Environmental Assessment No. EA-971, Revision A

Public Review Initial Study/ Mitigated Negative Declaration

444 North Nash Street Data Center Project

November 2022

Lead Agency:

City of El Segundo
350 Main Street
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1.0 INTRODUCTION

1.1 Statutory Authority and Requirements

This Initial Study has been conducted in accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] §21000 et seq.) and the State CEQA Guidelines (California Code of Regulations [CCR], Title 14, §15000 et seq.). Pursuant to State CEQA Guidelines §15063, this Initial Study has been conducted to determine if the proposed 444 North Nash Street Data Center Project (Environmental Assessment No. EA-971, Revision A) ("Project") would have a significant effect on the environment.

The Project site comprises approximately 0.50-acre at the northern portion of an existing approximately 6.14-acre multi-tenant data center. The Applicant seeks approval of one entitlement - to amend Environmental Assessment No. EA-971 (a 2012 discretionary City approval for the existing data center and up to 14 emergency backup diesel generators) (generators) to increase the total number of allowable generators from 14 to 15. Prior operators have obtained South Coast Air Quality Management District (SCAQMD) permits to install 8 of the 15 generators. Therefore, this IS/MND evaluates up to seven additional generators for a total allowable of up to 15 generators for SCAQMD permitting purposes. Specifically, the Project proposes to install up to seven generators at the property's northeast corner - three at ground level and four on platforms. No change in land use or expansion in building floor area is proposed. These seven additional generators would support previously constructed interior electrical/equipment modifications, which would incrementally increase utility demand and result in up to five additional employees.[1]

Pursuant to State CEQA Guidelines §15063(c), the purposes of an Initial Study are to:

- Provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR or a ND;
- Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a ND;
- Assist in the preparation of an EIR, if one is required;
- Facilitate environmental assessment early in the design of a project;
- Provide documentation of the factual basis for the finding in a ND that a project will not have a significant effect on the environment;
- Eliminate unnecessary EIRs; and
- Determine whether a previously prepared EIR could be used with the project.

This Initial Study is intended to be used as a decision-making tool for the Lead Agency and responsible agencies in considering and acting on the proposed Project. Responsible agencies

[1] Pursuant to Building Permit C0260-22.

would comply with CEQA by considering this environmental analysis for discretionary actions associated with Project implementation, if any.

State CEQA Guidelines §15063(g) specifies that as soon as a Lead Agency has determined that an Initial Study will be required for a project, the Lead Agency shall consult informally with all Responsible Agencies and all Trustee Agencies responsible for resources affected by the project to obtain their recommendations as to whether an EIR, Mitigated Negative Declaration (MND), or ND should be prepared.

1.2 Summary of Findings

Pursuant to State CEQA Guidelines §15367, the City, as Lead Agency, has the authority for environmental review and adoption of the environmental documentation, in accordance with CEQA. This Initial Study has evaluated the environmental issues outlined in **Section 3.2: Environmental Factors Potentially Affected**. It provides decision-makers and the public with information concerning the Project's potential environmental effects and recommended mitigation measures, if any.

Based on the Environmental Checklist Form and supporting environmental analysis, the Project would have no impact or a less than significant impact concerning all environmental issue areas, except the following, for which the Project would have a less than significant impact with mitigation incorporated:

- Air Quality
- Noise and Vibration
- Tribal Cultural Resources

As set forth in State CEQA Guidelines §15070, an Initial Study leading to a Mitigated Negative Declaration (IS/MND) can be prepared when the Initial Study identifies potentially significant effects, but: Project revisions would avoid or mitigate the effects to a point where clearly no significant effects would occur, and there is no substantial evidence, in light of the whole record before the agency, that the Project as revised may have a significant effect on the environment.

1.3 Initial Study Public Review Process

The Notice of Intent (NOI) to Adopt a Mitigated Negative Declaration has been provided to the Clerk of the County of Los Angeles and mailed to responsible and trustee agencies concerned with the Project and other public agencies with jurisdiction by law over resources affected by the Project. A 20-day public review period has been established for the IS/MND in accordance with State CEQA Guidelines §15073. During the public review period, the IS/MND, including the Technical Appendices, was made available for review on the City website, at https://www.elsegundo.org/government/departments/development-services/planning-division/active-projects.

In reviewing the IS/MND, affected public agencies and the interested public should focus on the document's adequacy in identifying and analyzing the potential environmental impacts and the ways in which the Project's potentially significant effects can be avoided or mitigated.

Written comments on this IS/MND may be sent to:

Eduardo Schonborn, Planning Manager
City of El Segundo, Community Development Department
350 Main Street,
El Segundo, CA 90245
Email: eschonborn@elsegundo.org

Following receipt and evaluation of comments from agencies, organizations, and/or individuals, the City will determine whether any substantial new environmental issues have been raised. If so, further documentation may be required. If not or if the issues raised do not provide substantial evidence that the Project would have a significant effect on the environment, the IS/MND will be considered for adoption and the Project for approval.

1.4 Incorporation by Reference

Pursuant to State CEQA Guidelines §15150, an MND may incorporate by reference all, or portions of, another document which is a matter of public record or is generally available to the public. Where all or part of another document is incorporated by reference, the incorporated language shall be considered to be set forth in full as part of the MND's text.

The references outlined below, which were utilized during preparation of this Initial Study, are available for review on the City's website, at:

- https://www.elsegundo.org/government/departments/development-services/planning-division/general-plan
- https://codelibrary.amlegal.com/codes/elsegundoca/latest/overview

El Segundo General Plan (City of El Segundo, 1992). The City adopted its comprehensive El Segundo General Plan ("General Plan") in 1992. Since adopting the General Plan, the Circulation Element was adopted in September 2004 and the 2021-2029 Housing Element (6th Cycle) was adopted in February 2022. The General Plan outlines the City's goals, plans, and objectives for land use within the City's jurisdiction. The General Plan was used throughout this IS/MND as a source of baseline data and City policy requirements.

City of El Segundo Final General Plan Environmental Impact Report (EIP Associates) (SCH No. 1991041092). The City of El Segundo Final General Plan Environmental Impact Report ("General Plan EIR") was certified December 1, 1992 by Ordinance No. 1189. The General Plan EIR analyzed the potential environmental impacts that would result from General Plan implementation. The General Plan EIR was used throughout this IS/MND as a source of baseline data and mitigation requirements.

El Segundo Municipal Code. The El Segundo Municipal Code (ESMC) regulates municipal affairs within the City's jurisdiction including, without limitation, the building and zoning regulations (i.e., ESMC Title 13, *Building Regulations* and Title 15, *Zoning Regulations*). ESMC Titles 13 and 15 are the primary tools for implementing the General Plan and coordinating and controlling the

development and use of real property throughout the City. The ESMC is referenced throughout this IS/MND to establish the Project's baseline regulatory requirements.

T5 Data Center Expansion Project EA 971 444 N. Nash Street Initial Study/Mitigated Negative Declaration *(2012 IS/MND) (RBF Consulting, December 3, 2012).* The 2012 IS/MND evaluated a 63,666-SF expansion to an existing 116,756-SF data center. The project evaluated in the IS/MND included construction of a two-story building addition along the property's northern portion, and partial demolition of a building and construction of a two-story building addition along the property's western portion. The data center's floor area would total 180,422 SF at completion, representing a net increase in floor area of 63,666 SF. The IS/MND also evaluated up to four new generators, resulting in up to eight total generators. The 2012 IS/MND concluded the proposed project would result in no impact or less than significant impact for all resource areas studied, except the following, which were concluded to be less than significant with mitigation incorporated:

- Air Quality
- Noise and Vibration
- Tribal Cultural Resources

1.5 Report Organization

This document is organized into the following sections:

Section 1.0: Introduction provides a Project introduction and overview, cites the State CEQA Guidelines to which the proposed Project is subject, and summarizes the IS' conclusions.

Section 2.0: Project Description details the Project's location, environmental setting, background and history, characteristics, discretionary actions, construction program, phasing, agreements, and required permits and approvals. This Section also identifies the IS' intended uses, including a list of anticipated permits and other approvals.

Section 3.0: Environmental Checklist Form provides the Project background and an overview of potential impacts that may or may not result from Project implementation.

Section 4.0: Evaluation of Environmental Impacts provides an analysis of environmental impacts identified in the environmental checklist.

Section 5.0: References identifies resources used to prepare the IS.

Section 6.0: Inventory of Mitigation Measures provides an inventory of mitigation measures.

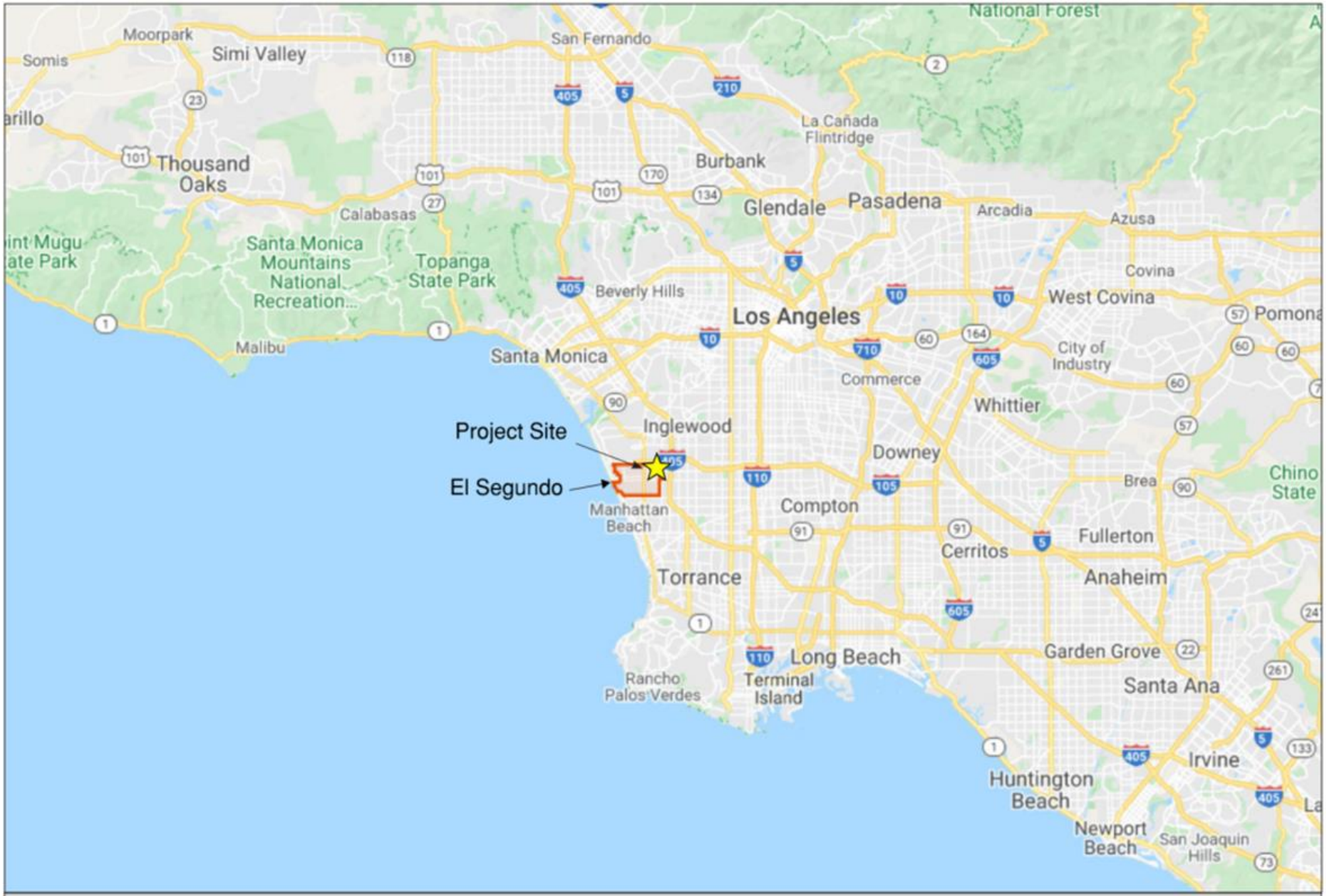

EXHIBIT 1: Regional Vicinity Map
Nash Street Data Center Generator Project

NOT TO SCALE

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2.0 PROJECT DESCRIPTION

2.1 Location

The Project site is located in the northeast quadrant of the City of El Segundo (City or El Segundo), in the County of Los Angeles (County), approximately 18-miles southwest of downtown Los Angeles. It is approximately 0.5 mile south of Los Angeles International Airport (LAX); see **Exhibit 2-1: Regional Vicinity Map**. Regional access to the site is provided via the San Diego Freeway (Interstate 405) located approximately 1.0 mile to the east, Interstate 105 approximately one mile to the north, and El Segundo Boulevard approximately 0.3 mile to the south. Additionally, Sepulveda Boulevard (Highway 1) is approximately 0.5 mile west of the Project site.

The Project site is comprised of a 0.5-acre portion of an approximately 6.14-acre property (Assessor's Parcel Number 4138-003-007[2]), located at 444 North Nash Street; see **Exhibit 2-2: Local Vicinity Map**.

2.2 Environmental Setting

2.2.1 ON-SITE CONDITIONS

The Project site is relatively level, with elevations ranging from 98 to 105 feet above sea level (amsl). As depicted on **Exhibit 2-3: Aerial Map**, the Project site is occupied by equipment concrete pads/footings, gravel and base, and stairs.

As also depicted on **Exhibit 2-3**, the overall data center property is fully developed and occupied by an approximately 116,756-SF data center with 70 surface parking spaces. Three emergency backup diesel generators and a Southern California Edison substation are situated at the property's southeast corner. One additional emergency backup diesel generator is on the roof of the building.

Site access to the data center is provided via two driveways off of North Nash Street. Vehicle access is restricted by a gate on the north driveway, while the south driveway is not gated. Pedestrian access is provided by sidewalks off of North Nash Street.

As discussed below in **Section 2.2: Background and History**, in 2012, the data center building was proposed to be expanded from 116,756-SF to 180,422-SF. This expansion was approved in 2013. The proposed improvements were constructed (i.e., installation of additional generators, and pad preparation for future generators), except an approximately 38,861-SF two-story building expansion on the north side of the data center (the "northerly building expansion") and replacement of the one-story annex with a two-story building on the west side of the data center. As of this writing, four additional generators are currently being installed (resulting in eight in total). Construction of the northerly building expansion (not a part of this Project) is anticipated to occur in late 2022.

[2] County of Los Angeles, Office of the Assessor, *Property Assessment Information System.* https://maps.assessor.lacounty.gov/m/, Accessed December 13, 2021.

State CEQA Guidelines §15125(a)(1) specifies that where existing conditions change over time, and where necessary to provide the most accurate picture practically possible of a project's impacts, a lead agency may define existing conditions by referencing conditions expected when the project becomes operational. Additionally, CEQA specifies that a lead agency may also use baselines consisting of both existing conditions and projected future conditions that are supported by reliable projections based on substantial evidence in the record. Therefore, given the northerly building expansion and additional generators are expected to be in place when the proposed Project becomes operational, the environmental analyses contained herein consider two baselines (existing conditions and projected future conditions), where appropriate, as follows:

1) Existing Conditions: This baseline is the physical environmental conditions as they exist at the time this environmental analysis commenced in January 2022. Under this condition, the northerly building expansion and four additional generators are not assumed to be constructed.

2) Projected Future Conditions: This baseline is the projected future conditions that are expected to be in place when the proposed Project becomes operational. Under this condition, the northerly building expansion and four additional generators are assumed to be constructed and operational, as analyzed in the 2012 IS/MND.

Exhibit 2-1: Regional Vicinity Map

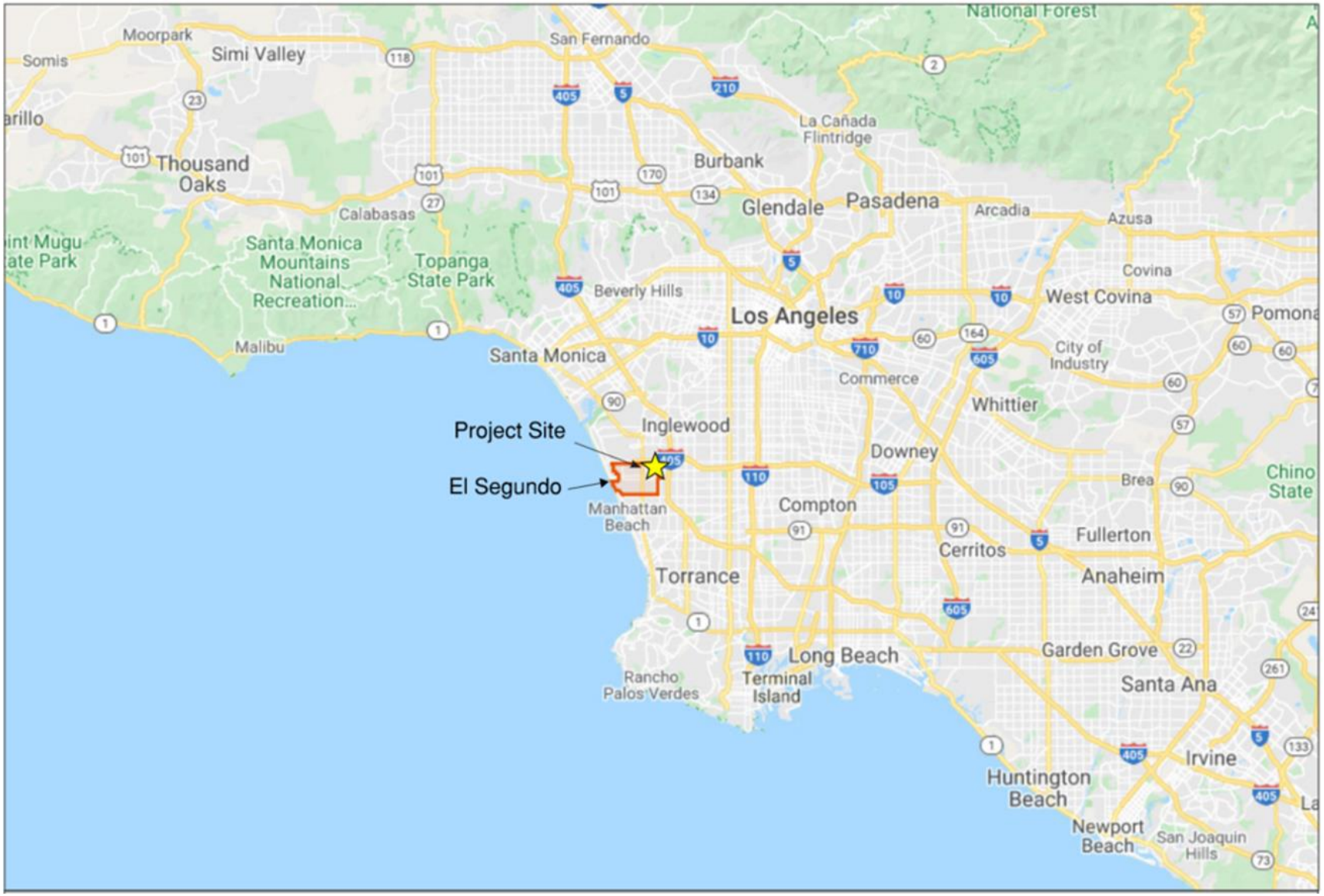

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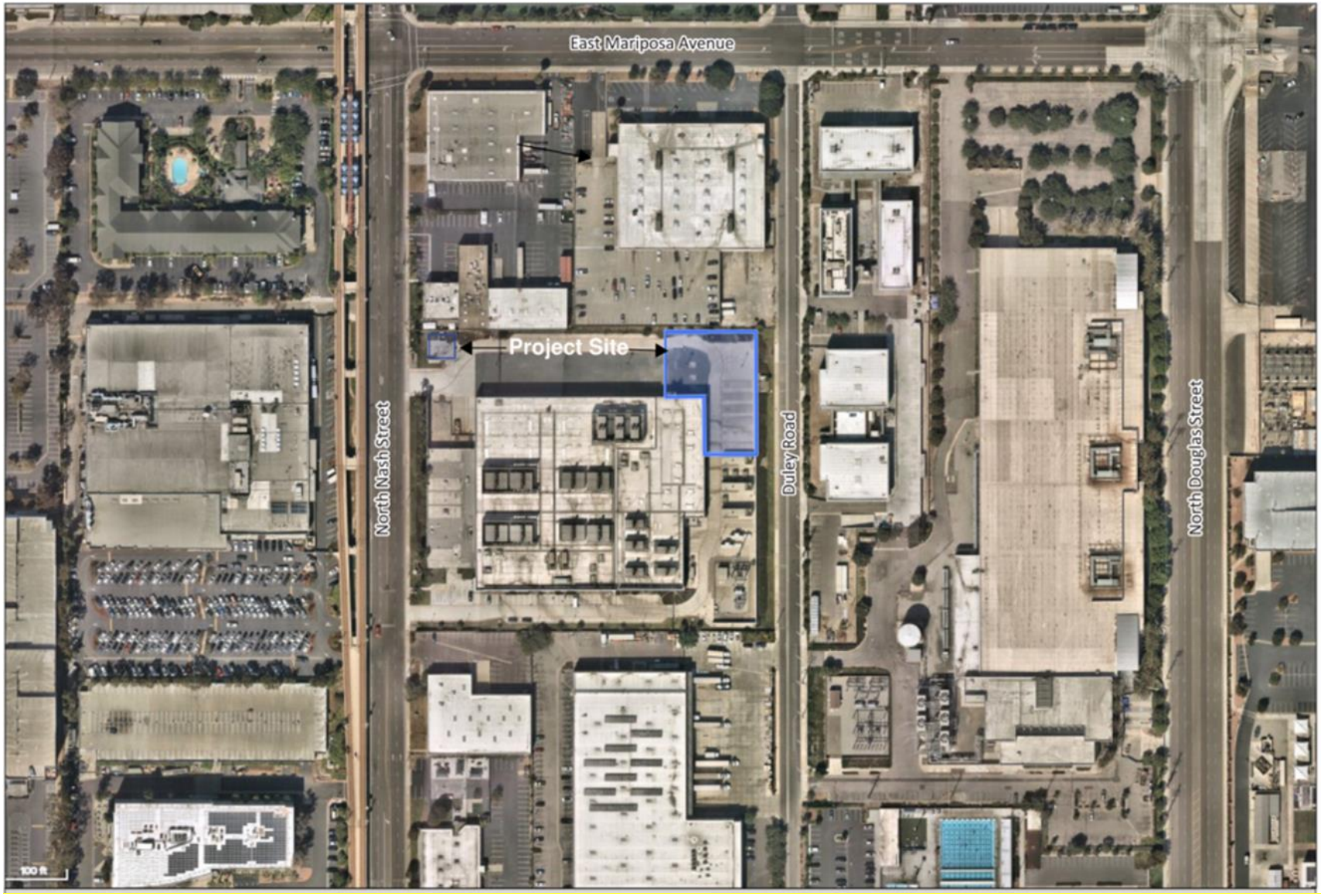
Exhibit 2-2: Local Vicinity Map



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2.2.2 GENERAL PLAN AND ZONING

The Project site's General Plan land use designation is Urban Mixed Use North,[3] which is intended to permit a mixture of office, research and development, retail, and hotel uses. Under this designation, light industrial uses conducted within a fully enclosed building must be permitted if approved with a discretionary application. The maximum floor area ratio (FAR) is 1.3.

The Project site is zoned Urban Mixed Use North (MU-N).[4] The MU-N Zone is intended to provide area(s) where a mixture of compatible commercial, office, research and development, retail, and hotel uses can locate and develop in a mutually beneficial manner.

2.2.3 SURROUNDING LAND USES

Onsite and surrounding land uses and zoning are summarized in **Table 2-1: Onsite and Surrounding Land Uses** and depicted on **Exhibit 2-2**.

