr (dB)
Demolition	front end loader	3	40	79	83.8	220	66.9	8	480	63	6	5	0	210	10	220	210.1	11.2	220.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	concrete saw	1	20	90	90.0	220	73.1	8	480	66	6	5	0	210	10	220	210.1	11.2	220.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
					Total Lmax for phase:		**74.0**	**Total Leq 8hr for phase:**		**67.8**																
Site Preparation	dozer	1	40	82	82.0	220	65.1	8	480	61	6	5	0	210	10	220	210.1	11.2	220.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	front end loader	1	40	79	79.0	220	62.1	8	480	58	6	5	0	210	10	220	210.1	11.2	220.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	grader	1	40	85	85.0	220	68.1	8	480	64	6	5	0	210	10	220	210.1	11.2	220.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
					Total Lmax for phase:		**70.6**	**Total Leq 8hr for phase:**		**66.6**																
Grading	grader	1	40	85	85.0	220	68.1	8	480	64	6	5	0	210	10	220	210.1	11.2	220.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	dozer	1	40	82	82.0	220	65.1	8	480	61	6	5	0	210	10	220	210.1	11.2	220.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	front end loader	2	40	79	82.0	220	65.1	8	480	61	6	5	0	210	10	220	210.1	11.2	220.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
					Total Lmax for phase:		**71.1**	**Total Leq 8hr for phase:**		**67.2**																
Hotel Construction	crane	1	16	81	81.0	220	64.1	8	480	56	6	5	0	210	10	220	210.1	11.2	220.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	gradall	2	40	83	86.0	220	69.1	8	480	65	6	5	0	210	10	220	210.1	11.2	220.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	generator	1	50	72	72.0	220	55.1	8	480	52	6	5	0	210	10	220	210.1	11.2	220.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	backhoe	1	40	78	78.0	220	61.1	8	480	57	6	5	0	210	10	220	210.1	11.2	220.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	welder / torch	3	40	73	77.8	220	60.9	8	480	57	6	5	0	210	10	220	210.1	11.2	220.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
					Total Lmax for phase:		**71.3**	**Total Leq 8hr for phase:**		**66.9**																
Parking Lot 4 Construction	crane	1	16	81	81.0	20	73.2	8	480	65	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
	gradall	2	40	83	86.0	20	78.2	8	480	74	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
	generator	1	50	72	72.0	20	64.2	8	480	61	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
	backhoe	1	40	78	78.0	20	70.2	8	480	66	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
	welder / torch	3	40	73	77.8	20	70.0	8	480	66	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
					Total Lmax for phase:		**80.4**	**Total Leq 8hr for phase:**		**76.0**																
Architectural Coating	compressor (air)	1	40	78	78.0	220	61.1	8	480	57	6	5	0	210	10	220	210.1	11.2	220.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
					Total Lmax for phase:		**61.1**			**57.1**																
Paving - Lot 4	All Other Equipment > 5 HP	1	50	85	85.0	20	77.2	8	480	74	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
	paver	1	50	77	77.0	20	69.2	8	480	66	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
	backhoe	1	40	78	78.0	20	70.2	8	480	66	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
	concrete mixer truck	1	40	79	79.0	20	71.2	8	480	67	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
	roller	2	20	80	83.0	20	75.2	8	480	68	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
					Total Lmax for phase:		**80.7**	**Total Leq 8hr for phase:**		**76.7**																

Footnotes:

[a] Source to Noise Sensitive Receiver (NSR) Distance is measured from the closest construction zone boundary of a given Project construction phase to the location of the identified residential receiver. This distance represents equipment working along that construction boundary (worst-case noise exposure at the NSR); average noise levels would be lower, given equipment would be distributed across the site at various distances while construction is carried out over that phase.

To User: bordered cells are inputs, unbordered cells have formulae

FTA Recommended Limit (8 hour average) = 80
hours over which Leq is to be averaged = 8

10 = temporary barrier (TB) of input height inserted between source and receptor

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Lmax @ 50 ft. for quantify of equipment	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq	Source Elevation (ft)	Receiver Elevation (ft)	Barrier Height (ft)	Source to Barr. ("A") Horiz. (ft)	Rcvr. to Barr. ("B") Horiz. (ft)	Source to Rcvr. ("C") Horiz. (ft)	"A" (ft)	"B" (ft)	"C" (ft)	Path Length Diff. "P" (ft)	Abarr (dB)	Heff (with barrier)	Heff (wout barrier)	G (with barrier)	G (without barrier)	ILbarr (dB)
Demolition	front end loader	3	40	79	83.8	220	54.3	8	480	50	6	5	10	210	10	220	210.0	11.2	220.0	1.22	13.8	15.5	5.5	0.5	0.7	12.7
	concrete saw	1	20	90	90.0	220	60.5	8	480	53	6	5	10	210	10	220	210.0	11.2	220.0	1.22	13.8	15.5	5.5	0.5	0.7	12.7
					Total Lmax for phase:		**61.4**	**Total Leq 8hr for phase:**		**55.2**																
Site Preparation	dozer	1	40	82	82.0	220	52.5	8	480	49	6	5	10	210	10	220	210.0	11.2	220.0	1.22	13.8	15.5	5.5	0.5	0.7	12.7
	front end loader	1	40	79	79.0	220	49.5	8	480	46	6	5	10	210	10	220	210.0	11.2	220.0	1.22	13.8	15.5	5.5	0.5	0.7	12.7
	grader	1	40	85	85.0	220	55.5	8	480	52	6	5	10	210	10	220	210.0	11.2	220.0	1.22	13.8	15.5	5.5	0.5	0.7	12.7
					Total Lmax for phase:		**57.9**	**Total Leq 8hr for phase:**		**53.9**																
Grading	grader	1	40	85	85.0	220	55.5	8	480	52	6	5	10	210	10	220	210.0	11.2	220.0	1.22	13.8	15.5	5.5	0.5	0.7	12.7
	dozer	1	40	82	82.0	220	52.5	8	480	49	6	5	10	210	10	220	210.0	11.2	220.0	1.22	13.8	15.5	5.5	0.5	0.7	12.7
	front end loader	2	40	79	82.0	220	52.5	8	480	49	6	5	10	210	10	220	210.0	11.2	220.0	1.22	13.8	15.5	5.5	0.5	0.7	12.7
					Total Lmax for phase:		**58.5**	**Total Leq 8hr for phase:**		**54.5**																
Hotel Construction	crane	1	16	81	81.0	220	51.5	8	480	44	6	5	10	210	10	220	210.0	11.2	220.0	1.22	13.8	15.5	5.5	0.5	0.7	12.7
	gradall	2	40	83	86.0	220	56.5	8	480	53	6	5	10	210	10	220	210.0	11.2	220.0	1.22	13.8	15.5	5.5	0.5	0.7	12.7
	generator	1	50	72	72.0	220	42.5	8	480	39	6	5	10	210	10	220	210.0	11.2	220.0	1.22	13.8	15.5	5.5	0.5	0.7	12.7
	backhoe	1	40	78	78.0	220	48.5	8	480	45	6	5	10	210	10	220	210.0	11.2	220.0	1.22	13.8	15.5	5.5	0.5	0.7	12.7
	welder / torch	3	40	73	77.8	220	48.3	8	480	44	6	5	10	210	10	220	210.0	11.2	220.0	1.22	13.8	15.5	5.5	0.5	0.7	12.7
					Total Lmax for phase:		**58.7**	**Total Leq 8hr for phase:**		**54.2**																
Parking Lot 4 Construction	crane	1	16	81	81.0	20	73.2	8	480	65	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
	gradall	2	40	83	86.0	20	78.2	8	480	74	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
	generator	1	50	72	72.0	20	64.2	8	480	61	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
	backhoe	1	40	78	78.0	20	70.2	8	480	66	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
	welder / torch	3	40	73	77.8	20	70.0	8	480	66	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
					Total Lmax for phase:		**80.4**	**Total Leq 8hr for phase:**		**76.0**																
Architectural Coating	compressor (air)	1	40	78	78.0	220	48.5	8	480	45	6	5	10	210	10	220	210.0	11.2	220.0	1.22	13.8	15.5	5.5	0.5	0.7	12.7
					Total Lmax for phase:		**48.5**			**44.5**																
Paving - Lot 4	All Other Equipment > 5 HP	1	50	85	85.0	20	77.2	8	480	74	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
	paver	1	50	77	77.0	20	69.2	8	480	66	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
	backhoe	1	40	78	78.0	20	70.2	8	480	66	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
	concrete mixer truck	1	40	79	79.0	20	71.2	8	480	67	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
	roller	2	20	80	83.0	20	75.2	8	480	68	6	5	10	10	10	20	10.8	11.2	20.0	1.93	15.0	15.5	5.5	0.5	0.7	15.7
					Total Lmax for phase:		**80.7**	**Total Leq 8hr for phase:**		**76.7**																

Footnotes:

[a] Source to Noise Sensitive Receiver (NSR) Distance is measured from the closest construction zone boundary of a given Project construction phase to the location of the identified residential receiver. This distance represents equipment working along that construction boundary (worst-case noise exposure at the NSR); average noise levels would be lower, given equipment would be distributed across the site at various distances while construction is carried out over that phase.

To User: bordered cells are inputs, unbordered cells have formulae

FTA Recommended Limit (8 hour average) =	**80**
hours over which Leq is to be averaged =	8

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Lmax @ 50 ft. for quantify of equipment	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Demolition	front end loader	3	40	79	83.8	175	69.3	8	480	65
	concrete saw	1	20	90	90.0	175	75.5	8	480	69
					Total Lmax for phase:		**76.4**	**Total Leq 8hr for phase:**		**70.2**
Site Preparation	dozer	1	40	82	82.0	175	67.5	8	480	64
	front end loader	1	40	79	79.0	175	64.5	8	480	61
	grader	1	40	85	85.0	175	70.5	8	480	67
					Total Lmax for phase:		**72.9**	**Total Leq 8hr for phase:**		**69.0**
Grading	grader	1	40	85	85.0	175	70.5	8	480	67
	dozer	1	40	82	82.0	175	67.5	8	480	64
	front end loader	2	40	79	82.0	175	67.5	8	480	64
					Total Lmax for phase:		**73.5**	**Total Leq 8hr for phase:**		**69.5**
Hotel Construction	crane	1	16	81	81.0	175	66.5	8	480	59
	gradall	2	40	83	86.0	175	71.5	8	480	68
	generator	1	50	72	72.0	175	57.5	8	480	54
	backhoe	1	40	78	78.0	175	63.5	8	480	60
	welder / torch	3	40	73	77.8	175	63.3	8	480	59
					Total Lmax for phase:		**73.7**	**Total Leq 8hr for phase:**		**69.2**
Parking Lot 4 Construction	crane	1	16	81	81.0	25	86.9	8	480	79
	gradall	2	40	83	86.0	25	91.9	8	480	88
	generator	1	50	72	72.0	25	77.9	8	480	75
	backhoe	1	40	78	78.0	25	83.9	8	480	80
	welder / torch	3	40	73	77.8	25	83.7	8	480	80
					Total Lmax for phase:		**94.2**	**Total Leq 8hr for phase:**		**89.7**
Architectural Coating	compressor (air)	1	40	78	78.0	175	63.5	8	480	60
					Total Lmax for phase:		**63.5**			**59.5**
Paving - Lot 4	All Other Equipment > 5 HP	1	50	85	85.0	25	90.9	8	480	88
	paver	1	50	77	77.0	25	82.9	8	480	80
	backhoe	1	40	78	78.0	25	83.9	8	480	80
	concrete mixer truck	1	40	79	79.0	25	84.9	8	480	81
	roller	2	20	80	83.0	25	88.9	8	480	82
					Total Lmax for phase:		**94.4**	**Total Leq 8hr for phase:**		**90.4**

Footnotes:

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To User: bordered cells are inputs, unbordered cells have formulae

FTA Recommended Limit (8 hour average) = **80**

hours over which Leq is to be averaged = 8

0 = temporary barrier (TB) of input height inserted between source and receptor

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Lmax @ 50 ft. for quantify of equipment	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq	Source Elevation (ft)	Receiver Elevation (ft)	Barrier Height (ft)	Source to Barr. ("A") Horiz. (ft)	Rcvr. to Barr. ("B") Horiz. (ft)	Source to Rcvr. ("C") Horiz. (ft)	"A" (ft)	"B" (ft)	"C" (ft)	Path Length Diff. "P" (ft)	Abarr (dB)	Heff (with barrier)	Heff (wout barrier)	G (with barrier)	G (without barrier)	ILbarr (dB)
Demolition	front end loader	3	40	79	83.8	175	69.3	8	480	65	6	5	0	165	10	175	165.1	11.2	175.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	concrete saw	1	20	90	90.0	175	75.5	8	480	69	6	5	0	165	10	175	165.1	11.2	175.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
					Total Lmax for phase:		**76.4**	**Total Leq 8hr for phase:**		**70.2**																
Site Preparation	dozer	1	40	82	82.0	175	67.5	8	480	64	6	5	0	165	10	175	165.1	11.2	175.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	front end loader	1	40	79	79.0	175	64.5	8	480	61	6	5	0	165	10	175	165.1	11.2	175.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	grader	1	40	85	85.0	175	70.5	8	480	67	6	5	0	165	10	175	165.1	11.2	175.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
					Total Lmax for phase:		**72.9**	**Total Leq 8hr for phase:**		**69.0**																
Grading	grader	1	40	85	85.0	175	70.5	8	480	67	6	5	0	165	10	175	165.1	11.2	175.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	dozer	1	40	82	82.0	175	67.5	8	480	64	6	5	0	165	10	175	165.1	11.2	175.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	front end loader	2	40	79	82.0	175	67.5	8	480	64	6	5	0	165	10	175	165.1	11.2	175.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
					Total Lmax for phase:		**73.5**	**Total Leq 8hr for phase:**		**69.5**																
Hotel Construction	crane	1	16	81	81.0	175	66.5	8	480	59	6	5	0	165	10	175	165.1	11.2	175.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	gradall	2	40	83	86.0	175	71.5	8	480	68	6	5	0	165	10	175	165.1	11.2	175.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	generator	1	50	72	72.0	175	57.5	8	480	54	6	5	0	165	10	175	165.1	11.2	175.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	backhoe	1	40	78	78.0	175	63.5	8	480	60	6	5	0	165	10	175	165.1	11.2	175.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
	welder / torch	3	40	73	77.8	175	63.3	8	480	59	6	5	0	165	10	175	165.1	11.2	175.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
					Total Lmax for phase:		**73.7**	**Total Leq 8hr for phase:**		**69.2**																
Parking Lot 4 Construction	crane	1	16	81	81.0	25	71.5	8	480	63	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
	gradall	2	40	83	86.0	25	76.5	8	480	72	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
	generator	1	50	72	72.0	25	62.5	8	480	59	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
	backhoe	1	40	78	78.0	25	68.5	8	480	64	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
	welder / torch	3	40	73	77.8	25	68.2	8	480	64	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
					Total Lmax for phase:		**78.7**	**Total Leq 8hr for phase:**		**74.2**																
Architectural Coating	compressor (air)	1	40	78	78.0	175	63.5	8	480	60	6	5	0	165	10	175	165.1	11.2	175.0	0.00	0.1	5.5	5.5	0.7	0.7	0.1
					Total Lmax for phase:		**63.5**			**59.5**																
Paving - Lot 4	All Other Equipment > 5 HP	1	50	85	85.0	25	75.5	8	480	72	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
	paver	1	50	77	77.0	25	67.5	8	480	64	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
	backhoe	1	40	78	78.0	25	68.5	8	480	64	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
	concrete mixer truck	1	40	79	79.0	25	69.5	8	480	65	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
	roller	2	20	80	83.0	25	73.5	8	480	66	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
					Total Lmax for phase:		**79.0**	**Total Leq 8hr for phase:**		**74.9**																

Footnotes:

[a] Source to Noise Sensitive Receiver (NSR) Distance is measured from the closest construction zone boundary of a given Project construction phase to the location of the identified residential receiver. This distance represents equipment working along that construction boundary (worst-case noise exposure at the NSR); average noise levels would be lower, given equipment would be distributed across the site at various distances while construction is carried out over that phase.

To User: bordered cells are inputs, unbordered cells have formulae

FTA Recommended Limit (8 hour average) = 80
hours over which Leq is to be averaged = 8

10 = temporary barrier (TB) of input height inserted between source and receptor

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Lmax @ 50 ft. for quantify of equipment	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq	Source Elevation (ft)	Receiver Elevation (ft)	Barrier Height (ft)	Source to Barr. ("A") Horiz. (ft)	Rcvr. to Barr. ("B") Horiz. (ft)	Source to Rcvr. ("C") Horiz. (ft)	"A" (ft)	"B" (ft)	"C" (ft)	Path Length Diff. "P" (ft)	Abarr (dB)	Heff (with barrier)	Heff (wout barrier)	G (with barrier)	G (without barrier)	ILbarr (dB)
Demolition	front end loader	3	40	79	83.8	175	56.4	8	480	52	6	5	10	165	10	175	165.0	11.2	175.0	1.23	13.9	15.5	5.5	0.5	0.7	12.9
	concrete saw	1	20	90	90.0	175	62.7	8	480	56	6	5	10	165	10	175	165.0	11.2	175.0	1.23	13.9	15.5	5.5	0.5	0.7	12.9
					Total Lmax for phase:		**63.6**		**Total Leq 8hr for phase:**	**57.4**																
Site Preparation	dozer	1	40	82	82.0	175	54.7	8	480	51	6	5	10	165	10	175	165.0	11.2	175.0	1.23	13.9	15.5	5.5	0.5	0.7	12.9
	front end loader	1	40	79	79.0	175	51.7	8	480	48	6	5	10	165	10	175	165.0	11.2	175.0	1.23	13.9	15.5	5.5	0.5	0.7	12.9
	grader	1	40	85	85.0	175	57.7	8	480	54	6	5	10	165	10	175	165.0	11.2	175.0	1.23	13.9	15.5	5.5	0.5	0.7	12.9
					Total Lmax for phase:		**60.1**		**Total Leq 8hr for phase:**	**56.1**																
Grading	grader	1	40	85	85.0	175	57.7	8	480	54	6	5	10	165	10	175	165.0	11.2	175.0	1.23	13.9	15.5	5.5	0.5	0.7	12.9
	dozer	1	40	82	82.0	175	54.7	8	480	51	6	5	10	165	10	175	165.0	11.2	175.0	1.23	13.9	15.5	5.5	0.5	0.7	12.9
	front end loader	2	40	79	82.0	175	54.7	8	480	51	6	5	10	165	10	175	165.0	11.2	175.0	1.23	13.9	15.5	5.5	0.5	0.7	12.9
					Total Lmax for phase:		**60.7**		**Total Leq 8hr for phase:**	**56.7**																
Hotel Construction	crane	1	16	81	81.0	175	53.7	8	480	46	6	5	10	165	10	175	165.0	11.2	175.0	1.23	13.9	15.5	5.5	0.5	0.7	12.9
	gradall	2	40	83	86.0	175	58.7	8	480	55	6	5	10	165	10	175	165.0	11.2	175.0	1.23	13.9	15.5	5.5	0.5	0.7	12.9
	generator	1	50	72	72.0	175	44.7	8	480	42	6	5	10	165	10	175	165.0	11.2	175.0	1.23	13.9	15.5	5.5	0.5	0.7	12.9
	backhoe	1	40	78	78.0	175	50.7	8	480	47	6	5	10	165	10	175	165.0	11.2	175.0	1.23	13.9	15.5	5.5	0.5	0.7	12.9
	welder / torch	3	40	73	77.8	175	50.4	8	480	46	6	5	10	165	10	175	165.0	11.2	175.0	1.23	13.9	15.5	5.5	0.5	0.7	12.9
					Total Lmax for phase:		**60.9**		**Total Leq 8hr for phase:**	**56.4**																
Parking Lot 4 Construction	crane	1	16	81	81.0	25	71.5	8	480	63	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
	gradall	2	40	83	86.0	25	76.5	8	480	72	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
	generator	1	50	72	72.0	25	62.5	8	480	59	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
	backhoe	1	40	78	78.0	25	68.5	8	480	64	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
	welder / torch	3	40	73	77.8	25	68.2	8	480	64	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
					Total Lmax for phase:		**78.7**		**Total Leq 8hr for phase:**	**74.2**																
Architectural Coating	compressor (air)	1	40	78	78.0	175	50.7	8	480	47	6	5	10	165	10	175	165.0	11.2	175.0	1.23	13.9	15.5	5.5	0.5	0.7	12.9
					Total Lmax for phase:		**50.7**			**46.7**																
Paving - Lot 4	All Other Equipment > 5 HP	1	50	85	85.0	25	75.5	8	480	72	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
	paver	1	50	77	77.0	25	67.5	8	480	64	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
	backhoe	1	40	78	78.0	25	68.5	8	480	64	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
	concrete mixer truck	1	40	79	79.0	25	69.5	8	480	65	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
	roller	2	20	80	83.0	25	73.5	8	480	66	6	5	10	15	10	25	15.5	11.2	25.0	1.68	15.0	15.5	5.5	0.5	0.7	15.5
					Total Lmax for phase:		**79.0**		**Total Leq 8hr for phase:**	**74.9**																

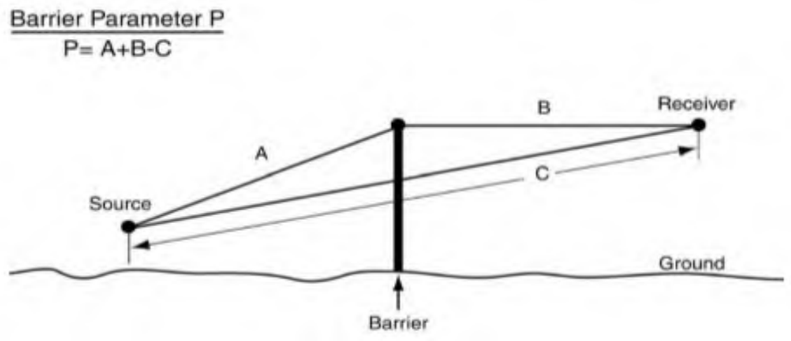
Footnotes:

[a] Source to Noise Sensitive Receiver (NSR) Distance is measured from the closest construction zone boundary of a given Project construction phase to the location of the identified residential receiver. This distance represents equipment working along that construction boundary (worst-case noise exposure at the NSR); average noise levels would be lower, given equipment would be distributed across the site at various distances while construction is carried out over that phase.