Table 2-1: Onsite and Surrounding Land Uses

Description	Existing On-the-Ground	Zoning[1]
Project Site	Equipment concrete pads/footings, gravel and base, stairs, landscaping, and emergency backup generators	Urban Mixed Use North (MU-N)
North	Industrial/manufacturing, United States Post Office, Los Angeles International Airport	
South	On data center property, the existing data center and associated equipment and generators. Further south, beyond the data center, industrial and commercial uses	
East	Commercial uses and associated parking	
West	Light rail line, LA Kings Hockey Club, commercial uses	

Note:
Source: Google Earth Pro, 2022.

2.3 Background and History

A portion of the existing building was originally constructed as a warehouse and office building in the 1950's. Modifications to the property later occurred in 2008 and 2011. In 2012, the data center building was proposed to be expanded from 116,756-SF to 180,422-SF. Additions to the data center were to include a new 38,861-SF two-story building on the north side of the existing building (northerly building expansion), replacement of the one-story annex with a two-story building on the west side of the data center, and an additional vehicle access point.[5] On-site parking would remain unchanged. These improvements were addressed in the 2012 IS/MND discussed above in **Section 1.4: Incorporation by Reference**. The 2012 proposed improvements were constructed, except the approximately 38,861-SF northerly building expansion, which is

[3] City of El Segundo. (1992). *Land Use Map*. https://www.elsegundo.org/home/showpublisheddocument/362/637110574435030000. Accessed December 13, 2021.
[4] City of El Segundo. (2021). *City of El Segundo Planning & Building Safety Web Map*. https://elsegundo.maps.arcgis.com/apps/webappviewer/index.html?id=f9f2069afe54421f883b291148a10eb9. Accessed December 13, 2021.
[5] City of El Segundo. (2013). Resolution No. 2728: *A resolution approving a 63,666 square-foot expansion to an existing 116,756 square-foot data center building located at 444 North Nash Street*.

anticipated to occur in late 2022, and replacement of the one-story annex with a two-story building on the west side of the data center.

Table 2-2: Summary of Existing and Permitted Generators, details the quantity and size of generators installed prior to 2022, and those units which, as of this writing, were under construction and are expected to be operational prior to the start of Project construction. The eight generators listed on **Table 2-2** are, for the purposes of this analysis, considered the future baseline condition applicable to the proposed Project.

Table 2-2: Summary of Existing and Permitted Generators

Generator Size	Number of Units		
	Existing	CEQA Cleared/Permitted	Total
2,500 kW each	3	4	7
550 kW each	1		1
Total	*4*	*4*	*8*

On March 30, 2022, the City received an application from the Project Applicant to amend Environmental Assessment No EA 971 to allow up to 15 generators.

2.4 Project Characteristics

2.4.1 Project Overview

The Applicant proposes to install up to seven additional emergency backup diesel generators on the Project site, resulting in a total of 15 backup diesel generators. These seven additional generators would support previously constructed interior electrical/equipment modifications, which would result in increased electrical demand and up to five additional employees. Of the seven additional backup generators, four would be installed on platforms on top of existing generators. The platform generators would be shielded from view from the west by a proposed screen wall on the Project site's western side, and partially shielded from view from the east by the existing perimeter block wall on the property's eastern side. The remaining three at-grade generators would be built on concrete foundations. Supporting electrical equipment would be enclosed within electrical room containers (ERCs) located on separate foundations adjacent to the generators; see **Exhibit 2-3** for generator and ERC locations. No change in land use or increased building floor area is proposed as part of this Project. Additionally, no change in site access, landscaping, or parking is proposed. No new utility or service system (i.e., water, sewer, electrical, natural gas, communication) connections are proposed.

Existing drainage patterns would be maintained by matching the existing grades. Drainage would be accomplished through installing a drywell on the Project site's northwestern corner to satisfy City Low Impact Development (LID) requirements.

2.4.2 Site Plan

Generators are proposed on the building's northeastern side, as depicted on **Exhibit 2-3: Conceptual Site Plan**. **Table 2-3: Summary of Existing and Proposed Generators**, inventories the number and size of existing and proposed future generators upon Project implementation. It is

noted that three proposed generators would be stacked on top of another proposed generator, as denoted on **Exhibit 2-3**.

Table 2-3: Summary of Existing and Proposed Generators

Generator Size	Number of Generator Units		
	Existing[1]	Project Proposed	Total
2,500 kW each	7	5	12
550 kW each	1		1
1,250 kW		*2*	*2*
Total	***8***	***7***	***15***

Note:
1. As explained in **Section 2.3** above, at the time the Project analysis began, on or about February 2022, active construction to install generators 5 through 8 was underway, and expected to be completed by June 2022. Therefore, the appropriate baseline for the proposed Project is the projected future condition with eight onsite generators.

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Exhibit 2-3: Conceptual Site Plan

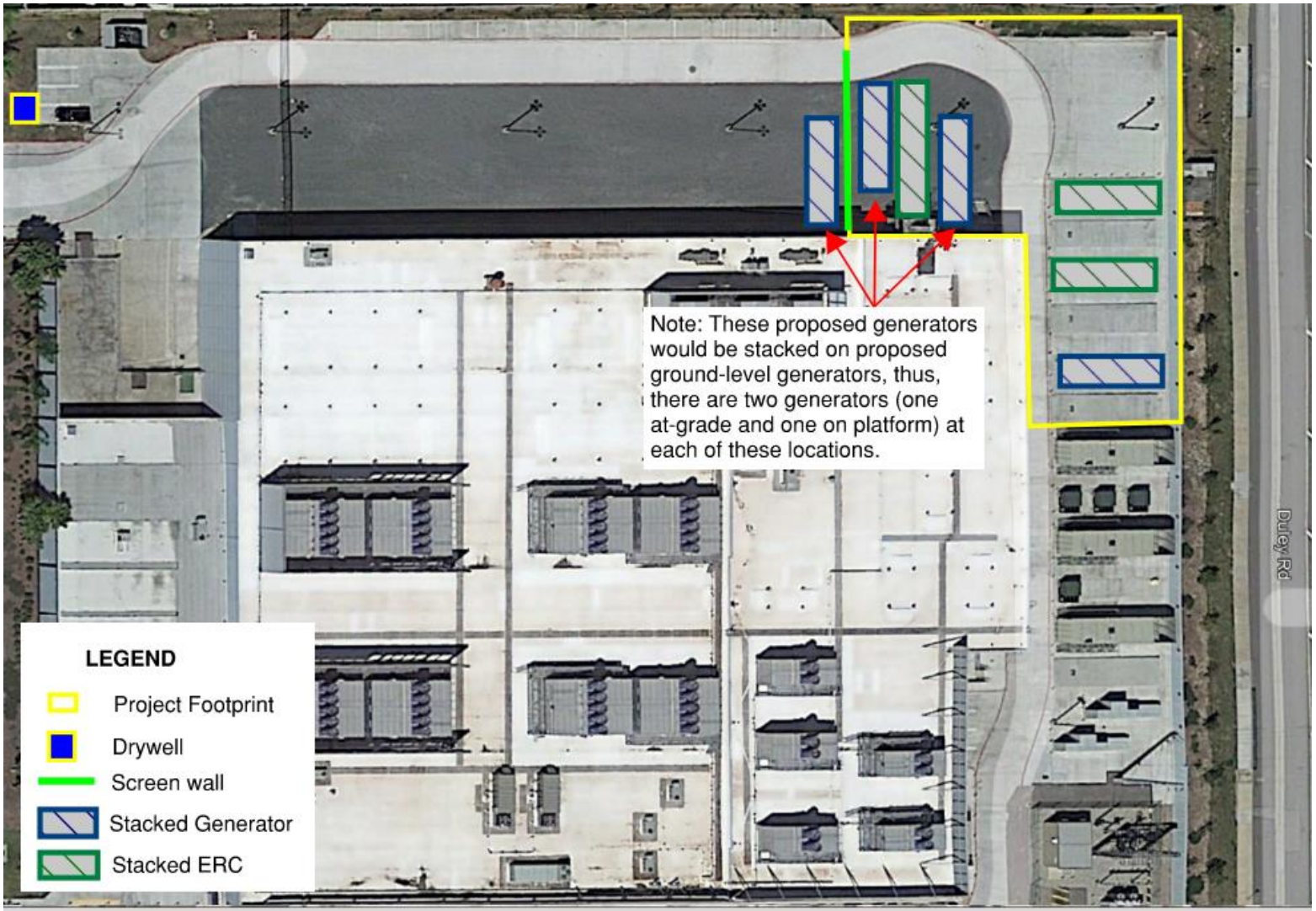

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Exhibit 2-4: Existing Building Elevation (from Duley Road, Looking Northwest)

Exhibit 2-5: Proposed Building Elevation (from Duley Road, Looking Northwest)

Exhibit 2-6: Existing Building Elevation (from North Nash Street, Looking East)

Exhibit 2-7: Proposed Building Elevation (from North Nash Street, Looking East)

Note that, because the drywell would be subsurface and have no vertical components, it is not visible in **Exhibit 2-7**. Additionally, the screen wall will be designed to architecturally match the existing data center, thus, is not readily distinguished in **Exhibit 2-7**. The screen wall is shown left (north) of the building.

2.4.3 Generators and Equipment

All backup generators would include housing for mechanical equipment to attenuate noise and protect the equipment from outdoor conditions. The Project's elevations are depicted in **Exhibit 2-5: Building Elevation (from Duley Road, Looking Northwest),** and **Exhibit 2-7: Building Elevation (from North Nash Street, Looking East)**.

The three ground level generators would be placed on concrete pads resulting in a total height of approximately 12 feet. The four platform generators would be placed on platforms resulting in a total height of approximately 30 feet.

An approximately 35-foot high equipment screen wall is proposed along the western Project site boundary to shield views of the platform generators from Nash Street to the west.

2.4.4 Utilities and Infrastructure

The City of El Segundo's Water Division and the City's Sewer Division are responsible for water and sewer services to the Project site. The Project does not propose new water or sewer utility connections.

Existing drainage patterns would be maintained by matching existing grades. Drainage would be accomplished through installing an approximately 30-foot deep drywell at the property's northwestern corner to satisfy City LID requirements. The drywell would collect stormwater runoff from on-site and, after treating within the drywell, percolate the water into the groundwater basin.

No new utility or service system (i.e., water, sewer, electrical, natural gas, communication) connections are proposed.

2.5 Project Construction Activities and Phasing

Project construction is anticipated to occur over one phase, lasting approximately two months, beginning mid-2022 and ending in late 2022. Construction would occur consistent with City noise policies, as presented in ESMC Title 2: Noise and Vibration. Specifically, construction would occur Monday through Saturday from 7:00 AM to 6:00 PM, consistent with the City noise policies specified in ESMC §7-2-10(D): Construction Noise. Project construction is anticipated to occur in the following sequence:

- Demolition (concrete removal),
- Site preparation, and
- Construction.

Site preparation for the Project would require cutting and removal of approximately 7,860 square feet of concrete and approximately 125 cubic yards of soil export. Final grading plans would be approved by the City, as applicable.

2.6 Project Operations

Upon installation of the additional generators, the Applicant expects future tenants to require on-site staff to occupy the existing office building space. It is anticipated that up to five employees over the baseline number of employees could result from Project implementation. Generators would only operate during emergency situations, commonly defined as "…whenever the primary energy supply is disrupted or discontinued during power outages or natural disasters that are beyond the control of the owner or operator of a facility" and for certain non-emergency situations, including"[6]…training of personnel under simulated emergency conditions, as part of emergency demand response procedures, or for standard performance testing procedures as required by law or by the generator manufacturer…"[7] The training and standard performance testing would occur weekdays, between 7 AM and 10 PM, and would total up to 50 hours per year per unit.

2.7 Agreements, Permits, and Approvals

The City, as Lead Agency, has discretionary authority over the proposed Project. Other agencies in addition to the City are expected to use this IS/MND in their decision-making process. To implement this Project, at a minimum, the following discretionary permits/approvals must be granted by the City and others:

- Environmental Assessment No. EA-971, Revision A, amending the total number of allowable generators from 14 to 15, and
- SCAQMD Authority to Construct/Permit to Operate.

[6] United States Environmental Protection Agency, https://www3.epa.gov/carbon-footprint-calculator/tool/definitions/emergency-generator.html; Accessed June 30, 2022.
[7] Ibid.

2.8 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by the proposed Project, involving at least one impact that is a "Potentially Significant Impact" or “Less Than Significant With Mitigation Incorporated,” as indicated by the checklist on the following pages.

	Aesthetics		Agricultural and Forestry Resources	X	Air Quality
	Biological Resources		Cultural Resources		Energy
	Geology & Soils		Greenhouse Gas Emissions		Hazards & Hazardous Materials
	Hydrology & Water Quality		Land Use & Planning		Mineral Resources
X	Noise		Population & Housing		Public Services
	Recreation		Transportation	X	Tribal Cultural Resources
	Utilities & Service Systems		Wildfire		Mandatory Findings of Significance

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3.0 LEAD AGENCY DETERMINATION

On the basis of this initial evaluation:

I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	X
I find that the proposed Project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed Project MAY have a potentially significant or a potentially significant unless mitigated impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.	

CITY OF EL SEGUNDO

Eduardo Schönborn

Eduardo Schonborn, AICP
Planning Manager

October 28, 2022
Date

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4.0 EVALUATION OF ENVIRONMENTAL IMPACTS

The following environmental analysis is patterned after State CEQA Guidelines Appendix G**.** An explanation is provided for all responses except "No Impact" responses, which are supported by the cited information sources. The responses consider the whole action involved with the proposed Project: on- and off-site, Project- and cumulative-level, direct and indirect, and short-term construction and long-term operational. The explanation of each issue also identifies the significance criteria or threshold, if any, used to evaluate each question, and the mitigation identified, if any, to avoid or reduce the impact to less than significant. To each question, there are four possible responses:

- **No Impact.** The Project would not have any measurable environmental impact.
- **Less Than Significant Impact.** The Project would have the potential to impact the environment, although this impact would be below-established thresholds that are considered to be significant.
- **Less Than Significant With Mitigation Incorporated.** The Project would have the potential to generate impacts, which may be considered as a significant effect on the environment, although mitigation measures or changes to the Project's physical or operational characteristics could reduce these impacts to a less than significant level.
- **Potentially Significant Impact.** The Project could have impacts, which may be considered significant, and therefore additional analysis is required to identify mitigation. A determination that there is a potential for significant effects indicates the need to more fully analyze the Project's impacts and identify mitigation.

4.1 Aesthetics

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code §21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a State Scenic Highway?				X
c) If in a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

Impact Analysis

4.1a Would the project have a substantial adverse effect on a scenic vista?

No Impact. Under CEQA, a scenic vista is defined as a viewpoint that provides expansive views of a highly-valued landscape for the public's benefit. The City's General Plan does not identify any officially designated scenic vistas within the City boundaries. Although the City's western boundary includes 0.8-mile of Pacific Ocean shoreline, the Project site is approximately 2.65-miles east of the City's western boundary. Additionally, the intervening commercial and other uses block any view of the Pacific Ocean from the Project site and surrounding properties. Therefore, the Project would have no adverse effect on a scenic vista. No impact would occur in this regard and no mitigation is required.

4.1b Would the project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State Scenic Highway?

No Impact. There are no State- or County-designated scenic highways in the City.[8] Further, there are no trees, rock outcroppings, or historic buildings on or adjacent to the Project site. Therefore, the Project would not damage scenic resources within a State scenic highway. No impact would occur in this regard and no mitigation is required.

[8] California Department of Transportation. (2018). *California Scenic Highway.* Retrieved from https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed on December 14, 2021.

4.1c If in a non-urbanized area, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. Onsite and surrounding land uses and zoning are summarized in **Table 2-1: Onsite and Surrounding Land Uses** and depicted on **Exhibit 2-2**. The Project site is in an urbanized area and is fully developed. All surrounding land is fully developed and zoned Urban Mixed Use North (MU-N). The ESMC regulations pertaining to the MU-N zone are found in ESMC §15-5E-7 through §15-5E-10.

The Project proposes to install up to seven emergency generators at the property's northeast corner–three at ground level and four on platforms. The three ground level generators would be placed on concrete pads resulting in a total height of approximately 12 feet. The four platform generators would be placed on platforms resulting in a total height of approximately 30 feet. An approximately 30-foot-high equipment screen wall is proposed along the western Project site boundary to shield views of the platform generators from Nash street to the west. As shown on **Exhibit 2-4**, the proposed generators would be partially shielded by existing containers, landscaping, and the perimeter wall along Duley Street. The proposed generators would be shielded by a proposed screen wall on the Project site's western portion. Upon completion of the northerly building expansion, generators would be further shielded from views on Nash Street by the expansion's building façade, which would be in front of the screening wall shown on **Exhibit 2-7**. Also, a drywell is proposed at the Project site's northwestern corner. Because the drywell would not have above ground elements, the drywell would not be visible; see **Exhibit 2-7**.

Through the Site Plan review process, the City would verify the proposed Project's consistency with the zoning regulations that govern visual and scenic quality, which are found in ESMC §15-5E-7, *Site Development Standards*. The proposed generators would be a continuation of the existing data center, and visually compatible with the surrounding MU-N zone land uses. Concerning building height, the MU-N zone allows building heights up to 175 feet; see ESMC §15-5E-7, *Site Development Standards*. The Project's proposed screen wall and platform generators would be a maximum of 35 feet tall, in compliance with the MU-N zone's allowable building height. Therefore, following compliance with City standards, the proposed Project would result in a less than significant impact concerning regulations governing scenic quality and no mitigation is required.

4.1d Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. Existing outdoor lighting at and near the Project site is associated with industrial and street lighting along North Nash Street and Duley Road typical of urbanized areas. The Project does not propose to install any new lighting. Therefore, the Project would not create a new source of light or glare. No impact would occur in this regard and no mitigation is required.

Mitigation Measures

No mitigation is required.

4.2 Agricultural and Forestry Resources

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

Impact Analysis

4.2a Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

4.2b Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

4.2c Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))?

4.2d Would the project result in the loss of forest land or conversion of forest land to non-forest use?

4.2e Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. No Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance is mapped in the City.[9] Further, according to the Williamson Act Status Report (2018-2019) Los Angeles County is a Non-Participating County.[10] Therefore, the Project would not conflict with any existing Williamson Act contract. Additionally, the Project site is zoned Urban Mixed Use North (MU-N). No agricultural, forest land, or timberland zoning exists in the City. [11] Therefore, no impact concerning mapped farmlands, Williamson Act contracts, or agricultural, forest, or timber land zoning would occur, and no mitigation is required.

[9] California Department of Conservation. (2016). *California Important Farmland Finder.* Retrieved from https://maps.conservation.ca.gov/dlrp/ciff/. Accessed on December 14, 2021.

[10] California Department of Conservation. (2020) *The Williamson Act Status Report 2018-2019*. Retrieved from https://www.conservation.ca.gov/dlrp/wa/Documents/stats_reports/2020%20WA%20Status%20Report.pdf. Accessed on December 14, 2021.

[11] City of El Segundo. (2021). *Zoning Map*. Retrieved from https://www.arcgis.com/apps/webappviewer/index.html?id=bf31cc23239f4504bf078ce36373fe2d. Accessed on December 14, 2021.

4.3 Air Quality

This Section is based on the *Air Quality Assessment* (Kimley-Horn, October 2022) and Health Risk Assessment (October 2022), which are included in their entirety as **Appendix A: Air Quality and Greenhouse Gas Technical Memorandum** and **Appendix D: Health Risk Assessment Technical Memorandum,** respectively.

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?		X		
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?		X		

South Coast Air Quality Management District (SCAQMD) Thresholds

Mass Emissions Thresholds

The SCAQMD CEQA Air Quality Handbook provides significance thresholds for volatile organic compounds (VOC) (also referred to as reactive organic gases [ROG]), nitrogen oxides (NO_X), carbon monoxide (CO), sulfur oxides (SO_X), particulate matter 10 microns or less in diameter (PM10), and particulate matter 2.5 microns or less in diameter (PM2.5). The thresholds apply to both project construction and operation within the SCAQMD jurisdictional boundaries. If the SCAQMD thresholds are exceeded, a potentially significant impact could result. See **Table 4.3-1: South Coast Air Quality Management District Emissions Thresholds** for SCAQMD's construction and operational emissions thresholds**.**

Table 4.3-1: South Coast Air Quality Management District Emissions Thresholds

Criteria Air Pollutants and Precursors (Regional)	Mass Daily Thresholds (pounds per day)	
	Construction	Operations
Nitrogen Oxides (NO_X)	100	55
Volatile Organic Compounds (VOC)[1]	75	55
Particulate Matter 10 Microns and smaller in diameter (PM_{10})	150	150
Particulate Matter 2.5 Microns and smaller in diameter ($PM_{2.5}$)	55	55

Table 4.3-1: South Coast Air Quality Management District Emissions Thresholds		
Criteria Air Pollutants and Precursors (Regional)	**Mass Daily Thresholds (pounds per day)**	
	Construction	**Operations**
Sulfur Oxides (SO_X)	150	150
Carbon Monoxide (CO)	550	550
Notes: 1. VOCs and reactive organic gases (ROGs) are subsets of organic gases that are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. Although they represent slightly different subsets of organic gases, they are used interchangeably for the purposes of this analysis.		
Source: South Coast Air Quality Management District, SCAQMD Air Quality Significance Thresholds, April 2019.		

Localized Carbon Monoxide

In addition to the daily thresholds listed above, the proposed Project would be subject to the ambient air quality standards. These are addressed through an analysis of localized CO impacts. The California 1-hour and 8-hour CO standards are:

- 1-hour = 20 ppm
- 8-hour = 9 ppm

The significance of localized impacts depends on whether ambient CO levels near the Project site exceed State and federal CO standards. The South Coast Air Basin (SCAB) has been designated as attainment under the 1-hour and 8-hour standards.

Localized Significance Thresholds

In addition to the CO hotspot analysis, the SCAQMD developed Local Significance Thresholds ("LSTs") for emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ generated at new development sites (off-site mobile source emissions are not included in the LST analysis). LSTs represent the maximum emissions that can be generated at a project site without expecting to cause or substantially contribute to an exceedance of the most stringent federal ambient air quality standard (FAAQS) or State ambient air quality standards (CAAQS). LSTs are based on the ambient concentrations of that pollutant within the Project Source Receptor Area (SRA), as demarcated by the SCAQMD, and the distance to the nearest sensitive receptor. The Project's appropriate SRA for the localized significance thresholds is the Southwest Coastal Los Angeles (SRA 3) area since this area includes the Project site. LST analysis for construction is applicable for all projects that disturb 5.0 acres or less on a single day. **Table 4.3-2: Local Significance Thresholds (Construction/Operations)** provides the LSTs for a 1.0-acre, 2.0-acre, and 5.0-acre project site in SRA 3 with sensitive receptors located within 25 meters of a project site. The Project site totals approximately 0.50 acre, thus, the 1.0-acre threshold is used for Project analysis.

Table 4.3-2: Local Significance Thresholds (Construction/Operations)				
Project Size	**Nitrogen Oxide (NO_x) (lbs per day)**	**Carbon Monoxide (CO) (lbs per day)**	**Coarse Particulates (PM_{10}) (lbs per day)**	**Fine Particulates ($PM_{2.5}$) (lbs per day)**
1.0 Acre:				
Construction	91	674	5	3
Operations	91	674	1	1
2.0 Acres:				
Construction	131	982	8	5
Operations	131	982	2	1
5.0 Acres:				
Construction	197	1,823	15	8
Operations	197	1,823	4	2
Source: South Coast Air Quality Management District. (July 2008). *Localized Significance Threshold Methodology.*				

Health Risk Analysis Thresholds

Project health risks are determined by examining the types and levels of air toxics generated and the associated impacts on factors that affect air quality. While the final determination of significance thresholds is within the Lead Agency's purview pursuant to State CEQA Guidelines, the SCAQMD recommends that the air pollution thresholds presented below be used by lead agencies in determining whether a project's impacts are significant. If the lead agency finds that the project has the potential to exceed the air pollution thresholds, the project should be considered significant. A project's impacts would be considered significant with respect to toxic air contaminant emissions if the project would:

- **Cancer Risk:** Emit contaminants that exceed the maximum individual cancer risk of 10 in one million.
- **Cancer Burden**: Emit contaminants resulting in a cancer burden greater than 0.5 excess cancer cases (in areas with individual cancer risk greater than 1 in 1 million)
- **Non-Cancer Risk:** Emit contaminants that exceed the maximum hazard quotient of 1 in one million.

Cancer risk is expressed in terms of expected incremental incidence per million population. The SCAQMD has established an incremental increase in lifetime cancer risk of 10 in one million due to DPM exposure. This threshold serves to determine whether or not a project has a potentially significant development-specific and cumulative impact. The 10 in one million standard is a health-protective significance threshold. This risk would be an excess cancer that is in addition to any cancer risk borne by a person not exposed to these air toxics. To put this risk in perspective, the risk of contracting cancer from all air toxics in the SCAB is 420 in a million which is 42 times more than the SCAQMD's threshold of 10 in one million.[12]

Because the proposed generators are subject to SCAQMD rules and regulations, additional thresholds of significance apply. Specifically, Rule 1401 *New Source Review of Toxic Air*

[12] South Coast Air Quality Management District, *MATES V Estimated Risk*, https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23/page/home/?data_id=dataSource_105-a5ba9580e3aa43508a793fac819a5a4d%3A315&views=view_38%2Cview_1, Accessed February 2, 2022.

Contaminants establishes limits for maximum individual cancer risk (MICR), cancer burden,[13] and noncancer acute and chronic hazard index (HI) from new permit units, relocations, or modifications to existing permit units which emit applicable toxic air contaminants. DPM is a substance listed in Rule 1401 Table 1.[14] Therefore, the requirements to allow construction and use of the proposed generators are as follows:

1. **MICR and Cancer Burden:** The cumulative increase in MICR, which is the sum of the calculated MICR values for all toxic air contaminants emitted from the new, relocated, or modified permit unit, will not result in any of the following:

   (A) An increased MICR greater than one in one million (1.0 x 10-6) at any receptor location, if the permit unit is constructed without T-BACT;

   (B) An increased MICR greater than ten in one million (10 x 10-6) at any receptor location, if the permit unit is constructed with T-BACT;

   (C) A cancer burden greater than 0.5.

2. **Chronic Hazard Index:** The cumulative increase in total chronic HI for any target organ system due to total emissions from the new, relocated, or modified permit unit owned or operated by the Applicant for which applications were deemed complete on or after the date when the risk value for the compound is finalized by the State Office of Environmental Health Hazard Assessment (OEHHA) will not exceed 1.0 at any receptor location.

3. **Acute Hazard Index:** The cumulative increase in total acute HI for any target organ system due to total emissions from the new, relocated, or modified permit unit owned or operated by the Applicant for which applications were deemed complete on or after the date when the risk value for the compound is finalized by OEHHA will not exceed 1.0 at any receptor location.

SCAQMD Rule 1402 *Control of Toxic Air Contaminants From Existing Sources* reduces the health risk associated with TAC emissions from existing sources by specifying notification risk levels, action risk levels, and significant risk levels (see **Table 4.3-3: Facility-Wide Risk Levels**) for MICR, cancer burden, and non-cancer acute and chronic HI applicable to total facility emissions. The rule establishes requirements to implement Risk Reduction Plans to achieve specified risk limits, as required by the Hot Spots Act and Rule 1402.

Table 4.3-3: Facility-Wide Risk Levels

Indicator	Notification Risk	Action Risk Level	Significant Risk Level
MICR	10 in one million	25 in one million	100 in one million
Cancer burden	N/A	0.5	N/A
Acute HI	1.0	3.0	5.0
Chronic HI	1.0	3.0	5.0

[13] Cancer burden means the estimated increase in the occurrence of cancer cases in a population subject to a MICR of greater than or equal to one in one million (1.0 x 10-6) resulting from exposure to TACs.

[14] SCAQMD. (2017). *Rule 1401*. http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1401.pdf?sfvrsn=4; page 1401-17; Accessed January 26, 2022.

The SCAQMD has also established non-carcinogenic risk parameters for use in HRAs. 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 (REL). An REL is a concentration at or below which health effects are not likely to occur. A hazard index of less than 1.0 means that adverse health effects are not expected, thus, non-carcinogenic exposures of less than 1.0 are considered less than significant. See **Appendix A** for additional information on modeling.

Methodology

The Project's operations were analyzed for impacts concerning the additional seven generators; see **Appendix A** for model inputs, and see **Table 2-2** for the quantity and engine type of the proposed generators. Cumulative impacts included the existing eight generators plus the additional seven generators, as detailed below.

State CEQA Guidelines §15145, peculation, specifies that, "if, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact." There is no basis or available data for what the underlying assumptions an emergency operations analysis/modeling might include. Emergency operations would entirely depend on the nature and duration of emergency (i.e., the number of generators would depend on the power disruption, and operational hours during this time would depend on the duration of the emergency). Therefore, because analysis of the Project's impacts under an emergency operations scenario would be too speculative, emergency operations were not analyzed.

SCAQMD policy and procedures No. EC-02-09 (dated February 24, 2009) establishes that the potential to emit (PTE) for stationary emergency generators be calculated based solely on the annual maintenance hours allowed (50 hours). This analysis is based on the generators operating for certain non-emergency situations, including training of personnel under simulated emergency conditions, as part of emergency demand response procedures, or for standard performance testing procedures as required by law or by the generator manufacturer. Therefore, this analysis assumes the training and standard performance testing would occur up to 50 hours per year per unit, per SCAQMD policy and procedures No. EC-02-09.

Impact Analysis

4.3a Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. As part of its enforcement responsibilities, the United States Environmental Protection Agency (USEPA) requires that each state with nonattainment areas prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under State law, the California Clean Air Act (CCAA) requires an air quality attainment plan to be prepared for areas designated as nonattainment regarding the FAAQS and CAAQS. Air quality attainment plans

outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The Project site is within the SCAB, which is under SCAQMD's jurisdiction. The SCAQMD is required, pursuant to the Federal Clean Air Act (FCAA), to reduce criteria pollutant emissions for which SCAB is in non-attainment. To reduce such emissions, the SCAQMD drafted the 2016 Air Quality Management Plan (AQMP), which establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving State and national air quality standards. The 2016 AQMP is a regional and multi-agency effort including the SCAQMD, the CARB, SCAG, and the Environmental Protection Agency (EPA). The AQMP's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG's 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans.

Criteria for determining consistency with the AQMP are defined by the following indicators:

- **Consistency Criterion No. 1**: A proposed project would not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of the AQMP's air quality standards or the interim emissions reductions.
- **Consistency Criterion No. 2**: A proposed project would not exceed the AQMP's assumptions or increments based on the years of the project build-out phase.

Consistency Criterion No. 1 refers to the NAAQS and CAAQS. As indicated in **Table 4.3-4: Construction-Related Emissions (Maximum Pounds Per Day)** and **Table 4.3-5: Operational Emissions (Maximum Pounds Per Day)** below, Project construction would be below SCAQMD's thresholds. Operational emissions would be below SCAQMD thresholds, except for NOx, which would be less than significant with mitigation incorporated; see MM AQ-1. As the Project would not generate localized construction or regional construction or operational emissions that would exceed SCAQMD thresholds of significance, the Project would not violate any air quality standard. Thus, the Project would be consistent with Criterion No. 1. A less than significant impact would occur, and no mitigation is required.

Consistency Criterion No. 2 refers to SCAG's growth forecasts and associated assumptions included in the AQMP. The AQMP's projected future air quality levels are based on SCAG's growth projections, which are based, in part, on the general plans of cities located within the SCAG region. Therefore, projects that are consistent with the applicable assumptions used in AQMP development would be consistent with the AQMP's assumed VMT and population growth, thus, not jeopardize attainment of the AQMP's identified air quality levels, even if they exceed the SCAQMD's recommended daily emissions thresholds.

The Project site's General Plan land use designation is Urban Mixed Use North. The Project proposes to install up to seven generators at an existing data center. No change or expansion in land use is proposed. Additionally, the Project would not generate any population growth and

only very nominal VMT from the up to five additional employees. The Project would not conflict with or cause an exceedance of the Urban Mixed Use North designation's intended/assumed land uses for the Project site, which are the basis for the AQMP. Therefore, the Project would be consistent with the AQMP's population and VMT assumptions. It is also noted that the Project's construction air emissions would not exceed the SCAQMD regional thresholds, and operational air emissions would not exceed the SCAQMD regional thresholds with mitigation incorporated. Localized construction and operations emissions would not exceed SCAQMD LST thresholds; see Responses 4.3b and 4.3c below. As such, the Project would be consistent with Criterion No. 2. A less than significant impact would occur and no mitigation is required.

4.3b 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?

Less Than Significant Impact With Mitigation Incorporated.

Construction Emissions

Project construction activities would generate short-term criteria air pollutant emissions. The Project area's criteria air pollutants of primary concern are ozone-precursor pollutants (i.e., ROG and NO_x) and PM_{10} and $PM_{2.5}$. Construction-related emissions are short-term and temporary, lasting only while construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Construction activities temporarily generate emissions from site grading, motor vehicle exhaust associated with construction equipment and worker trips, and movement of construction equipment, especially on unpaved surfaces. Airborne particulate matter emissions are largely dependent on the amount of ground disturbance associated with site preparation activities, as well as weather conditions and the application of water.

For analysis purposes, Project construction is estimated to occur over approximately two months, beginning July 2022. The Project would install seven emergency generators- three at ground level on concrete pads and four on platforms. Project construction-generated emissions were calculated using the CARB-approved CalEEMod, which is designed to model emissions for land use development projects based on typical construction requirements. See **Appendix A** for more information regarding the Project's construction assumptions.

As discussed above, the air quality modeling assumes Project construction would begin in July 2022. However, the current Project construction schedule assumes Project construction would begin September 2022, or two months later than assumed in the air quality modeling. However, the air quality modeling concerning the construction schedule is considered conservative because CalEEMod emissions factors for future years decline given advancements in construction equipment technology and fleet turnover. **Table 4.3-4** provides the Project's estimated maximum daily construction-related emissions and indicates all criteria pollutant emission levels would be below their respective thresholds. In addition, the Project would be subject to compliance with SCAQMD Rules 402, 403, and 1113, which prohibit nuisances, require

dust control measures, and limit VOC content in paints, respectively. Compliance with these SCAQMD rules would further reduce construction-related emissions. All criteria pollutant emissions would be below the applicable thresholds; thus, impacts would be less than significant.

Table 4.3-4: Construction-Related Emissions (Maximum Pounds Per Day)

Construction Year	Reactive Organic Gases (ROG)	Nitrogen Oxide (NOx)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
2022	1.77	17.58	14.26	0.03	8.16	4.38
Maximum Emissions	**1.77**	**17.58**	**14.26**	**0.03**	**8.16**	**4.38**
SCAQMD Threshold	75	100	550	150	150	55
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
1. Emissions were calculated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0, as recommended by the SCAQMD. Worst-case seasonal maximum daily emissions are reported.

Source: CalEEMod version 2020.4.0; see **Appendix A: Air Quality and Greenhouse Gas Technical Memorandum** for model outputs.

Operational Emissions

Operational emissions are associated with the emergency generators attributable to the Project. As shown in **Table 4.3-5**, the Project's operational emissions could exceed the SCAQMD threshold for NOx emissions. These operational emissions are mostly attributed to a day in which generator routine testing, staff training, and maintenance could occur simultaneously. The 50 hours per year includes scheduled and unscheduled maintenance. SCAQMD requires the facility to monitor and demonstrate compliance. The scheduled maintenance would be dictated in accordance with manufacturers recommendations, which are currently not available until possessions of units occurs. Additionally, a small amount of Project operational emissions would be attributed to vehicle trips from up to five additional employees. Mitigation Measure AQ-1 requires that generator maintenance and testing be limited on any single day to no more than 110 minutes for the entire facility (up to 15 generators). Therefore, with implementation of Mitigation Measure AQ-1, all criteria pollutants would remain below their respective thresholds and regional operational emissions would result in a less than significant long-term regional air quality impact.

Table 4.3-5: Operational Emissions (Maximum Pounds Per Day)

Source	Emissions (pounds per day)[1]					
	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Unmitigated Scenarios						
Generators	7.98	412.86	68.74	0.70	5.74	5.74
Project Trips	0.03	0.03	0.52	>0.01	0.19	0.05
Total	8.01	412.89	69.26	0.70	5.93	5.79
SCAQMD Threshold	55.00	55.00	550.00	150.00	150.00	55.00
SCAQMD Threshold Exceeded?	**No**	**Yes**	**No**	**No**	**No**	**No**
Mitigated Scenario[2]						
Generators	0.41	25.19	3.73	0.04	0.34	0.34
Project Trips	0.03	0.03	0.52	>0.01	0.19	0.05
Total	**0.44**	**25.22**	**4.25**	**0.04**	**0.53**	**0.39**
SCAQMD Threshold	*55.00*	*55.00*	*550.00*	*150.00*	*150.00*	*55.00*
SCAQMD Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
1. Emissions were calculated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0, as recommended by the SCAQMD. Worst-case seasonal maximum daily emissions are reported.
2. Mitigated emissions include compliance with Mitigation Measure AQ-1, which requires that generator maintenance and testing be limited on any single day to no more than 110 minutes for the entire facility (15 generators).
3. Potential to emit (PTE) of an engine is based on the 50 hour per year limit on maintenance and testing operations, in accordance with South Coast AQMD's policy and procedures No. EC-02-09, dated 2/24/2009.

Cumulative Short-Term Emissions

SCAB is designated nonattainment for O_3, PM_{10}, and $PM_{2.5}$ for CAAQS and nonattainment for O_3 and $PM_{2.5}$ for NAAQS. As discussed above, the Project's construction-related emissions by themselves would not exceed the SCAQMD significance thresholds for criteria pollutants.

Since these thresholds indicate whether individual Project emissions have the potential to affect cumulative regional air quality, it can be expected that the Project-related construction emissions would not be cumulatively considerable. The SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to the federal Clean Air Act mandates. The analysis assumed fugitive dust controls would be utilized during construction, including frequent water applications. SCAQMD rules, mandates, and compliance with adopted AQMP emissions control measures would also be imposed on construction projects throughout SCAB, which would include related cumulative projects. As concluded above, the Project's construction-related air quality impacts would be less than significant. Compliance with SCAQMD rules and regulations would further minimize the Project's construction-related emissions. Therefore, Project-related construction emissions, combined with other projects in the area, would not substantially deteriorate the local air quality. The Project's construction-related emissions would not result in a cumulatively considerable contribution to a significant cumulative air quality impact.

Cumulative Long-Term Emissions

The SCAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, individual project emissions contribute to existing cumulatively significant adverse air quality impacts. Appendix D of the SCAQMD White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution (2003) notes that projects that result in emissions that do not exceed the project-specific SCAQMD regional thresholds of significance should result in a less than significant impact on a cumulative basis unless there is other pertinent information to the contrary. Therefore, if a project is estimated to result in emissions that do not exceed the thresholds, the project's contribution to the cumulative impact on air quality in the SCAB would not be cumulatively considerable. The SCAQMD developed the operational thresholds of significance based on the level above which individual project emissions would result in a cumulatively considerable contribution to SCAB's existing air quality conditions. Therefore, a project that exceeds the SCAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.

As indicated in **Table 4.3-5**, the Project's operational emissions would not exceed SCAQMD thresholds and the PTE would remain below major source thresholds. Therefore, the Project's operational emissions would not result in a cumulatively considerable contribution to significant cumulative air quality impacts. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. Project operations would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant.

4.3c Would the Project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact.

Localized Construction Significance Analysis

The sensitive receptor nearest the Project site is an aquatic center located approximately 350 feet (107 meters) to the southeast. According to SCAQMD a recreational facility is a sensitive receptor. To identify impacts to sensitive receptors, the SCAQMD recommends addressing Localized Significance Thresholds (LSTs) for construction. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the Final Localized Significance Threshold Methodology (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level proposed projects.

The Project's appropriate SRA for the localized significance thresholds is the Southwest Coastal Los Angeles (SRA 3) area since this area includes the Project site. LSTs apply to NO_X, CO, PM_{10}, and $PM_{2.5}$. The SCAQMD produced look-up tables for projects that disturb areas less than or equal to 5.0 acres in size. The Project would include minor grading on the 0.5-acre site. However, the LST methodology and daily equipment modeled in CalEEMod do not provide thresholds for disturbance less than 1.0 acre. Therefore, Project construction is assumed to disturb

approximately 1.0 acre in a single day, and the LSTs for a maximum daily disturbance of 1.0 acre were used for this analysis.

The SCAQMD's methodology indicates that "off-site mobile emissions from a project should not be included in the emissions compared to LSTs." Therefore, for purposes of the Project's construction LST analysis, only emissions included in the CalEEMod "on-site" emissions outputs were considered. The sensitive receptors nearest the Project site are the swimming facility located approximately 350 feet (107 meters) to the southeast and the soccer field located approximately 475 feet (145 meters) to the north. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Therefore, as recommended by the SCAQMD, LSTs for receptors located at 100 meters were utilized in this analysis to conservatively analyze for the nearest sensitive receptor located 107 meters from the Project site.

Table 4.3-6: Significance of Localized Emissions, presents the results of localized construction emissions. **Table 4.3-6** shows that peak day pollutant emissions during construction would not exceed SCAQMD LSTs, thus, would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, the Project would result in a less than significant impact concerning LSTs during construction activities.

Table 4.3-6: Significance of Localized Emissions

Source/Activity	Emissions (pounds per day)[1]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Construction Emissions				
Demolition 2022	16.81	13.19	1.76	0.93
Grading 2022	11.78	6.55	8.73	4.55
Building Construction 2022	14.15	13.90	0.72	0.68
Paving 2022	7.85	9.24	0.39	0.36
SCAQMD Localized Screening Threshold (1 acre of disturbance at 100 meters)	107	1,156	28	9
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**
Operational Emissions				
On-Site Emissions (Area + Energy Sources)[1]	25.31	4.37	0.54	0.95
SCAQMD Localized Screening Threshold (1 acre of disturbance at 50 meters)	107	1,156	7	3
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**

1. Source: CalEEMod version 2020.4.0. Refer to **Appendix A: Air Quality and Greenhouse Gas Technical Memorandum** for model data outputs.
2. This includes Mitigation Measure AQ-1 which limits maintenance and testing of the emergency generators.

According to the SCAQMD LST methodology, LSTs apply to on-site sources. LSTs for receptors located at 100 meters for SRA 3 were conservatively utilized in this analysis. The 1-acre LST threshold is used for the 0.5-acre Project site. The operational emissions shown in **Table 4.3-6** include all on-site Project-related stationary sources (i.e., area and energy sources). **Table 4.3-6** shows that the Project's maximum daily emissions of these pollutants during operations would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, the Project would result in a less than significant impact concerning LSTs during operational activities.

Construction-Related Diesel Particulate Matter

Project construction would generate DPM emissions from the use of off-road diesel equipment required. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to toxic air contaminants (TAC) emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment would be temporary and episodic. The duration of exposure would be short and exhaust from construction equipment would dissipate rapidly. Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. The receptor nearest the Project site is the United States Postal Service located approximately 50 feet to the north, and even further from the major Project construction areas. However, the sensitive receptor nearest the Project site is the swimming facility located 350 feet to the southeast.

California Office of Environmental Health Hazard Assessment has not identified short-term health effects from diesel particulate matter (DPM). Construction is temporary and would be transient throughout the site (i.e., move from location to location) and would not generate emissions in a fixed location for extended periods of time. Construction activities would be subject to and would comply with California regulations limiting the idling of heavy-duty construction equipment to no more than five minutes to further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. For these reasons, DPM generated by Project construction activities, in and of itself, would not expose sensitive receptors to substantial amounts of air toxins and the Project would result in a less than significant impact. No mitigation is required.

Operational Health Risk Analysis

The Project would increase the number of on-site emergency generators from 8 (existing) to 15 (permitted), which would potentially expose nearby sensitive receptors to increased air toxics and resultant health risks. Emergency generator emission rates were calculated using generator specifications.

Based on the AERMOD outputs, expected annual average diesel $PM_{2.5}$ emission concentrations from the Project's emergency generators to the sensitive receptors would be 0.003 µg/m^3 in the opening year. As shown in **Table 4.3-7: Operational Risk Assessment Results**, the Project's highest calculated carcinogenic risk is 4 per million, which is below the lowest threshold of 10 per million. The calculated acute and chronic hazards are also below the Rule 1401 threshold of 1.0 and Rule 1402 threshold of 3.0.

Table 4.3-7: Operational Risk Assessment Results

Emission and Exposure Scenario	Pollutant Concentration ($\mu g/m^3$)	Maximum Cancer Risk (Risk per Million)	Chronic Noncancer Hazard	Acute Noncancer Hazard
Individual Emergency Generator, at nearest offsite worker location	0.0001	0.01	0.00002	0.004
Individual Emergency Generator, at nearest residence	0.0003	0.25	0.0001	0.004
Total Facility (15 Emergency Generators), at nearest offsite (worker location)	0.002	0.10	0.0004	0.058
Total Facility (15 Emergency Generators), at nearest residence	0.005	4.03	0.0009	0.058
Exceed CEQA Threshold?[3]	**No**	**No**	**No**	**No**
Exceed 1401 Threshold?[4]	**No**	**No**	**No**	**No**
Exceed 1402 Threshold?[5]	**No**	**No**	**No**	**No**

1. Refer to **Appendix D: Health Risk Assessment Technical Memorandum**.
2. The maximum cancer for would be experienced at the soccer field northwest of the Project site based on worst-case exposure durations for the Project, 95th percentile breathing rates, and 25-year averaging time for workers. The residents are located east of the Project site.
3. CEQA threshold is expose sensitive receptors to substantial pollutant concentrations (10 in one million cancer risk and 1.0 acute and chronic noncancer risk).
4. SCAQMD 1401 Threshold is 10 in one million cancer risk and 1.0 acute and chronic noncancer risk.
5. SCAQMD 1402 Threshold is 25 in one million cancer risk and 3.0 acute and chronic noncancer risk.

The pollutant concentrations modeled in AERMOD represent the exposure levels outdoors. The analysis conservatively does not include indoor exposure adjustments for residents. However, the typical person spends most of their time indoors rather than remaining outdoors in the same location for 24 hours a day. Therefore, the AERMOD outdoor pollutant concentrations are not necessarily representative of actual exposure at the Project site and tend to overestimate exposure. The risk calculations are based on the pollutant concentration at the worst-case location (approximately 2,200 feet to the east) and conservatively assume no cleaner technology or lower emissions in future years, and 95th percentile breathing rates.

Criteria Pollutant Health Impacts

On December 24, 2018, the California Supreme Court issued an opinion identifying the need to provide sufficient information connecting a project's air emissions to health impacts or explain why such information could not be ascertained (Sierra Club v. County of Fresno [Friant Ranch, L.P.] [2018] 6 Cal.5th 502). The SCAQMD has set its CEQA significance thresholds based on the FCAA, which defines a major stationary source (in extreme ozone nonattainment areas such as the SCAB) as emitting 10 tons per year. The thresholds correlate with the trigger levels for the federal New Source Review (NSR) Program and SCAQMD Rule 1303 for new or modified sources. The NSR Program was created by the FCAA to ensure that stationary sources of air pollution are constructed or modified in a manner that is consistent with attainment of health-based FAAQS. The FAAQS establish the necessary air quality levels, with an adequate margin of safety, to protect the public health. Therefore, projects that do not exceed the SCAQMD's mass emissions thresholds would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts would occur.

NO_X and ROG are precursor emissions that form ozone in the atmosphere in the presence of sunlight where the pollutants undergo complex chemical reactions. It takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind from the sources. Breathing ground-level ozone can result in health effects that include reduced lung function, inflammation of airways, throat irritation, pain, burning, or discomfort in the chest when taking a deep breath, chest tightness, wheezing, or shortness of breath. In addition to these effects, evidence from observational studies strongly indicates that higher daily ozone concentrations are associated with increased asthma attacks, increased hospital admissions, increased daily mortality, and other markers of morbidity. The consistency and coherence of the evidence for effects upon asthmatics suggests that ozone can make asthma symptoms worse and can increase sensitivity to asthma triggers.