Equipment Description	Impact Device?	Acoustical Use Factor (%)	Lesser of or available Lmax	Spec. 721 Lmax	Measured L_{max} @50ft (dBA, slow)
All Other Equipment > 5 HP	No	50	85	85	-- N/A --
Auger Drill Rig	No	20	84	85	84
Backhoe	No	40	78	80	78
Bar Bender	No	20	80	80	-- N/A --
Blasting	Yes	-- N/A --	94	94	-- N/A --
Boring Jack Power Unit	No	50	80	80	83
Chain Saw	No	20	84	85	84
Clam Shovel (dropping)	Yes	20	87	93	87
Compactor (ground)	No	20	80	80	83
Compressor (air)	No	40	78	80	78
Concrete Batch Plant	No	15	83	83	-- N/A --
Concrete Mixer Truck	No	40	79	85	79
Concrete Pump Truck	No	20	81	82	81
Concrete Saw	No	20	90	90	90
Crane	No	16	81	85	81
Dozer	No	40	82	85	82
Drill Rig Truck	No	20	79	84	79
Drum Mixer	No	50	80	80	80
Dump Truck	No	40	76	84	76
Excavator	No	40	81	85	81
Flat Bed Truck	No	40	74	84	74
Front End Loader	No	40	79	80	79
Generator	No	50	72	72	81
Generator (<25KVA, VMS signs)	No	50	70	70	73
Gradall	No	40	83	85	83
Grader	No	40	85	85	-- N/A --
Grapple (on backhoe)	No	40	85	85	87
Horizontal Boring Hydr. Jack	No	25	80	80	82
Hydra Break Ram	Yes	10	90	90	-- N/A --
Impact Pile Driver	Yes	20	95	95	101
Jackhammer	Yes	20	85	85	89
Man Lift	No	20	75	85	75
Mounted Impact Hammer (hoe ram)	Yes	20	90	90	90
Pavement Scarafier	No	20	85	85	90
Paver	No	50	77	85	77
Pickup Truck	No	40	55	55	75
Pneumatic Tools	No	50	85	85	85
Pumps	No	50	77	77	81
Refrigerator Unit	No	100	73	82	73
Rivit Buster/chipping gun	Yes	20	79	85	79
Rock Drill	No	20	81	85	81
Roller	No	20	80	85	80
Sand Blasting (Single Nozzle)	No	20	85	85	96
Scraper	No	40	84	85	84
Shears (on backhoe)	No	40	85	85	96
Slurry Plant	No	100	78	78	78
Slurry Trenching Machine	No	50	80	82	80
Soil Mix Drill Rig	No	50	80	80	-- N/A --
Tractor	No	40	84	84	-- N/A --
Vacuum Excavator (Vac-truck)	No	40	85	85	85
Vacuum Street Sweeper	No	10	80	80	82
Ventilation Fan	No	100	79	85	79
Vibrating Hopper	No	50	85	85	87
Vibratory Concrete Mixer	No	20	80	80	80
Vibratory Pile Driver	No	20	95	95	101
Warning Horn	No	5	83	85	83
Welder / Torch	No	40	73	73	74

$Source_{elev}$	5.0	A_{horiz}	24.0	A	25.0
$Receiver_{elev}$	10.0	B_{horiz}	38.0	B	38.1
C	62.2	C_{horiz}	62.0		
P	0.85				
$Barrier_{elev}$	12				
Abarr	12.3				

The above calculations, refering to inputs from the figure at right, helps a user estimate what barrier attenuation (Abarr) to expect (i.e., up to 15 per formula to right) based upon source height (above grade), barrier height, and receiver height, and the horizontal distances between the source and receiver to the barrier. The FTA-based formula in the worksheets use these path length (P) and Abarr values to determine the barrier's insertion loss.



For all other barriers, and for protrusion of terrain above the line of sight:	$A_{barrier} = \min\left\{15 or\left[20\times\log\left(\frac{2.51\sqrt{P}}{\tanh\left[4.46\sqrt{P}\right]}\right)+5\right]\right\}$
Barrier Insertion Loss	$IL_{barrier} = \max\left\{0 or\left[A_{barrier} - 10(G_{NB} - G_B)\log\left(\frac{D}{50}\right)\right]\right\}$

D = closest distance between the receiver and the source, in feet
P = path length difference, in feet (see figure below)
G_{NB} = Ground factor G computed *without barrier* (see Figure 6-5)
G_B = Ground factor G computed *with barrier* (see Figure 6-5)

† The term "tanh(variable)" stands for hyperbolic tangent, available on many scientific calculators. If "tanh" is not available, then compute E = exp(variable), and set tanh(variable) = (E - 1/E) / (E + 1/E), where exp(variable) is the "exponential" function, also written as e^x on calculator keypads.

Sources: Transit Noise & Vibration Impact Assessment (FTA 2006)

Attachment D

Traffic Noise Modeling Data

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	Linden Avenue Below 5th St.	DATE:	3/1/2024
Scenario:	**Calibration**	BY:	J. Leech

ADT	1,180			PK HR VOL	118
SPEED	40				
PK HR %	10				
DIST CTL	35				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		30.4
DIST WALL	0		MED TRUCK SLE DIST		30.1
DIST W/OB	35		HVY TRUCK SLE DIST		30.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.8300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0760
HEAVY TRUCKS	0.891	0.028	0.081	0.0940

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	56.1	54.2	52.4	46.4	55.6
MEDIUM TRUCKS	57.0	55.6	49.3	46.2	55.7
HEAVY TRUCKS	63.2	61.9	53.0	52.7	61.9
VEHICULAR NOISE	**64.8**	63.4	56.6	54.4	63.6

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	Linden Avenue Below 5th St.	DATE:	3/1/2024
Scenario:	**Existing**	BY:	J. Leech

ADT	4,447			PK HR VOL	445
SPEED	40				
PK HR %	10				
DIST CTL	35				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		30.4
DIST WALL	0		MED TRUCK SLE DIST		30.1
DIST W/OB	35		HVY TRUCK SLE DIST		30.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.8300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0760
HEAVY TRUCKS	0.891	0.028	0.081	0.0940

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	61.9	60.0	58.2	52.2	61.4
MEDIUM TRUCKS	62.8	61.4	55.0	52.0	61.5
HEAVY TRUCKS	69.0	67.7	58.7	58.5	67.7
VEHICULAR NOISE	**70.5**	69.2	62.4	60.1	69.4

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	Linden Avenue Below 5th St.	DATE:	3/1/2024
Scenario:	**Existing Plus Project**	BY:	J. Leech

ADT	4,732			PK HR VOL	473
SPEED	40				
PK HR %	10				
DIST CTL	35				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		30.4
DIST WALL	0		MED TRUCK SLE DIST		30.1
DIST W/OB	35		HVY TRUCK SLE DIST		30.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.8300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0760
HEAVY TRUCKS	0.891	0.028	0.081	0.0940

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	62.2	60.2	58.4	52.4	61.6
MEDIUM TRUCKS	63.0	61.7	55.3	52.3	61.8
HEAVY TRUCKS	69.2	67.9	59.0	58.8	68.0
VEHICULAR NOISE	**70.8**	69.4	62.6	60.4	69.6

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	Linden Avenue Below 5th St.	DATE:	3/1/2024
Scenario:	**Cumulative Traffic**	BY:	J. Leech

ADT	4,529			PK HR VOL	453
SPEED	40				
PK HR %	10				
DIST CTL	35				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		30.4
DIST WALL	0		MED TRUCK SLE DIST		30.1
DIST W/OB	35		HVY TRUCK SLE DIST		30.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.8300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0760
HEAVY TRUCKS	0.891	0.028	0.081	0.0940

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	62.0	60.0	58.2	52.2	61.5
MEDIUM TRUCKS	62.9	61.5	55.1	52.1	61.6
HEAVY TRUCKS	69.0	67.8	58.8	58.6	67.8
VEHICULAR NOISE	**70.6**	69.2	62.4	60.2	69.5

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	Linden Avenue Below 5th St.	DATE:	3/1/2024
Scenario:	**Cumulative Traffic + Project**	BY:	J. Leech

ADT	4,814			PK HR VOL	481
SPEED	40				
PK HR %	10				
DIST CTL	35				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		30.4
DIST WALL	0		MED TRUCK SLE DIST		30.1
DIST W/OB	35		HVY TRUCK SLE DIST		30.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.8300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0760
HEAVY TRUCKS	0.891	0.028	0.081	0.0940

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	62.2	60.3	58.5	52.5	61.7
MEDIUM TRUCKS	63.1	61.7	55.4	52.3	61.8
HEAVY TRUCKS	69.3	68.0	59.1	58.8	68.0
VEHICULAR NOISE	**70.9**	69.5	62.7	60.5	69.7

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	Linden Avenue Below 5th St.	DATE:	3/1/2024
Scenario:	**Cumulative Traffic + Project @ Decks**	BY:	J. Leech

ADT	4,814			PK HR VOL	481
SPEED	40				
PK HR %	10				
DIST CTL	95				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		93.4
DIST WALL	0		MED TRUCK SLE DIST		93.3
DIST W/OB	95		HVY TRUCK SLE DIST		93.3
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.8300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0760
HEAVY TRUCKS	0.891	0.028	0.081	0.0940

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	54.9	53.0	51.2	45.2	54.4
MEDIUM TRUCKS	55.8	54.4	48.0	45.0	54.5
HEAVY TRUCKS	62.0	60.7	51.7	51.5	60.7
VEHICULAR NOISE	**63.5**	62.1	55.4	53.1	62.4

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	Linden Avenue at Sawyer	DATE:	3/1/2024
Scenario:	**Existing**	BY:	J. Leech

ADT	7,767			PK HR VOL	777
SPEED	40				
PK HR %	10				
DIST CTL	35				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		30.4
DIST WALL	0		MED TRUCK SLE DIST		30.1
DIST W/OB	35		HVY TRUCK SLE DIST		30.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.8300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0760
HEAVY TRUCKS	0.891	0.028	0.081	0.0940

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	64.3	62.4	60.6	54.6	63.8
MEDIUM TRUCKS	65.2	63.8	57.5	54.4	63.9
HEAVY TRUCKS	71.4	70.1	61.2	60.9	70.1
VEHICULAR NOISE	**73.0**	71.6	64.8	62.5	71.8

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	Linden Avenue at Sawyer	DATE:	3/1/2024
Scenario:	**Existing Plus Project**	BY:	J. Leech

ADT	8,016			PK HR VOL	802
SPEED	40				
PK HR %	10				
DIST CTL	35				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		30.4
DIST WALL	0		MED TRUCK SLE DIST		30.1
DIST W/OB	35		HVY TRUCK SLE DIST		30.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.8300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0760
HEAVY TRUCKS	0.891	0.028	0.081	0.0940

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	64.4	62.5	60.7	54.7	63.9
MEDIUM TRUCKS	65.3	64.0	57.6	54.6	64.0
HEAVY TRUCKS	71.5	70.2	61.3	61.0	70.2
VEHICULAR NOISE	**73.1**	71.7	64.9	62.7	71.9

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	Linden Avenue at Sawyer	DATE:	3/1/2024
Scenario:	**Cumulative Traffic**	BY:	J. Leech

ADT	8,120			PK HR VOL	812
SPEED	40				
PK HR %	10				
DIST CTL	35				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		30.4
DIST WALL	0		MED TRUCK SLE DIST		30.1
DIST W/OB	35		HVY TRUCK SLE DIST		30.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.8300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0760
HEAVY TRUCKS	0.891	0.028	0.081	0.0940

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	64.5	62.6	60.8	54.8	64.0
MEDIUM TRUCKS	65.4	64.0	57.6	54.6	64.1
HEAVY TRUCKS	71.6	70.3	61.3	61.1	70.3
VEHICULAR NOISE	**73.2**	71.8	65.0	62.7	72.0

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	Linden Avenue at Sawyer	DATE:	3/1/2024
Scenario:	**Cumulative Traffic + Project**	BY:	J. Leech

ADT	8,369			PK HR VOL	837
SPEED	40				
PK HR %	10				
DIST CTL	35				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		30.4
DIST WALL	0		MED TRUCK SLE DIST		30.1
DIST W/OB	35		HVY TRUCK SLE DIST		30.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.8300
MEDIUM TRUCKS	0.874	0.051	0.075	0.0760
HEAVY TRUCKS	0.891	0.028	0.081	0.0940

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	64.6	62.7	60.9	54.9	64.1
MEDIUM TRUCKS	65.5	64.1	57.8	54.7	64.2
HEAVY TRUCKS	71.7	70.4	61.5	61.2	70.4
VEHICULAR NOISE	**73.3**	71.9	65.1	62.9	72.1

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	5th Street West of Linden	DATE:	3/1/2024
Scenario:	**Calibration**	BY:	J. Leech

ADT	360			PK HR VOL	36
SPEED	30				
PK HR %	10				
DIST CTL	25				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		18.1
DIST WALL	0		MED TRUCK SLE DIST		17.6
DIST W/OB	25		HVY TRUCK SLE DIST		17.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9900
MEDIUM TRUCKS	0.874	0.051	0.075	0.0080
HEAVY TRUCKS	0.891	0.028	0.081	0.0020

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	51.6	49.7	47.9	41.9	51.1
MEDIUM TRUCKS	42.6	41.2	34.9	31.8	41.3
HEAVY TRUCKS	43.0	41.7	32.8	32.5	41.7
VEHICULAR NOISE	**52.6**	50.8	48.2	42.7	52.0

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	5th Street West of Linden	DATE:	3/1/2024
Scenario:	**Existing**	BY:	J. Leech

ADT	713			PK HR VOL	71
SPEED	30				
PK HR %	10				
DIST CTL	25				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		18.1
DIST WALL	0		MED TRUCK SLE DIST		17.6
DIST W/OB	25		HVY TRUCK SLE DIST		17.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9900
MEDIUM TRUCKS	0.874	0.051	0.075	0.0080
HEAVY TRUCKS	0.891	0.028	0.081	0.0020

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	54.6	52.7	50.9	44.9	54.1
MEDIUM TRUCKS	45.6	44.2	37.8	34.8	44.3
HEAVY TRUCKS	46.0	44.7	35.7	35.5	44.7
VEHICULAR NOISE	**55.6**	53.8	51.2	45.7	54.9

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	5th Street West of Linden	DATE:	3/1/2024
Scenario:	**Existing + Project**	BY:	J. Leech

ADT	1,012			PK HR VOL	101
SPEED	30				
PK HR %	10				
DIST CTL	25				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		18.1
DIST WALL	0		MED TRUCK SLE DIST		17.6
DIST W/OB	25		HVY TRUCK SLE DIST		17.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9900
MEDIUM TRUCKS	0.874	0.051	0.075	0.0080
HEAVY TRUCKS	0.891	0.028	0.081	0.0020

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	56.1	54.2	52.4	46.4	55.6
MEDIUM TRUCKS	47.1	45.7	39.4	36.3	45.8
HEAVY TRUCKS	47.5	46.2	37.3	37.0	46.2
VEHICULAR NOISE	**57.1**	55.3	52.7	47.2	56.5

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	5th Street West of Linden	DATE:	3/1/2024
Scenario:	**Cumulative Traffic**	BY:	J. Leech

ADT	743			PK HR VOL	74
SPEED	30				
PK HR %	10				
DIST CTL	25				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		18.1
DIST WALL	0		MED TRUCK SLE DIST		17.6
DIST W/OB	25		HVY TRUCK SLE DIST		17.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9900
MEDIUM TRUCKS	0.874	0.051	0.075	0.0080
HEAVY TRUCKS	0.891	0.028	0.081	0.0020

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	54.8	52.8	51.0	45.1	54.3
MEDIUM TRUCKS	45.8	44.4	38.0	35.0	44.5
HEAVY TRUCKS	46.2	44.9	35.9	35.7	44.9
VEHICULAR NOISE	**55.8**	54.0	51.4	45.9	55.1

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	5th Street West of Linden	DATE:	3/1/2024
Scenario:	**Cumulative Traffic + Project**	BY:	J. Leech

ADT	1,042			PK HR VOL	104
SPEED	30				
PK HR %	10				
DIST CTL	25				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		18.1
DIST WALL	0		MED TRUCK SLE DIST		17.6
DIST W/OB	25		HVY TRUCK SLE DIST		17.6
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9900
MEDIUM TRUCKS	0.874	0.051	0.075	0.0080
HEAVY TRUCKS	0.891	0.028	0.081	0.0020

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	56.2	54.3	52.5	46.5	55.7
MEDIUM TRUCKS	47.2	45.9	39.5	36.4	45.9
HEAVY TRUCKS	47.6	46.3	37.4	37.1	46.3
VEHICULAR NOISE	**57.3**	55.5	52.8	47.4	56.6

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	5th Street West of Linden	DATE:	3/1/2024
Scenario:	**Cumulative Traffic + Project @ 5th St. Decks**	BY:	J. Leech

ADT	1,042			PK HR VOL	104
SPEED	30				
PK HR %	10				
DIST CTL	40				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		36.1
DIST WALL	0		MED TRUCK SLE DIST		35.8
DIST W/OB	40		HVY TRUCK SLE DIST		35.8
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9900
MEDIUM TRUCKS	0.874	0.051	0.075	0.0080
HEAVY TRUCKS	0.891	0.028	0.081	0.0020

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	51.7	49.8	48.0	42.0	51.2
MEDIUM TRUCKS	42.6	41.2	34.8	31.8	41.3
HEAVY TRUCKS	43.0	41.7	32.8	32.5	41.7
VEHICULAR NOISE	**52.7**	50.9	48.3	42.8	52.1

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	Elm Street North of 5th Street	DATE:	3/1/2024
Scenario:	**Calibration**	BY:	J. Leech

ADT	120			PK HR VOL	12
SPEED	25				
PK HR %	10				
DIST CTL	20				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		10.0
DIST WALL	0		MED TRUCK SLE DIST		9.1
DIST W/OB	20		HVY TRUCK SLE DIST		9.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9900
MEDIUM TRUCKS	0.874	0.051	0.075	0.0080
HEAVY TRUCKS	0.891	0.028	0.081	0.0020

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	48.4	46.5	44.7	38.7	47.9
MEDIUM TRUCKS	40.2	38.8	32.5	29.4	38.9
HEAVY TRUCKS	41.3	40.0	31.1	30.8	40.0
VEHICULAR NOISE	**49.7**	48.0	45.1	39.8	49.0

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	Elm Street North of 5th Street	DATE:	3/1/2024
Scenario:	**Existing**	BY:	J. Leech

ADT	228			PK HR VOL	23
SPEED	25				
PK HR %	10				
DIST CTL	20				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		10.0
DIST WALL	0		MED TRUCK SLE DIST		9.1
DIST W/OB	20		HVY TRUCK SLE DIST		9.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9900
MEDIUM TRUCKS	0.874	0.051	0.075	0.0080
HEAVY TRUCKS	0.891	0.028	0.081	0.0020

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	51.2	49.3	47.5	41.5	50.7
MEDIUM TRUCKS	43.0	41.6	35.3	32.2	41.7
HEAVY TRUCKS	44.1	42.8	33.8	33.6	42.8
VEHICULAR NOISE	**52.5**	50.7	47.9	42.6	51.8

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	Elm Street North of 5th Street	DATE:	3/1/2024
Scenario:	**Existing + Project**	BY:	J. Leech

ADT	275			PK HR VOL	28
SPEED	25				
PK HR %	10				
DIST CTL	20				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		10.0
DIST WALL	0		MED TRUCK SLE DIST		9.1
DIST W/OB	20		HVY TRUCK SLE DIST		9.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9900
MEDIUM TRUCKS	0.874	0.051	0.075	0.0080
HEAVY TRUCKS	0.891	0.028	0.081	0.0020

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	52.0	50.1	48.3	42.3	51.5
MEDIUM TRUCKS	43.8	42.4	36.1	33.0	42.5
HEAVY TRUCKS	44.9	43.6	34.7	34.4	43.6
VEHICULAR NOISE	**53.3**	51.6	48.7	43.4	52.6

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	Elm Street North of 5th Street	DATE:	3/1/2024
Scenario:	**Cumulative Traffic**	BY:	J. Leech

ADT	233			PK HR VOL	23
SPEED	25				
PK HR %	10				
DIST CTL	20				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		10.0
DIST WALL	0		MED TRUCK SLE DIST		9.1
DIST W/OB	20		HVY TRUCK SLE DIST		9.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9900
MEDIUM TRUCKS	0.874	0.051	0.075	0.0080
HEAVY TRUCKS	0.891	0.028	0.081	0.0020

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	51.3	49.4	47.6	41.6	50.8
MEDIUM TRUCKS	43.1	41.7	35.4	32.3	41.8
HEAVY TRUCKS	44.2	42.9	33.9	33.7	42.9
VEHICULAR NOISE	**52.6**	50.8	48.0	42.7	51.9

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Surfliner Inn	JN:	15690
ROADWAY:	Elm Street North of 5th Street	DATE:	3/1/2024
Scenario:	**Cumulative Traffic + Project**	BY:	J. Leech

ADT	280			PK HR VOL	28
SPEED	25				
PK HR %	10				
DIST CTL	20				
DIST N/F	36	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		10.0
DIST WALL	0		MED TRUCK SLE DIST		9.1
DIST W/OB	20		HVY TRUCK SLE DIST		9.2
HTH WALL	0.0	********			
HTH OBS	5.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-45				
RT ANGLE	45				
DF ANGLE	90				

SITE CONDITIONS:		(15=HARD SITE, 10=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9900
MEDIUM TRUCKS	0.874	0.051	0.075	0.0080
HEAVY TRUCKS	0.891	0.028	0.081	0.0020

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	52.1	50.2	48.4	42.4	51.6
MEDIUM TRUCKS	43.9	42.5	36.2	33.1	42.6
HEAVY TRUCKS	45.0	43.7	34.7	34.5	43.7
VEHICULAR NOISE	**53.4**	51.6	48.8	43.5	52.7

Attachment E

Operational Noise Modeling Data

Point Sources

Name	Sel.	M.	ID	Result. PWL Day (dBA)	Evening (dBA)	Night (dBA)	Lw / Li Type	Value	norm. dB(A)	Correction Day dB(A)	Evening dB(A)	Night dB(A)	Sound Reduction R	Area (ft²)	Attenuatio	Operating Time Day (min)	Special (min)	Night (min)	K0 (dB)	Freq. (Hz)	Direct.	Height (ft)		Coordinates X (ft)	Y (ft)	Z (ft)
Spa Speakers 65 dBA @ 1m			SS	74.1	74.1	74.1	Lw	vocal		0	0	0			-73.3				0		(none)	2.5	g	344.36	314.24	27.5
Spa Speakers 65 dBA @ 1m			SS	74.1	74.1	74.1	Lw	vocal		0	0	0			-73.3				0		(none)	2.5	g	323.32	314.54	27.5
Spa Speakers 65 dBA @ 1m			SS	74.1	74.1	74.1	Lw	vocal		0	0	0			-73.3				0		(none)	2.5	g	364.87	314.5	27.5
Flex Space Speakers 70 dBA @ 1m			FS	79.3	79.3	79.3	Lw	vocal		0	0	0			-78.5				0		(none)	2.5	g	412.88	345.86	23.5
Flex Space Speakers 70 dBA @ 1m			FS	79.3	79.3	79.3	Lw	vocal		0	0	0			-78.5				0		(none)	2.5	g	436.43	346.06	23.5
Flex Space Speakers 70 dBA @ 1m			FS	79.3	79.3	79.3	Lw	vocal		0	0	0			-78.5				0		(none)	2.5	g	458.07	346.13	23.5
Flex Space Speakers 70 dBA @ 1m			FS	79.3	79.3	79.3	Lw	vocal		0	0	0			-78.5				0		(none)	2.5	g	476.21	331.84	23.5
Flex Space Speakers 70 dBA @ 1m			FS	79.3	79.3	79.3	Lw	vocal		0	0	0			-78.5				0		(none)	2.5	g	459.8	313.11	23.5
Flex Space Speakers 70 dBA @ 1m			FS	79.3	79.3	79.3	Lw	vocal		0	0	0			-78.5				0		(none)	2.5	g	413.73	313.38	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	484.08	345.67	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	501.09	346.06	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	511.62	346.2	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	509.57	312.84	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	492.89	313.11	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	480.45	322.82	23.5
3 unit Mitsubishi HVAC combined SPL 66.8 dBA @ 1 meter			HVAC	76.3	76.3	76.3	Lw	HVAC_spectrum		0	0	0			-8				0		(none)	2.5	g	312.93	314.14	27.5
Motive Energy - Watt.io 72 dBA @1m			BAT	77.2	77.2	77.2	Lw	rBESS		0	0	0			24.8				0		(none)	5	r	86.57	307.43	5

Area Sources

Name	Sel.	M.	ID	Result. PWL Day (dBA)	Evening (dBA)	Night (dBA)	Result. PWL'' Day (dBA)	Evening (dBA)	Night (dBA)	Lw / Li Type	Value	norm. dB(A)	Correction Day dB(A)	Evening dB(A)	Night dB(A)	Sound Reduction R	Area (ft²)	Attenuatio	Operating Time Day (min)	Special (min)	Night (min)	K0 (dB)	Freq. (Hz)	Direct.	Moving Pt. Src Number Day	Evening
Spa Area Guests - 15		+	SPA	81.6	81.6	81.6	62	62	62	Lw	vocal		0	0	0			-80.8				0		(none)		
Flex Space Guests - 25		+	FLEX	85	85	85	65.9	65.9	65.9	Lw	vocal		0	0	0			-84.2				0		(none)		
Bar Area Guests - 10		+	BAR	79	79	79	61.3	61.3	61.3	Lw	vocal		0	0	0			-78.2				0		(none)		

Buildings

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (ft)	
Hotel Main Building		+	MBLDG	x	0	0.1	21	r
Rooftop Pool Deck		+	RPD	x	0	0.1		
Watt.io		+	BESS		0	0.1	8.1	r

Barriers

Name	Sel.	M.	ID	Absorption left	right	Z-Ext. (ft)	Cantilever horz. (ft)	vert. (ft)	Height Begin (ft)	End (ft)
Rooftop Barrier			RBARR						5	
Rooftop Barrier			RBARR						5	
Rooftop Barrier			RBARR						5	
Rooftop Barrier			RBARR						5	
Rooftop Barrier			RBARR						5	

Point Sources

Name	Sel.	M.	ID	Result. PWL Day (dBA)	Evening (dBA)	Night (dBA)	Lw / Li Type	Value	norm. dB(A)	Correction Day dB(A)	Evening dB(A)	Night dB(A)	Sound Reduction R	Area (ft²)	Attenuatio	Operating Time Day (min)	Special (min)	Night (min)	K0 (dB)	Freq. (Hz)	Direct.	Height (ft)		Coordinates X (ft)	Y (ft)	Z (ft)
Spa Speakers 65 dBA @ 1m			SS	74.1	74.1	74.1	Lw	vocal		0	0	0			-73.3				0		(none)	2.5	g	344.36	314.24	27.5
Spa Speakers 65 dBA @ 1m			SS	74.1	74.1	74.1	Lw	vocal		0	0	0			-73.3				0		(none)	2.5	g	323.32	314.54	27.5
Spa Speakers 65 dBA @ 1m			SS	74.1	74.1	74.1	Lw	vocal		0	0	0			-73.3				0		(none)	2.5	g	364.87	314.5	27.5
Flex Space Speakers 70 dBA @ 1m			FS	79.3	79.3	79.3	Lw	vocal		0	0	0			-78.5				0		(none)	2.5	g	412.88	345.86	23.5
Flex Space Speakers 70 dBA @ 1m			FS	79.3	79.3	79.3	Lw	vocal		0	0	0			-78.5				0		(none)	2.5	g	436.43	346.06	23.5
Flex Space Speakers 70 dBA @ 1m			FS	79.3	79.3	79.3	Lw	vocal		0	0	0			-78.5				0		(none)	2.5	g	458.07	346.13	23.5
Flex Space Speakers 70 dBA @ 1m			FS	79.3	79.3	79.3	Lw	vocal		0	0	0			-78.5				0		(none)	2.5	g	476.21	331.84	23.5
Flex Space Speakers 70 dBA @ 1m			FS	79.3	79.3	79.3	Lw	vocal		0	0	0			-78.5				0		(none)	2.5	g	459.8	313.11	23.5
Flex Space Speakers 70 dBA @ 1m			FS	79.3	79.3	79.3	Lw	vocal		0	0	0			-78.5				0		(none)	2.5	g	413.73	313.38	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	484.08	345.67	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	501.09	346.06	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	511.62	346.2	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	509.57	312.84	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	492.89	313.11	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	480.45	322.82	23.5
3 unit Mitsubishi HVAC combined SPL 66.8 dBA @ 1 meter			HVAC	76.3	76.3	76.3	Lw	HVAC_spectrum		0	0	0			-8				0		(none)	2.5	g	312.93	314.14	27.5
Guitar 78 dBA @ 1m		+	GTR	87.3	87.3	87.3	Lw	vocal		0	0	0			-86.5				0		(none)	3	g	436.18	313.42	24
Vocalist 80 dBA @ 1m		+	VOC	89.3	89.3	89.3	Lw	vocal		0	0	0			-88.5				0		(none)	5	g	435.95	313.41	26
Motive Energy - Watt.io 72 dBA @1m		+	BAT	77.2	77.2	77.2	Lw	rBESS		0	0	0			24.8				0		(none)	5	r	86.35	307.37	5

Area Sources

Name	Sel.	M.	ID	Result. PWL Day (dBA)	Evening (dBA)	Night (dBA)	Result. PWL'' Day (dBA)	Evening (dBA)	Night (dBA)	Lw / Li Type	Value	norm. dB(A)	Correction Day dB(A)	Evening dB(A)	Night dB(A)	Sound Reduction R	Area (ft²)	Attenuatio	Operating Time Day (min)	Special (min)	Night (min)	K0 (dB)	Freq. (Hz)	Direct.	Moving Pt. Src Number Day	Evening
Spa Area Guests - 15		+	SPA	81.6	81.6	81.6	62	62	62	Lw	vocal		0	0	0			-80.8				0		(none)		
Flex Space Guests - 25		+	FLEX	85	85	85	65.9	65.9	65.9	Lw	vocal		0	0	0			-84.2				0		(none)		
Bar Area Guests - 10		+	BAR	79	79	79	61.3	61.3	61.3	Lw	vocal		0	0	0			-78.2				0		(none)		

Buildings

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (ft)	
Hotel Main Building		+	MBLDG	x	0	0.1	21	r
Rooftop Pool Deck		+	RPD	x	0	0.1		
Watt.io		+	BESS		0	0.1	8.1	r

Barriers

Name	Sel.	M.	ID	Absorption left	right	Z-Ext. (ft)	Cantilever horz. (ft)	vert. (ft)	Height Begin (ft)	End (ft)
Rooftop Barrier			RBARR						5	
Rooftop Barrier			RBARR						5	
Rooftop Barrier			RBARR						5	
Rooftop Barrier			RBARR						5	
Rooftop Barrier			RBARR						5	

Point Sources

Name	Sel.	M.	ID	Result. PWL Day (dBA)	Evening (dBA)	Night (dBA)	Lw / Li Type	Value	norm. dB(A)	Correction Day dB(A)	Evening dB(A)	Night dB(A)	Sound Reduction R	Area (ft²)	Attenuatio	Operating Time Day (min)	Special (min)	Night (min)	K0 (dB)	Freq. (Hz)	Direct.	Height (ft)		Coordinates X (ft)	Y (ft)	Z (ft)
Flex Space Speakers 78 dBA @ 1m			FS	87.3	87.3	87.3	Lw	vocal		0	0	0			-86.5				0		(none)	2.5	g	412.88	345.86	23.5
Flex Space Speakers 78 dBA @ 1m			FS	87.3	87.3	87.3	Lw	vocal		0	0	0			-86.5				0		(none)	2.5	g	436.43	346.06	23.5
Flex Space Speakers 78 dBA @ 1m			FS	87.3	87.3	87.3	Lw	vocal		0	0	0			-86.5				0		(none)	2.5	g	458.07	346.13	23.5
Flex Space Speakers 78 dBA @ 1m			FS	87.3	87.3	87.3	Lw	vocal		0	0	0			-86.5				0		(none)	2.5	g	476.21	331.84	23.5
Flex Space Speakers 78 dBA @ 1m			FS	87.3	87.3	87.3	Lw	vocal		0	0	0			-86.5				0		(none)	2.5	g	459.8	313.11	23.5
Flex Space Speakers 78 dBA @ 1m			FS	87.3	87.3	87.3	Lw	vocal		0	0	0			-86.5				0		(none)	2.5	g	413.73	313.38	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	484.08	345.67	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	501.09	346.06	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	511.62	346.2	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	509.57	312.84	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	492.89	313.11	23.5
Bar Speakers 63 dBA @ 1m			BS	72.3	72.3	72.3	Lw	vocal		0	0	0			-71.5				0		(none)	2.5	g	480.45	322.82	23.5
3 unit Mitsubishi HVAC combined SPL 66.8 dBA @ 1 meter			HVAC	76.3	76.3	76.3	Lw	HVAC_spectrum		0	0	0			-8				0		(none)	2.5	g	312.93	314.14	27.5
Guitar 80 dBA @ 1m		+	GTR	89.3	89.3	89.3	Lw	vocal		0	0	0			-88.5				0		(none)	3	g	436.18	313.42	24
Vocalist 1 80 dBA @ 1m		+	VOC	89.3	89.3	89.3	Lw	vocal		0	0	0			-88.5				0		(none)	5	g	435.95	313.41	26
Vocalist 2 78 dBA @ 1m		+	VOC	87.3	87.3	87.3	Lw	vocal		0	0	0			-86.5				0		(none)	5	g	437.76	313.37	26
Bass 95 dBA @ 1m		+	BASS	104.3	104.3	104.3	Lw	vocal		0	0	0			-103.5				0		(none)	3	g	438.06	313.35	24
Motive Energy - Watt.io 72 dBA @1m		+	BAT	77.2	77.2	77.2	Lw	rBESS		0	0	0			24.8				0		(none)	5	r	86.65	307.23	5

Area Sources

Name	Sel.	M.	ID	Result. PWL Day (dBA)	Evening (dBA)	Night (dBA)	Result. PWL'' Day (dBA)	Evening (dBA)	Night (dBA)	Lw / Li Type	Value	norm. dB(A)	Correction Day dB(A)	Evening dB(A)	Night dB(A)	Sound Reduction R	Area (ft²)	Attenuatio	Operating Time Day (min)	Special (min)	Night (min)	K0 (dB)	Freq. (Hz)	Direct.	Moving Pt. Src Number Day	Evening
Flex Space Guests - 90		+	FLEX	93.3	93.3	93.3	74.2	74.2	74.2	Lw	vocal		0	0	0	0		-92.5					0	(none)		
Bar Area Guests - 10		+	BAR	79	79	79	61.3	61.3	61.3	Lw	vocal		0	0	0	0		-78.2					0	(none)		

Buildings

Name	Sel.	M.	ID	RB	Residents	Absorption	Height Begin (ft)	
Hotel Main Building		+	MBLDG	x	0	0.1	21	r
Rooftop Pool Deck		+	RPD	x	0	0.1		
Watt.io		+	BESS		0	0.1	8.1	r

Barriers

Name	Sel.	M.	ID	Absorption left	right	Z-Ext. (ft)	Cantilever horz. (ft)	vert. (ft)	Height Begin (ft)	End (ft)
Rooftop Barrier			RBARR						5	
Rooftop Barrier			RBARR						5	
Rooftop Barrier			RBARR						5	
Rooftop Barrier			RBARR						5	
Rooftop Barrier			RBARR						5	

Attachment F

Associated Transportation Engineers

ADT Memo

ASSOCIATED TRANSPORTATION ENGINEERS

Memo

To: Jonathan Leech & Whitt Hollis

From: Scott Schell, ATE

cc:

Date: February 6, 2024

Re: Surfliner Inn Project

ATE 21059.01M01

INTRODUCTION

ATE has prepared the following memo outlining existing and future average daily traffic (ADT) volumes in order to support the noise analysis for the Surfliner Inn Project (the "Project") proposed in the City of Carpinteria.

EXISTING CONDITIONS

ADT counts were conducted on December 6, 2023 for the following roadway segments as shown on Figure 1 (attached):

- Linden Avenue east of 5th Street
- Linden Avenue east of Sawyer Avenue
- 5th Street north of Linden Avenue
- Elm Avenue east of 5th Street

EXISTING + PROJECT CONDITIONS

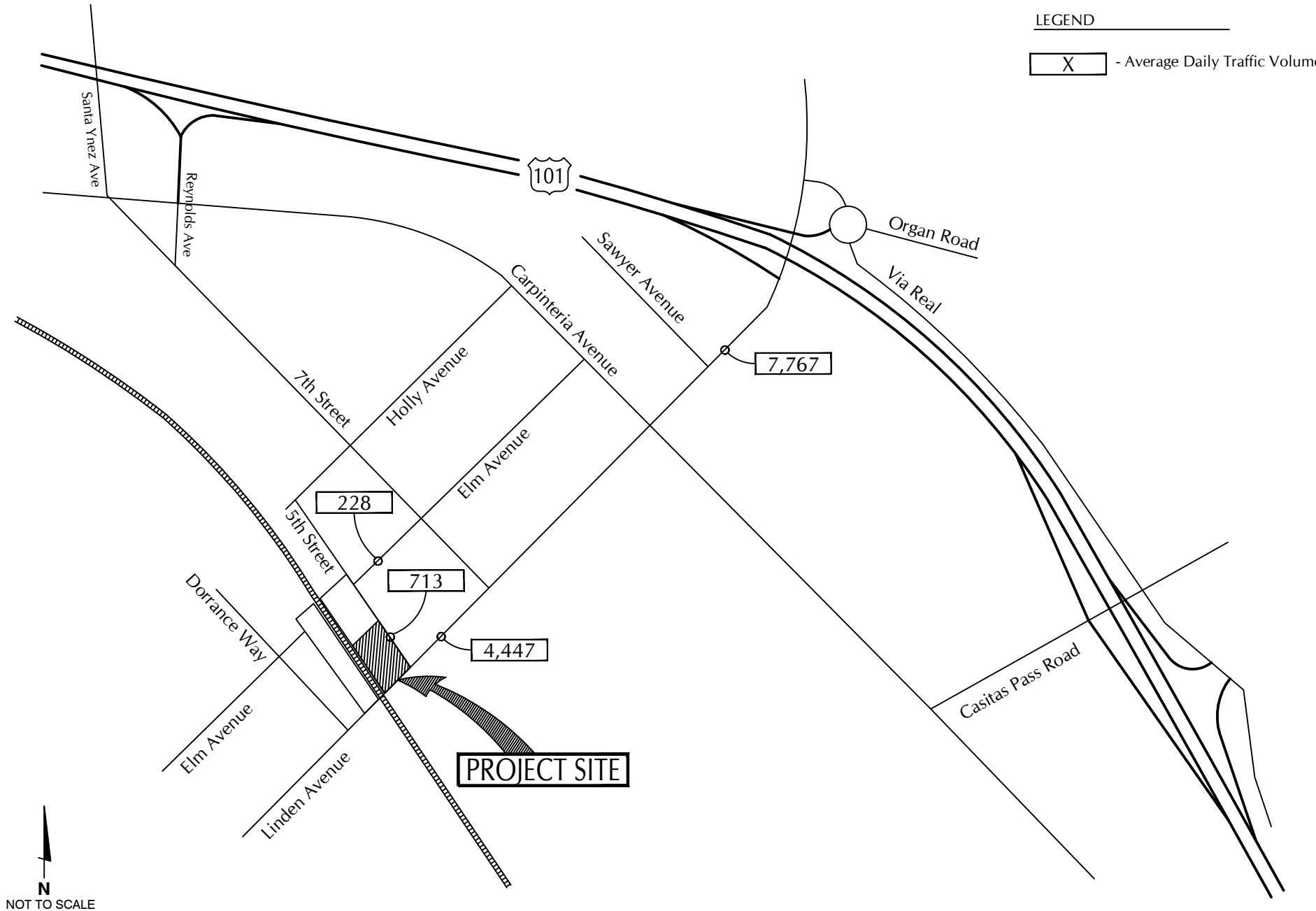
Trip generation estimates (attached) were calculated for the Project using rates presented in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition).[1] The trip distribution pattern for the Project was developed based on existing traffic patterns observed in the study-area, consideration of the land uses in the surrounding area, and the proposed access system. Figure 2 shows the distribution of Project traffic on the study-area roadway segments, and Figure 3 shows the Existing + Project ADT volumes.

CUMULATIVE CONDITIONS

Cumulative traffic volumes were forecast for the study-area intersections assuming development of the approved and pending projects located in the adjacent portions of the City (list of City of Carpinteria cumulative projects attached). Trip generation estimates for the cumulative projects were calculated using rates presented in the ITE Trip Generation Manual. Figure 4 shows the Cumulative ADT volumes and Figure 5 shows the Cumulative + Project ADT volumes.

---

[1] Trip Generation, Institute of Transportation Engineers, 11th Edition, 2021.