According to the SCAQMD's 2016 AQMP, SCAB's ozone, NO_X, and ROG have been decreasing since 1975 and are projected to continue to decrease in the future. Although the SCAB's VMT continue to increase, NO_X and ROG levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_X emissions from electric utilities have also decreased due to the use of cleaner fuels and renewable energy. The 2016 AQMP demonstrates how the SCAQMD's control strategy to meet the 8-hour ozone standard in 2023 would lead to sufficient NO_X emission reductions to attain the 1-hour ozone standard by 2022. In addition, since NO_X emissions also lead to the formation of $PM_{2.5}$, the NO_X reductions needed to meet the ozone standards will likewise lead to improved $PM_{2.5}$ levels and attainment of $PM_{2.5}$ standards.

The SCAQMD's air quality modeling demonstrates that NO_X reductions prove to be much more effective in reducing ozone levels and will also lead to a significant decrease in $PM_{2.5}$ concentrations. NO_X-emitting stationary sources regulated by the SCAQMD include Regional Clean Air Incentives Market (RECLAIM) facilities (e.g., refineries, power plants, etc.), natural gas combustion equipment (e.g., boilers, heaters, engines, burners, flares) and other combustion sources that burn wood or propane. The 2016 AQMP identifies robust NO_X reductions from new regulations on RECLAIM facilities, non-refinery flares, commercial cooking, and residential and commercial appliances. Such combustion sources are already heavily regulated with the lowest NO_X emissions levels achievable but there are opportunities to require and accelerate replacement with cleaner zero-emission alternatives, such as residential and commercial furnaces, pool heaters, and backup power equipment. The AQMD plans to achieve such replacements through a combination of regulations and incentives. Technology-forcing regulations can drive development and commercialization of clean technologies, with future year requirements for new or existing equipment. Incentives can then accelerate deployment and enhance public acceptability of new technologies.

The 2016 AQMD also emphasized that beginning in 2012, continued implementation of previously adopted regulations will lead to NO_X emission reductions of 68 percent by 2023 and 80 percent by 2031. With the addition of 2016 AQMP proposed regulatory measures, a 30 percent reduction of NO_X from stationary sources is expected in the 15-year period between

2008 and 2023. This is in addition to significant NO_X reductions from stationary sources achieved in the decades prior to 2008.

As previously discussed, the Project's construction-related and operational emissions would not exceed SCAQMD thresholds, thus, would be less than significant with mitigation incorporated; see **Table 4.3-4** and **Table 4.3-5**, respectively. The onsite Project emissions' localized effects on nearby receptors were also found to be less than significant; see **Table 4.3-6** and **Table 4.3-7**. The LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable NAAQS or CAAQS. The LSTs were developed by the SCAQMD based on the ambient concentrations of that pollutant for each SRA and distance to the nearest sensitive receptor. The ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect public health, including protecting the health of sensitive populations such as asthmatics, children, and the elderly. As shown above, Project-related emissions would not exceed the regional thresholds or the LSTs, and therefore would not exceed the ambient air quality standards or cause an increase in the frequency or severity of existing violations of air quality standards. Therefore, sensitive receptors would not be exposed to criteria pollutant levels more than the health-based ambient air quality standards.

Carbon Monoxide Hotspots

An analysis of CO "hot spots" is needed to determine whether the change in an intersection's level of service (LOS) from a proposed project could result in exceedances of the NAAQS or CAAQS. It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when vehicles are idling at intersections. Vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, California's CO standard is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations have steadily declined.

Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard. An SCAQMD analysis prepared for CO attainment in the SCAB can assist in evaluating the potential for CO exceedances. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 AQMP. The SCAB was re-designated as attainment in 2007 and is no longer addressed in the SCAQMD's AQMP.

The 2003 AQMP is the most recent AQMP that addresses CO concentrations. As part of the SCAQMD CO Hotspot analysis, the Century Boulevard at La Cienega Boulevard intersection, one of the most congested intersections in Southern California, was modeled for CO concentrations. This modeling effort identified a CO concentration high of 3.7 parts per million (ppm), which is well below the 35 ppm federal standard. Further, as part of the SCAQMD CO Hotspot analysis, the Wilshire Boulevard at Veteran Avenue intersection, which accommodates 100,000 daily vehicles, was analyzed and no CO hotspots were identified. Nash Street adjacent to the Project

site has an existing 9,300 average daily trips.[15] As concluded in Response 4.17b, the Project is forecast to generate approximately 18 average daily trips; thus, it can be reasonably inferred that CO hotspots would not be experienced at any vicinity intersections as the Project would not produce the volume of traffic required to generate a CO hot spot in the context of SCAQMD's 2003 CO hot-spot analysis. Therefore, impacts would be less than significant in this regard.

4.3d Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant

Construction

The Project would result in emissions other than those leading to odors; see Responses 4.3b and 4.3c above.

Odors that could be generated by construction activities are required to follow SCAQMD Rule 402 to prevent odor nuisances on sensitive land uses. SCAQMD Rule 402, Nuisance, states:

> *A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.*

During construction, emissions from construction equipment, such as diesel exhaust and VOCs from architectural coatings and paving activities may generate odors. However, these odors would be temporary, are not expected to affect a substantial number of people, and would disperse rapidly. Therefore, the Project's construction-related impacts concerning odors would be less than significant.

Operations

The SCAQMD *CEQA Air Quality Handbook* identifies certain land uses as odor sources (i.e., agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding). The Project proposes to install up to seven emergency generators, which would not constantly operate (i.e., they would operate only during maintenance, staff training, testing, and emergency conditions). Additionally, the Project does not include any of the land uses that have been identified by the SCAQMD as odor sources. Therefore, Project operations would not create objectionable odors and impacts would be less than significant.

Mitigation Measures

MM AQ-1 Generator maintenance, staff training, and testing shall be limited on any single day to no more than 110 minutes for the entire facility (up to 15 generators).

[15] City of El Segundo. (2004). *Circulation Element*. https://www.elsegundo.org/home/showpublisheddocument/1958/637237747168070000 (accessed October 2022).

4.4 Biological Resources

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Impact Analysis

4.4a Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. According to the El Segundo General Plan Conservation Element, the El Segundo blue butterfly (*Euphilotes battoides allyni*) has been found within the City's boundaries.[16] El Segundo blue butterflies are listed as State and federally endangered. The butterfly's range is recorded to

[16] City of El Segundo. (1992). *Conservation Element*. Retrieved https://www.elsegundo.org/home/showpublisheddocument/370/637110579849570000. Accessed on December 14, 2021.

be on the coast and not known to be found at or near the Project site.[17] Additionally, the Project site is fully developed and devoid of any native vegetation, trees, or sensitive habitats. Therefore, the Project would not have an adverse effect on any species identified as a candidate, sensitive, or special-status species. No impact would occur in this regard and no mitigation is required.

4.4b Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

4.4c Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. No riparian habitats or wetlands are present on or adjacent to the Project site.[18] Therefore, the Project would not have an adverse effect on riparian habitat or other sensitive natural community, or wetlands. No impact would occur in this regard and no mitigation is required.

4.4d Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. The Project site is fully developed, surrounded by urban development, and not part of an established wildlife corridor. No trees or vegetation are present on the Project site. Additionally, the tree/vegetation nearest the Project site is more than 75 feet to the east. Therefore, the Project would not interfere with the movement of any wildlife species or wildlife corridors. There would be no impact on migratory wildlife or nesting birds and no mitigation is required.

4.4e Would the project conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. There are no local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance that are relevant to the Project site. Further, as previously noted, the Project site is devoid of any native vegetation, trees, or sensitive habitat. Therefore, the Project would not conflict with local policies or ordinances protecting biological resources. No impact would occur in this regard and no mitigation is required.

4.4f Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. No areas within the City are located within the boundaries of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or

[17] U.S. Fish & Wildlife Service. (Undated). *Environmental Conservation Online System- El Segundo Blue Butterfly*. Retrieved from https://ecos.fws.gov/ecp/species/3135. Accessed on December 14, 2021.
[18] Department of Fish and Wildlife. (2021). *National Wetlands Inventory*. Retrieved from https://www.fws.gov/wetlands/data/mapper.html. Accessed on December 14, 2021.

State habitat conservation plan.[19] Therefore, the Project would result in no conflicts or impacts in this regard and no mitigation is required.

Mitigation Measures

No mitigation is required.

[19] SCAG. (2019). *Data/Map Book- City of El Segundo*. Retrieved from https://scag.ca.gov/sites/main/files/file-attachments/elsegundo.pdf?1604794141. Accessed on December 14, 2021.

4.5 Cultural Resources

This Section considers the *Assembly Bill 52 Communications,* which are included in **Appendix B: Assembly Bill 52 Communications**.

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?			X	
c) Disturb any human remains, including those interred outside of dedicated cemeteries?			X	

Impact Analysis

4.5a Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No Impact. ESMC Title 14, *Historic Preservation,*[20] provides for the identification, protection, enhancement, perpetuation and use of historic buildings and structures within the City that reflect special elements of the City's historical heritage. ESMC §15-1-6, *Definitions*, defines a historic site as "any parcel or portion of real property, which has special character or special historical, cultural, architectural, archaeological, community, or aesthetic value." Additionally, in accordance with ESMC §15-14-5, *List of Designated Cultural Resources*, the City maintains a designated cultural resources list. The Project site contains only equipment, concrete pads/footings, gravel and base, and stairs, and the existing adjacent data center (circa 1973) does not embody any distinctive characteristic (i.e., type, period, region, or construction method) with potential historical significance. The Project site and adjacent data center do not contain any historical resources pursuant to ESMC and as defined in State CEQA Guidelines *§15064.5*. Therefore, the Project would not cause an adverse change in the significance of a historical resource. No impact would occur in this regard and no mitigation is required.

4.5b Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant Impact. The Project site has already been subject to extensive disruption and contains artificial fill materials.[21] The Project site is underlain by 4.0 to 6.0 feet of artificial fill[22] and would require excavations of only approximately 3.0 feet below the bottom of generator

[20] El Segundo Municipal Code. (2021). *Chapter 14 Historic Preservation*. Retrieved from https://codelibrary.amlegal.com/codes/elsegundoca/latest/elsegundo_ca/0-0-0-12865.
[21] Terracon Consultants, Inc. (2021). Geotechnical Engineering Report.
[22] Ibid.

foundations;[23] thus, no excavations into native soil are anticipated to occur with the Project. Depth of excavation for the proposed equipment would not exceed 5.0 feet, except at the northwest corner where a drywell would be constructed up to 30 feet deep. Due to the extremely narrow width of excavation required for the drywell (approximately 10.0 feet), the drywell is unlikely to encounter archaeological resources. Additionally, only 125 cubic yards of material would be exported during construction of the emergency generators. Given the Project site has already been subject to extensive disruption and contains artificial fill materials, the potential to encounter or impact an as yet unidentified archaeological resource is considered remote. Additionally, the Project site consists of, and is surrounded by, urban/developed land that has been permanently altered due to construction of below and aboveground improvements. Therefore, the Project would result in a less than significant impact concerning the potential to adversely change the significance of an archaeological resource. No mitigation is required.

4.5c Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact. Given the Project site has already been subject to extensive disruption and contains artificial fill materials, the potential to disturb or impact any human remains is remote. The Project would be constructed on already paved surfaces and would require minimal ground disturbance. Nevertheless, if human remains were found, those remains would require proper treatment in accordance with applicable laws. Public Resources Code §§5097, et seq., and Health and Safety Code §§7050.5-7055 describe the general provisions regarding human remains, including the requirements if any human remains are accidentally discovered during excavation of a site. The requirements and procedures set forth in Public Resources Code §5097.98 would be implemented if human remains are discovered, including notification of the County Coroner, notification of the Native American Heritage Commission, and consultation with the individual identified by the Native American Heritage Commission to be the "most likely descendant." If human remains are found during excavation, excavation must stop in the vicinity of the find and any area that is reasonably suspected to overly adjacent remains until the County Coroner investigates and the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains. Compliance with the established regulatory framework would ensure the proper treatment of human remains should they be encountered. Therefore, the Project would result in less than significant impact concerning the potential to disturb any human remains. No mitigation is required.

Mitigation Measures

No mitigation is required.

[23] Ibid.

4.6 Energy

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

Renewable Portfolio Standard

In 2002, California established its Renewable Portfolio Standard program[24] with the goal of increasing the annual percentage of renewable energy in the State's electricity mix by the equivalent of at least 1 percent of sales, with an aggregate total of 20 percent by 2017. The California Public Utilities Commission subsequently accelerated that goal to 2010 for retail sellers of electricity (*Public Utilities Code* §399.15(b)(1)). Then-Governor Schwarzenegger signed Executive Order S-14-08 in 2008, increasing the target to 33 percent renewable energy by 2020. In September 2009, then-Governor Schwarzenegger continued California's commitment to the Renewable Portfolio Standard by signing Executive Order S-21-09, which directs the CARB under its AB 32 authority to enact regulations to help the State meet its Renewable Portfolio Standard goal of 33 percent renewable energy by 2020. In September 2010, the CARB adopted its Renewable Electricity Standard regulations, which require all the State's load-serving entities to meet this target. In October 2015, then-Governor Brown signed into legislation Senate Bill (SB) 350, which requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030. Signed in 2018, SB 100 revised the program's goal to achieve the 50 percent renewable resources target by December 31, 2026 and a 60 percent renewable resources target by December 31, 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Impact Analysis

4.6a Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact.

[24] The Renewable Portfolio Standard is a flexible, market-driven policy to ensure that the public benefits of wind, solar, biomass, and geothermal energy continue to be realized as electricity markets become more competitive. The policy ensures that a minimum amount of renewable energy is included in the portfolio of electricity resources serving a state or country.

Electricity

Southern California Edison (SCE) provides electricity to the Project area. Electricity is currently used by the emergency generators located on the property. Total electricity demand in SCE's service area is forecast to increase by approximately 12,000 GWh—or 12 billion kWh—between 2015 and 2026.[25]

The Project's electrical demand is expected to be served by existing SCE electrical facilities. The Project's construction-related electrical demand is anticipated to be nominal since most construction equipment would be gas- or diesel-powered. The Project's estimated operational electrical demand would total approximately 16,600,000 kWh per year. This would represent 0.13 percent of SCE's forecast 2026 increased demand, thus, would result in a negligible increased demand compared to SCE's overall demand. It is also noted that the Project (i.e., design and materials) would be subject to compliance with the 2019 Building Energy Efficiency Standards. The Project would also be required to comply with CALGreen, which establishes planning and design standards for sustainable site development, energy efficiency (more than California Energy Code requirements), water conservation, material conservation, and internal air contaminants. Therefore, Project construction and operations would not result in wasteful, inefficient, or unnecessary consumption of electrical resources.

Natural Gas

Southern California Gas Company (SoCalGas) provides natural gas to the Project area. Natural gas is currently not used at the Project site.

No construction-related natural gas demand is anticipated for the Project since most construction equipment would be gasoline- or diesel-powered. Additionally, the Project's proposed generators would not use natural gas during operations. Therefore, Project construction and operations would not result in wasteful, inefficient, or unnecessary consumption of natural gas resources.

Fuel

During Project construction, transportation energy use would depend on the type and number of trips, VMT, fuel efficiency of vehicles, and travel mode. Transportation energy use during construction would be from transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel/gasoline. The use of energy resources by these vehicles would fluctuate according to the construction phase and would be temporary. Impacts related to transportation energy use during construction would be temporary and would not require expanded energy supplies or construction of new infrastructure. Therefore, Project construction would not result in wasteful, inefficient, or unnecessary fuel consumption.

During Project operations, diesel fuel consumption would be associated with operations of the up to seven proposed emergency generators, which would operate only up to 50 hours per year

[25] California Energy Commission. (2018). *California Energy Demand 2018-2030 Revised Forecast, Figure 49 Historical and Projected Baseline Consumption SCE Planning Area*. Retrieved from https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2017-integrated-energy-policy-report/2017-iepr

per unit. The Project's diesel fuel consumption associated with operation of the proposed emergency generators would be approximately 23,444 gallons per year. The fuel consumption associated with the up to five additional employees resulting from Project implementation would be nominal. The County's annual diesel fuel use in 2021 was 581,646,739 gallons.[26] Estimated Project operational diesel fuel use would represent 0.0004 percent of the County's current diesel use. Thus, the proposed Project would not result in a substantial demand for energy that would require expanded supplies or the construction of other infrastructure or expansion of existing facilities. Therefore, Project operations would not result in wasteful, inefficient, or unnecessary fuel consumption.

None of the projected energy uses exceed one percent of their corresponding County use. Project operations would not substantially affect existing energy or fuel supplies or resources. Further, the Project would be subject to compliance with applicable energy standards and new capacity would not be required. Project construction and operations would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, the Project would result in a less than significant impact concerning consumption of energy resources, and no mitigation is required.

4.6b Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. Project design and operations would be subject to compliance with State Building Energy Efficiency Standards, appliance efficiency regulations, and CALGreen standards. As concluded in Response 4.6a, Project construction and operations would not result in wasteful, inefficient, or unnecessary consumption of energy resources. The Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Although the City has not adopted any specific plans that address energy efficiency, the City adopted the *City of El Segundo Climate Action Plan* on December 2017, that has been prepared to help the City comply with the City's GHG emissions reduction goals through implementation of many measures that also result in energy conservation and efficiency. As noted in **Appendix A**, the Project would be consistent with the City's CAP and with the applicable energy efficiency strategies set forth in the CAP. As such, the Project would be designed to meet all applicable State building energy efficiency standards as well as the City's energy efficiency standards. Therefore, the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Impacts would be less than significant and no mitigation would be required.

[26] California Air Resources Board. (2018). *EMFAC2017*.

4.7 Geology and Soils

This Section is based on the *Geotechnical Engineering Report* (Terracon Consultants, Inc., September 2021), which is included in its entirety in **Appendix C: Geotechnical Engineering Report**.

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

Impact Analysis

4.7ai Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, or death involving the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act requires the State Geologist to establish regulatory zones, known as "Alquist-Priolo (AP) Earthquake Fault Zones," around the surface traces of active faults and to issue appropriate maps. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (typically 50 feet). There are no identified Alquist-Priolo Earthquake Fault Zones that traverse the Project site.[27] Additionally, the Project does not propose structures for human occupancy. Therefore, the Project would not cause potential substantial adverse effects involving rupture of a known earthquake fault. No impact would occur in this regard, and no mitigation is required.

4.7aii Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, or death involving strong seismic ground shaking?

Less Than Significant Impact. The Project site is within Southern California region, a seismically active area, thus, is exposed to potential risk involving strong seismic ground shaking. The type and magnitude of seismic hazards affecting the Project site would depend upon the distance to causative faults, the intensity, and the magnitude of the seismic event. However, the Project is subject to compliance with the City's regulatory framework (i.e., California Building Code and ESMC §13-1, Building Code), which is intended to minimize potential risk involving seismic ground shaking. Additionally, the Geotechnical Engineering Report concluded "The site appears suitable for the proposed construction based upon geotechnical conditions encountered in the test borings, provided that the recommendations provided in this report are implemented in the design and construction phases of this project."[28] The City would verify compliance with the Geotechnical Engineering Report recommendations through the Project's Building Permit process. Therefore, following compliance with the established regulatory framework and Geotechnical Engineering Report recommendations, the Project would not cause potential substantial adverse effects involving strong seismic ground shaking. A less than significant impact would occur in this regard and no mitigation is required.

[27] California Geological Survey. (2021). *Earthquake Zones of Required Investigation*. Retrieved from https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed on December 14, 2021.
[28] Terracon Consultants, Inc. (2021). *Geotechnical Engineering Report*. page 8

4.7aiii Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, or death involving seismic-related ground failure, including liquefaction?

No Impact. Liquefaction is a phenomenon where earthquake-induced ground vibrations increase the pore pressure in saturated, granular soils until it is equal to the confining, overburden pressure. When this occurs, the soil can completely lose its shear strength and enter a liquefied state. For liquefaction to occur, three criteria must be met: underlying loose, coarse-grained (sandy) soils, a groundwater depth of approximately 25 feet, and a potential for seismic shaking from nearby large-magnitude earthquakes.

The Project is not located within a liquefaction zone.[29] Additionally, the Geotechnical Engineering Report concluded, based on California Geological Survey maps and the anticipated depth to groundwater, liquefaction hazard potential at the site is considered low. Other geologic hazards related to liquefaction, such as lateral spreading, are therefore also considered low. Therefore, the Project would not cause potential adverse effects involving seismic-related ground failure, including liquefaction. A less than significant impact would occur in this regard and no mitigation is required.

4.7aiv Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, or death involving landslides?

No Impact. Landslides are mass movements of the ground that include rock falls, relatively shallow slumping and sliding of soil, and deeper rotational or transitional movement of soil or rock. The City and Project site do not lie in a landslide hazard zone.[30] Therefore, the Project would not cause adverse effects involving landslides. No impact would occur in this regard, and no mitigation is required.

4.7b Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The Project site comprises approximately 0.50-acre, thus, ground disturbances would be nominal with only approximately 125 cubic yards of soil export required (to be backfilled and repaved). ESMC §5-4-9.F requires a project applicant to submit information to the City that the grading will retain sediments onsite, retain construction-related materials and wastes, spills, and residues, prevent discharges to streets and drainage facilities, contain non-stormwater runoff, and contain erosion from slopes and channels through use of BMPs; see **Section 4.10: Hydrology and Water Quality**, for more information regarding LID requirements and implementation. Given the nature and scope of Project construction, and since construction activities would be subject to ESMC standards, the Project would not result in substantial soil erosion or loss of topsoil. A less than significant impact would occur in this regard and no mitigation would be required.

[29] Ibid.
[30] Ibid.

4.7c Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

No Impact. The Project site would not be subject to seismically-induced liquefaction (see Response 4.7aiii) or landslides (see Response 4.7aiv). The Geotechnical Report concluded the Project site is not within a liquefaction zone, thus, other geological hazards related to liquefaction, such as lateral spreading, are therefore also considered low.[31] Lateral spreading and collapse result from liquefaction and subsidence. Because the site has low liquefaction and subsidence potential, no impact would occur and no mitigation is required.

4.7d Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risk to life or property?

Less Than Significant Impact. The Uniform Building Code defines expansive soils as soils having an expansion index greater than 20.[32] The Geotechnical Engineering Report concluded existing fill materials are underlain by lean clay soils with expected expansion potential and recommended that such materials not be used in structural areas but may be blended with sandy soils such that the resulting materials conform with the low volume change materials specifications provided in the Report.[33] The Geotechnical Engineering Report further recommends engineered fill extending to a minimum depth of 3.0 feet below the bottom of foundations for the emergency generators, to stabilize the soil. The City would verify compliance with the Geotechnical Engineering Report recommendations through the Project's Building Permit process. Therefore, following compliance with Geotechnical Engineering Report recommendation, the Project would not create substantial risk involving expansive soils. A less than significant impact would occur in this regard and no mitigation is required.

4.7e Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The Project proposes to install generators, which would not create a demand for wastewater disposal. Further, sewers are available to the existing data center. Therefore, no impact would occur in this regard, and no mitigation is required.