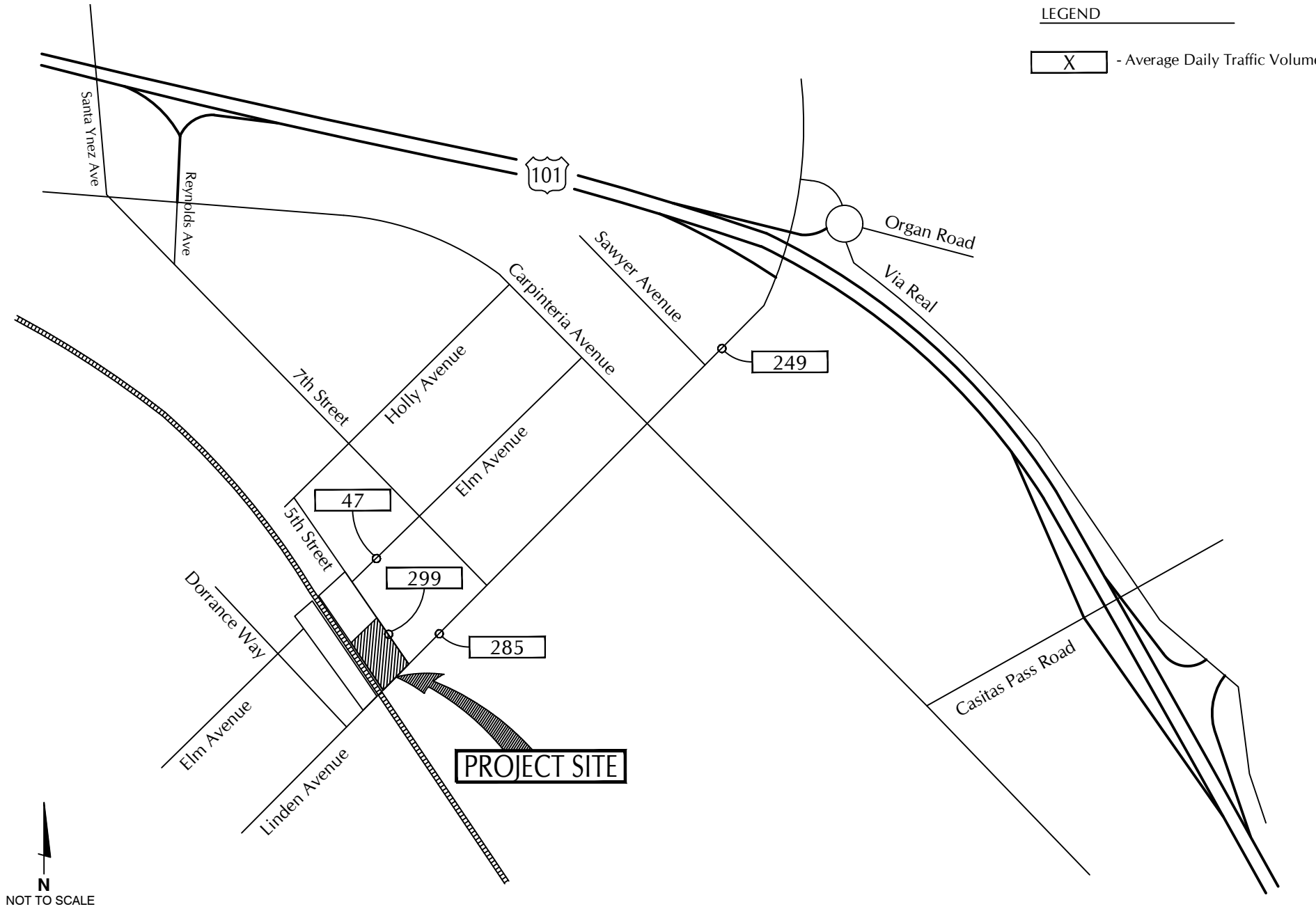


ASSOCIATED TRANSPORTATION ENGINEERS

EXISTING ADT VOLUMES

FIGURE 1

GM- ATE#21059.01

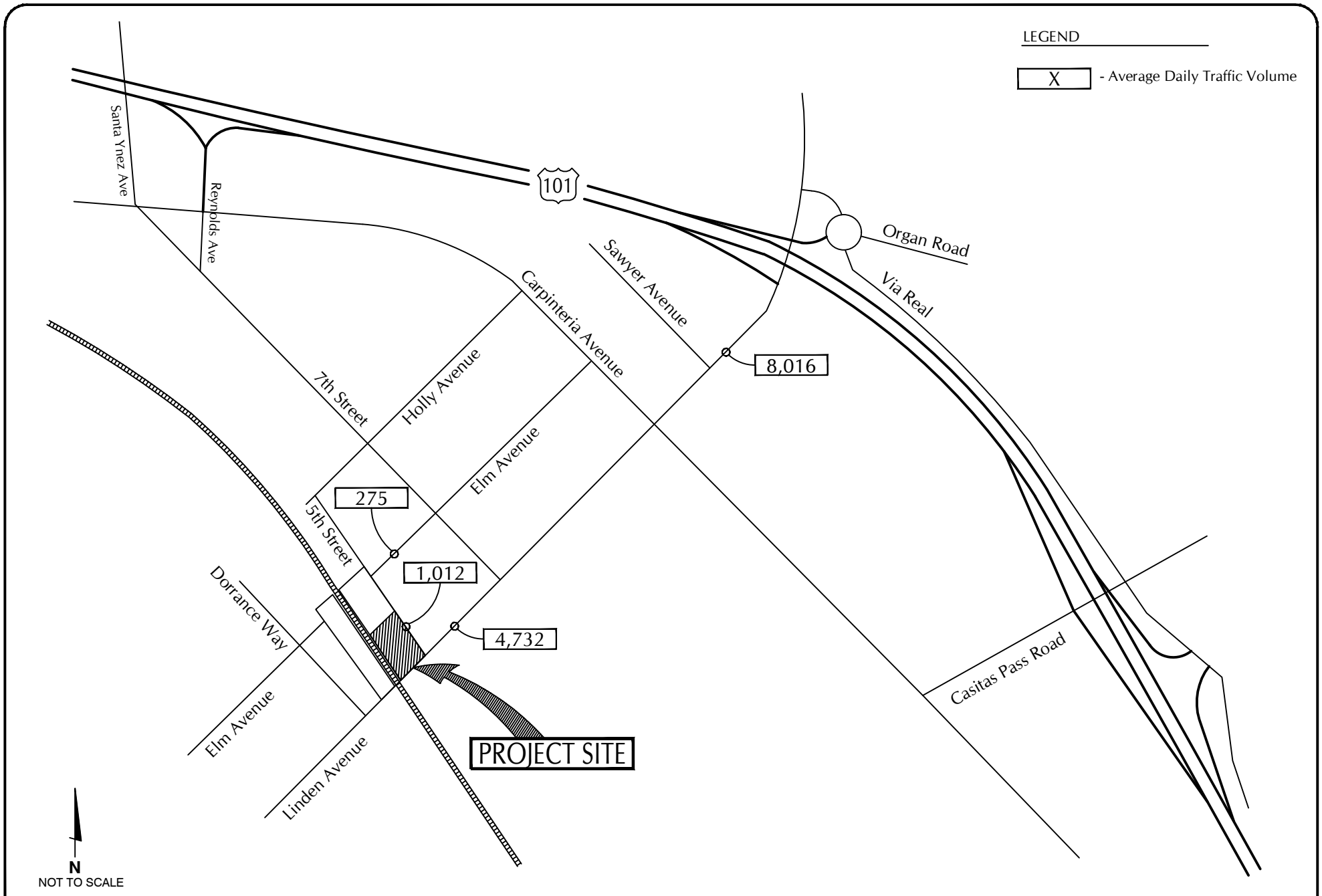


ASSOCIATED TRANSPORTATION ENGINEERS

PROJECT TRIP DISTRIBUTION

FIGURE 2

GM- ATE#21059.01

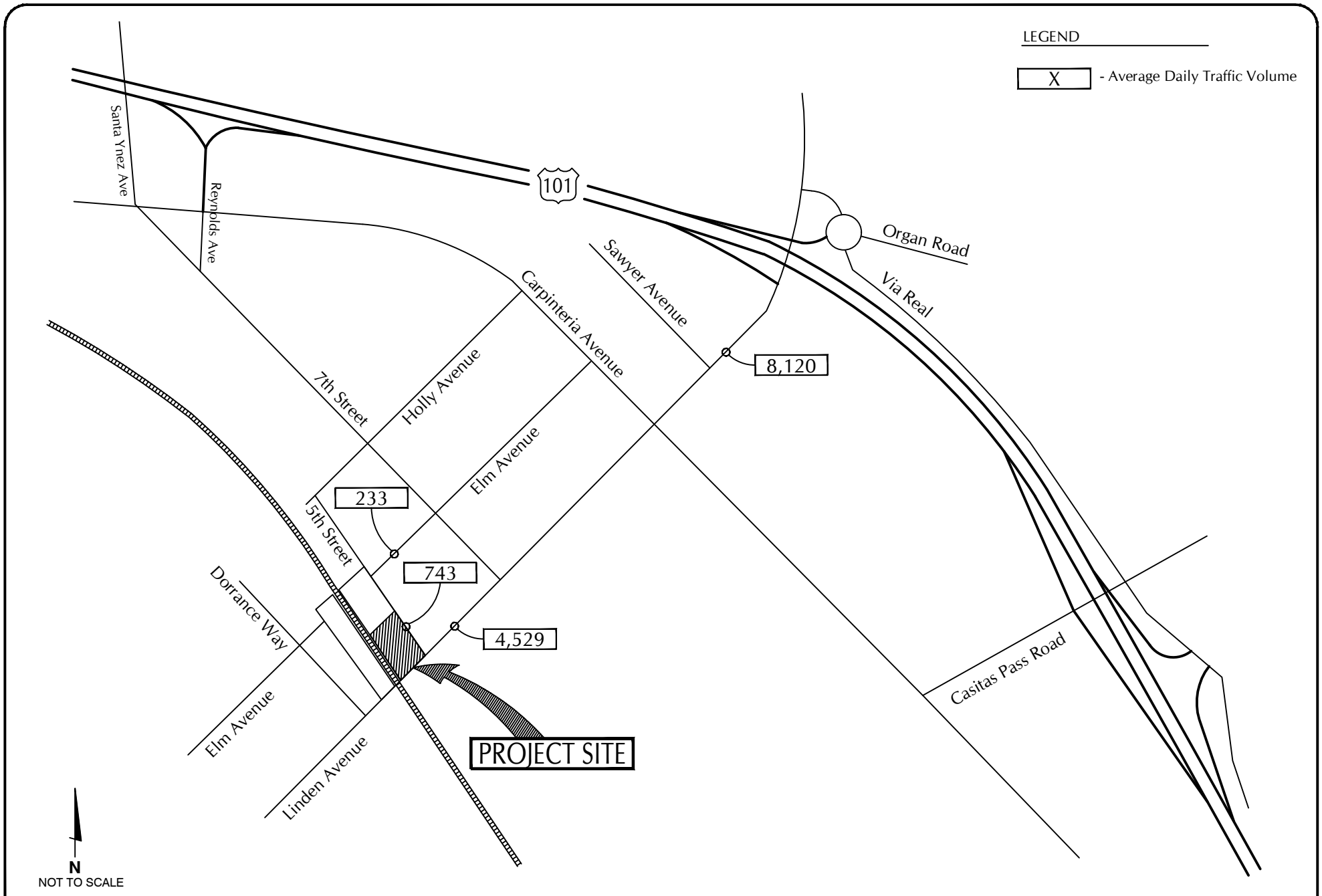


ASSOCIATED TRANSPORTATION ENGINEERS

EXISTING + PROJECT ADT VOLUMES

FIGURE 3

GM- ATE#21059.01

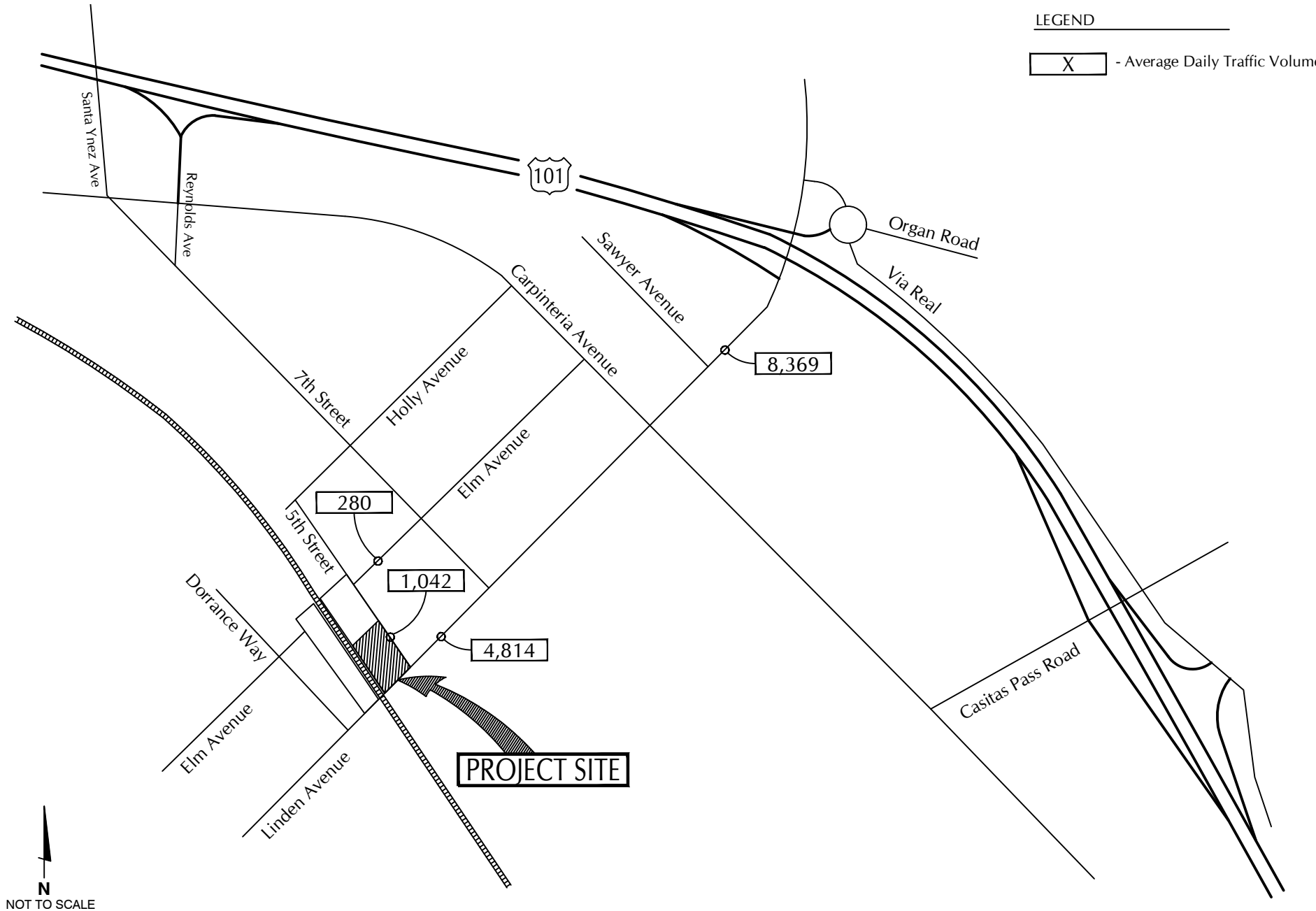


ASSOCIATED TRANSPORTATION ENGINEERS

CUMULATIVE ADT VOLUMES

FIGURE 4

GM- ATE#21059.01



ASSOCIATED TRANSPORTATION ENGINEERS

CUMULATIVE + PROJECT ADT VOLUMES

FIGURE 5

GM- ATE#21059.01

Associated Transportation Engineers #21059.01
Trip Generation Worksheet

SURFLINER INN PROJECT - 30% INTERNAL TRIP FACTOR

Use	Size	Internal-Trip Factor	ADT Rate	ADT Trips
PROPOSED				
Café (a)	2,431 SF	0.70	107.20	182
Rooftop Bar (b)	1,225 SF	0.70	61.69	53
Visitor Center (c)	245 SF	0.70	54.45	9
Hotel (d)	37 Rooms	0.70	7.99	207
Totals				**451**

(a) Trip generation based on ITE rates for High Turnover Sit Down Restaurant (ITE #932).
(b) Trip generation based on ITE rates for Brewery Tap Room (ITE #971).
(c) Trip generation based on ITE rates for Strip Retail Plaza <40k (ITE #822).
(d) Trip generation based on ITE rates for Hotel (ITE #310).

CAFÉ & BAR PASS-BY & PRIMARY TRIPS	**ADT**
Commercial External Trips - Café & Bar	235
43% Pass-By Trips - Applied to Café & Bar	101
57% Primary Trips - Remainder Café & Bar	134

VISITOR CENTER PASS-BY & PRIMARY TRIPS	**ADT**
Commercial External Trips - Visitor Center	9
40% Pass-By Trips - Applied to Visitor Center	4
60% Primary Trips - Remainder Visitor Center	5

TOTAL PASS-BY TRIPS	**ADT**
Café & Bar	101
Visitor Center	4
Total Pass-By Trips	**105**

TOTAL EXTERNAL PRIMARY TRIPS	**ADT**
Commercial External	139
Hotel External	207
Total External Trips	**346**

CITY OF CARPINTERIA
CUMULATIVE PROJECTS LIST
JANUARY 2023

	ID	PROJECT NAME	PROJECT LOCATION	ASSESSOR PARCEL #	PROJECT DESCRIPTION	NET NEW RES. UNITS	NET NEW COMM. & OFFICE SQ. FT.	PROJECT#
APPROVED PROJECTS	1	Lagunitas Mixed Use	6380 Via Real	001-190-097	Construct 85,000 sq ft office building		85,000	07-1407-TM/PM/DP/CDP
	2	Carpinteria Ave Bridge Replacement	5400 Carpinteria Avenue	City ROW at Carpinteria Creek	Replace (E) Carpinteria Ave. bridge over Carpinteria Creek		0	14-1719-CUP/CDP
	3	Wood SFD	650 Concha Loma Drive	003-340-008	Construct one new SFD on vacant lot	1		15-1767-CDP
	4	Gobbell Second Unit	5398 Star Pine Road	001-060-017	Construct one new residential second unit	1		15-1788-CDP
	5	Hawkins SFD	5567 Calle Arena	003-382-014	Construct one new SFD on vacant lot	1		15-1804-CDP
	6	Cruz Mixed Use	4675 Carpinteria Avenue	003-242-007	Construct 2 one-bedroom apts & 500 sq ft commercial space	2	500	15-1781-DP/CDP
	7	Via Real Hotel	4110 Via Real	004-017-022	Demo (E) church, construct 72-room hotel		44191 / 72 rooms	16-1822-DP/CDP
	8	CHS Master Plan	4810 Foothill Road	004-004-031	Construct (N) classrooms, admin building & auditorium		0	17-1882-DP/CDP
	9	Haber Condominiums	4716 Seventh Street	003-301-020	Remodel (E) SFD, construct 2 (N) units, subdivide for condos	2		17-1883-DP/CDP/TPM
	10	M3 Mixed Use Building	4819 Carpinteria Avenue	003-253-008	New 6,668 sq. ft. commercial building & two apts.	2	6,668	17-1894-DP/CDP
	11	Able Secondary Dwelling Unit	477 Concha Loma Drive	003-370-008	Remodel & Addition to (E) SFD; construct new SDU	1		18-1909-CDP/SDU/RA
	12	Caltrans HOV 101 Widening Project	Highway 101 HOV Lanes	Caltrans ROW	Construct (N) north- and southbound HOV lanes		0	18-1920-CUP/CDP
	13	GranVida Phase II Expansion	5464 Carpinteria Avenue	001-070-066	Construct 50-unit assisted living facility	50		18-1926-DP/CDP
	14	Zins Triplex	4905 Eighth Street	003-311-001	Demolish (E) SFD; construct 3 (N) residences	2		21-2083-DP/CDP
	15	McCann Mini-Storage Expansion	1222 Cravens Lane	004-013-027	Construct 13,000 sq ft mezzanine		13,000	21-2123-CUPR/CDP
	16	Storage Place Modular Storage	6250 Via Real	001-180-064, -065, -066, -0667	Construct (N) 3,000 sq ft modular storage units		3,000	21-2129-DPR/CDP
	17	SCIF Channel Islands Center	4994 Carpinteria Avenue	003-153-014, -015	Remodel/Change of Use from bank to museum			21-2138-DP/CDP
	18	City Skate Park	5775 Carpinteria Avenue	001-170-018	Construct (N) 36,500 sq ft public skatepark & 23 parking spaces		0	19-2016-DP/CDP
	19	Howard School Temporary Relocation	1532 Linden Avenue	004-005-007, -011	Relocate 110-student K-8 school for 2022-23 school year		0	22-2154-TUP
	20	Coastal Vista Trail Segment	6155 Carpinteria Avenue	001-180-040	Construct 275' segment of Coastal Vista Trail		-3,500	21-2107-CUP/CDP
	21	Santa Claus Lane Bike Path	West end of Carpinteria Avenue	City/Caltrans ROW	Construct 0.8 mile public multi-use trail		0	21-2122-CUP/CDP
	22	700 Linden Adaptive Reuse	700 block of Linden Avenue	003-313-001	Remodel/Change of Use & (N) office & rooftop bar/deck		508	21-2090-DP/CDP
	23	Dish Wireless Cell Site	4558 Carpinteria Avenue	004-036-024	Consruct (N) collocated wireless communications facility			22-2192-CUP/CDP
	24	City of Carpinteria Storage Building	5775 Carpinteria Avenue	001-170-018	Construct (N) 1,500 sq ft storage building		1,500	22-2194-DP/CDP
	25	Albert ADU	1387 Vallecito Place	003-142-015	Convert garage to ADU	1		22-2212-CDP/ADU
	26	Pagano ADU	1286 Casitas Pass Road	001-251-001	Convert family room to ADU	1		23-2213-CDP/ADU
	27	Pinkernell ADU	5556 Calle Ocho	003-351-005	Convert garage to ADU	1		23-2214-CDP/ADU
PROPOSED PROJECTS	28	Katzenstein Condominiums	1135 Eugenia Place	003-870-009 & -010	Convert (E) commercial condos to 2 residential condos	2	-2,344	18-1949-DPR/CDP
	29	Finnigan Apartments	4253 Carpinteria Avenue	003-212-029	Remodel 2 (E) units; construct 3 (N) units	3		19-2010-CON
	30	Rincon Trail	East end of Carpinteria Avenue	001-220-032, -092, -100, -101	Construct (N) 2,800' public multi-use trail		0	19-2015-CUP/CDP
	31	Procore Training Center	6385 C & 6395 B Cindy Lane	001-190-025	Change of use from light industry to corporate training/meeting center		0	20-2030-CUP/CDP
	32	Surfliner Inn	499 Linden Avenue	004-105-011	Construct (N) 40-room Inn, café & 83-space parking lot		36,118 / 40 rooms	20-2034-CON
	33	Family Baptist Church School	5026 Foothill Road	004-004-021	Construct 2 (N) classrooms for private school		2 classrooms	21-2099-CUP/CDP
	34	Finnigan Apartments	4213 Carpinteria Avenue	003-212-026	Construct 3 (N) Residences	3		21-2103-CON
	35	Vernon Residences	502 Maple Avenue	004-105-009	Construct 5 (N) Residences		5	21-2113-CON
	36	Sempra/Chevron Decommissioning	5619, 5663, 5731 Carpinteria Avenue	001-170-004, -014, -021, -022, -023	Decommission Carpinteria Processing Facility		0	21-2128-DP/CDP
	37	Finnigan SFD	4775 Seventh Street	003-303-018	Construct 1 (N) SFD above (N) 4-car garage	1		21-2131-DP/CDP
	38	Linden to Holly Interim Trail	399 Linden Ave to Holly Avenue	004-105-026, -028	Construct 875' segment of Coastal Vista Trail			22-2147-DP/CDP
	39	Howard SFD	4818 Dorrance Way	003-440-013	Construct 1 (N) SFD	1		22-2162-DP/CDP
	40	Scerni SFD	4610 Fourth Street	003-431-005	Construct 1 (N) SFD	1		22-2184-DP/CDP
	41	The Farm Resort	5669 & 5885 Carpinteria Avenue	001-170-010, -013	Construct 99-room resort & 41-unit apartment building	41	84,263 / 99 rooms	23-2207-DP/LCPA/TPM/CDP
	42	Pfaff Residence	5559 Calle Arena	003-382-012	Construct 1 (N) SFD	1		23-2209-CDP
	43	Lagunitas Mixed-Use (Revised)	6380 Via Real	001-190-097	Construct 159 (N) residences & 9,078 sq. ft. commercial space	159	9078	23-2210-CON
	44	AT&T Small Cell Facility	ROW near 850 Linden Avenue	N/A	Replace (E) utility pole with (N) utility pole & small cell facility		0	23-2216-CDP
	45	AT&T Small Cell Facility	ROW near 323 Elm Avenue	N/A	Replace (E) utility pole with (N) utility pole & small cell facility		0	23-2217-CDP
	46	Pini ADU	990 Concha Loma Drive	003-292-023	Convert storage room to ADU	1		23-2219-CDP/ADU
	47	Heimberg ADU	4854 Eighth Street	003-254-011	Covert 1-car garage to ADU	1		23-2220-CDP/ADU
	48	Klentner Mixed Use	4745 Carpinteria Avenue	003-251-021	Construct 24 (N) units & 4,304 sq ft commercial space	24	4,304	23-2221-DP/CDP
	49	CVWD CAPP	CSD Plant, City ROW	003-370-014, City ROW	Advanced water purification & groundwater injection project		0	N/A