4.7f Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. These resources are valued for the information they yield about the earth's history and its past ecological settings. The potential for fossil occurrence depends on the rock type exposed at the surface in a given area. The Project site has already been subject to extensive disruption and contains artificial fill materials. The

[31] Ibid.
[32] Uniform Building Code. (1994). *Vol. 2 Structural Engineering Design Provisions*. Retrieved from https://digitalassets.lib.berkeley.edu/ubc/UBC_1994_v2.pdf.
[33] Terracon Consultants, Inc. (2021). *Geotechnical Engineering Report*. Page 11

Project site is underlain by 4.0 to 6.0 feet of artificial fill[34] and would require excavations of only approximately 3.0 feet below the bottom of generator foundations;[35] thus, no excavations into native soil would occur with the Project, except at the northwest corner where a drywell would be constructed up to 30 feet deep. Due to the extremely narrow width of excavation required for the drywell (approximately 10.0 feet), the drywell is unlikely to encounter paleontological resources. Additionally, only 125 cubic yards of material would be exported during construction of the emergency generators. Given the Project site has already been subject to extensive disruption and contains artificial fill materials, the potential to encounter or impact an as yet unidentified paleontological resource is considered remote. Additionally, the Project site consists of, and is surrounded by, urban/developed land that has been permanently altered due to construction of below and aboveground improvements. Therefore, the Project would result in a less than significant impact concerning the potential to destroy a unique paleontological resource directly or indirectly. No mitigation is required.

Mitigation Measures

No mitigation is required.

[34] Ibid.
[35] Ibid.

4.8 Greenhouse Gas Emissions

This Section is based on the Greenhouse Gas Emissions Assessment (Kimley-Horn, October 2022), which is included in its entirety in **Appendix A: Air Quality and Greenhouse Gas Emissions Technical Memorandum**.

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

City of El Segundo Climate Action Plan (CAP)

El Segundo, in addition to 14 other South Bay Cities, have prepared a CAP (2017) to guide the City toward a more sustainable future. The CAP's goal is to reduce the City's GHG emissions. The City's CAP serves as a guide for action by setting GHG emission reduction goals and establishing strategies and policy to achieve desired outcomes over the next 20 years. The CAP outlines various municipal measures that encourage reductions in the following categories: land use and transportation, energy efficiency, solid waste, urban greening, and energy generation and storage.

Table 4.8-1: Description of Greenhouse Gases

Greenhouse Gas	Description
Carbon Dioxide (CO_2)	CO_2 is a colorless, odorless gas that is emitted naturally and through human activities. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. The atmospheric lifetime of CO_2 is variable because it is readily exchanged in the atmosphere. CO_2 is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.
Nitrous Oxide (N_2O)	N_2O is largely attributable to agricultural practices and soil management. Primary human-related sources of N_2O include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. N_2O is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years. The Global Warming Potential of N_2O is 298.
Methane (CH_4)	CH_4, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Methane is the major component of natural gas, approximately 87 percent by volume. Human-related

Table 4.8-1: Description of Greenhouse Gases

Greenhouse Gas	Description
	sources include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. Natural sources of CH_4 include wetlands, gas hydrates, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. The atmospheric lifetime of CH_4 is approximately 12 years and the Global Warming Potential is 25.
Hydrofluorocarbons (HFCs)	HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase out of CFCs and HCFCs gains momentum. The 100-year Global Warming Potential of HFCs range from 124 for HFC-152 to 14,800 for HFC-23.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and only break down by ultraviolet rays approximately 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Global Warming Potentials range from 6,500 to 9,200.
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987. Global Warming Potentials for CFCs range from 3,800 to 14,400.
Sulfur Hexafluoride (SF_6)	SF_6 is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas. The Global Warming Potential of SF_6 is 23,900.
Hydrochlorofluorocarbons (HCFCs)	HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, HCFCs are subject to a consumption cap and gradual phase-out. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year Global Warming Potentials of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b.
Nitrogen Trifluoride (NF_3)	NF_3 was added to Health and Safety Code §38505(g)(7) as a GHG of concern. This gas is used in electronics manufacture for semiconductors and liquid crystal displays. It has a Global Warming Potential of 17,200.

Source: Compiled from: USEPA, *Overview of Greenhouse Gases*, April 11, 2018 (https://www.epa.gov/ghgemissions/overview-greenhouse-gases); USEPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016*, 2018; Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis*, 2007; National Research Council, Advancing the Science of Climate Change, 2010; USEPA, *Methane and Nitrous Oxide Emission from Natural Sources*, April 2010.

South Coast Air Quality Management District Thresholds

The SCAQMD formed a GHG CEQA Significance Threshold Working Group (Working Group) to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. This Working Group was formed to assist SCAQMD's efforts to develop a GHG significance threshold and included a wide variety of stakeholders including the State Office of Planning and Research (OPR), CARB, the Attorney General's Office, a variety of city and county planning departments in the Air Basin, various utilities such as sanitation and power companies throughout the Air Basin, industry groups, and environmental and professional organizations. On December 5, 2008, the SCAQMD Governing Board adopted a 10,000 metric tons of carbon

dioxide equivalent ($MTCO_2e$) industrial threshold for projects where the SCAQMD is the lead agency. However, the SCAQMD has not announced when a GHG threshold for land use projects will be presented to the governing board where the SCAQMD is not the lead agency. The Working Group proposed a 3,000 $MTCO_2e$ threshold for non-industrial projects, but that threshold has not been formally adopted. Nonetheless, the City of Gardena has determined that the 3,000 $MTCO_2e$ is the appropriate threshold to determine the significance of the GHGs arising from the Project's proposed addition of seven generators.

Impact Analysis

4.8a Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact.

Short-Term Construction Greenhouse Gas Emissions

The Project would generate greenhouse gas (GHG) emissions directly from construction-related activities. Project construction was assumed to begin July 2022. However, the current Project construction schedule assumes Project construction would begin September 2022, or two months later than assumed in the GHG modeling. However, the GHG modeling concerning the construction schedule is considered conservative because CalEEMod emissions factors for future years decline given advancements in construction equipment technology and fleet turnover.

Table 4.8-2: Construction-Related Greenhouse Gas Emissions provides the approximate daily GHG emissions generated by construction equipment utilized to build the Project. As indicated in **Table 4.8-2**, Project construction-related activities would generate approximately 79 metric tons of carbon dioxide equivalent ($MTCO_2e$)[36] over the course of construction. Consistent with SCAQMD guidance, construction emissions will be amortized over the Project's life, defined as 30 years, added to the operational emissions, and compared to the applicable interim GHG significance threshold.[37] The amortized Project construction emissions would be approximately 2.6 $MTCO_2e$ per year.

Table 4.8-2: Construction-Related Greenhouse Gas Emissions

Construction	$MTCO_2e$ per Year
Total Construction	79
Amortized over 30 Years	2.6

Source: CalEEMod version 2020.4.0; see **Appendix A: Air Quality and Greenhouse Gas Technical Memorandum** for model outputs.

[36] Metric tons of carbon dioxide equivalent or MTCO2e is the unit of measurement used. The unit " CO_2e" represents an amount of a GHG whose atmospheric impact has been standardized to that of one-unit mass of carbon dioxide (CO_2), based on the gas' global warming potential (GWP). Tool formulas convert standard metrics for electricity, green energy, fuel use, chemical use, water use, and materials management into $MTCO_2e$.

[37] SCAQMD. (2008*). Staff Report for Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, December 5, 2008*, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2; page 5.

Long-Term Operational Greenhouse Gas Emissions

Operational or long-term emissions would occur over the proposed Project's life. The Project's operational GHG emissions would result from direct emissions such as consumption of fossil fuels in the new generators and new employee trips. **Table 4.8-3: Project Greenhouse Gas Emissions** provides the Project's long-term operational GHG emissions and indicates the Project would generate approximately 663 $MTCO_2e$/year. The Project would not result in an increase in GHG emissions that would exceed the SCAQMD's proposed screening threshold of 3,000 $MTCO_2e$ per year.[38] Therefore, Project-related GHG emissions would be less than significant and no mitigation is required.

Table 4.8-3: Project Greenhouse Gas Emissions

Emissions Source	$MTCO_2e$ per Year
Construction Amortized Over 30 Years	2.60
New Generators	635
New Employee Trips	25
Total Project Emissions	**663**
SCAQMD Project Threshold	3,000
Threshold Exceeded?	**No**

Source: CalEEMod version 2020.4.0; see **Appendix A: Air Quality and Greenhouse Gas Technical Memorandum** for model outputs.

4.8b Would the project conflict with applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact.

In 2015, the City adopted the Energy Efficiency Climate Action Plan (EECAP) to improve energy efficiency and reduce GHG emissions. The City also adopted a CAP in 2017, with the EECAP serving as a supporting appendix. To develop this EECAP, a GHG emissions inventory was conducted to determine baseline GHG emissions from the community and from municipal operations for calendar year 2005 and 2012. A forecast was made of business-as-usual emissions in the absence of any emissions reduction actions. This forecast was then adjusted to account for the emissions reduction expected from Statewide policies. The 2017 CAP uses the same inventories and reduction targets. To meet the City's GHG reductions target, the City would implement the additional local energy efficiency and GHG reduction measures described in the EECAP and CAP. Reaching the emissions reduction goals requires that residents, businesses, and City government work together.

The proposed Project would be subject to compliance with all building codes in effect at the time of construction, which include energy efficiency measures mandated by the 2019 Building Energy Efficiency Standards. CCR Title 24, Part 6 standards indirectly regulate and reduce GHG emissions

[38] On September 28, 2010, air quality experts serving on the SCAQMD GHG CEQA Significance Threshold Stakeholder Working Group recommended an interim screening level numeric bright-line threshold of 3,000 metric tons of CO_2e annually. The Working Group was formed to assist the SCAQMD's efforts to develop a GHG significance threshold and was composed of a wide variety of stakeholders including the State Office of Planning and Research (OPR), CARB, the Attorney General's Office, and various city and county planning departments. The numeric bright line and efficiency-based thresholds, which were developed for consistency with CEQA requirements for developing significance thresholds, are supported by substantial evidence and provide guidance to CEQA practitioners and lead agencies for determining whether GHG emissions from a proposed project are significant.

because they require energy efficiency features in new construction (e.g., high-efficiency lighting, high-efficiency heating, ventilating, and air-conditioning (HVAC) systems, thermal insulation, double-glazed windows, water-conserving plumbing fixtures). California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2019 Building Energy Efficiency Standards improved upon the 2016 Standards for new construction of, and additions and alterations to, residential, commercial, and industrial buildings.

The Project proposes to install up to seven additional emergency backup diesel generators on the Project site to support internal electrical/equipment modifications within the existing data center. The Project does not propose a change in land use or increased building floor area to the existing data center. The data center is an existing permitted land use. Given its nature and scope, the proposed Project would not conflict with EECAP/CAP goals, measures, and emission reduction targets and would not conflict with any applicable plan, policy, or regulation of an agency adopted to reduce GHG emissions, including Title 24, AB 32, and SB 32. Therefore, Project impacts would be less than significant.

Cumulative Setting

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately one day), GHGs have much longer atmospheric lifetimes of one year to several thousand years that allow them to be dispersed around the globe.

Cumulative Impacts and Mitigation Measures

It is generally the case that an individual project of the proposed Project's scale and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of Project-related GHG emissions would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the proposed Project, as well as other cumulative related projects, would be subject to all applicable regulatory requirements, which would further reduce GHG emissions. As indicated in **Table 4.8-3**, the proposed Project's GHG emissions would be less than significant. Additionally, as discussed above, the Project would be consistent with the City's EECAP and CAP. As a result, the Project would not conflict with any GHG reduction plan. Therefore, the Project's cumulative contribution of GHG emissions would not be cumulatively considerable and the Project's cumulative GHG impacts would also be less than significant. No mitigation is required.

4.9 Hazards and Hazardous Materials

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

Impact Analysis

4.9a Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Routine construction activities would involve the transport, storage, use and/or disposal of limited quantities of hazardous materials, such as fuels, solvents, degreasers, and paints. The use of these materials during Project construction would be short-term and would occur in accordance with standard construction practices, as well as with applicable federal, State, and local regulations, including the following:

Federal

- Resource Conservation and Recovery Act (42 U.S.C. § 6901 et seq.)

- Clean Water Act, National Pollutant Discharge Elimination System (Section 402[p]) (33 U.S.C. § 1342(p))
- Toxic Substances Control Act (15 U.S.C. § 2601 et seq.)
- Hazardous Materials Transportation Act (49 U.S.C. § 5101 et seq. and 49 C.F.R. Parts 101, 106, 107, and 171–180)
- Hazardous Materials Transportation Uniform Safety Act of 1990 (Public Law 101-615)

State

- Hazardous Materials Release Response Plans and Inventory Law (Cal. Health and Safety Code, § 25500 et seq.)
- Transportation of Hazardous Materials and Wastes (Cal. Code of Regs tit. 26)
- Senate Bill 1082, which created the Certified Unified Program Agency (CUPA)

Local

The City of El Segundo Fire Department is a CUPA, which regulates and oversees:

- Hazardous materials business plans
- California accidental release prevention plans or federal risk management plans
- The operation of underground storage tanks and aboveground storage tanks
- Universal waste and hazardous waste generators and handlers
- Onsite hazardous waste treatment
- Inspections, permitting, and enforcement
- Proposition 65 reporting
- Emergency response

Beyond the statewide regulations, CUPAs administer policies and regulations found in various local and regional plans (i.e., the City's General Plan and Municipal Code) that address hazards and hazardous materials. Policies and regulations are intended as guides for the appropriate use of potentially hazardous materials, the cleanup of contaminated sites, and the preparation of emergency response plans.

Potentially hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Examples of such activities include fueling and servicing construction equipment and applying paints and other coatings. Project construction would be temporary, and on-site activities would be governed by existing regulations of several agencies. Construction activities would be subject to compliance with relevant regulatory requirements and restrictions concerning the transport, use, or disposal to prevent a significant hazard to the public or

environment. The primary regulatory requirements include SCAQMD Rules 1166 (volatile organic compound emissions) and 1466 (fugitive dust-toxic air contaminants).

The Project proposes to install up to seven emergency generators, which would require routine maintenance that would involve diesel fuel, oil, and lubricants. As under existing conditions, these materials would continue to be delivered by qualified vendors who are trained in these substances' transportation requirements, and because the generators are in enclosed containers, any spills would be contained in these areas. The primary hazardous material at the Project site would be diesel fuel associated with the backup generators. Diesel fuel delivery and fueling would be subject to individual vendors and could change over time. However, all activities would be required to comply with the above regulatory framework, and these maintenance activities would be a continuation of the same types of maintenance activities that occur at the data center's existing generators.

Therefore, continued compliance with the regulatory requirements, the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Impacts would be less than significant in this regard, and no mitigation is required.

4.9b Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. Project construction would require digging and excavation that could result in the accidental release of hazardous materials, however it is unlikely hazardous materials would be found on the Project site.

Given the proposed Project's nature, the emergency generators would not be used on a consistent basis. Diesel leaks are unlikely, but should they occur, they would be contained within the enclosed generator housing, which is installed on a concrete pad, thus, any spilled diesel fuel could be cleaned up without significant hazard to the public or environment.

The CUPA administers inspections of businesses that use hazardous materials or generate hazardous waste and ensures compliance with federal and state regulations listed in Response 4.9a. Facilities that store, handle, or transport hazardous materials are required to procure business plans and adhere to strict procedures enforced by agencies with jurisdiction over businesses or areas that routinely use or handle hazardous materials. Project operations would comply with all CUPA, U.S. Environmental Protection Agency, and DTSC standards.

Routine maintenance would require diesel fuel for each generator, as discussed above in **Section 4.6: Energy**. Project operations are not expected to release any hazardous materials as a result of foreseeable upset and accident conditions. It is assumed that the use and storage of such materials would continue to occur in compliance with applicable standards and regulations, and would not pose significant hazards. It is anticipated that the use of such hazardous materials would not create a significant hazard associated with a risk of upset or accident conditions involving the release of hazardous materials during Project operations. A less than significant impact would occur in this regard, and no mitigation is required.

Mitigation Measures

No mitigation is required.

4.9c Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. The Project site is within 500 feet of the City of El Segundo Wiseburn School District Aquatics Center and within 0.3-mile of the main school building located at 201 North Douglas Street, El Segundo. However, the Project proposes emergency backup generators, which would not emit significant quantities of hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. Project operations would result in diesel fuel usage and associated DPM; however, the Project's operational DPM emissions would be far below all health risk thresholds; see **Table 4.3-7: Operational Health Risk**. Further would operate only under emergency conditions or during routine maintenance. Therefore, the Project would result in a less than significant in this regard, and no mitigation is required.

4.9d Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. Government Code §65962.5 refers to the Hazardous Waste and Substances Site List, commonly known as the Cortese List, maintained by the DTSC. The Cortese list contains hazardous waste and substance sites including public drinking water wells with detectable levels of contamination, sites with known underground storage tanks (USTs) having a reportable release, solid waste disposal facilities from which there is a known migration, hazardous substance sites selected for remedial action, historic Cortese sites, and sites with known toxic material identified through the abandoned site assessment program. A regulatory agency database search was conducted and determined that no Cortese sites were identified as on the Project site.[39] Therefore, no impact would occur in this regard, and no mitigation is required.

4.9e For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The Los Angeles International Airport (LAX) is located 0.5-mile north of the Project site. However, the Project site is not within the Airport Noise Contour or the Noise Contour Map boundary shown in LAX Part 150 Noise Exposure Map Update Report, Exhibit 5-2.[40] Also, the Project site is not within the Airport Influence Area pursuant to the Los Angeles County Airport Land Use Commission's *GIS Interactive Map* (A-NET).[41] Therefore, the Project would not result in

[39] CalEnviroStor. (2022). *EnviroStor Database*. Retrieved from https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=444+north+nash+street. Accessed on January 11, 2022. California Waterboards. (2022). *GeoTracker*. Retrieved from https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Sacramento. Accessed April 21, 2022.

[40] Los Angeles International Airport. (2016). *LAX Part 150 Noise Exposure Map Update Report*. Retrieved from https://www.lawa.org/lawa-environment/noise-management/lawa-noise-management-lax/lax-part-150-noise-exposure-map-update/nem-update-documents. Accessed on January 11, 2022.

[41] Los Angeles County. (2016). *A-NET*. Retrieved from https://lacounty.maps.arcgis.com/apps/webappviewer/index.html?id=acf2e87194a54af9b266bf07547f240a. Accessed April 21, 2022.

an airport-related safety hazard or excessive noise for people working in the Project area. No impact would occur in this regard, and no mitigation is required.

4.9f Would the project impair implementation of or physically interfere with an emergency response plan or emergency evacuation plan?

No Impact. The Project site totals only 0.50 acre and is located in the northeast portion of the property, where adequate circulation and access is provided to facilitate emergency response. The nearest disaster route is Sepulveda Boulevard, 0.4-mile west of the Project site.[42] Construction activities are expected to be contained within the Project site boundaries and would not obstruct the adjacent roadway to the west (Nash Street). Therefore, the Project would not impair implementation of or physically interfere with an emergency response plan or emergency evacuation plan. No impact would occur in this regard, and no mitigation is required.

4.9g Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The Project site is in a fully urbanized area and it is not adjacent to any wildland. Additionally, the Project site is not within a very high fire severity zone (VHFSZ); see **Section 4.20: Wildfire**. Therefore, the Project would not expose people or structures to a significant risk involving wildland fires. No impact would occur, and no mitigation is required.

[42] County of Los Angeles Department of Public Works. (June 25, 2008). *Disaster Route Maps (by City), City of El Segundo*.

4.10 Hydrology and Water Quality

This Section is based on the Low Impact Development (LID) Report (Kimley-Horn and Associates, Inc. September 2021), which is included in its entirety in **Appendix E: Low Impact Development Plan.**

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

Impact Analysis

4.10a Would the project violate water quality or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. The Project's construction-related activities would include nominal excavation, grading, and trenching, which would displace soils and temporarily increase the potential for soils to be subject to wind and water erosion. Construction-related erosion effects

would be addressed through compliance with ESMC Title 5, *Storm Water and Urban Runoff Pollution Controls*, which specifies development requirements to reduce pollutants in stormwater and urban runoff to the maximum extent practicable. Following compliance with ESMC §5-4-9 requirements, construction-related activities would not violate any water quality standards or otherwise substantially degrade surface or groundwater quality. Therefore, a less than significant impact would occur in this regard, and no mitigation is required.

The Los Angeles County Flood Control District (LACFCD), the County, and the City along with 83 other incorporated cities therein (Permittees) discharge pollutants from their municipal separate storm sewer (drain) systems (MS4s). Stormwater and non-stormwater enter and are conveyed through the MS4 and discharged to Los Angeles Region surface water bodies. These discharges are regulated under countywide waste discharge requirements contained in Order No. R4-2012-0175[43] (NPDES Permit No. CAS004001), *Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges Within the Coastal Watersheds of Los Angeles County, Except Discharges Originating from the City of Long Beach MS4*, which was adopted November 8, 2012.[44] The MS4 Permit Order provides the revised waste discharge requirements for MS4 discharges within the Los Angeles County watersheds, which includes the City. The MS4 Permit Order, which became effective December 28, 2012, supersedes Order No. 01-182. Los Angeles County uses its Low Impact Development (LID) Ordinance to require projects to comply with NPDES MS4 Permit water quality requirements.

The MS4 Permit Order requires development and implementation of a Planning and Land Development Program for all "New Development" and "Redevelopment" projects subject to the Order. New development and redevelopment projects/activities subject to Los Angeles County's LID Ordinance include all development projects equal to 1.0 acre or greater of disturbed area and residential new or redeveloped projects that create, add, or replace 10,000 SF or greater impervious surface area. The Project is a redevelopment project which would replace 10,000 SF or more of impervious surface area; as such, the Project is subject to Los Angeles County's LID Ordinance. Additionally, ESMC §5-4-8: *Best Management Practices Required*, specifies that new development and redevelopment projects are subject to the MS4. LID controls effectively reduce the amount of impervious area of a completed project site and promote the use of infiltration and other controls that reduce runoff. Source control BMPs prevent runoff contact with pollutant materials that would otherwise be discharged to the MS4. Specific structural controls are also required to address pollutant discharges from certain uses including but not limited to housing developments, parking lots, and new streets, among others.

Infiltration is Los Angeles County's first option when screening potentially feasible LID BMPs. Infiltration systems collect stormwater runoff and conduct it into permeable soils beneath the site; effectively reducing pollution, reducing runoff and flooding, and recharging groundwater. The Project would treat site runoff in accordance with the Los Angeles County Low Impact Development Manual, 2014. To do so, the Project proposes a 30-foot-deep drywell in order to achieve this. The drywell system would have the capacity to process up to 2,277 cubic feet (CF)

[43] State of California Water Quality Control Board. (undated). *Order No. R4-2012-0175 NPDES Permit NO. CAS004001*. Los Angeles, CA: State of California Water Quality Control Board.
[44] Ibid.

of water per day, which is a 1,538 CF improvement in runoff capacity over existing conditions. The drywell would also include a Bio Clean Screening Filter that would pre-treat captured water before its return to the wastewater system. The Project would not only comply with existing wastewater regulations, but would improve the site's current drainage and water processing conditions.

Following compliance with NPDES and ESMC requirements, Project operations would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Therefore, the Project would result in a less than significant in this regard, and no mitigation is required.

4.10b Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. Basin recharge occurs through percolation of precipitation and artificial recharge activities at spreading grounds, among other sources. The Project site was previously developed and the proposed Project would maintain the site's 100 percent effective impervious area. The Project would not interfere with groundwater recharge given the Project proposes a 30-foot-deep drywell, which would increase the Project site's capacity to process runoff by 1,538 cubic feet (CF). This would allow a greater volume of stormwater to infiltrate into the groundwater after being treated, improving groundwater recharge rates. Additionally, although the Project would generate a nominal water demand (approximately 1,535 gallons per day (GPD), see Response 4.19b), the City does not use groundwater as a potable water source. Therefore, the Project's water demands would not decrease groundwater supplies. Finally, as concluded in Response 4.10e, most run-off would occur from natural rain events and the maintenance of landscaping that is not directly connected to the Project. The Project would not substantially deplete groundwater supplies nor interfere substantially with groundwater recharge such that the Project would impede the basins' sustainable groundwater management. Therefore, a less than significant impact would occur in this regard, and no mitigation is required.

4.10c Would the project substantially alter the existing drainage pattern of the site or area, including through the alterations of the course of stream or river or through the addition of impervious surfaces, in a manner which would:

(i) Result in substantial erosion or siltation on- or off-site?

(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

(iv) Impede or redirect flood flows?