Associated Transportation Engineers
Pending and Approved Projects - Trip Generation Worksheet

SURFLINER INN PROJECT - CUMULATIVE CITY LIST (#21059.01)						
Land-Use		Size		Pass-By Factor	ADT	
					Rate	Trips
10	M3 Mixed Use Building (a)	6,668	SF	1.00	54.45	363
10	M3 Mixed Use Building (b)	2	DU	1.00	6.74	13
14	Zins Triplex (c)	2	DU	1.00	9.43	19
17	SCIF Channel Islands Center (d)	3,500	SF	1.00	-	-339
22	700 Linden - Office (e)	9,889	SF	1.00	14.39	142
22	700 Linden - Retail (a)	2,537	SF	1.00	54.45	138
22	700 Linden - Restaurant (f)	3,895	SF	0.57	107.20	238
22	700 Linden - Rooftop Bar (g)	614	SF	1.00	61.69	38
28	Katzenstein Condominiums - Office (e)	2,344	SF	1.00	14.39	-34
28	Katzenstein Condominiums - Residential (b)	2	DU	1.00	6.74	13
35	Vernon Residences (c)	5	DU	1.00	9.43	47
37	Finnigan SFD (c)	1	DU	1.00	9.43	9
39	Howard SFD (c)	1	DU	1.00	9.43	9
40	Scerni SFD (c)	1	DU	1.00	9.43	9
47	Heimberg ADU (c)	1	DU	1.00	9.43	9
48	Klentner Mixed Use - Residential (b)	24	DU	1.00	6.74	162
48	Klentner Mixed Use - Commercial (a)	4,304	SF	1.00	54.45	234
	Amtrak Rail Extension (h)	9	Spaces	1.00	3.88	35

(a) Trip generation based on rates for Strip Retail Plaza <40k (#822).
(b) Trip generation based on rates for Multifamily Housing - Low Rise (#220).
(c) Trip generation based on rates for Single Family Detached Housing (#210).
(d) Conversion from Walk-in Bank (#911) to Museum (#580).
(e) Trip generation based on rates for Small Office Building (#712).
(f) Trip generation based on rates for High Turnover Sit Down Restaurant (#932).
(g) Trip generation based on rates for Brewery Tap Room (#971).
(h) Trip generation based on rates for Park-and-Ride Lot with Bus or Light Rail (#090).

Appendix I

Public Service Provider Correspondence

Information found by Mindy is in Blue.
Information from fire chief is in yellow

Requested Information

For the analysis, please confirm or provide the following information regarding the Carpinteria Summerland - Fire Protection District and issues relating to provision of fire protection services and facilities for the Project, as appropriate:

1. According to the Carpinteria Summerland – Fire Protection District's website, the District has two (2) fire stations (Stations 61, 62, and the Headquarters). Please confirm. The nearest station, Carpinteria Summerland Fire Station 61, located at 911 Walnut Avenue, Carpinteria, CA 93013, is approximately 0.3 miles northeast of the Project Site. Please confirm.

   Yes

   Note: there is a presentation from Fire to the City Council including slide deck here:
   https://carpinteria.granicus.com/MetaViewer.php?view_id=2&clip_id=1648&meta_id=105825

   And video here:
   https://carpinteria.granicus.com/player/clip/1648?view_id=2&meta_id=105824&redirect=true

2. Fire Station 61 would provide primary service to the Project Site. Please confirm. Which fire station(s) would provide back-up services?

   The CSFPD maintains two fire stations, located at 911 Walnut Avenue in Carpinteria (Station #1) and 2375 Lillie Avenue in Summerland (Station #2). Both stations provide response services to the City, though Station #1 responds to most of the City's calls for service.

3. The City of Carpinteria contracts with the Montecito Fire Protection District for fire protection services through a cooperative mutual-aid agreement with the California Department of Forestry and Fire Protection (CAL FIRE). Please confirm.

   From our draft General Plan: Fire protection service in the City is provided by the Carpinteria-Summerland Fire Protection District (CSFPD) with automatic aid agreements with the Montecito Fire Protection District, Ventura County Fire Department, the Los Padres National Forest, and the Santa Barbara County Fire Department (SBCFD).

4. Please provide the following information for each fire station serving the Project Site:

   a. Existing fire station service boundaries and service area population. If applicable, please note any anticipated future changes.

      The CSFPD is an all-risk agency serving approximately 20,000 people in the City and 40 square miles of unincorporated County land, including the unincorporated community of Summerland.

b. Equipment and staffing for existing stations (i.e., number of engines, trucks, squads, total full-time and part-time staff, firefighters on 24-hour duty, paramedic staff and services, etc.).

CSFPD is staffed with 28 safety members and 5 non-safety administrative and fire prevention bureau employees. In addition to fire suppression, CSFPD offers advanced life support paramedic services, surf rescue services, and hazardous materials response, as well as fire and life safety inspections, code compliance, building inspections, and public education. The CSFPD has approximately 27 full-time firefighters. All CSFPD apparatuses are staffed with a minimum of one licensed paramedic who provides advanced life support services as the Emergency Medical Services (EMS) first responder. All firefighters are trained in Emergency Medical Technician (EMT)-1 and fire suppression.

CSFPD maintains a range of equipment, including two fire engines, one squad, one all-terrain vehicles, two water rescue wave-runners, and three command vehicles (City of Carpinteria 2023a). Response times for fire services range from 3 minutes (inner City) to 5 minutes (City periphery) (City of Carpinteria 2023a). Most calls for service include rescue and emergency medical calls (approximately 61 percent), followed by good intent calls and false alarms (approximately 27 percent), and then fires (both vegetation and structure), service calls, hazardous conditions, severe weather, and pressure rupture/explosion/overheating calls (approximately 12 percent combined) (City of Carpinteria 2023a).

c. Most recent data on associated response times for each fire station/facility serving the Project Site.

- 3 minutes from Walnut
- 10 minutes from Lillie

d. Most recent data on yearly emergency incidents for each fire station/facility serving the Project Site.

I see some reports at https://carpfire.com/reports/ but not recent incident reports.

Station 61 1400 calls Station 62 900 calls annually

5. Please provide any applicable information regarding impediments to emergency response near the Project Site, including whether there has been a history of bottlenecks or street blockages during fire emergencies.

None

6. Please describe any planned changes to fire staffing and operations to serve anticipated future development of the Project. Also, describe any planned improvements to the fire protection facilities in the service area of the Project Site (i.e., new or expanded facilities, new equipment, additional staffing).

No additional staffing. Kitchen remodel station 61

7. Beyond any planned improvements or changes in operations discussed under Response 6, would Project implementation require the provision of new or physically altered fire station(s) or the need for new or physically altered fire station(s) servicing the Project Site? If yes, please describe any new or expanded fire facilities directly resulting from Project implementation.

None

8. What would be the anticipated Carpinteria Summerland - Fire Protection District response time for fire incidents at the Project Site with and without the Project? What would be the response time goal to the Project Site with the Project? Please provide any relevant information regarding response time goals, as applicable to the Project or otherwise.

Anticipated response time under 5 minutes with and without the project. Goal response time under 5 minutes.

9. Please provide a general overview of the Carpinteria Summerland - Fire Protection District's emergency response system (i.e., emergency response plans, standard operation protocols and procedures, new technology or programs underway to improve response times, etc.).

Carpinteria-Summerland fire is an all-risk department. An all-risk fire department operates with a broad mission to respond to any type of emergency—not just fires. Calls for service are initiated through the 911 system and the response is based on the call type. The new County wide dispatch center is open to dispatch the closest engine to the incident to improve response times.

10. Please confirm the locations and total number of existing fire hydrants, if any, that would serve future development of the Project. Please provide the existing fire flow parameters, such as fire flow (gallons per minute), of these existing fire hydrants.

    Condition provided for project: FDCs shall be located within 150' of a fire hydrant capable of providing the required fireflow.

    2 hydrants. Contact Carpinteria Valley Water for Fire Flow.

11. What is the estimated fire flow for future development of the Project Site? Would the existing water infrastructure system and fire hydrants have adequate capacity to meet the estimated fire flow demand for future development of the Project?

    Fire flow need is based on the square feet of the development. Unable to determine without more information.

12. Any information or concerns for fire access during construction or operation of future development of the Project (including site ingress/egress, minimum turning radii, driveway width, grading, etc.)?

    None

Requested Information

For the analysis, please confirm or provide the following information regarding the Santa Barbara County's Sheriff's Office and issues relating to provision of sheriff protection services and facilities for the Project, as appropriate:

1. According to the City's website, the Santa Barbara County Sheriff's Office has one (1) substation: Carpinteria Sheriff's Substation, located at 5775 Carpinteria Avenue, Carpinteria, CA 93013, approximately 1.3 miles from the Project. Please confirm.

   Yes, correct

2. Would any other sheriff stations serve the Project Site?

   No

3. Please provide the following information for each sheriff station serving the Project Site:

   a. Existing staffing and equipment for each sheriff facility serving the Project Site (i.e., number of patrol cars, number of total full-time and part-time staff, number of officers on 24-hour duty).

      In a 12-hour shift there are two cars and two officers shared with the County. During the day there is also the Chief and the front desk person.

   b. Population served and boundaries of each sheriff facility.

      All of the City of Carpinteria plus the unincorporated Carpinteria Valley.

   c. Special service teams (i.e., SWAT and K-9) within the sheriff stations.

      Some of the officers that serve Carp are members of the Sheriff's SWAT team and some are K-9 units. City of Carp has access to all services that the County has.

   d. Most recent data on associated response times for the sheriff station/facility serving the Project Site.

      The answer is that it all depends. If the call is a high priority and the nearest officer is at the Station, the Chief estimates 5 minutes. But usually officers are out and about, and most typical calls do not require immediate response.

   e. Most recent crime statistics for each sheriff station/facility serving the Project Site.

      From most recent Sheriff report:

      Carpinteria

      In Carpinteria, crime statistics from 2023 to 2024 reveal a significant decrease in overall crime. Overall, reported Part 1 crimes decreased from 218 incidents in 2023 to 200 in 2024, representing an 8% decrease.

      Violent crimes saw a slight increase, from 21 incidents in 2023 to 24 in 2024, an increase of approximately 14%. This does, however, include a reduction in rape incidents, which fell from 3 in 2023 to 0 in 2024.

      Property crimes showed a decreasing trend, with totals dropping from 197 incidents in 2023 to 176 in 2024, a decrease of 11%. This category includes a significant decline in larceny-theft, which went from 160 incidents in 2023 to 131 in 2024. Motor vehicle thefts saw no change, remaining at 18 in both 2023 and 2024. Burglary incidents also saw an increase, from 19 in 2023 to 25 in 2024.

f. Does the Santa Barbara County's Sheriff's Office maintain service ratios such as an officer-to-resident ratio?

He said to take the resident population and divide by 4, which would be about 3, 250 per officer.

4. Please describe any planned changes to sheriff staffing and operations to serve anticipated future development of the Project. Also, describe any planned improvements to the sheriff protection facilities in the service area of the Project Site (i.e., new or expanded facilities, new equipment, additional staffing, etc.).

Nothing needed, nothing proposed.

5. Beyond any planned improvements or changes in operations discussed under Response 4, would Project implementation require the provision of new or physically altered sheriff station(s) or the need for new or physically altered sheriff station(s) servicing the Project Site? If yes, please describe any new or expanded sheriff facilities directly resulting from Project implementation.

No

6. What would be the anticipated Santa Barbara County's Sheriff's Office response time for crime incidents at the Project Site with and without the Project? What would be the response time goal to the Project Site with the Project? Please provide any relevant information regarding response time goals, as applicable to the Project or otherwise.

No change anticipated. One question the Chief had was whether there will be access to the hotel from the south side or if it will be so close to the train platform that responder access to the south side would be difficult?

7. Please provide a general overview of the Santa Barbara County's Sheriff's Office emergency response system (i.e., dispatch system, standard procedures and protocols, etc.).

I'll need to provide separately.

8. Are there any specific design features, special sheriff protection requirements, or mitigation required for future development of the Project?

No

Requested Information

For the analysis, please confirm or provide the following information regarding the City of Carpinteria Parks, Recreation & Community Services Department and issues relating to provision of parks and recreational services and facilities for the Project, as appropriate:

1. The name, address, size, park classification (i.e., regional, community, neighborhood, or special use), and available facilities within the parks that would serve the Project Site.

   City owned and run:
   - **Community Garden**, 4855 5th St., 0.7 acres, Community
     - Limited access
   - **City Beach**, no address, 2.3 acres, Regional
     - Beachgoing and open sand area
     - On-street public parking
     - Restrooms
     - Seasonal lifeguards
   - **Carpinteria Salt Marsh Nature Park**, no address, 6.4 acres, Regional
     - Natural open space
     - Trail and overlooks
     - Signage for self-guided tours
     - Amphitheater

   Other:
   - **State Beach**, 205 Palm Ave, 58.2 acres
     - 211 overnight campsites
     - Beach and picnic area
     - Tidepools, swimming, and surfing
     - Hiking trails
     - Chumash Indian interpretive displays
     - Restrooms, parking lot
   - **Tomol Park & Interpretive Play Area**, 389 Linden Ave., 0.5 ac
     - Educational park with playground equipment
     - Included within Carpinteria State Beach and jointly managed by State Parks and the City
   - **Linden Field**, N/A, 5.0 ac
     - Multi-purpose natural turf area;
     - Included within Carpinteria State Beach and jointly managed by State Parks and the City

2. Current capacity and level of use of parks and recreational facilities near the Project Site.

   No data on this … it varies.

3. Existing ratios of developed parkland per resident on a Citywide basis.

   From our draft GPU:

   The National Recreation and Parks Association (NRPA) provides agency performance reviews and suggested recreation facility design guidelines, including park standards and suggested ratios for park space to population. According to the NRPA, park and recreation agencies serving fewer than 20,000 residents typically have 13 acres of parkland per 1,000 residents, or one park for every 1,225 residents (NRPA 2023). With a population of

approximately 12,711 residents in 2023 and approximately 125 total acres of parks and open space, the City has a ratio of approximately 10 acres of recreational space per 1,000 residents. This ratio does not include recreation areas within the City boundaries that are managed by other agencies or organizations, including Carpinteria State Beach and CUSD. The inclusion of these facilities increases this ratio to approximately 15 acres of recreational area per 1,000 residents

4. Please describe any planned improvements to parks and recreational facilities in the service area of the Project Site (i.e., planed construction or expansion, new facilities, etc.).

   There is a project moving forward right now for Franklin Creek Trail. It's going to Planning Commission on July 7th but it went to ARB in April and the staff report is here: https://carpinteria.granicus.com/MetaViewer.php?view_id=2&clip_id=1621&meta_id=103601

   Other than that proposed trail, the only other improvements for recreational facilities around that area are simple maintenance and refresh items such as:
   - Sprucing up the Community Garden to allow for events/meeting area and add some fencing
   - Refresh and upkeep for Tomol park

5. Beyond any planned improvements or changes to the parks and recreational facilities discussed under Response 4, would Project implementation require the provision of new or physically altered park(s) or the need for new or physically altered park(s) serving the Project Site? If yes, please describe any new or expanded parks and recreational facilities directly resulting from Project implementation.

   No

6. Please describe City-adopted parks and recreational standards and acreage goals to be used in analyzing future development of the Project.

   This is a quote but I'm not sure where she got it. Remind me to find out more:
   - Goal to have 125 acres of combined public parks, open space, trails

7. Any other design features or special parks and recreational requirements for future development of the Project?

   A "wish to have" is to have trash mitigation. The beach and garden draw more trash than the City's services can handle and we even had to remove trash cans that drew illegal dumping. That might be CEQA nexus.

Brian Allee
Senior Managing Associate
ESA

Attachments:
Figure 1: Regional Map
Figure 2: Project Vicinity
Figure 3: Project Site

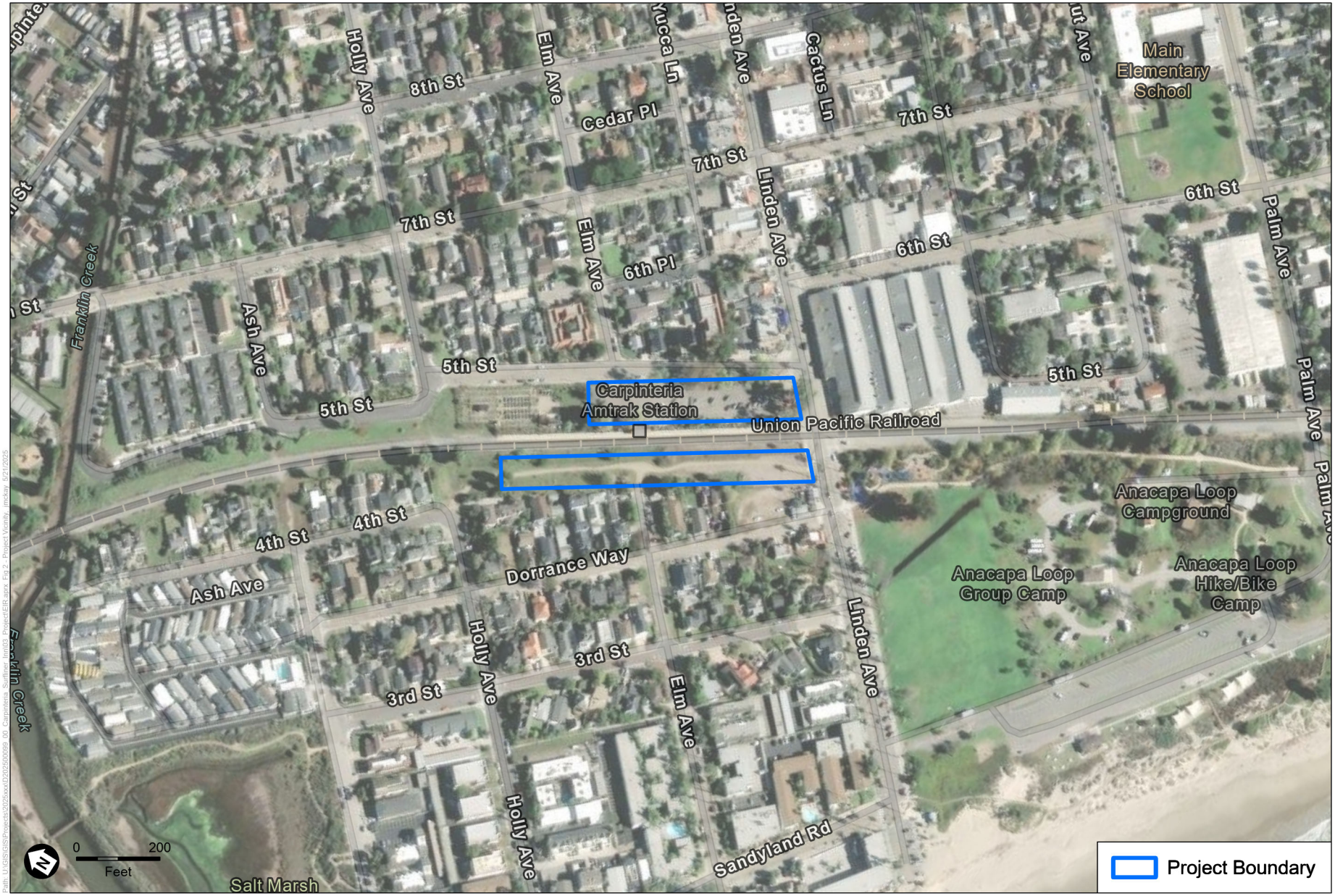


SOURCE: ESA, 2025

Surfliner Inn Project

Figure 1
Regional Map

ESA

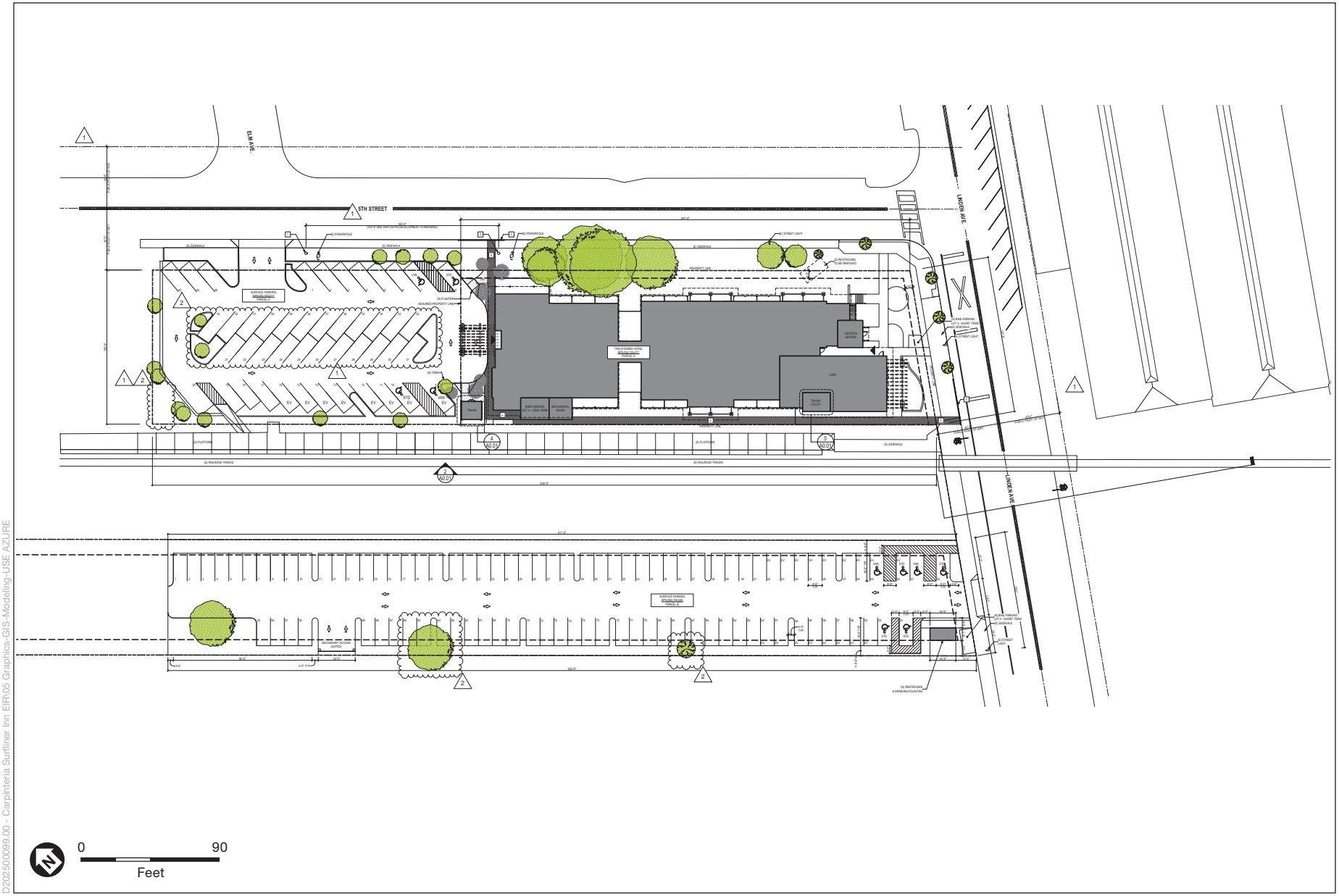


SOURCE: ESA, 2025

Surfliner Inn Project

Figure 2
Project Vicinity

ESA



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SOURCE: AB Design Studio, Inc., 2024

Surfliner Inn Project

Figure 3
Site Plan

ESA

Appendix J
Traffic and Parking Study

ASSOCIATED TRANSPORTATION ENGINEERS

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Since 1978

Richard L. Pool, P.E.
Scott A. Schell

June 6, 2024 21059.01L03

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1072 Casitas Pass Road, #172
Carpinteria, CA 93013
Submitted via email: whitt.hollis@gmail.com

UPDATED TRAFFIC AND PARKING STUDY FOR THE SURFLINER INN PROJECT - CITY OF CARPINTERIA

Associated Transportation Engineers (ATE) has prepared the following updated traffic and parking study for the proposed Surfliner Inn Project (the "Project") in the City of Carpinteria. The study evaluates the Project's parking demands, reviews the existing and future supply parking demands in the Downtown Carpinteria area, and evaluates the traffic operations for the new Lot 4. The updated study addresses the comments provided by City staff on the ATE traffic and parking studies dated October 13, 2023, February 12, 2024, and May 6, 2024.

PROJECT DESCRIPTION

The Project is proposing to construct a 37-room (36 rooms and 1 managers unit) boutique hotel on the eastern portion of the City's Public Parking Lot 3 located adjacent on the west side of Linden Avenue north of the Union Pacific Railroad (UPRR) tracks. The hotel facility would include a 2,252 SF cafe, a 245 SF visitor center, a 1,150 SF rooftop bar area, and a 1,695 SF bar event space on the rooftop. The Project site plan is illustrated in Figure 1 (attached). Table 1 presents the statistics for the Project.

Parking Lot 3 currently contains 113 spaces. With the construction of the Project, the total parking supply in Lot 3 would be reduced to 46 spaces. The net loss of parking in Lot 3 resulting from the Project would be 67 spaces. The Project is also proposing to construct a new City parking lot (Lot 4) south of the UPRR tracks, which would contain 93 spaces as shown in Figure 1. The total number of parking spaces provided in both Lots 3 and 4 would be 139 spaces, which would provide an additional 26 spaces than what is currently available in Lot 3.

Table 1
Surfliner Inn Project Statistics

Land Use	Size
Hotel	36 Rooms 1 Managers Unit
Cafe (a)	2,252 SF (b)
Rooftop Bar	1,150 SF (b)
Visitor Center	245 SF
Bar Event Space	1,695 SF (b)
Parking Lot 3 (c) Parking Lot 4 **Total**	46 Spaces 93 Spaces 139 Spaces

(a) Includes both indoor and outdoor square footage proposed.
(b) Square footage consists of usable space which does not include accessible aisles.
(c) New supply in reconfigured Lot 3.

SURFLINER INN SHARED PARKING DEMAND ANALYSIS

Walker Consultants, commissioned by the City of Carpinteria, completed the Downtown Carpinteria Parking Study ("Walker Study") in 2020.[1] The Walker Study contains a parking demand analysis for the Surfliner Inn Project based on data presented the Urban Land Institute (ULI) Shared Parking Report (3rd edition).[2] The Walker Study applied several different factors to develop the parking demand estimates pursuant to the ULI methodologies. The ULI analysis included driving ratio adjustments based on the Project's proximity to the rail as well as the general walkability of downtown. "Non-captive" ratios were also applied to account for the likelihood that a portion of cafe, visitor center, and rooftop bar patronage would be hotel guests. The Walker Study calculations are attached for reference.

ATE updated the Walker Study calculations based on the current Project land use statistics shown in Table 1. As requested by City staff, the new parking demand estimates were developed based on the same methodology as the Walker Study. Table 2 shows the updated weekday and weekend parking demand estimates for the current Project based on the ULI rates. It is noted that the visitor center does not generate parking demand due to the relatively small size. It is noted by City staff that on-street parking on 5th Street can be used for the visitor center. City staff also indicated that a 24-foot minimum green zone space could be utilized for the visitor center.

1 Downtown Carpinteria Parking Study, Walker Consultants, October 30, 2020.
2 Shared Parking, Urban Land Institute, 3rd Edition, 2020.

Table 2
Surfliner Inn Peak Shared Parking Demand - ULI

Land Use	Weekday (7:00 PM)	Weekend (7:00 PM)
Hotel	19 Spaces	22 Spaces
Manager's Unit	1 Space	1 Space
Cafe	15 Spaces	15 Spaces
Rooftop Bar	5 Spaces	5 Spaces
Visitor Center	0 Spaces	0 Spaces
Bar Event Space	16 Spaces	11 Spaces
Total Shared Parking Demand	**56 Spaces**	**54 Spaces**

The data presented in Table 2 show that the peak shared parking demands forecasts for the Project are 56 spaces on the weekdays and 54 spaces on the weekends using ULI rates.

FUTURE PARKING DEMANDS – LOTS 3 AND 4

The Walker Study analyzed all public parking within the "Downtown T", which includes Carpinteria Avenue and Linden Avenue, as well as parking within a few blocks east and west of Linden Avenue. The study also contained a focused evaluation on the existing and future parking demands forecast for Lots 3 and 4. The Walker Study provided a summary of existing parking conditions, documented weekday and weekend occupancy rates, and analyzed the future parking demands related to three proposed downtown projects. The following section reviews and updates this analysis.

Parking Supply – Lots 3 and 4

As noted previously, the parking supply in Lot 3 will be reduced from 113 spaces to 46 spaces. The Project proposes to construct Lot 4 with 93 spaces just south of the UPRR tracks. Lot 4 would be accessed from the existing driveway on Linden Avenue and would extend west from Linden Avenue to Elm Avenue. A total of 139 parking spaces would be provided between Lots 3 and 4.

Existing Conditions – Lot 3

The Walker Study conducted weekday and weekend parking occupancy surveys within the downtown parking lots (including Lot 3) and surface streets. The surveys found that Lot 3 had a peak occupancy of 55 spaces (49% occupied) on weekdays and 67 spaces (59%) on weekends.

Additional parking surveys were conducted in Lot 3 by the applicant team to confirm the Walker Study data (survey data attached). The additional parking data indicates that the Walker Study results generally represent peak weekday and weekend conditions within Lot 3.

Future Conditions

There are two additional development projects currently proposed in the downtown area in addition to the Surfliner Inn Project that could affect parking in Lots 3 and 4. The 700 Linden Project is an approved mixed-use retail, office, and restaurant development located on the east side of Linden Avenue between 7th Street and 8th Street. The 700 Linden Project would provide 20 parking spaces onsite and will be allocated up to 28 spaces in Lots 3 and 4. The other development is the expanded rail service at the existing Carpinteria Amtrak Station. The rail service expansion includes the construction of a second track and platform at the existing station that would increase service from five to seven trains in each direction. The expanded rail service is expected to increase parking occupancy in Lots 3 and 4 by up to 7 spaces on weekdays and up to 9 spaces on weekends.

Tables 3 and 4 show the Future weekday and weekend parking demand estimates for Lots 3 and 4, respectively. The tables assume development of the Surfliner Inn and the two additional downtown projects (parking calculations attached).

Table 3
Future Weekday Parking Demands – Lot 3 and 4

Parking Demand Component	Time									
	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM
Existing Lot 3	55	***55***	55	55	39	39	28	28	31	31
Surfliner Inn	47	***49***	49	49	43	42	49	56	56	53
700 Linden	12	***28***	26	17	12	9	14	17	16	6
Amtrak	7	***7***	7	7	5	5	4	4	4	4
Total	121	***139***	137	128	99	95	95	105	107	94
Parking Supply	139	***139***	139	139	139	139	139	139	139	139
Extra Spaces	18	***0***	2	11	40	44	44	34	32	45

Table 4
Future Weekend Parking Demands – Lot 3 and 4

Parking Demand Component	Time									
	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM
Existing Lot 3	48	48	50	50	67	67	54	***54***	49	49
Surfliner Inn	46	47	47	48	42	41	46	***54***	54	52
700 Linden	4	12	15	14	7	2	6	***12***	9	8
Amtrak	6	6	6	6	9	9	7	***7***	6	6
Total	104	113	118	118	125	119	113	***127***	118	115
Parking Supply	139	139	139	139	139	139	139	***139***	139	139
Extra Spaces	35	26	21	21	14	20	26	***12***	21	24

The data presented in Tables 3 and 4 show that the future weekday parking demand in Lots 3 and 4 is 139 spaces and the future weekend parking demand forecast is 127 spaces. The 139 spaces provided would satisfy these parking demand and provide no extra spaces on the weekdays and 12 extra spaces on the weekends.

It is noted that the Walker Study indicated that the downtown area would experience an overall utilization of 84% during the peak weekday parking demands at noon, assuming that no new spaces were constructed by the City. This indicates that the existing downtown parking supply could support the three proposed projects, as peak utilization is below the targeted threshold of 85%. The Walker Study also indicated that parking management strategies could be implemented to reduce parking constraints and alleviate impacts on residential areas resulting from higher parking demand if needed.

PARKING PHASING

As noted previously, Lot 3 currently contains 113 spaces and experiences peak parking demands of 55 spaces on weekdays and 67 spaces on weekends. To ensure that adequate parking is provided during the construction phase of the Project Lot 3, Lot 4 will be constructed prior to the commencement of Project construction to provide an additional 93 spaces. The parking supply would therefore be adequate throughout the construction and operational phases of the Project.

TRAFFIC OPERATIONS

Traffic counts were conducted at the existing Lot 3 to determine peak hour flows in and out of the lot. The peak one-hour volumes observed at the lot were divided by the number of spaces provided to determine a traffic generation rate per space. The study found that the existing Lot 3 generates 0.18 trips per space during the peak hour (11:30 AM – 12:30 PM). Based on this rate, the new Lot 4 with 93 spaces would generate approximately 15 peak hour trips. It is anticipated that most traffic accessing Lot 4 would be oriented to and from the downtown area north of the UPRR tracks, with very little traffic oriented to the south. Most of the traffic flows at the driveway would therefore be right-turns in and left-turns out. Given the current level of traffic on Linden Avenue south of the UPRR tracks (approximately 300 peak hour trips), the Lot 4 driveway would operate in the level of service (LOS) A range, with very little delay and queuing for vehicles entering and exiting the parking lot driveway.

It is noted that there is a UPRR rail crossing gate arm located north of the Linden Avenue driveway. There is sufficient storage space for two vehicles between the stop bar at the rail crossing arm and the driveway for Lot 4. This storage area would be sufficient given the level of traffic that would be generated by Lot 4.

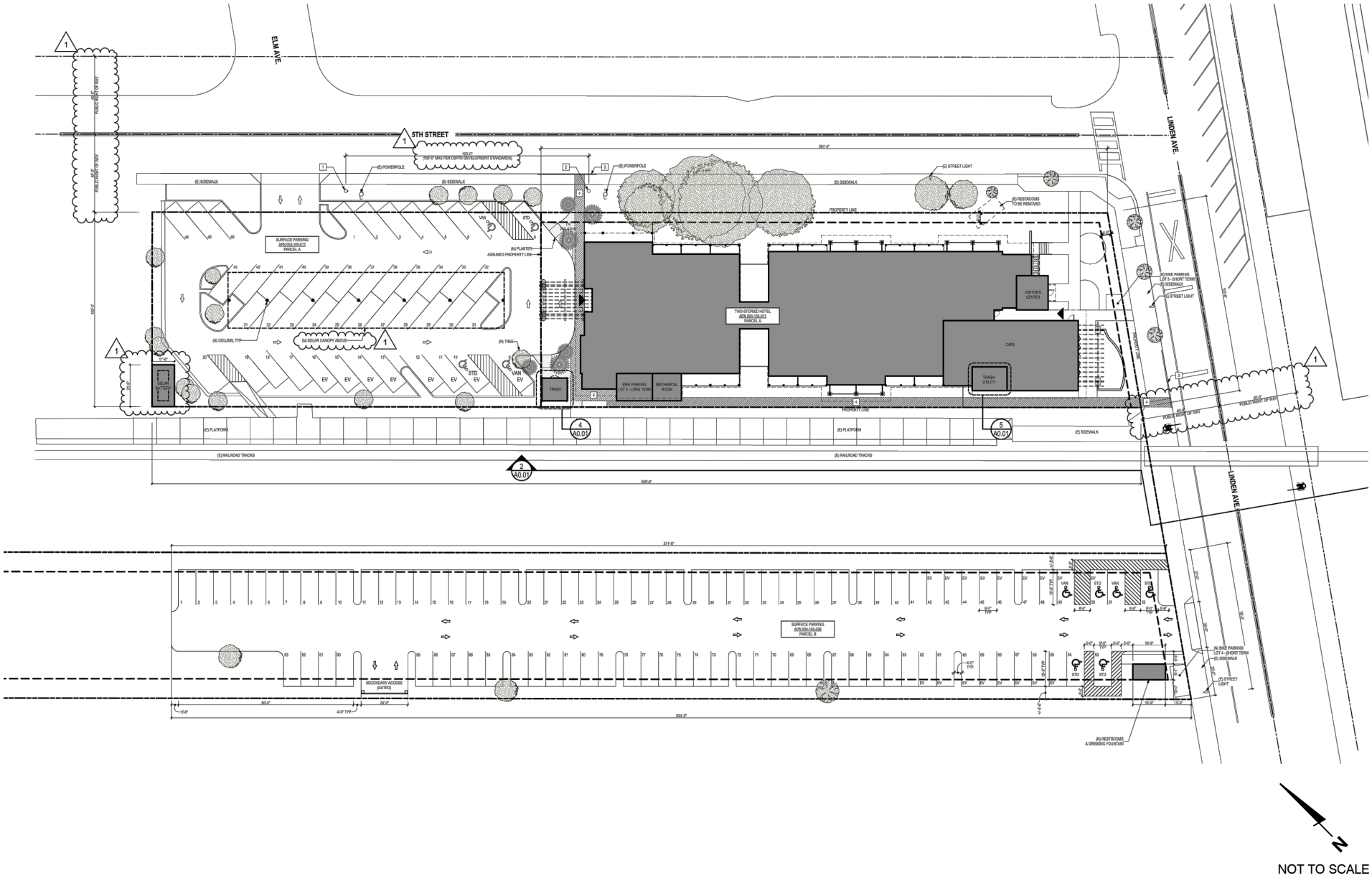
This concludes ATE's updated traffic and parking study for the Surfliner Inn Project.