Less Than Significant Impact. The Project site is within Zone X of the applicable FEMA flood map, corresponding to an Area of Minimal Flood Hazard.[45] In the current condition, the runoff from the Project site flows northeasterly and southeasterly towards Duley Road where the water travels through gutters into catch basins untreated. The proposed Project would maintain the site's 100 percent impervious surface coverage and therefore would not change the site' surface run-off volumes. Additionally, the Project would include a 30-foot drywell that would improve site drainage and redirect flows, which would minimize potential flooding and allow the Project site to treat a greater volume of run-off. With the proposed drywell, the site's existing runoff capacity (i.e., the volume of run-off that can be treated onsite) would increase by 1,538 CF. By increasing the site's run-off capacity while maintaining the same amount of impervious area, the Project would enable treatment of run-off from greater rain events. By improving the site's drainage, the potential for flooding would be further minimized. Additionally, the Project site is not located in any geologically hazardous or flooding areas that would increase the likelihood of erosion or flooding on-site; see **Section 4.7: Geology and Soils** and Response 4.10d. The system would also prevent the exceedance of stormwater drainage systems in the area and would treat run off before leaving the site. While the new drywell would slightly redirect flows, drainage and water treatment would be improved. Therefore, the Project would result in a less than significant effect concerning alterations to drainage and surface runoff volumes/flooding, and no mitigation is required.

4.10d In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less Than Significant Impact. The Project site is in an area of minimal flood hazard as noted above.[46] Tsunamis are sea waves that are generated in response to large-magnitude earthquakes. When these waves reach shorelines, they sometimes produce coastal flooding. Seiches are the oscillation of large bodies of standing water that can occur in response to ground shaking. The Project site is approximately 2.65 miles east of the Pacific Ocean and there are no nearby bodies of standing water. Tsunamis and seiches do not pose hazards due to the Project site's inland location and lack of nearby bodies of standing water. Additionally, the Project site is not within a tsunami zone according to the Department of Conservation.[47] The Project proposes the installation of up to seven emergency generators that would involve the use of materials associated with routine maintenance, such diesel and other products associated with machinery maintenance. The Project is not within a flood hazard, tsunami, or seiche zone and would not risk the release of pollutants. Therefore, potential impacts associated with inundation by flood hazard, tsunami, or seiche would be less than significant, and no mitigation is required.

[45] Federal Emergency Management Agency. (2022). *National Flood Hazard Layer FIRMette.* Retrieved from https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd&extent=-118.41035951785176,33.91329149209945,-118.36881746462802,33.93109698617504.

[46] Ibid.

[47] Department of Conservation. (2021). *Tsunami Risk Zone*. Retrieved from https://www.conservation.ca.gov/cgs/tsunami/maps. Accessed on January 10, 2022.

4.10e Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. The Project site is within the West Coast Groundwater Basin. Groundwater levels are managed within a safe basin operating range to protect the LA Basin's long-term sustainability and to protect against land subsidence. The Southwest System is supplied by two active, Golden State Water Company (GSWC)-owned wells in the Central Basin and 12 active, GSWC-owned wells in the West Coast Basin. The Southwest System has a total normal year active well capacity of 10,865 gpm (17,525 AFY), of which 8,715 gpm (14,057 AFY) is in the West Coast Basin, and 2,150 gpm (3,468 AFY) is in the Central Basin. The Central Basin's groundwater storage capacity is approximately 13.8 million AF. The storage capacity of the West Coast Basin's primary water producing aquifer, the Silverado aquifer, is estimated to be 6.5 million AF.

The Sustainable Groundwater Management Act (SGMA) requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, that will be 2040. For the remaining high and medium priority basins, 2042 is the deadline.

The SGMA requires local Groundwater Sustainability Agencies (GSAs) in high- and medium-priority basins to develop and implement Groundwater Sustainability Plans (GSPs) or to develop Alternatives to GSPs. GSPs provide a roadmap for how groundwater basins will reach long-term sustainability.

The latest basin prioritization project, SGMA 2019 Basin Prioritization, was completed in December 2019. SGMA 2019 Basin Prioritization identified 94 basins/sub-basins as medium or high priority. The Project site is located in a very low priority basin,[48] therefore, there is no GSP available/required for the Project area. Additionally, the City's water use in 2020 (most recent UWMP) was 307 gallons per capita per day (GPCD), well below the SBX7-7 2020 target of 411 GPCD.[49] As discussed in Response 4.19b, the Project would result in only a nominal increase in water demand (approximately 1,535 GPD) and the City does not use groundwater as a potable water source. Therefore, the Project's water demands would not decrease groundwater supplies. Also, the Project would not interfere with groundwater recharge given the Project proposes a 30-foot deep drywell, which would increase the Project site's capacity to process runoff, allowing a greater volume of stormwater to infiltrate into the groundwater after being treated, improving groundwater recharge rates. Further, the City would continue to comply with SBX7-7 requirements. Therefore, the Project would not conflict with or obstruct implementation of a sustainable groundwater management plan. Impacts would be less than significant in this regard, and no mitigation is required.

[48] California Department of Water Resources. (2020). *Basin Prioritization Dashboard*. Retrieved from https://gis.water.ca.gov/app/bp-dashboard/final/.

[49] City of El Segundo. (2021). *2020 Urban Water Management Plan*. Retrieved from https://wuedata.water.ca.gov/public/uwmp_attachments/7228116691/ElSegundo.2020UWMP.FINAL.pdf.

4.11 Land Use Planning

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

Impact Analysis

4.11a Would the project physically divide an established community?

No Impact. Examples of projects that could physically divide an established community include a new freeway or highway that traverses an established neighborhood. There are no established communities in the Project area; see **Table 2-1: Onsite and Surrounding Land Uses**. The Project proposes to install up to seven emergency generators. No new streets or other physical barriers which could physically divide an established community are proposed. Therefore, the Project would not physically divide an established community. No impact would occur in this regard, and no mitigation is required.

4.11b 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?

Less Than Significant Impact.

General Plan

The Project site's land use designation is Urban Mixed Use North.[50] The Urban Mixed Use North land use designation is intended to allow a range of uses including offices, hotels, and retail as well as light industrial, with a discretionary permit. The Project proposes to install up to seven emergency generators in continuation of an existing data center, which already operates eight emergency generators. The proposed Project would not conflict with the Urban Mixed Use North designation's intended uses as described above. Additionally, the Project would not expand or alter floor area.

Zoning

The Project site is zoned Urban Mixed Use North (MU-N), which is intended to provide area(s) where a mixture of compatible commercial, office, research and development, retail and hotel uses can locate and develop in a mutually beneficial manner. As previously noted, the Project proposes to install up to seven emergency generators in continuation of an existing light

[50] City of El Segundo. (2010). *Land Use Map Revised 2010.* Available https://www.elsegundo.org/home/showpublisheddocument/362/637110574435030000.

industrial use (i.e., a data center), which already contains eight emergency generators. The proposed improvements would be subject to compliance with the MU-N development standards specified in ESMC §15-5E-7, which would be verified through the City's site review process outlined in ESMC §15-25. The proposed Project would not conflict with the MU-N North designation's intended uses as described above.

The Applicant seeks approval of one entitlement - to amend Environmental Assessment No. EA-971, a 2012 discretionary City approval for the existing data center. As discussed in **Section 2.2: Background and History**, in 2012, the data center building was proposed to be expanded from 116,756-SF to 180,422-SF. The *T5 Data Center Expansion Project EA 971 444 N. Nash Street Initial Study/Mitigated Negative Declaration* (RBF Consulting, December 3, 2012) was prepared to evaluate the environmental impacts of the proposed data center expansion, which was approved in 2013.

Therefore, no conflict with the General Plan or ESMC, or significant environmental impact due to a conflict, would occur. A less than significant impact would occur in this regard, and no mitigation is required.

4.12 Mineral Resources

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X

Impact Analysis

4.12a Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

4.12b Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. There are no mineral resources or recovery sites present on the Project site, as the property is an existing data center with approximately 4.0 to 6.0 feet of artificial fill.[51] Therefore, the Project would not result in the loss of availability of a known mineral resource or a locally-important mineral resource recovery site. No impact would occur in this regard, and no mitigation is required.

[51] Terracon Consultants, Inc. (2021). Geotechnical Engineering Report.

4.13 Noise

This Section is based on the Noise Analysis Memorandum (Kimley-Horn & Associates, Inc., October 2022), which is included in its entirety in **Appendix F: Noise Analysis Technical Memorandum.**

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) 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?		X		
b) Generate of excessive ground borne vibration or groundborne noise levels?			X	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			X	

Sound and Environmental Noise

Acoustics is the science of sound. Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a medium (e.g., air) to human (or animal) ear. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, or hertz (Hz).

Noise is defined as loud, unexpected, or annoying sound. In acoustics, the fundamental model consists of a noise source, a receptor, and the propagation path between the two. The loudness of the noise source, obstructions, or atmospheric factors affecting the propagation path, determine the perceived sound level and noise characteristics at the receptor. Acoustics deal primarily with the propagation and control of sound. A typical noise environment consists of a base of steady background noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These sources can vary from an occasional aircraft or train passing by to continuous noise from traffic on a major highway. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a large range of numbers. To avoid this, the decibel (dB) scale was devised. The dB scale uses the hearing threshold of 20 micropascals (µPa) as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a

practical range. The dB scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels correspond closely to human perception of relative loudness.

Noise Descriptors

The dB scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the noise's effect on people is largely dependent on the noise's total acoustical energy content, as well as the time when the noise occurs. The equivalent noise level (L_{eq}) is the average noise level averaged over the measurement period, while the day-night noise level (L_{dn}) and Community Equivalent Noise Level (CNEL) are measures of energy average during a 24-hour period, with dB weighted sound levels from 7:00 PM to 7:00 AM. Most commonly, environmental sounds are described in terms of an average level (L_{eq}) that has the same acoustical energy as the summation of all the time-varying events.

A-Weighted Decibels

The perceived loudness of sounds is dependent on many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by dBA values. There is a strong correlation between dBA and the way the human ear perceives sound. For this reason, the dBA has become the standard tool of environmental noise assessment. All noise levels reported in this Section are in terms of dBA, but are expressed as dB, unless otherwise noted.

Addition of Decibels

The dB scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic dB is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3.0 dBA higher than one source under the same conditions. Under the dB scale, three sources of equal loudness together would produce an increase of 5.0 dBA.

Sound Propagation and Attenuation

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6.0 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern. Sound levels attenuate at a rate of approximately 3.0 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics. No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of

1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of 3.0 dB per doubling of distance is assumed.

Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by approximately 5.0 dBA, while a solid wall or berm reduces noise levels by 5.0 to 10 dBA. The manner in which older homes in California were constructed generally provide a reduction of exterior-to-interior noise levels of approximately 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in dBA, the following relationships should be noted:

- Except in carefully controlled laboratory experiments, a 1.0-dBA change cannot be perceived by humans.
- Outside the laboratory, a 3.0-dBA change is considered a just-perceivable difference.
- A minimum 5.0-dBA change is required before any noticeable change in community response would be expected. A 5.0-dBA increase is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

Hearing Loss

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud

noise. The Occupational Safety and Health Administration has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement concerning these different sources' relative annoyance. A noise level of approximately 55 dBA L_{dn} is the threshold at which a substantial percentage of people begin to report annoyance.

Existing Noise Sources

The City is impacted by various noise sources, including mobile and stationary. Mobile noise sources, especially cars, trucks, and trains are the City's most common and substantial noise sources. Other noise sources throughout the City are the various land uses (i.e., residential, commercial, institutional, and recreational) that generate stationary-source noise.

As previously noted, the Project site comprises approximately 0.5-acre of an existing approximately 6.14-acre data center. The Project site doesn't contain any existing noise generating sources. Land uses surrounding the Project site include the existing data center, commercial, office, and recreational uses.

Mobile Sources. Mobile sources of noise, especially aircraft and cars, are the City's most common and significant noise sources. Compared to other Los Angeles County areas, the City is heavily affected by major noise sources including LAX. The primary mobile noise sources in the Project area are the motor vehicles traveling on North Nash Street and East Mariposa Avenue. LAX, which is north of the Project site, is also a primary mobile noise source in the Project area. However, the Project site is located outside LAX' 65 dBA noise contour; see Response 4.9e.

Stationary Sources. The primary stationary noise sources in the Project vicinity are those associated with the existing data center's generators, vehicles, and heating, ventilation, and air conditioning (HVAC) equipment. Such noise sources include idling vehicles and machinery noise. The noise associated with these sources may represent a single-event noise occurrence or short-term noise.

Noise Measurements

To quantify noise levels in the Project area, three short-term ambient noise measurements were conducted; see **Appendix F**. The average noise levels and sources of noise measured at each location are listed in **Table 4.13-1: Existing Noise Measurements,** and shown on **Exhibit 4.13-1: Noise Measurement Locations**. In addition, two noise measurements were taken to obtain

reference noise levels for the operation of the proposed emergency generators. This data was used to determine impacts from the addition of future similar generators.

Table 4.13-1: Existing Noise Measurements

Site #	Location	Date	Time	Duration	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)
1	The northwest corner of the El Segundo Aquatics Center at 2240 East Grand Avenue	12/17/2021	7:28 AM	10 min	65.1	58.6	74.5
2	Approximately 15 feet from Generator 1 at the Project site	12/17/2021	8:09 AM	5 min	60.9	54.8	71.7
3	Approximately 15 feet from Generator 1 at the Project site (reference noise level measurement with generator running).	12/17/2021	8:16 AM	8 min	71.8	60.4	74.2
4	Approximately 35 feet east of the on-site generator area, along Duley Road (reference noise level measurement with generator running).	12/17/2021	8:35 AM	8 min	63.9	57.5	74.5
5	Approximately 35 feet east of the on-site generator area, along Duley Road.	12/17/2021	8:43 AM	10 min	61.2	72.9	72.9

dBA = A-weighted decibel; L_{eq} = Equivalent Noise Level; L_{min} = Minimum Noise Level; L_{max} = Maximum Noise Level

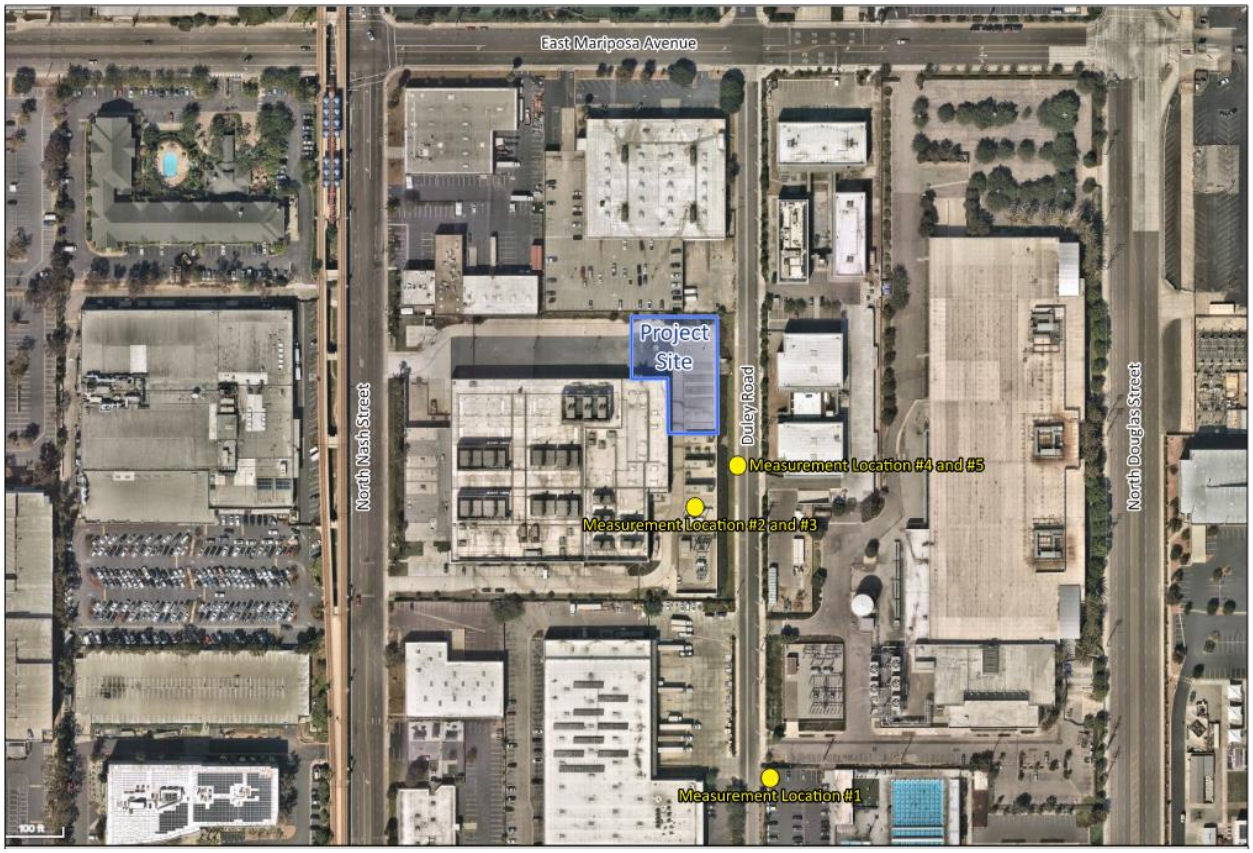
Source: Noise measurements taken by Kimley-Horn on December 17, 2021. See **Appendix F: Noise Analysis Technical Memorandum** for noise measurement results.

Noise-Sensitive Receptors

Noise exposure standards and guidelines for various types of land uses reflect the varying noise sensitivities associated with each of these uses. Residences, hospitals, schools, guest lodging, libraries, and churches are treated as the most sensitive to noise intrusion and therefore have more stringent noise exposure targets than do other uses, such as manufacturing or agricultural uses that are not subject to impacts such as sleep disturbance. Noise-sensitive receptors near the Project site consist mostly of recreational uses. However, the nearby commercial uses are included as receptors because of City thresholds. **Table 4.13-2: Noise-Sensitive Receptors**, identifies the noise-sensitive receptors and receptors within the Project vicinity, as well as their distances and directions from the Project site.

Table 4.13-2: Noise Sensitive Receptors			
Description	**Land Use**	**Noise Type**	**Distance and Direction from Project**
United States Postal Service	Commercial	Construction Noise and Vibration	Approximately 50 feet (16 meters) north of Project construction area
		Operational Noise	Approximately 105 feet (32 meters) north of proposed generators
Campus El Segundo Soccer Fields	Recreational	Construction Noise and Vibration	Approximately 475 feet (145 meters) north of Project construction area
		Operational Noise	Approximately 475 feet (145 meters) north of proposed generators
El Segundo Aquatics Center	Recreational	Construction Noise and Vibration	Approximately 670 feet (204 meters) southeast of Project construction area
		Operational Noise	Approximately 350 feet (107 meters) southeast of proposed generators
Commercial/Office Building	Commercial	Construction Vibration and Vibration	Approximately 150 (48 meters) feet east of Project construction area
		Operational Vibration	Approximately 105 feet (32 meters) east of proposed generators

Exhibit 4.13.1: Noise Measurement Locations



Regulatory Setting

City of El Segundo General Plan

The El Segundo General Plan Noise Element (1992), which contains an overview of the City's existing noise conditions, is intended to describe existing noise conditions and provide a statement of goals, policies, and programs designed to minimize existing and foreseeable noise impacts.

City of El Segundo Noise Element

The Noise Element includes the following policy applicable to the proposed Project:

Policy N1-2.1: Require all new projects to meet the City's Noise Ordinance Standards as a condition of building permit approval.

City of El Segundo Municipal Code

The following ESMC sections are applicable to the proposed Project:

ESMC §7-2-1: Declaration of Policy

It is hereby declared to be the policy of the City to prohibit unnecessary, excessive and annoying noises and vibrations from all sources subject to its police power. Therefore, the City Council does ordain and declare that creating, maintaining, causing or allowing to be created, caused or maintained, any noise or vibration in a manner prohibited by or not in conformity with the provisions of this chapter, is a public nuisance as well as an infraction and shall be punishable as such. (Ord. 1242, 1-16-1996).

ESMC §7-2-4: Noise Standards

No person shall, at any location within the City, create any noise, nor shall any person allow the creation of any noise within the person's control on public or private property (hereinafter "noise source"), which causes the noise level when measured on any other property (hereinafter "receptor property"), to exceed the applicable noise standard, except as set forth in subsection C1 of this section.

A. Residential Property: Five (5) dBA above the ambient noise level.

B. Commercial and Industrial Properties: Eight (8) dBA above the ambient noise level.

C. Adjustments:

1. Increases to the noise standards as set forth in subsections A and B of this Section may be permitted in accordance with the following:

Table 4.13-3: Noise Standards Adjustments	
Permitted Increase (dBA)	**Duration of Increase (Minutes)***
0	30
5	15
10	5
15	1
20	Less than 1
*Cumulative minutes during any one hour	

2. *If the receptor property is located on a boundary between two (2) different noise zones, the lower noise level standard applicable to the quieter zone shall apply. (Ord. 1242, 1-16-1996).*

ESMC §7-2-7: Standards; Criteria:

The standards which shall be considered in determining whether a violation of the provisions of Section 7-2-6 of this Chapter exists shall include, but shall not be limited to, the following criteria:

A. The frequency of the noise;

B. The intensity of the noise;

C. Whether the nature of the noise is usual or unusual;

D. The ambient noise level;

E. The proximity of the noise to residential sleeping facilities;

F. The nature and zoning of the area within which the noise emanates;

G. The density of the inhabitation of the area within which the noise emanates;

H. The time of the day or night the noise occurs;

I. The duration of the noise;

J. Whether the noise is recurrent, intermittent or constant; and

K. Whether the noise is produced by a commercial or noncommercial activity. (Ord. 1242, 1-16-1996)

ESMC §7-2-8: Specific Prohibitions

The following acts, and the causing thereof, are declared to be in violation of this Chapter if they occur in such a manner as to disturb the peace, quiet and comfort of any reasonable person of normal sensitivity residing in the area; and occur:

A. Between the Hours Of 10:00 P.M. And 7:00 A.M:

1. *Operating, playing or permitting the operation or playing of any radio, television, phonograph, drum, musical instrument, sound amplifier, or similar device which produces, reproduces or amplifies sound.*

2. *Using or operating any loudspeaker, public address system or similar device.*

3. *Loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, garbage cans, or similar objects.*

4. *Repairing, building, rebuilding, adjusting or testing any motor vehicle.*

B. *Between The Hours Of 8:00 P.M. And 7:00 A.M:*

1. *Refuse Collection Vehicles:*

a. *Collection of refuse with a collection vehicle in a residential area or within five hundred feet (500') thereof;*

b. *Operation or permitting the operation of the compacting mechanism of any motor vehicle which compacts refuse in a residential area or within five hundred feet (500') thereof.*

2. *Loudspeakers/Public Address Systems: Using or operating for any commercial purpose any loudspeaker, public address system, or similar device on a public right of way or public space.*

3. *Powered Model: Operating or permitting the operation of powered models. (Ord. 1242, 1-16-1996)*

ESMC §7-2-10: Exemptions

The following activities shall be exempted from the provisions of this Chapter:

D. *Construction Noise: Between the Hours Of 10:00 P.M. And 7:00 A.M: Noise sources associated with or vibration created by construction, repair, or remodeling of any real property, provided said activities do not take place between the hours of six o'clock (6:00) P.M. and seven o'clock (7:00) A.M. Monday through Saturday, or at any time on Sunday or a Federal holiday, and provided the noise level created by such activities does not exceed the noise standard of sixty five (65) dBA plus the limits specified in subsection 7-2-4C of this Chapter as measured on the receptor residential property line and provided any vibration created does not endanger the public health, welfare and safety.*

Impact Analysis

4.13a Would the project result in generation 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?

Less Than Significant Impact With Mitigation Incorporated.