Associated Transportation Engineers

Scott A. Schell
Principal Transportation Planner

SAS/GOM

Attachments: Figure 1 – Project Site Plan
Walker Study Calculations
Parking Occupancy Data
Shared Parking Demand Calculations



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PROJECT SITE PLAN

FIGURE 1

GM- ATE#21059.01

Table 11: Linden Inn Recommended Parking Supply – Weekday (Project Period of Peak Demand)

Land Use	Quantity	Unit	Base Ratio	Driving Ratio	Non-Captive Ratio	Project Rate	Unit	Peak Hr Adj 6PM	Peak Mo Adj July	Recommended Supply
Hotel Guests	40	keys	1.00	59%	100%	0.59	keys	85%	100%	20
Employees	40	keys	0.15	79%	100%	0.12	keys	40%	90%	2
Rooftop Bar	1,490	sf GLA	6.67	63%	70%	2.94	ksf GLA	55%	95%	2
Meeting Space	3,938	sf GLA	10.31	68%	60%	4.21	ksf GLA	100%	100%	17
Bar/Meeting Employees	5,428	sf GLA	1.07	79%	100%	0.84	ksf GLA	60%	100%	3
Café Customers	2,050	sf GLA	12.40	70%	70%	6.08	ksf GLA	85%	97%	10
Employees			2.00	79%	100%	1.58		90%	100%	4
								Total Guests/Customers		*50*
								Total Employees		*8*
								Total		**58**
								Shared Parking Reduction		57%

Source: *Walker Consultants*, 2020

Table 12: Linden Inn Recommended Parking Supply – Weekend (Project Period of Peak Demand)

Land Use	Quantity	Unit	Base Ratio	Driving Ratio	Non-Captive Ratio	Project Rate	Unit	Peak Hr Adj 6PM	Peak Mo Adj July	Recommended Supply
Hotel Guests	40	keys	1.00	69%	100%	0.69	keys	85%	100%	23
Employees	40	keys	0.15	79%	100%	0.12	keys	40%	90%	2
Rooftop Bar	1,490	sf GLA	7.67	54%	70%	2.90	ksf GLA	55%	95%	2
Meeting Space	3,938	sf GLA	5.64	68%	70%	2.68	ksf GLA	100%	100%	11
Bar/Meeting Employees	5,428	sf GLA	1.10	79%	100%	0.87	ksf GLA	100%	100%	5
Café Customers	2,050	sf GLA	12.70	70%	70%	6.22	ksf GLA	85%	97%	11
Employees			2.00	79%	100%	1.58		90%	100%	4
									Total Guests/Customers	*48*
									Total Employees	*10*
									Total	**58**
									Shared Parking Reduction	52%

Source: *Walker Consultants*, 2020

Carpinteria Parking Lot No. 3
Occupancy Counts

Existing / Proposed Spaces:	113	138
Café per reg:	15 -18	
Hotel per reg (1/key + 1/emp):	45	
Net New Spaces:		*-38*

Date	Time	Public				Blum	Total Occupied (%)		% w/o Blum	Open Spaces
		AM	PM	HC	EV					
Monday, October 14, 2019	12PM	35	-	-	1	7	42	37.2%	31.0%	71
	6:30PM	-	18	-	-	11	29	25.7%	15.9%	84
Tuesday, October 15, 2019	8:40AM	32	-	-	-	8	40	35.4%	28.3%	73
	12PM	-	42	-	1	8	50	44.2%	37.2%	63
Wednesday, October 16, 2019	8:25AM	35	-	-	-	8	43	38.1%	31.0%	70
	12PM		47	1	1	8	55	48.7%	41.6%	58
	5PM		31	2	2	9	40	35.4%	27.4%	73
Thursday, October 17, 2019	8:40AM	37		1	1	8	45	39.8%	32.7%	68
	12:25PM		43	2	-	8	51	45.1%	38.1%	62
	5PM	-	16	1	-	9	25	22.1%	14.2%	88
Friday, October 18, 2019	8AM	37	-	1	1	9	46	40.7%	32.7%	67
	12PM		50	1	1	10	60	53.1%	44.2%	53
	5PM	-	35	1	-	10	45	39.8%	31.0%	68
Saturday, October 19, 2019	8AM	23	-	-	-	10	33	29.2%	20.4%	80
	12PM	-	38	1	1	15	53	46.9%	33.6%	60
	5PM		23			10	33	29.2%	20.4%	80
Sunday, October 20, 2019	8AM	19	-	-	1	11	30	26.5%	16.8%	83
	2PM	-	44	-	-	11	55	48.7%	38.9%	58
	5PM	-	21	-	-	10	31	27.4%	18.6%	82
Monday, October 21, 2019	8AM	32	-	-	1	7	39	34.5%	28.3%	74
	12PM	-	42	-	-	7	49	43.4%	37.2%	64
	6PM		21		2	10	31	27.4%	18.6%	82
Tuesday, October 22, 2019	8AM	29	-	-	-	9	38	33.6%	25.7%	75
	12PM		46			7	53	46.9%	40.7%	60
	5PM	-	21	-	-	10	31	27.4%	18.6%	82
Wednesday, October 23, 2019	8AM	32	-	-	-	7	39	34.5%	28.3%	74
	12PM	-	31	-	-	7	38	33.6%	27.4%	75
(Rotry Club event in garden)	5PM	-	57	3	2	9	66	58.4%	50.4%	47
Thursday, October 24, 2019	8AM	34	-	-	-	12	46	40.7%	30.1%	67
	12PM	-	51	1	-	4	55	48.7%	45.1%	58
	5:30PM	-	26	-	1	6	32	28.3%	23.0%	81
Friday, October 25, 2019	8AM	28	-	-	1	4	32	28.3%	24.8%	81
	12PM	-	33	-	-	3	36	31.9%	29.2%	77
	5PM	-	38	1	-	2	40	35.4%	33.6%	73
Saturday, October 26, 2019	8AM	18	-	-	1	2	20	17.7%	15.9%	93
	12PM	-	30	-	-	2	32	28.3%	0.0%	81
	5PM	-	24	-	-	2	26	23.0%	21.2%	87
Sunday, October 27, 2019	8AM	21	-	-	1	2	23	20.4%	18.6%	90
	1PM	-	27	-	-	2	29	25.7%	23.9%	84
	5PM	-	17	-	-	2	19	16.8%	15.0%	94
	Avg AM/%	29	26.0%				AVG#:	36		
	Avg PM/%	34	29.7%				AVG%:	31.8%		

1st Week - Oct 14th -20th	Avg AM/%	31	27.4%	Daily	AVG#:	42
	Avg PM/%	34	30.1%	Daily	AVG%:	37.5%
2nd Week - Oct 21st -27th	Avg AM/%	34	30.0%	Daily	AVG#:	37
	Avg PM/%	38	33.9%	Daily	AVG%:	32.6%

SURFLINER INN PROJECT (#21059) - WEEKDAY PEAK PARKING DEMAND FORECASTS WITH FUTURE PROJECTS
SHARED PARKING CALCULATIONS - ULI DEMAND RATES/TIME-OF-DAY FACTORS

WEEKDAY PARKING DEMAND CALCULATIONS BY USE

Land Use	Size	Units	Parking Rate	Alt Trans Factor (l)	Internal Factor (l)	Peak Demand
Bar Event Space (a)	1,695	SF	20.97	68%	60%	15
Bar Event Space Employees (b)	1,695	SF	1.55	79%	100%	2
Café (c)	2,252	SF	12.40	70%	70%	14
Café Employees (d)	2,252	SF	2.00	79%	100%	4
Rooftop Bar (e)	1,150	SF	15.25	63%	70%	8
Rooftop Bar Employees (f)	1,150	SF	1.25	79%	100%	1
Visitor Center (g)	245	SF	2.90	70%	70%	0
Visitor Center Employees (h)	245	SF	0.70	79%	100%	0
Hotel (i)	36	Rooms	1.00	59%	100%	21
Hotel Employees (j)	36	Rooms	0.15	79%	100%	4
Manager's Unit (k)	1	Room	1.00	100%	100%	1
						70

(a) ULI Parking Ratio for Meeting/Banquet Space - Weekday Visitors.
(b) ULI Parking Ratio for Meeting/Banquet Space - Weekday Employees.
(c) ULI Parking Ratio for Fast Casual/Fast Food - Weekday Visitors.
(d) ULI Parking Ratio for Fast Casual/Fast Food - Weekday Employees.
(e) ULI Parking Ratio for Bar/Lounge - Weekday Visitors.
(f) ULI Parking Ratio for Bar/Lounge - Weekday Employees.
(g) ULI Parking Ratio for Retail - Weekday Visitors.
(h) ULI Parking Ratio for Retail - Weekday Employees.
(i) ULI Parking Ratio for Hotel Leisure - Weekday Visitors. Includes manager unit.
(j) ULI Parking Ratio for Hotel Leisure - Weekday Employees. Includes manager unit.
(k) Assumes 1 Space Reserved for Manager's Unit.
(l) Factors obtained from Downtown Carpinteria Parking Study prepared by Walker Consultants.

HOURLY PARKING DEMANDS BY USE

	Bar Event Space		Bar Event Space Employees		Café		Café Employees		Rooftop Bar		Rooftop Bar Employees		Visitor Center		Visitor Center Employees		Hotel		Hotel Employees		Manager's Unit		Project
Time of Day	*Hourly % (a)*	*15*	*Hourly % (b)*	*2*	*Hourly % (c)*	*14*	*Hourly % (d)*	*4*	*Hourly % (e)*	*8*	*Hourly % (f)*	*1*	*Hourly % (g)*	*0*	*Hourly % (h)*	*0*	*Hourly % (i)*	*21*	*Hourly % (j)*	*4*	*Hourly % (m)*	*1*	Subtotal
6:00 a.m.	0%	0	10%	0	5%	1	20%	1	0%	0	0%	0	1%	0	10%	0	95%	20	10%	0	100%	1	23
7:00 a.m.	0%	0	10%	0	10%	1	20%	1	0%	0	0%	0	5%	0	15%	0	95%	20	30%	1	100%	1	24
8:00 a.m.	30%	5	60%	1	20%	3	30%	1	0%	0	0%	0	15%	0	25%	0	90%	19	100%	4	100%	1	34
9:00 a.m.	60%	9	100%	2	30%	4	40%	2	0%	0	5%	0	35%	0	45%	0	80%	17	100%	4	100%	1	39
10:00 a.m.	60%	9	100%	2	55%	8	75%	3	0%	0	5%	0	60%	0	75%	0	70%	15	100%	4	100%	1	42
11:00 a.m.	60%	9	100%	2	85%	12	100%	4	0%	0	5%	0	75%	0	95%	0	70%	15	100%	4	100%	1	47
12:00 Noon	65%	10	100%	2	100%	14	100%	4	0%	0	5%	0	100%	0	100%	0	65%	14	100%	4	100%	1	49
1:00 p.m.	65%	10	100%	2	100%	14	100%	4	0%	0	10%	0	100%	0	100%	0	65%	14	100%	4	100%	1	49
2:00 p.m.	65%	10	100%	2	90%	13	95%	4	0%	0	10%	0	95%	0	100%	0	70%	15	100%	4	100%	1	49
3:00 p.m.	65%	10	100%	2	60%	8	70%	3	0%	0	10%	0	85%	0	100%	0	70%	15	100%	4	100%	1	43
4:00 p.m.	65%	10	100%	2	55%	8	60%	2	0%	0	20%	0	85%	0	100%	0	75%	16	70%	3	100%	1	42
5:00 p.m.	100%	15	100%	2	60%	8	70%	3	0%	0	45%	0	85%	0	100%	0	80%	17	70%	3	100%	1	49
6:00 p.m.	100%	15	60%	1	85%	12	90%	4	25%	2	70%	1	90%	0	100%	0	85%	18	40%	2	100%	1	56
7:00 p.m.	100%	15	40%	1	80%	11	90%	4	50%	4	100%	1	80%	0	100%	0	85%	18	20%	1	100%	1	56
8:00 p.m.	100%	15	40%	1	50%	7	60%	2	75%	6	100%	1	65%	0	90%	0	90%	19	20%	1	100%	1	53
9:00 p.m.	100%	15	20%	0	30%	4	40%	2	100%	8	100%	1	45%	0	60%	0	95%	20	20%	1	100%	1	52
10:00 p.m.	50%	8	0%	0	20%	3	30%	1	100%	8	100%	1	15%	0	40%	0	95%	20	20%	1	100%	1	43
11:00 p.m.	0%	0	0%	0	10%	1	20%	1	75%	6	90%	1	5%	0	20%	0	100%	21	10%	0	100%	1	31
12:00 a.m.	0%	0	0%	0	5%	1	20%	1	50%	4	60%	1	0%	0	0%	0	100%	21	5%	0	100%	1	29

FUTURE PROJECTS

Existing Demand	Amtrak (k)	700 Linden (l)
		0
		0
		0
		2
		8
55	7	12
55	7	28
55	7	26
55	7	17
39	5	12
39	5	9
28	4	14
28	4	17
31	4	16
31	4	6
		0
		0
		0

Total Shared Parking Demand	Parking Supply	Extra Spaces
23	139	116
24	139	115
34	139	105
41	139	98
50	139	89
121	139	18
139	139	0
137	139	2
128	139	11
99	139	40
95	139	44
95	139	44
105	139	34
107	139	32
94	139	45
52	139	87
43	139	96
31	139	108
29	139	110

(a) ULI time-of-day factors for Meeting/banquet (<100 sq ft/key) - Weekday Visitors.
(b) ULI time-of-day factors for Meeting/banquet (<100 sq ft/key) - Weekday Employees.
(c) ULI time-of-day factors for Fast Casual/Fast Food - Weekday Visitors.
(d) ULI time-of-day factors for Fast Casual/Fast Food - Weekday Employees.
(e) ULI time-of-day factors for Bar/Lounge - Weekday Visitors.
(f) ULI time-of-day factors for Bar/Lounge - Weekday Employees.
(g) ULI time-of-day factors for Retail typical - Weekday Visitors.
(h) ULI time-of-day factors for Retail - Weekday Employees.
(i) ULI time-of-day factors for Leisure Hotel - Weekday Guests.
(j) ULI time-of-day factors for Leisure Hotel - Weekday Employees.
(k) Factors obtained from Downtown Carpinteria Parking Study prepared by Walker Consultants.
(l) Parking demand estimates from Parking Study, ATE, April 15, 2021.
(m) Assumes 1 Space Reserved for Manager's Unit.

SURFLINER INN PROJECT (#21059) - WEEKEND PEAK PARKING DEMAND FORECASTS WITH FUTURE PROJECTS
SHARED PARKING CALCULATIONS - ULI DEMAND RATES/TIME-OF-DAY FACTORS

WEEKEND PARKING DEMAND CALCULATIONS BY USE

Land Use	Size	Units	Parking Rate	Alt Trans Factor (l)	Internal Factor (l)	Peak Demand
Bar Event Space (a)	1,695	SF	10.97	68%	70%	9
Bar Event Space Employees (b)	1,695	SF	1.55	79%	100%	2
Café (c)	2,252	SF	12.70	70%	70%	14
Café Employees (d)	2,252	SF	2.00	79%	100%	4
Rooftop Bar (e)	1,150	SF	17.50	54%	70%	8
Rooftop Bar Employees (f)	1,150	SF	1.50	79%	100%	1
Visitor Center (g)	245	SF	3.20	70%	70%	0
Visitor Center Employees (h)	245	SF	0.80	79%	100%	0
Hotel (i)	36	Rooms	1.00	69%	100%	25
Hotel Employees (j)	36	Rooms	0.15	79%	100%	4
Manager's Unit (k)	1	Room	1.00	100%	100%	1
						67

(a) ULI Parking Ratio for Meeting/Banquet Space - Weekend Visitors.
(b) ULI Parking Ratio for Meeting/Banquet Space - Weekend Employees.
(c) ULI Parking Ratio for Fast Casual/Fast Food - Weekend Visitors.
(d) ULI Parking Ratio for Fast Casual/Fast Food - Weekend Employees.
(e) ULI Parking Ratio for Bar/Lounge - Weekend Visitors.
(f) ULI Parking Ratio for Bar/Lounge - Weekend Employees.
(g) ULI Parking Ratio for Retail - Weekend Visitors.
(h) ULI Parking Ratio for Retail - Weekend Employees.
(i) ULI Parking Ratio for Hotel Leisure - Weekend Visitors. Includes manager unit.
(j) ULI Parking Ratio for Hotel Leisure - Weekend Employees. Includes manager unit.
(k) Assumes 1 Space Reserved for Manager's Unit.
(l) Factors obtained from Downtown Carpinteria Parking Study prepared by Walker Consultants.

HOURLY PARKING DEMANDS BY USE

Time of Day	Bar Event Space		Bar Event Space Employees		Café		Café Employees		Rooftop Bar		Rooftop Bar Employees		Visitor Center		Visitor Center Employees		Hotel		Hotel Employees		Manager's Unit		Project Subtotal
	Hourly % (a)	*9*	*Hourly % (b)*	*2*	*Hourly % (c)*	*14*	*Hourly % (d)*	*4*	*Hourly % (e)*	*8*	*Hourly % (f)*	*1*	*Hourly % (g)*	*0*	*Hourly % (h)*	*0*	*Hourly % (i)*	*25*	*Hourly % (j)*	*4*	*Hourly % (m)*	*1*	
6:00 a.m.	0%	0	10%	0	5%	1	15%	1	0%	0	0%	0	1%	0	10%	0	95%	24	10%	0	100%	1	27
7:00 a.m.	0%	0	10%	0	10%	1	20%	1	0%	0	0%	0	5%	0	15%	0	95%	24	30%	1	100%	1	28
8:00 a.m.	30%	3	60%	1	20%	3	30%	1	0%	0	0%	0	30%	0	40%	0	90%	23	100%	4	100%	1	36
9:00 a.m.	60%	5	100%	2	30%	4	40%	2	0%	0	5%	0	50%	0	75%	0	80%	20	100%	4	100%	1	38
10:00 a.m.	60%	5	100%	2	55%	8	75%	3	0%	0	5%	0	70%	0	85%	0	70%	18	100%	4	100%	1	41
11:00 a.m.	60%	5	100%	2	85%	12	100%	4	0%	0	5%	0	90%	0	95%	0	70%	18	100%	4	100%	1	46
12:00 Noon	65%	6	100%	2	100%	14	100%	4	0%	0	5%	0	95%	0	100%	0	65%	16	100%	4	100%	1	47
1:00 p.m.	65%	6	100%	2	100%	14	100%	4	0%	0	10%	0	100%	0	100%	0	65%	16	100%	4	100%	1	47
2:00 p.m.	65%	6	100%	2	90%	13	95%	4	0%	0	10%	0	100%	0	100%	0	70%	18	100%	4	100%	1	48
3:00 p.m.	65%	6	100%	2	60%	8	70%	3	0%	0	10%	0	95%	0	100%	0	70%	18	100%	4	100%	1	42
4:00 p.m.	65%	6	100%	2	55%	8	60%	2	0%	0	20%	0	90%	0	100%	0	75%	19	70%	3	100%	1	41
5:00 p.m.	100%	9	100%	2	60%	8	70%	3	0%	0	45%	0	80%	0	95%	0	80%	20	70%	3	100%	1	46
6:00 p.m.	100%	9	100%	2	85%	12	90%	4	25%	2	70%	1	75%	0	85%	0	85%	21	40%	2	100%	1	54
7:00 p.m.	100%	9	100%	2	80%	11	90%	4	50%	4	100%	1	70%	0	80%	0	85%	21	20%	1	100%	1	54
8:00 p.m.	100%	9	100%	2	50%	7	60%	2	75%	6	100%	1	65%	0	75%	0	90%	23	20%	1	100%	1	52
9:00 p.m.	100%	9	100%	2	30%	4	40%	2	100%	8	100%	1	50%	0	65%	0	95%	24	20%	1	100%	1	52
10:00 p.m.	50%	5	60%	1	20%	3	30%	1	100%	8	100%	1	30%	0	45%	0	95%	24	20%	1	100%	1	45
11:00 p.m.	0%	0	10%	0	10%	1	20%	1	100%	8	100%	1	10%	0	15%	0	100%	25	10%	0	100%	1	37
12:00 a.m.	0%	0	10%	0	5%	1	20%	1	100%	8	100%	1	0%	0	0%	0	100%	25	5%	0	100%	1	37

FUTURE PROJECTS

Existing Demand	Amtrak (k)	700 Linden (l)	Total Shared Parking Demand	Parking Supply	Extra Spaces
		0	27	139	112
		0	28	139	111
		0	36	139	103
		0	38	139	101
		1	42	139	97
48	6	4	104	139	35
48	6	12	113	139	26
50	6	15	118	139	21
50	6	14	118	139	21
67	9	7	125	139	14
67	9	2	119	139	20
54	7	6	113	139	26
54	7	12	127	139	12
49	6	9	118	139	21
49	6	8	115	139	24
		3	55	139	84
		0	45	139	94
		0	37	139	102
		0	37	139	102

(a) ULI time-of-day factors for Meeting/banquet (<100 sq ft/key) - Weekend Visitors.
(b) ULI time-of-day factors for Meeting/banquet (<100 sq ft/key) - Weekend Employees.
(c) ULI time-of-day factors for Fast Casual/Fast Food - Weekend Visitors.
(d) ULI time-of-day factors for Fast Casual/Fast Food - Weekend Employees.
(e) ULI time-of-day factors for Bar/Lounge - Weekend Visitors.
(f) ULI time-of-day factors for Bar/Lounge - Weekend Employees.
(g) ULI time-of-day factors for Retail typical - Weekend Visitors.
(h) ULI time-of-day factors for Retail - Weekend Employees.
(i) ULI time-of-day factors for Leisure Hotel - Weekend Guests.
(j) ULI time-of-day factors for Leisure Hotel - Weekend Employees.
(k) Factors obtained from Downtown Carpinteria Parking Study prepared by Walker Consultants.
(l) Parking demand estimates from Parking Study, ATE, April 15, 2021.
(m) Assumes 1 Space Reserved for Manager's Unit.

Appendix K
Tribal Cultural Resources

CITY of CARPINTERIA, CALIFORNIA

May 23, 2025

Eleanor Fishburn, Chairperson
Barbareno Band of Chumash Indians
PO Box 5687
Ventura, CA, 93005

Via email to: eleanor@spiritinthewind.net

Re: AB 52 Tribal Consultation Invitation
Carpinteria Surfliner Inn Environmental Impact Report

Dear Ms. Fishburn:

In accordance with Assembly Bill 52, the City of Carpinteria ("City") is sending this notice to inform California Native American tribes that have requested such notice of a project application within a geographic area with which the tribe is traditionally and culturally affiliated. California Public Resources Code § 21080.3.1 allows California Native American tribes 30 days from the date of receipt of this notice to request consultation with the City regarding this project.

PROJECT DESCRIPTION:
The Surfliner Inn Project (Project) is a proposed development project that would include a commercial hotel and public improvements. The 36-room hotel development would contain a mix of guest rooms and amenities such as a café/restaurant, rooftop lounge, and a potential event space. The Project also includes plans for new public parking, improved coastal trail access, and enhanced landscaping.

The hotel portion of the Project would be located on the eastern portion of City Parking Lot #3 (i.e., 499 Linden Avenue), nearest the Linden Avenue and Fifth Street intersection. The parking, improved coastal trail access, and enhanced landscaping would be located at City Parking Lots #3 and #4. Proposed parking lot #4 would be located on the south side of the Union Pacific railroad tracks and provide 93 parking spaces, with vehicular access from Linden Avenue. The proposed Lot 4, including the public restroom relocation, would be constructed by the City with funds provided by the developer of the hotel project.

Additional information, as well as a frequently asked questions (FAQ) summary is available on the City's website at this link: https://carpinteriaca.gov/city-hall/community-development/linden-inn-project/ or via this QR code:

PROJECT LOCATION:
The project site for the Surfliner Inn is located at 499 Linden Avenue (Assessor's Parcel Number 004-105-011); the project site for Parking Lot #4 is located just southwest of the railroad tracks and northwest of 389 Linden Avenue (Assessor's Parcel Number 004-105-026) in Carpinteria, California.

A Phase I Archaeological Resources Report was prepared for the proposed Project and can be provided to you upon request.

The Project is subject to analysis pursuant to the California Environmental Quality Act (CEQA). In accordance with CEQA Guidelines Section 15367, the City of Carpinteria (City) is the lead agency with principal responsibility for considering the Project for approval (14 CCR 15000 et seq.).

Please direct your correspondence to: Mindy Fogg, Principal Planner, at the address below, or at (805) 755-4408 or mindyf@carpinteriaca.gov.

Sincerely,

Nick Bobroff, Director
Community Development Department
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013
(805) 755-4407

CITY of CARPINTERIA, CALIFORNIA

May 23, 2025

Barbara Lopez, Cultural Resource Chair
Barbareno Band of Chumash Indians
4764 Ashdale Street
Santa Barbara, CA, 93110

Via email to: chumashangels@aol.com

Re: AB 52 Tribal Consultation Invitation
Carpinteria Surfliner Inn Environmental Impact Report

Dear Ms. Lopez:

In accordance with Assembly Bill 52, the City of Carpinteria ("City") is sending this notice to inform California Native American tribes that have requested such notice of a project application within a geographic area with which the tribe is traditionally and culturally affiliated. California Public Resources Code § 21080.3.1 allows California Native American tribes 30 days from the date of receipt of this notice to request consultation with the City regarding this project.

PROJECT DESCRIPTION:
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Please direct your correspondence to: Mindy Fogg, Principal Planner, at the address below, or at (805) 755-4408 or mindyf@carpinteriaca.gov.

Sincerely,

Nick Bobroff, Director
Community Development Department
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013
(805) 755-4407

CITY of CARPINTERIA, CALIFORNIA

May 23, 2025

Cultural Resource Committee
Barbareño/Ventureño Band of Mission Indians
P.O. Box 364
Ojai, CA, 93024
Via email to: CR@bvbmi.com

Re: AB 52 Tribal Consultation Invitation
Carpinteria Surfliner Inn Environmental Impact Report

Dear Cultural Resouce Committee:

In accordance with Assembly Bill 52, the City of Carpinteria ("City") is sending this notice to inform California Native American tribes that have requested such notice of a project application within a geographic area with which the tribe is traditionally and culturally affiliated. California Public Resources Code § 21080.3.1 allows California Native American tribes 30 days from the date of receipt of this notice to request consultation with the City regarding this project.

PROJECT DESCRIPTION:
The Surfliner Inn Project (Project) is a proposed development project that would include a commercial hotel and public improvements. The 36-room hotel development would contain a mix of guest rooms and amenities such as a café/restaurant, rooftop lounge, and a potential event space. The Project also includes plans for new public parking, improved coastal trail access, and enhanced landscaping.

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Additional information, as well as a frequently asked questions (FAQ) summary is available on the City's website at this link: https://carpinteriaca.gov/city-hall/community-development/linden-inn-project/ or via this QR code:

PROJECT LOCATION:
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The Project is subject to analysis pursuant to the California Environmental Quality Act (CEQA). In accordance with CEQA Guidelines Section 15367, the City of Carpinteria (City) is the lead agency with principal responsibility for considering the Project for approval (14 CCR 15000 et seq.).

Please direct your correspondence to: Mindy Fogg, Principal Planner, at the address below, or at (805) 755-4408 or mindyf@carpinteriaca.gov.

Sincerely,

Nick Bobroff, Director
Community Development Department
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013
(805) 755-4407

CITY of CARPINTERIA, CALIFORNIA

May 23, 2025

Julio Quair, Chairperson
Chumash Council of Bakersfield
729 Texas Street
Bakersfield, CA, 93307

Via email to: chumashtribe@sbcglobal.net

Re: AB 52 Tribal Consultation Invitation
Carpinteria Surfliner Inn Environmental Impact Report

Dear Mr. Quair:

In accordance with Assembly Bill 52, the City of Carpinteria ("City") is sending this notice to inform California Native American tribes that have requested such notice of a project application within a geographic area with which the tribe is traditionally and culturally affiliated. California Public Resources Code § 21080.3.1 allows California Native American tribes 30 days from the date of receipt of this notice to request consultation with the City regarding this project.

PROJECT DESCRIPTION:
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Additional information, as well as a frequently asked questions (FAQ) summary is available on the City's website at this link: https://carpinteriaca.gov/city-hall/community-development/linden-inn-project/ or via this QR code:

PROJECT LOCATION:
The project site for the Surfliner Inn is located at 499 Linden Avenue (Assessor's Parcel Number 004-105-011); the project site for Parking Lot #4 is located just southwest of the railroad tracks and northwest of 389 Linden Avenue (Assessor's Parcel Number 004-105-026) in Carpinteria, California.

A Phase I Archaeological Resources Report was prepared for the proposed Project and can be provided to you upon request.

The Project is subject to analysis pursuant to the California Environmental Quality Act (CEQA). In accordance with CEQA Guidelines Section 15367, the City of Carpinteria (City) is the lead agency with principal responsibility for considering the Project for approval (14 CCR 15000 et seq.).

Please direct your correspondence to: Mindy Fogg, Principal Planner, at the address below, or at (805) 755-4408 or mindyf@carpinteriaca.gov.

Sincerely,

Nick Bobroff, Director
Community Development Department
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013
(805) 755-4407

CITY of CARPINTERIA, CALIFORNIA

May 23, 2025

Gabe Frausto, Chairman
Coastal Band of the Chumash Nation
P.O. Box 40653
Santa Barbara, CA, 93140

Via email to: fraustogabriel28@gmail.com

Re: AB 52 Tribal Consultation Invitation
Carpinteria Surfliner Inn Environmental Impact Report

Dear Mr. Frausto:

In accordance with Assembly Bill 52, the City of Carpinteria ("City") is sending this notice to inform California Native American tribes that have requested such notice of a project application within a geographic area with which the tribe is traditionally and culturally affiliated. California Public Resources Code § 21080.3.1 allows California Native American tribes 30 days from the date of receipt of this notice to request consultation with the City regarding this project.

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Sincerely,

Nick Bobroff, Director
Community Development Department
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013
(805) 755-4407

CITY of CARPINTERIA, CALIFORNIA

May 23, 2025

Violet Walker, Chairperson
Northern Chumash Tribal Council
P.O. Box 6533
Los Osos, CA, 93412

Via email to: violetsagewalker@gmail.com

Re: AB 52 Tribal Consultation Invitation
Carpinteria Surfliner Inn Environmental Impact Report

Dear Ms. Walker:

In accordance with Assembly Bill 52, the City of Carpinteria ("City") is sending this notice to inform California Native American tribes that have requested such notice of a project application within a geographic area with which the tribe is traditionally and culturally affiliated. California Public Resources Code § 21080.3.1 allows California Native American tribes 30 days from the date of receipt of this notice to request consultation with the City regarding this project.

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Sincerely,

Nick Bobroff, Director
Community Development Department
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013
(805) 755-4407

CITY of CARPINTERIA, CALIFORNIA

May 23, 2025

Wendy Teeter, Cultural Resources Archaeologist
Santa Ynez Band of Chumash Indians
100 Via Juana Road
Santa Ynez, CA, 93460

Via email to: wteeter@chumash.gov

Re: AB 52 Tribal Consultation Invitation
Carpinteria Surfliner Inn Environmental Impact Report

Dear Ms. Teeter:

In accordance with Assembly Bill 52, the City of Carpinteria ("City") is sending this notice to inform California Native American tribes that have requested such notice of a project application within a geographic area with which the tribe is traditionally and culturally affiliated. California Public Resources Code § 21080.3.1 allows California Native American tribes 30 days from the date of receipt of this notice to request consultation with the City regarding this project.

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Nick Bobroff, Director
Community Development Department
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013
(805) 755-4407

CITY of CARPINTERIA, CALIFORNIA

May 23, 2025

Nakia Zavalla, Tribal Historic Preservation Officer
Santa Ynez Band of Chumash Indians
100 Via Juana Road
Santa Ynez, CA, 93460

Via email to: nzavalla@chumash.gov

Re: AB 52 Tribal Consultation Invitation
Carpinteria Surfliner Inn Environmental Impact Report

Dear Nakia Zavalla:

In accordance with Assembly Bill 52, the City of Carpinteria ("City") is sending this notice to inform California Native American tribes that have requested such notice of a project application within a geographic area with which the tribe is traditionally and culturally affiliated. California Public Resources Code § 21080.3.1 allows California Native American tribes 30 days from the date of receipt of this notice to request consultation with the City regarding this project.

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Community Development Department
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013
(805) 755-4407

CITY of CARPINTERIA, CALIFORNIA

May 23, 2025

Crystal Mendoza, Elders' Council Administrative Assistant
Santa Ynez Band of Chumash Indians
100 Via Juana Road
Santa Ynez, CA, 93460

Via email to: cmendoza@chumash.gov

Re: AB 52 Tribal Consultation Invitation
Carpinteria Surfliner Inn Environmental Impact Report

Dear Ms. Mendoza:

In accordance with Assembly Bill 52, the City of Carpinteria ("City") is sending this notice to inform California Native American tribes that have requested such notice of a project application within a geographic area with which the tribe is traditionally and culturally affiliated. California Public Resources Code § 21080.3.1 allows California Native American tribes 30 days from the date of receipt of this notice to request consultation with the City regarding this project.

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Community Development Department
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013
(805) 755-4407

CITY of CARPINTERIA, CALIFORNIA

May 23, 2025

Sam Cohen, Government & Legal Affairs Director
Santa Ynez Band of Chumash Indians
100 Via Juana Road
Santa Ynez, CA, 93460

Via email to: scohen@chumash.gov

Re: AB 52 Tribal Consultation Invitation
Carpinteria Surfliner Inn Environmental Impact Report

Dear Mr. Cohen:

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Community Development Department
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013
(805) 755-4407

CITY of CARPINTERIA, CALIFORNIA

May 23, 2025

Amanda Dobrov, Chairperson
Barbareno Band of Chumash Indians
PO Box 5687
Ventura, CA, 93005

Via email to: adobrov@chumash.gov

Re: AB 52 Tribal Consultation Invitation
Carpinteria Surfliner Inn Environmental Impact Report

Dear Ms. Dobrov:

In accordance with Assembly Bill 52, the City of Carpinteria ("City") is sending this notice to inform California Native American tribes that have requested such notice of a project application within a geographic area with which the tribe is traditionally and culturally affiliated. California Public Resources Code § 21080.3.1 allows California Native American tribes 30 days from the date of receipt of this notice to request consultation with the City regarding this project.

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Nick Bobroff, Director
Community Development Department
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013
(805) 755-4407

From: Mindy Fogg <mindyf@carpinteriaca.gov>
Sent: Wednesday, June 4, 2025 11:44 AM
To: Brian Allee <BAllee@esassoc.com>
Subject: FW: {EXTERNAL} Invitation for AB 52 Consultation - Surfliner Inn Project in Carpinteria

See below

From: Amanda Dobrov <ADobrov@chumash.gov>
Sent: Tuesday, June 3, 2025 4:26 PM
To: Mindy Fogg <mindyf@carpinteriaca.gov>
Subject: Re: {EXTERNAL} Invitation for AB 52 Consultation - Surfliner Inn Project in Carpinteria

****EXTERNAL EMAIL****

CAUTION: This email originated from outside the City of Carpinteria. DO NOT OPEN attachments or CLICK on links unless you are sure they are safe. Remember, reputable vendors, banks, etc. will not ask you to disclose passwords or other sensitive information.

Hello Mindy,

Yes, the tribe would like to initiate formal consultation under AB 52 for this proposed project.

Thank you,

Amanda Dobrov, M.A.
Cultural Resources Archaeologist | Elders' Council and Culture Department

Santa Ynez Band of Chumash Indians
Physical Address: Santa Ynez Chumash Cultural Resources Management Office| 3513 Numancia Unit 101, Santa Ynez, CA 93460
Mailing Address: P.O. Box 517, Santa Ynez, CA
Email: ADobrov@chumash.gov

From: Mindy Fogg <mindyf@carpinteriaca.gov>
Sent: June 3, 2025 4:13 PM
To: Amanda Dobrov <ADobrov@chumash.gov>
Subject: RE: {EXTERNAL} Invitation for AB 52 Consultation - Surfliner Inn Project in Carpinteria

Hi Ms. Dobrov,
After talking to our city team, I wanted to get back to your original request regarding having monitors present during ground disturbing activities. Was that a general comment, or would you like to initiate consultation?

Appendix L
Utility Information

CARPINTERIA
Sanitary District

5300 Sixth Street
Carpinteria, CA 93013

Phone (805) 684-7214 · Fax (805) 684-7213

August 4, 2025

Ms. Mindy Fogg
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, California 93013

Subject: 23-2254-DP/CUP/TPM/CDP/ARB
The Surfliner Inn
399 & 499 Linden Ave (APN 004-105-011 &-026)
Intent to Provide Public Sewer Service

Dear Ms. Fogg:

Thank you for the opportunity to provide comments on the subject project. It is the intent of the Carpinteria Sanitary District (District) to provide public sanitary sewer service to the subject project. Adequate capacity exists in the District's collection and treatment facilities to serve the project.

The District offers the following comments to provide the applicant with direction and information related to the provision of sanitary sewer service for the proposed development. The project is to remove a portion of the existing parking lot and construct a new 36-room hotel, restaurant and public restroom. The District has the following comments:

- All sewer improvements shall conform to approved District construction standards for materials and methods.

- A sewer construction permit is required for any and all work on the building sewer and lateral sewer that will serve the buildings. The permit shall be procured and applicable fees paid prior to issuance of Building Permits. During the construction phase, it is the applicant's and contractor's responsibility to notify the District of any sewer improvements or modifications not noted on the approved plans.

- The restaurant will be required to have a grease-management device sized in conformity with the current unified plumbing code (UPC) and approved by the District. The grease-management device should be located where it is accessible and easily serviced.

- Development Impact Fees (DIF) for the proposed project will be required. The proposed 36-room Inn and Restaurant has an estimated DIF fee of **$148,123.56**. The fees will be determined when the District reviews the finalized construction plans.

- District sewer service charges (SSCs) are collected through the County of Santa Barbara property tax rolls on an annual basis. Prior to obtaining a Certificate of

Occupancy, the applicant shall pay District applicable SSCs due for the period between building occupancy and the following June 30th for each new EDU being served. The estimated SSC for the proposed 36-room Hotel is **$22,962.35**

Thank you again for the opportunity to provide feedback on this project. Please do not hesitate to contact me if you have any questions or need additional information regarding sewer service requirements. I can be reached at (805) 684-7214 extension 113 or by email at lancel@carpsan.com

Sincerely,

CARPINTERIA SANITARY DISTRICT

Lance Lawhon

Lance Lawhon
Engineering Technician

Carpinteria Valley Water District

1301 Santa Ynez Avenue • Carpinteria, CA 93013
Phone (805) 684-2816

January 22, 2024

Whitt Hollis
1072 Casitas Pass Road, #172
Carpinteria, CA 93013

SUBJECT: **Request for Intent to Serve Letter regarding proposed project at 399 & 499 Linden Avenue (the "Project")**

Dear Applicant,

In response to your request, this letter will serve as confirmation that Carpinteria Valley Water District (the "District") currently has sufficient water supply to serve the Project, subject to qualifications indicated below.

The Project proposes to construct a new 36-room hotel, café/restaurant, 83-space surface parking lot with public restrooms, rooftop lounge(s), flex space, visitor center, conference room, office and break room, bike storage, manager's unit, and coastal trail improvement.

Permit #: 23-2254-DP/CUP/CDP/ARB

While the District currently has sufficient water to supply the Project's proposed use, it is important to note that the District has declared a Stage 1 Drought Emergency (see Ordinance 22-1, *www.cvwd.net*), which remains in effect. As a result, while there are currently meters available to service the Project, the District will continue to monitor its water supply, and may be forced to consider declaring more severe stages of drought or imposing further water restrictions or a moratorium on new and/or expanded connections.

Accordingly, the confirmation conveyed by this letter is subject to the following conditions and caveats:

1. If the intensity of the proposed use increases, this letter is void and you will need to file a new request for an "Intent to Serve" letter. Subsequent issuance of a new Intent to Serve letter is not assured.
2. This letter is only valid for the Subject Project.
3. You must obtain all permits and approvals for the Project as required by local, state and federal law.
4. This "Intent to Serve" letter is conditional upon, and shall not be in force or effect until, the Project receives final approval from the applicable land use agency.
5. Upon the expiration of any land use and or building permits for the Project, this "Intent to Serve" confirmation shall be void and you shall be required to submit a new request for confirmation of

the District's intent to serve the Project, which shall be subject to any drought conditions, restrictions and/or moratoriums then in effect.

6. If new meters are required for the Project, issuance of said meters shall be subject to applicable fees, including, but not limited to, Capital Cost Recovery fees, Construction costs and other related costs, and Water Supply Impact fees.
7. The District reserves the right to participate in or comment on any analysis or review of the Project performed by any agency under the California Environmental Quality Act (CEQA), even if said participation or comment may detrimentally impact the resulting CEQA review or analysis. This letter does not constitute analysis or approval under CEQA.
8. You must renew this letter annually after the date of this letter to keep the District apprised of Project status and developments.
9. This letter has a Project specific Conditions Letter attached that will be considered to be included in the conditions above.

Should you have any questions please do not hesitate to contact the District at 805-684-2816.

Very truly yours,
Carpinteria Valley Water District



Spencer Seale
Field Engineering Technician

cc: TCM to account
Brian King, District Engineer

Carpinteria Valley Water District

1301 Santa Ynez Avenue • Carpinteria, CA 93013
Phone (805) 684-2816

January 22, 2024

Whitt Hollis
1072 Casitas Pass Road, #172
Carpinteria, CA 93013

SUBJECT: **399 & 499 LINDEN AVE; APN 004-105-011 & 004-105-026; ACCOUNT NUMBER 16-169002-01; PROJECT NUMBER 23-2254-DP/CUP/CDP/ARB; SURFLINER INN PROJECT (HOTEL + CAFÉ/RESTAURANT + VISITOR CENTER); INTENT TO SERVE WITH CONDITIONS**

To Whom It May Concern,

Please be advised, this parcel is within the jurisdiction of Carpinteria Valley Water District and therefore is entitled to District water service in accordance with District Rules and Regulations. Currently the District is in a Stage 1 Drought Emergency; for more information on Ordinance 22-1, please visit the District website www.cvwd.net.

This letter is good for one year from the date of the letter.

The subject property is currently served by a 0.75" public water meter located on 5th Street at APN 004-105-011 (Account #16-169002-01). Based on the utility plans dated September 13th, 2023, the District has the following conditions:

- Include the District on the City's building permit issuance and final sign off routing sheets.
- Include the District on the City's final sign off for occupancy.
- Water demand calculations must be provided to the District in order to determine the meter size(s) prior to sign off of the building permit.
- Water connections serving the proposed hotel shall be located on 5th Street. The plans shall be updated prior to sign off of the building permit.
- Commercial units will require commercial water meter(s) for the project.
- Unless utilized for the project, the existing 0.75" public water meter and service line on 5th Street is to be abandoned and shown on water utility plan.
- The property will require a dedicated landscape meter or meters to water landscaped areas. The irrigation meter(s) will require an appropriately sized reduced pressure principle backflow assembly (RP) per Standard Detail W-115. Calculated water demand will determine landscape meter size, as to be approved by District.
- Provide landscape plan that displays water system layout prior to issuance of building permit.
- Provide a complete Civil plan set prior to issuance of building permit.

- Once meters are installed, accounts will be open and owner will be responsible for monthly fees, charges, and account deposit.
- The owner is responsible for all Construction Deposits and Capital Cost Recovery Fees and shall reflect the accumulated hotel room services charges as outlined in Appendix B, Appendix C, and Appendix D of the District's Rules and Regulations. Construction Deposits required prior to signing the Building Permit. Capital Cost Recovery Fees due prior to the installation of water meters.
- The owner is responsible for all Water Supply Impact Fees for the project prior to the installation of water meters if such fees apply.
- If fire sprinklers are required, fire demand calculations must be supplied to the District prior to building permit issuance to ensure the meter size is adequate. If the water meter must be upsized to meet fire sprinkler demand, the owner is responsible for all fees and deposits associated with upsizing the water meter.
- If fire sprinklers are required, the owner is responsible for installing a reduced-pressure principle backflow assembly (RP) at the water meter per District standard detail W-115-01. Any deviations from the standard detail must be approved by the District prior to installation. Fire sprinkler demand calculations would need to consider the pressure loss across the backflow assembly. The backflow assembly must have a passing test performed by a certified backflow tester and submitted to the District prior to final sign off. Backflow device installation and testing fees are the responsibility of the owner and the backflow assembly would be added to the District's Cross-Connection Control Program and require annual testing.
- If an independent fire system is required, the owner must install a double-check detector assembly (DCDA) approved by the District and the Foundation for Cross-Connection Control and Hydraulic Research (FCCCHR). Fire demand calculations would need to consider the pressure loss across the backflow assembly. The backflow assembly must have a passing test performed by a certified backflow tester and submitted to the District prior to final sign off. Backflow device installation and testing fees are the responsibility of the owner and the backflow assembly would be added to the District's Cross-Connection Control Program and require annual testing.
- If other fire improvements are required for the project, the owner is responsible for all fees, deposits, and development costs associated with these improvements, including, but not limited to, fire hydrants, independent fire services, water meter upgrades, backflow assembly installations, plans, facility upgrades, and main extensions.

Should changes to the plans, including landscaping, irrigation, or water fixtures occur we require an additional opportunity to review revised plans.

If you have any questions, please feel free to contact me at spencer@cvwd.net or 805-684-2816x124.

Very truly yours,
Carpinteria Valley Water District



Spencer Seale
Field Engineering Technician

cc: TCM to account
Brian King, District Engineer