Construction Noise

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high

levels. During construction, exterior noise levels could affect noise-sensitive receptors near the construction site. Construction activities may include demolition, trenching, generator installation, and concrete pouring. Such activities may require concrete/industrial saws, backhoes during demolition, cranes, forklifts, generators, and tractors during generator installation. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than 1 minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical noise levels associated with individual construction equipment are listed in **Table 4.13-4: Typical Construction Noise Levels.**[52]

Table 4.13-4: Typical Construction Noise Levels[1]

Equipment	Typical Noise Level (dBA) at 50 feet from Source[2]
Backhoe	80
Concrete Mixer	85
Crane, Mobile	83
Dozer	85
Generator	82
Concrete Saw	76
Truck	84

Note:
Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018
Calculated using the inverse square law formula for sound attenuation: $dBA_2 = dBA_1+20Log(d_1/d_2)$
Where: dBA_2 = estimated noise level at receptor; dBA_1 = reference noise level; d_1 = reference distance; d_2 = receptor location distance
Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018

Following the methodology for quantitative construction noise assessments in the Federal Transit Administration's (FTA's) *Transit Noise and Vibration Impact Assessment Manual* (September 2018) (FTA Noise and Vibration Manual), the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) was used to predict construction noise at the nearest receptors (i.e., the commercial and recreational uses located approximately 80 feet and 670 feet, respectively, from the Project construction area). For the construction noise analysis, the center point of construction activity is used; this differs from the distance to noise sensitive receptors, which is typically calculated property line to property line. **Table 4.13-5: Project Construction Noise Levels** shows the estimated exterior construction noise levels at the nearest noise-sensitive receptors.

[52] This Project will not use a pile driver, thus, typical noise levels for pile drivers are excluded.

Table 4.13-5: Project Construction Noise Levels

Construction Phase	Receptor Location			Worst Case Modeled Exterior Noise Level (dBA L_{eq})[2]	Noise Threshold (dBA L_{eq})[3]	Exceeded?
	Land Use	Direction	Distance (feet)[1]			
Demolition	Commercial	North	80	79.7	85	No
	Recreational	Southeast	670	61.3	85	No
Grading	Commercial	North	80	78.6	85	No
	Recreational	Southeast	670	60.1	85	No
Building Construction	Commercial	North	80	76.7	85	No
	Recreational	Southeast	670	60.1	85	No
Paving	Commercial	North	80	72.6	85	No
	Recreational	Southeast	670	54.1	85	No

Note:
1. Per the methodology described in the FTA Noise and Vibration Manual (September 2018), distances are measured from the nearest receptors to the center of the Project construction site.
2. Assumes a 5 dBA reduction from intervening perimeter walls along the northern and eastern property boundary.
3. The City does not have a quantitative noise threshold for construction noise for commercial uses (they have construction noise standards for residential uses only). Therefore, the construction noise thresholds from the FTA Noise and Vibration Manual (September 2018) are used for this analysis.

Source: Federal Highway Administration, Roadway Construction Noise Model, 2006. Refer to **Appendix F: Noise Analysis Technical Memorandum** for noise modeling results.

As shown in **Table 4.13-5**, the highest anticipated construction noise level of 79.7 dBA (during the demolition phase) would not exceed the FTA noise threshold of 85 dBA for commercial uses. In addition, compliance with ESMC §7-2-10(D) would further minimize impacts from construction noise, as construction would be limited to the hours of 7:00 AM to 6:00 PM Monday through Saturday and is prohibited at any time on Sunday or a Federal holiday. Therefore, because Project construction noise levels would not exceed FTA noise standards and construction activities would be required to comply with ESMC provisions, Project construction would result in a less than significant noise impact. Further, although construction noise levels may exceed the existing ambient levels in the area, construction would be temporary and would not result in a permanent increase in ambient noise levels in the area.

Operational Noise

Project implementation would introduce new stationary noise sources on the Project site. The primary noise sources associated with the Project that could potentially impact nearby noise-sensitive receptors are the emergency generators and associated equipment.

Stationary Noise from Generators

The primary noise sources associated with the Project would consist of the periodic testing of seven new generators, of which five generators (3516C, 2,500 kW) would be located on the data center's north side and two generators (C-32, 1,250 kW) would be located on the data center's east side adjacent to eight existing generators. Of the seven generators, three would be at ground level on concrete pads and four would be on platforms up to approximately 30 feet tall. The seven proposed generators would include housing for mechanical equipment that would reduce noise levels. The generators would operate only during staff training and equipment maintenance/testing (between the hours of 7:00 AM and 10:00 PM) and emergency conditions,

thus, would not operate on a constant basis. In addition, it is noted that periodic generator maintenance/testing would occur sequentially (one at a time), such that no more than one generator is tested at a time; see **MM NOI-1**.

Based on the reference noise levels in **Table 4.13-1**, one generator would produce noise levels up to 63.9 dBA L_{eq} at 35 feet with attenuation from the perimeter wall. The nearest off-site property is a United States Post Office (USPS) facility located approximately 50 feet north of the Project's proposed generators. Noise has a decay rate due to distance attenuation, which is calculated based on the Inverse Square Law of sound propagation. Based upon the Inverse Square Law, sound levels decrease by 6 dBA for each doubling of distance from the source. As a result, generator noise would attenuate to approximately 60.8 dBA L_{eq} at the nearest property line to the north. ESMC §7-2-4(B) specifies that the noise standard for commercial and industrial properties is eight (8) dBA over the ambient noise level. Thus, the estimated noise standard for commercial and industrial properties would be 69.2 dBA L_{eq} (i.e., the measured ambient noise level of 61.2 dBA L_{eq} (see **Table 4.13-3**) plus 8 dBA). Therefore, since Project-generated noise levels from periodic generator maintenance/testing (60.8 dBA L_{eq}) would not exceed the 69.2 dBA threshold at the nearest off-site uses, generator noise levels from the Project would comply with ESMC standards and a less than significant impact would occur in this regard.

Mitigation Measure

MM NOI-1 Maintenance/testing for each individual generator shall occur sequentially (one at a time) and during normal daytime hours (i.e., between 7:00 AM and 10:00 PM). Simultaneous generator maintenance/testing of two or more generators shall be prohibited.

4.13b Would the project generate excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact.

Construction

Increases in ground-borne vibration levels attributable to the Project would be primarily associated with short-term construction-related activities. Project construction would have the potential to result in varying degrees of temporary ground-borne vibration, depending on the specific construction equipment used and the operations involved.

The FTA has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.2 in/sec) appears to be conservative. The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. For example, for a building that is constructed with

reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.20 in/sec is considered safe and would not result in any construction vibration damage. This analysis uses the FTA architectural damage criterion for continuous vibrations at non-engineered timber and masonry buildings of 0.2 inch-per-second peak particle velocity (PPV) and human annoyance criterion of 0.4 inch-per-second PPV in accordance with Caltrans guidance[53] to evaluate potential construction vibration impacts.

Table 4.13-6: Typical Construction Equipment Vibration Levels, lists vibration levels at 25 feet for typical construction equipment. The nearest off-site building/structure is the industrial building located approximately 150 feet east of the Project construction area. Groundborne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. As indicated in **Table 4.13-6**, based on FTA data, vibration velocities from typical heavy construction equipment operations that would be used during Project construction would range from 0.003 to 0.089 in/sec PPV at 25 feet from the source of activity.

Table 4.13-6: Typical Construction Equipment Vibration Levels

Equipment	Peak Particle Velocity at 25 Feet (in/sec)	Peak Particle Velocity at 150 Feet (in/sec)
Large Bulldozer	0.089	0.0061
Loaded Trucks	0.076	0.0052
Jackhammer	0.035	0.0024
Small Bulldozer/Tractors	0.003	0.0002

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, 2018.

As shown in **Table 4.13-6**, at 150 feet the vibration velocities from construction equipment would not exceed 0.089 in/sec PPV, which would be below the FTA's 0.20 in/sec PPV threshold for building damage and Caltrans' 0.4 in/sec PPV threshold for human annoyance. It is also acknowledged that construction activities would occur throughout the Project site and would not be concentrated at the point nearest off-site structures. Therefore, construction vibration impacts associated with the proposed Project would be less than significant and no mitigation is required.

Operations

During operations, the proposed Project would include minimal vibration-generating uses or operations. The nearest off-site structures are located 105 feet from the proposed generator locations and would not be exposed to high vibration levels. Therefore, operational vibration impacts from Project operations would be less than significant and no mitigation is required.

[53] California Department of Transportation. (September 2013). *Transportation and Construction Vibration Guidance Manual, Table 20.*

4.13c Would the project be located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the project area to excessive noise levels?

Less Than Significant Impact. Refer to Response 4.9e. Additionally, there are no private airstrips located within the Project vicinity. Therefore, the Project would not expose people residing or working in the Project area to excessive airport- or airstrip-related noise levels. Impacts would be less than significant in this regard, and no mitigation is required.

Cumulative Noise Impacts

The Project's construction activities would not result in a substantial temporary increase in ambient noise levels. ESMC §7-2-8 and ESMC §7-2-10 which limit construction noise to between the hours of 10:00 PM and 7:00 AM. Noise sources associated with or vibration created by construction, repair, or remodeling of any real property, provided said activities do not take place between the hours of 6:00 PM and 7:00 AM. Given that noise dissipates as it travels away from its source, operational noise impacts from on-site activities and other stationary sources would be limited to the Project site and vicinity. Thus, cumulative operational noise impacts from related projects, in conjunction with Project-specific noise impacts, would not be cumulatively significant.

4.14 Population and Housing

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Impact Analysis

4.14a Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The Project does not propose construction of new homes or businesses or to extend roads or other infrastructure, which have potential to induce substantial unplanned population growth. The Project proposes to construct up to seven emergency generators and increase the onsite jobs by up to five employees.[54] Currently, the City's employee population is approximately 48,300[55] and the residential population is 17,084.[56] The addition of up to five employees is considered nominal considering the City's employee population is approximately 48,300, and the additional employment is not anticipated to result in unplanned population growth in the City. Therefore, no impact would occur in this regard, and no mitigation is required.

4.14b Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. There is no housing on the Project site. Therefore, the Project would not displace existing people or housing, or require construction of replacement housing elsewhere. No impact would occur in this regard, and no mitigation is required.

[54] Email correspondence with Sam Brown, ServerFarm. December 21, 2021.
[55] SCAG. (2020). *Connect SoCal- Demographics and Growth Forecast*. Retrieved from https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579.
[56] California Department of Finance. (2022). *E-5 Population and Housing Estimates for Cities, Counties, and the* State, January 2021-2022, with 2020 Benchmark. https://dof.ca.gov/forecasting/demographics/estimates/estimates-e5-2010-2021/.

4.15 Public Services

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physical altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?			X	
b) Police protection?			X	
c) Schools?				X
d) Parks?				X
e) Other public facilities?				X

Impact Analysis

4.15a Fire Protection?

Less Than Significant Impact. The City is served by El Segundo Fire Department. There are 14 firefighters on duty at all times. There are two fire stations in the City: Fire Station 1 (314 Main Street) and Fire Station 2 (2261 East Mariposa Avenue).[57] Fire Station 2 is approximately 800 feet northeast of the Project site. Given their scope and nature, the Project's proposed additional generators and employment increase are not anticipated to increase the demand for fire protection services. Diesel transport, fueling, and operations would be subject to compliance with applicable federal, State, and local regulations identified in **Section 4.9: Hazards and Hazardous Materials**. In the event of a fire within a generator, they are located within enclosures, which would in part contain fire. Also, as under existing conditions for the existing data center, fire protection services would continue to be provided to the property. The Project would not require new or physically altered fire protection facilities to maintain acceptable response times, therefore, would not result in adverse physical impacts in this regard. The City has confirmed that a project of this nature would not be subject to developer impact fees.[58] The Project would result in a less than significant impact concerning fire protection services, and no mitigation is required.

4.15b Police Protection?

Less Than Significant Impact. El Segundo Police Department provides police protection services to the City. The Police Department is approximately 1.64-miles southeast of the Project site (348 Main Street). Given their scope and nature, the Project's proposed additional generators and employment increase are not anticipated to increase the demand for police protection services. Also, as under existing conditions for the existing data center, police protection services

[57] El Segundo Fire Department. (Undated). *Operations*. Retrieved from https://www.elsegundofd.org/suppression/operations. Accessed on December 17, 2021.
[58] Email Correspondence with Maria Baldenegro, El Segundo Planning Division. February 1, 2022.

would continue to be provided to the property. The Project would not require new or physically altered police facilities to maintain acceptable response times, therefore, would not result in adverse physical impacts in this regard. The Project would result in a less than significant impact concerning police protection services, and no mitigation is required.

4.15c Schools?

No Impact. As mentioned, the Project would not induce population growth (see **Section 4.14**), thus, would not increase the demand for school services. Given their scope and nature, the Project's proposed generators and employment increase are not anticipated to increase the area's student population. The Project would not require new or physically altered school facilities, therefore, would not result in adverse physical impacts in this regard. The Project would result in no impact concerning school facilities, and no mitigation is required.

4.15d Parks?

No Impact. See Response 4.16 below.

4.15e Other public facilities?

No Impact. The City has one library at 111 West Mariposa Avenue. The Project would not induce population growth, thus, would not increase the demand for public facilities. Given their scope and nature, the Project's proposed additional generators and employment increase are not anticipated to increase the demand for library facilities or resources. The Project would not require new or physically altered library facilities, therefore, would not result in adverse physical impacts in this regard. The Project would result in no impact concerning library facilities, and no mitigation is required.

4.16 Recreation

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Impact Analysis

4.16a Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

4.16b Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The recreational facility nearest the Project site is an aquatic center located approximately 350 feet (107 meters) to the southeast. The Project would not induce population growth, thus, is not anticipated to increase the demand for recreational facilities. Given their scope and nature, the Project's proposed additional generators would not increase the use of existing recreational facilities or generate a demand for new recreational facilities. Further, the Project's nominal employment increase is not anticipated to increase the use of existing recreational facilities such that substantial physical deterioration of a facility would occur or be accelerated. The Project does not propose or require new or physically altered recreational facilities, therefore, would not result in adverse physical impacts in this regard. No impact would occur, and no mitigation is required.

4.17 Transportation

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycles, and pedestrian facilities?				X
b) Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)?			X	
d) Result in inadequate emergency access?				X

Impact Analysis

4.17a Would the project conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

No Impact. Given the proposed Project's scope and nature, the Project does not propose changes to, or increase the demand for the area's circulation system. Additionally, all construction would be within the Project site limits, thus, would not disrupt nearby roadways or site access. Therefore, the Project would not conflict with a program plan, ordinance, or policy addressing the circulation system. The Project would result in no impact in this regard, and no mitigation is required.

4.17b Would the project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?

Less Than Significant Impact. State CEQA Guidelines §15064.3 codifies the change from level of service to vehicle miles traveled (VMT) as a metric for transportation impact analysis. Pursuant to SB 743, VMT analysis is the primary method for determining CEQA impacts. According to State CEQA Guidelines §15064.3(a), VMT refers to the amount and distance of automobile travel attributable to a project. The City's Draft VMT Guidelines are aligned with the Office of Public Research's (OPR) Technical Advisory. The Draft VMT Guidelines allow screening for non-significant transportation impacts. The purpose of this step is to determine if a presumption of a non-significant transportation impact can be made based on a project's characteristics. Screening for "Small Projects" applies to projects with low trip generation per existing CEQA exemptions. Note that this includes any land use type (residential, office, open space, neighborhood parks, etc.). Projects that generate less than 110 trips per day per the ITE Manual or other acceptable source determined by the City are presumed to cause a less-than-significant transportation impact. The Project would not increase floor area but would increase the onsite jobs by up to five

employees, resulting in approximately 18 average daily trips.[59] Given the Project would generate substantially less than 110 daily trips, the Project is presumed to result in a less than significant transportation impact concerning VMT.

4.17c Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. Vehicular access (i.e., left-turn and right-turn ingress/egress turning movements) is currently provided at the two existing property driveways located off of Nash Street. The Project would not alter the site's circulation. The Project does not propose any traffic improvements with potential to increase hazards due to geometric design. The Project proposes to install up to seven additional emergency backup diesel generators at the property's northeast corner to serve the existing data center. The proposed generators would be similar to the eight generators that already exist on the property. Thus, the Project does not propose any improvements with potential to increase hazards due to incompatible uses. The Project would result in a less than significant impact in this regard, and no mitigation is required.

4.17d Would the project result in inadequate emergency access?

No Impact. Primary vehicular access to the Project site is provided via the south driveway off North Nash Street. The northern driveway is gated, however it would continue to be available for use if needed in an emergency. As previously noted, the Project would not affect circulation within or near the Project site as the emergency generators would be installed in areas that would not affect on-site circulation. Therefore, the Project would not result in inadequate emergency access. No impact would occur in this regard, and no mitigation is required.

[59] Based on ITE Trip Generation, 11th Edition. Land Use Code 110 – General Light Industrial, Employees, (3.1 daily trips per employee).

4.18 Tribal Cultural Resources

This Section is based on Assembly Bill 52 (AB 52) communications initiated by the City; see **Appendix B: Assembly Bill 52 Communications**.

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code §5020.1(k); or				
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				

Impact Analysis

4.18ai Cause a substantial adverse change in the significance of a tribal cultural resource, listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code §5020.1(k); or

4.18aii Cause a substantial adverse change in the significance of a tribal cultural resource- a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less Than Significant With Mitigation Incorporated. Chapter 532 Statutes of 2014 (i.e., Assembly Bill 52 (AB 52)) requires that lead agencies evaluate a project's potential impact on "tribal cultural resources," which include "[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical

resources." AB 52 also gives lead agencies the discretion to determine, based on substantial evidence, whether a resource qualifies as a "tribal cultural resource." In compliance with PRC §21080.3.1(b), the City provided formal notification to California Native American tribal representatives identified by the California NAHC. Results of the Sacred Lands File Search conducted with the NAHC were negative, however, Native American groups may have knowledge about the area's cultural resources and may have concerns about a development's adverse effects on tribal cultural resources, as defined in PRC §21074. The City contacted the tribal representative of the tribe noted below pursuant to AB 52 requirements. Correspondence to and from the tribal representative is included in **Appendix B**.

- **Gabrieleno Band of Mission Indians-Kizh Nation,** Andrew Salas.

Pursuant to AB 52, the City engaged with the Gabrieleno Band of Mission Indians-Kizh Nation in consultation on the Project on June 30, 2022. On May 13, 2022, the Gabrieleno Band of Mission Indians-Kizh Nation responded in writing to the City requesting consultation. Consultation pursuant to AB 52 is deemed complete when:

- Parties reach mutual agreement concerning appropriate measures for preservation or mitigation; or
- Either party, acting in good faith or after reasonable effort, concludes that mutual agreement cannot be reached concerning appropriate measures of preservation or mitigation.

On June 14, 2022, the City submitted a follow-up response to the Kizh Nation, including a draft list of mitigation measures to avoid/lessen potential impacts to tribal cultural resources. After further consultation, on September 21, 2022, the City and Kizh Nation reached a mutual agreement concerning appropriate mitigation measures; see **MM TCR-1**. Therefore, consultation pursuant to AB 52 is deemed complete for the Project.

It is noted, as discussed in Response 4.9b, the Project site has already been subject to extensive disruption and contains artificial fill materials.[60] The Project site is underlain by 4.0 to 6.0 feet of artificial fill[61] and would require excavations of only approximately 3.0 feet below the bottom of generator foundations;[62] thus, no excavations into native soil would occur with the Project. Depth of excavation for the proposed equipment would not exceed 5.0 feet, except at the northwest corner where a drywell would be constructed up to 30 feet deep. Due to the extremely narrow width of excavation required for the drywell (approximately 10.0 feet), the drywell is unlikely to encounter tribal cultural resources. Notwithstanding, the potential exists for the Project to result in a substantial adverse change in the significance of a previously unidentified Native American tribal cultural resource. With implementation of **MMs TCR-1**, **TCR-2**, and **TCR-3**, potential impacts to tribal cultural resources would be less than significant.

[60] Terracon Consultants, Inc. (2021). Geotechnical Engineering Report.
[61] Ibid
[62] Ibid

Mitigation Measures

MM TCR-1: **Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities.** The project applicant shall retain a Native American Monitor ("Monitor") from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground- disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.

A copy of the executed monitoring agreement shall be submitted to the lead agency City prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.

The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency City upon written request to the Tribe.

On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.

Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.

MM TCR-2: **Unanticipated Discovery of Human Remains and Associated Funerary Objects.** Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.

If Native American human remains and/or grave goods are discovered or recognized on the project site, then all construction activities shall immediately cease. Health and Safety Code Section 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and all ground-disturbing activities shall immediately halt and shall remain halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission, and Public Resources Code Section 5097.98 shall be followed.

Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).

Construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or burial goods, if the monitor determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Kizh monitor and/or archaeologist deems necessary). (CEQA Guidelines Section 15064.5(f).)

Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods.

Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

MM TCR-3: **Procedures for Burials and Funerary Remains.** As the Most Likely Descendant ("MLD"), the Koo-nas-gna Burial Policy shall be implemented. To the Tribe, the term "human remains" encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains.

If the discovery of human remains includes four or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created.

The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that,

as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects. Cremations will either be removed in bulk or by means as necessary to ensure complete recovery of all sacred materials.

In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed.

In the event preservation in place is not possible despite good faith efforts by the project applicant/developer and/or landowner, before ground-disturbing activities may resume on the project site, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects.

Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.

The Tribe will work closely with the project's qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery-related forms of documentation shall be approved in advance by the Tribe. If any data recovery is performed, once complete, a final report shall be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains.

4.19 Utilities and Service Systems

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded facilities concerning the following, the construction or relocation of which could cause significant environmental effects? i. Water, ii. Wastewater, iii. Wastewater Treatment (see Response 4.19.c below), iv. Stormwater Drainage, v. Electric Power, Natural Gas, and Telecommunications.			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project projected demand in addition to the provider's existing commitments?			X	
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

Impact Analysis

4.19a Require or result in the relocation or construction of new or expanded facilities concerning the following, the construction or relocation of which could cause significant environmental effects?

i. Water,

Less Than Significant Impact. See Response 4.19b below.

ii. Wastewater,

iii. Wastewater Treatment,

Less Than Significant Impact. See Response 4.19.c below.

iv. Stormwater Drainage,

Less Than Significant Impact. Refer to Response 4.10c concerning drainage patterns and stormwater drainage systems. As discussed in Response 4.10c, the Project proposes onsite drainage improvements. The Project also proposes a drywell at the property's northeast corner to collect and treat stormwater runoff and recharge groundwater to satisfy the City's Low Impact Development (LID) requirements. The environmental effects associated with the proposed onsite drainage improvements are analyzed throughout this Initial Study. The Project would not require or result in the relocation or construction of new or expanded offsite stormwater facilities, the construction or relocation of which could cause significant environmental effects. Therefore, the Project would result in a less than significant impact in this regard, and no mitigation is required.

i. Electric Power, Natural Gas, and Telecommunications.

Less Than Significant Impact. The City's electrical power is provided by SCE and natural gas is provided by SoCalGas. The City's telecommunications are provided by various companies. SCE, SoCalGas, and local telecommunications companies operate and maintain transmission and distribution infrastructure throughout the City. Refer to Responses 4.6a and 4.6b for further discussions concerning electricity and natural gas usage. The Project proposes to install up to seven emergency backup diesel generators. These seven additional generators would support previously constructed internal electrical/equipment modifications, which would result in increased electrical demand and up to five additional employees. No change in land use or expansion in building floor area is proposed. The Project's estimated operational electrical demand, inclusive of the existing data center operations, would total approximately 16,600,000 kWh per year. This would represent 0.13 percent of the SCE's forecast increased demand in 2026, which would be negligible compared to the SCE service area's overall demand. Additionally, the proposed generators would be diesel and used solely for emergency purposes and during maintenance. On-site connections to existing electrical lines would be required to power the proposed generators. The Project would not generate a demand for natural gas or telecommunications, since the proposed generators would not require these utilities and the additional employees would occupy the existing data center, with no additional floor area proposed. The Project would not require or result in the relocation or construction of new or expanded offsite electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Therefore, the Project would result in a less than significant impact in this regard, and no mitigation is required.

4.19b Would the project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. The Golden State Water Company (GSWC) supplies water to the City. GSWC's *Final 2020 Urban Water Management Plan (UWMP)* Tables 5-2 and 5-3 indicate water supplies would meet the service area's water demands for normal, single-dry, and multiple

dry-year conditions through 2045. UWMP water demand forecasts are based on historical water use analysis, population growth, and commercial and residential development.

Assuming a water demand rate of 307 gallons per day (GPD) per employee and up to five additional employees generated by the Project, the Project would generate a water demand of approximately 1,535 GPD. It is anticipated that sufficient water supplies would be available to serve the Project given: the Project would not result in unplanned population growth or additional floor area, with resultant water demands; the proposed additional employees' water demand would be nominal; the proposed generators, which would require a nominal amount of water for cooling, would operate only under emergency conditions or during routine maintenance.

The Project would not require or result in the relocation or construction of new or expanded offsite water facilities, the construction or relocation of which could cause significant environmental effects. Therefore, the Project would result in a less than significant impact in this regard, and no mitigation is required.

4.19c Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. The City is within the jurisdictional boundaries of Sanitation Districts of Los Angeles County Sanitation District (LACSD) No. 19.[63] The Project proposes to install generators, which would not generate wastewater or create a demand for wastewater conveyance or treatment. The unit of measure the LACSD uses to calculate wastewater generation is square foot (for various land use types). The Project does not propose any additional floor area, thus, wastewater generation for employees cannot be calculated. However, given the nominal increase in employment (up to five additional employees), the Project is anticipated to generate a proportionately nominal increase in wastewater. Therefore, the Project would not impact LACSD wastewater treatment facility capacity.

The Project would not require or result in the relocation or construction of new or expanded offsite sewer facilities, the construction or relocation of which could cause significant environmental effects. Therefore, the Project would result in a less than significant impact in this regard, and no mitigation is required.

4.19d Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

4.19e Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. The equipment concrete pads/footings, gravel and base, and stairs that currently occupy the Project site would be demolished and replaced by the proposed

[63] Los Angeles County Sanitation Districts. (2015). *Sanitation District's Service Area*. Retrieved from: https://www.lacsd.org/home/showpublisheddocument/960/637637537988200000.

generators. California's Green Building Standards Code (CALGreen) requires a 65 percent diversion rate for construction and demolition (C&D) projects. The City has adopted the Code through ESMC Title 13, Chapter 1. Thus, the Project would be subject to compliance with CBC §4.408 Construction Waste Reduction, Disposal and Recycling, which would achieve compliance with State law.

The unit of measure typically used to calculate solid waste generation is square foot (for various land use types). The Project does not propose any additional floor area, thus, this methodology is not appropriate. While CalRecycle does identify a solid waste generation rate of 8.93 pounds per employee per day for the industrial sector,[64] this rate is based on 2006 data. Assuming a solid waste generation rate of 8.93 pounds per employee per day and up to five additional employees generated by the Project, the Project employees would generate approximately 45 pounds per day. Given this is a nominal increase in solid waste generation and as under existing conditions, the data center would be subject to any State and City regulations governing recycling, a less than significant impact would occur in this regard, and no mitigation is required.

[64] CalRecycle. 2022. *Waste Characterization*. Retrieved from: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates#Commercial.

4.20 Wildfire

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X

Impact Analysis

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

4.20a substantially impair an adopted emergency response plan or emergency evacuation plan?

4.20b due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

4.20c require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

4.20d expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The CalFire Fire Hazard Severity Zone Map indicates the City is not within a State Responsibility Area or within a very high fire severity zone (VHFSZ).[65] Therefore, the Project would result in no impact concerning wildfires, and no mitigation is required.

[65] CalFire. (2021). *FHSZ Viewer*. https://egis.fire.ca.gov/FHSZ/. Accessed on December 14, 2021.

4.21 Mandatory Findings of Significance

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Does the Project:				
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.)				X
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X

Impact Analysis

4.21a Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact. As discussed throughout this Initial Study, the Project does not have the potential to degrade the environment's quality or result in significant environmental impacts that cannot be reduced to less than significant following compliance with the established regulatory framework (i.e., federal, State, and local regulations) and the recommended mitigation measures.

As concluded in **Section 4.4**, the Project would not reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.

As concluded in **Section 4.5**, the Project would not eliminate important examples of the major periods of California history.

As concluded in **Section 4.18**, the Project could cause an adverse change in the significance of a tribal cultural resource, unless mitigated. Following compliance with **MM TCR-1**, **MM TCR-2**, and **MM TCR-3**, potential impacts to tribal cultural resources would be reduced to less than significant.

4.21b Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.)

Less Than Significant Impact. The proposed Project would result in significant impacts unless mitigated for the following environmental resource areas: air quality, noise and vibration, and tribal cultural resources. The potential impacts associated with air quality and noise would be during the maintenance and testing of the generators. Impact analysis concerning air quality and noise analyzed Project impacts cumulatively with existing generator maintenance and testing, thus, analyzed cumulative impacts concerning air quality and noise. Incorporation of **MM AQ-1** and **NOI-1** would result in no cumulative impacts for air quality or noise. The potential impacts associated with tribal cultural resources are localized, thus, would not result in cumulative impacts. A Mitigation Program has been prepared for each of these environmental resource areas to reduce impacts to less than significant. Other development projects within the City would be subject to the City's discretionary review process, CEQA, and the established regulatory framework, which would be evaluated on a case-by-case basis.

For all other resources areas, the analysis determined the Project would result in either no impact or a less than significant impact following compliance with the established regulatory framework, without the need for mitigation. Due to the Project's massing and scale, and nature as a minor augment to an existing facility, no cumulative impacts would occur.

The City's cumulative project list includes one data center approximately 0.1 mile east of the Project site, at 445 North Douglas Street.[66] Because Project impacts would be less than significant, or less than significant with mitigation incorporated, the proposed Project would not result in any significant impacts that when combined with impacts of the nearby data center would be considered cumulatively considerable; see also Responses 4.3d and 4.8b. Therefore, the proposed Project would not result in any cumulatively considerable impacts, and no mitigation is required.

4.21c Does the project have environmental effects which will cause substantial adverse effects on human beings, directly or indirectly?

Less Than Significant With Mitigation Incorporated. As discussed in the respective sections, the proposed Project would have no potentially significant impacts that would not be reduced to less than significant following compliance with the established regulatory framework and/or recommended mitigation measures. The Project would not cause substantial adverse effects on human beings directly or indirectly with mitigation incorporated concerning air quality and noise. Therefore, with mitigation incorporated, impacts concerning adverse effects on human beings would be less than significant.

[66] City of El Segundo. (undated). *Cumulative Project List.* https://www.elsegundo.org/government/departments/development-services/planning-division/cumulative-projects-list.

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APPENDIX A

AIR QUALITY AND GREENHOUSE GAS TECHNICAL MEMORANDUM

MEMORANDUM

To:	Rita Garcia and James Thomas
	Kimley-Horn and Associates, Inc.
From:	Heidi Rous and Noemi Wyss
	Kimley-Horn and Associates, Inc.
Date:	October 27, 2022
Subject:	Project Ollie – Air Quality and Greenhouse Gas Analysis

Purpose

The purpose of this memorandum is to identify potential impacts from air quality and greenhouse gas (GHG) emissions resulting from construction and operation of the proposed Nash Street Data Center Expansion Project, located at 444 North Nash Street in the City of El Segundo (City), in the County of Los Angeles (County).

Project Location

The Project site is located in the northeast quadrant of the City of El Segundo (City), in the County of Los Angeles (County), approximately 18-miles southwest of downtown Los Angeles. It is approximately 0.5-mile south of Los Angeles International Airport (LAX). Regional access to the site is provided via the San Diego Freeway (Interstate 405) located approximately 1.0-mile to the west and Interstate 105 located approximately to the south. Additionally, Sepulveda Boulevard (Highway 1) is located approximately 0.5-mile to the east. The Project site is 0.5-acre of a larger 6.13-acre parcel site (Assessor's Parcel Number 4138-003-007) mid-way between East Mariposa Avenue on the north and East Grand Avenue on the south. The Project site is fully developed and is currently occupied by an approximately 116,756-SF data center and 70 parking spaces that include 3 ADA required spaces. On the east side of the parcel, there are three existing generators as well as a Southern California Edison substation at the southeast corner of the parcel.

Project Description

The proposed project would install up to seven additional emergency generators on concrete platforms on the property. Five of the generators would be located on the north side of the building while two would be on the east side adjacent to eight existing[1] generators on the property.

Air Quality Impacts

SCAQMD Thresholds

The SCAQMD CEQA Air Quality Handbook provides significance thresholds for volatile organic compounds (VOC) (also referred to as reactive organic gases [ROG]), nitrogen oxides (NO_X), carbon monoxide (CO), sulfur oxides (SO_X), particulate matter 10 microns or less in diameter (PM_{10}), and particulate matter 2.5 microns or less in diameter ($PM_{2.5}$). The thresholds apply to both project construction and operation within the SCAQMD jurisdictional boundaries. If the SCAQMD thresholds are exceeded, a potentially significant impact could result. However, ultimately the lead agency determines the thresholds of significance for impacts. If a project proposes development in excess of the established thresholds, as outlined in Table 2: South Coast Air Quality Management District Significance Thresholds, a significant air quality impact may occur and additional analysis is warranted to fully assess the significance of impacts.

Table 2: South Coast Air Quality Management District Significance Thresholds

Pollutant	Mass Daily Thresholds (pounds per day)	
	Construction	Operations
Nitrogen Oxides (NO_X)	100	55
Volatile Organic Compounds (VOC)[1]	75	55
Particulate Matter 10 Microns and smaller in diameter (PM_{10})	150	150
Particulate Matter 2.5 Microns and smaller in diameter ($PM_{2.5}$)	55	55
Sulphur Oxides (SO_X)	150	150
Carbon Monoxide (CO)	550	550

Notes:
1. VOCs and reactive organic gases (ROGs) are subsets of organic gases that are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. Although they represent slightly different subsets of organic gases, they are used interchangeably for the purposes of this analysis.

Source: South Coast Air Quality Management District, SCAQMD Air Quality Significance Thresholds, April 2019.

1 At the time this technical study was performed four generators were installed and operational and four generators were being installed, pursuant to adoption of an MND and City approval in 2013. The presence of eight generators is the defined baseline for this technical study

State CEQA Guidelines §15145, Speculation, specifies that, "if, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact." There is no basis or available data for what the underlying assumptions an emergency operations analysis/modeling might include. Emergency operations would entirely depend on the nature and duration of emergency (i.e., the number of generators would depend on the power disruption, and operational hours during this time would depend on the duration of the emergency). Therefore, because analysis of the Project's impacts under an emergency operations scenario would be too speculative, emergency operations were not analyzed. This analysis is based on the generators operating for certain non-emergency situations, including training of personnel under simulated emergency conditions, as part of emergency demand response procedures, or for standard performance testing procedures as required by law or by the generator manufacturer. The analysis assumes the training and standard performance testing would occur up to 50 hours per year per unit.

Construction Emissions

Construction associated with the proposed project would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the project area include ozone-precursor pollutants (i.e., ROG and NO_X), PM_{10}, and $PM_{2.5}$. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance. Construction results in the temporary generation of emissions resulting from concrete removal and pouring, use of diesel powered cranes, and motor vehicle exhaust associated with construction equipment and worker trips.

The duration of construction activities for the project is estimated to be approximately 2 months, beginning in July 2022. The project would install seven emergency generators on concrete platforms. Construction-generated emissions associated the proposed project were calculated using the CARB-approved California Emissions Estimator Model (CalEEMod), which is designed to model emissions for land use development projects, based on typical construction requirements. See Appendix A: Air Quality and GHG Data for more information regarding the construction assumptions used in this analysis. Predicted maximum daily construction-generated emissions for the proposed project are identified in Table 3: Project Construction Emissions.

Table 3: Project Construction Emissions

Construction Year	Emissions (pounds per day)[1]					
	ROG	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2022	1.77	17.58	14.26	0.03	8.16	4.38
Maximum Emissions	***1.77***	***17.58***	***14.26***	***0.03***	***8.16***	***4.38***
SCAQMD Threshold	75	100	550	150	150	55
SCAQMD Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
1. Emissions were calculated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0, as recommended by the SCAQMD. Worst-case seasonal maximum daily emissions are reported.

Table 3 shows that construction pollutant emissions would remain below their respective thresholds. While impacts would be considered less than significant, the proposed project would also be subject to SCAQMD Rules 402, 403, and 1113, which prohibit nuisances, require dust control measures, and limit VOC content in paints, respectively. Compliance with the standards SCAQMD rules would further reduce specific construction-related emissions. As shown above, all criteria pollutant emissions would remain below their respective thresholds and impacts would be less than significant.

Operational Emissions

Operational emissions are associated with the emergency generators attributable to the proposed project. As shown in Table 4: Project Operational Emissions, the project's emissions would not exceed SCAQMD thresholds with implementation of MM AQ-1. Therefore, regional operational emissions would result in a less than significant long-term regional air quality impact.

Table 4: Project Operational Emissions

Source	Emissions (pounds per day)[1]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Unmitigated Scenario						
Generators	7.98	412.86	68.74	0.7	5.74	5.74
Project Trips	0.03	0.03	0.52	0.002	0.19	0.05
Total	8.01	412.89	69.26	0.702	5.93	5.79
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
SCAQMD Threshold Exceeded?	**No**	**Yes**	**No**	**No**	**No**	**No**
Mitigated Scenario[2]						
Generators	0.41	25.19	3.73	0.04	0.34	0.34
Project Trips	0.03	0.03	0.52	0.002	0.19	0.05
Total	0.44	25.22	4.25	0.042	0.53	0.39
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
SCAQMD Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:

1. Emissions were calculated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0, as recommended by the SCAQMD. Worst-case seasonal maximum daily emissions are reported.
2. Mitigated emissions include compliance with Mitigation Measure AQ-1, requiring generator maintenance and testing to be limited on any single day to no more than 110 minutes for the entire facility (15 generators).
3. Potential to emit (PTE) of an engine is based on the limit of 50 hours on maintenance and testing operations per year, in accordance with South Coast AQMD's policy and procedures No. EC-02-09, dated 2/24/2009.

These operational emissions are mostly attributed to a day in which generator routine testing, staff training, and maintenance could occur concurrently simultaneously. The 50 hours per year includes scheduled and unscheduled maintenance. The facility is required to monitor and demonstrate compliance. The scheduled maintenance would be dictated in accordance with manufacturers recommendations, which are currently not available until possessions of units. Additionally, a small amount of Project operational emissions would be attributed to vehicle trips from up to five additional employees.

As shown in Table 4, the proposed project would exceed the SCAQMD thresholds for unmitigated operational NO_X. Mitigation Measure AQ-1 would require generator maintenance and testing to be limited on any single day to no more than 110 minutes for the entire facility (15 generators). Therefore, with implementation of Mitigation Measure AQ-1, all criteria pollutants would remain below their respective thresholds.

Localized Impacts

The nearest noise sensitive receptors to the project site is the swimming facility located approximately 350 feet to the southeast of the project site. To identify impacts to sensitive receptors, the SCAQMD recommends addressing Localized Significance Thresholds (LSTs) for construction. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the Final Localized Significance Threshold Methodology (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level proposed projects.

For this project, the appropriate source receptor area (SRA) for the localized significance thresholds is the Southwest Coastal Los Angeles (SRA 3) area since this area includes the project site. LSTs apply to NO_X, CO, PM_{10}, and $PM_{2.5}$. The SCAQMD produced look-up tables for projects that disturb areas less than or equal to 5 acres in size. The project would include minor grading on the 0.5-acre site, however, based on the LST methodology and daily equipment modeled in CalEEMod, project construction is anticipated to disturb approximately 1 acres in a single day. As such, the LSTs for a maximum daily disturbance of 1 acres was interpolated for this analysis.

The SCAQMD's methodology indicates that "off-site mobile emissions from the project should not be included in the emissions compared to LSTs." Therefore, for purposes of the construction LST analysis, only emissions included in the CalEEMod "on-site" emissions outputs were considered. The nearest sensitive receptor to the project site is the recreational pool located 350 feet (107 meters) to the southeast of the project site. A soccer field is located 475 feet (145 feet) to the north of the project site. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Therefore, as recommended by the SCAQMD, LSTs for receptors located at 100 meters were utilized in this analysis for receptors closer than 107 meters. Table 5: Localized Significance of Emissions, presents the results of localized emissions during construction activity. Table 5 shows that the emissions of these pollutants on the peak day of construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, significant impacts would not occur concerning LSTs during construction activities.

Table 6: Localized Significance of Emissions

Source/Activity	Emissions (pounds per day)[1]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Construction Emissions				
Demolition 2022	16.81	13.19	1.76	0.93
Grading 2022	11.78	6.55	8.73	4.55

Table 6: Localized Significance of Emissions				
Source/Activity	**Emissions (pounds per day)[1]**			
	NO_X	**CO**	**PM_{10}**	**$PM_{2.5}$**
Building Construction 2022	14.15	13.90	0.72	0.68
Paving 2022	7.85	9.24	0.39	0.36
SCAQMD Localized Screening Threshold (1 acre of disturbance at 100 meters)	107	1,156	28	9
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**
Operational Emissions				
On-Site Emissions (Area + Energy Sources)[1]	25.31	4.37	0.54	0.95
SCAQMD Localized Screening Threshold (1 acre of disturbance at 50 meters)	107	1,156	7	3
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**

Source: CalEEMod version 2020.4.0. Refer to Appendix A for model data outputs.

1. This includes Mitigation Measure AQ-1 which limits maintenance and testing of the emergency generators.

According to the SCAQMD localized significance threshold methodology, LSTs apply to on-site sources. LSTs for receptors located at 100 meters for SRA 3 were conservatively utilized in this analysis. The 1-acre LST threshold is used for the 0.5-acre project site. The operational emissions shown in Table 6 include all on-site project-related stationary sources (i.e., area and energy sources). Table 6 shows that the maximum daily emissions of these pollutants during operations would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, significant impacts would not occur concerning LSTs during operational activities.

Carbon Monoxide Hotspots

An analysis of CO "hot spots" is needed to determine whether the change in the level of service (LOS) of an intersection from the proposed project would have the potential to result in exceedances of the CAAQS or NAAQS. It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when vehicles are idling at intersections. Vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations have steadily declined.

Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard. An analysis prepared for CO attainment in the South Coast Air Basin by the SCAQMD can assist in evaluating the potential for CO exceedances. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 Air Quality Management Plan. The Basin was re-designated as attainment in 2007 and is no longer addressed in the SCAQMD's AQMP.

The 2003 Air Quality Management Plan is the most recent AQMP that addresses CO concentrations. As part of the SCAQMD CO Hotspot analysis, the Century Boulevard/La Cienega Boulevard intersection, one of the most congested intersections in Southern California was modeled for CO concentrations. This modeling effort identified a CO concentration high of 3.7 parts per million (ppm), which is well below the 35- ppm federal standard. The proposed project considered herein would not produce the volume of traffic required to generate a CO hot spot in the context of SCAQMD's 2003 CO hot-spot analysis. Furthermore, as part of the SCAQMD CO Hotspot analysis, the Wilshire Boulevard/Veteran Avenue intersection was analyzed. As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection, which accommodates 100,000 vehicles daily, was analyzed and no CO hotspots were identified. According to the El Segundo General Plan Circulation Element Nash Street adjacent to the Project site has an existing 9,300 average daily trips. The Project is forecast to generate approximately 18 average daily trips; thus, it can be reasonably inferred that CO hotspots would not be experienced at any vicinity intersections as the Project would not produce the volume of traffic required to generate a CO hot spot in the context of SCAQMD's 2003 CO hot-spot analysis. Therefore, impacts would be less than significant in this regard.

Mitigation Measure AQ-1

Generator maintenance, staff training, and testing shall be limited on any single day to no more than 110 minutes for the entire facility (15 generators).

Greenhouse Gas Emissions

The project would include direct and indirect GHG emissions from project construction and operations. Construction is considered a direct source since these emissions occur at the site. Direct operational-related GHG emissions for the proposed project would include emissions from the generators.

South Coast Air Quality Management District Thresholds

The SCAQMD formed a GHG CEQA Significance Threshold Working Group (Working Group) to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. This Working Group was formed to assist SCAQMD's efforts to develop a GHG significance threshold and included a wide variety of stakeholders including the State Office of Planning and Research (OPR), CARB, the Attorney General's Office, a variety of city and county planning departments in the Air Basin, various utilities such as sanitation and power companies throughout the Air Basin, industry groups, and environmental and professional organizations. On December 5, 2008, the SCAQMD Governing Board adopted a 10,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) industrial threshold for projects where the SCAQMD is the lead agency. However, the SCAQMD has not announced when a GHG thresholds for land use projects will be presented to the governing board where the SCAQMD is not the lead agency. The Working Group proposed a 3,000 $MTCO_2e$ threshold for non-industrial projects but that threshold has not been formally adopted. Nonetheless, the City determined that the 3,000 $MTCO_2e$ is the appropriate threshold to determine the significance of the GHGs arising from the addition of seven generators.

Construction GHG Emissions

Construction of the project would result in direct emissions of CO_2, N_2O, and CH_4 from construction equipment and the transport of materials and construction workers to and from the project site. Total GHG emissions generated during all phases of construction were combined and are presented in Table 6: Construction Greenhouse Gas Emissions. The CalEEMod outputs are contained within Appendix A. As shown in Table 6, the project construction would result in 79 $MTCO_2e$ over the course of construction. Consistent with SCAQMD guidance, construction emissions will be amortized over the Project's life, defined as 30 years, added to the operational emissions, and compared to the applicable interim GHG significance threshold.[2] The amortized project construction emissions would be approximately 2.6 $MTCO_2e$ per year.

Table 6: Construction Greenhouse Gas Emissions

Construction	$MTCO_2e$ per Year
Total Construction	79
Amortized over 30 Years	2.6

Source: CalEEMod version 2020.4.0. Refer to Appendix A for model data outputs.

Operational GHG Emissions

[2] SCAQMD. (2008*). Staff Report for Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, December 5, 2008*, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2 ; page 5.

Operational or long-term emissions occur over the life of the proposed project. GHG emissions would result from direct emissions from the generators. Table 7: Total Project Greenhouse Gas Emissions summarizes the total GHG emissions associated with proposed project. As shown, the project would generate approximately 663 $MTCO_2e$/year. The project would not result in an increase in GHG emissions that exceed the SCAQMD's screening threshold of 3,000 $MTCO_2e$/yr. Therefore, project-related GHG emissions would be less than significant.

Table 7: Total Project Greenhouse Gas Emissions	
Emissions Source	**$MTCO_2e$ per Year**
Construction Amortized over 30 Years	2.60
New Generators	635
New Employee Trips	25
Total Project Emissions	**663**
SCAQMD Project Threshold	3,000
Threshold Exceeded?	**No**

Source: CalEEMod version 2020.4.0. Refer to Appendix A for model data outputs.

1. Building operational emissions include the Applicant-provided data for the additional electrical demand created by internal electrical/equipment modifications supported by the proposed generators.

Conclusion

Project implementation would result in less than significant construction and operational air quality and GHG impacts. No mitigation measures would be required. Therefore, the proposed project would not result in significant effects related to Section 15332(d) of the State CEQA Guidelines.

Appendix A

Air Quality and GHG Data

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule

Applied

El Segundo (Ollie) Construction

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	20.00	1000sqft	0.46	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Paving for generator pads and roadway

Construction Phase - Anticipated construction schedule

Off-road Equipment - Anticipated construction equipment

Off-road Equipment - anticipated construction equipment

Off-road Equipment - Anticipated construction equipment

Off-road Equipment - Anticipated construction equipment

Demolition - 7,860 sf concrete demo, approx. 427 tons

Grading - 125 cy export

Vehicle Trips - anticipated daily trips for employees

Table Name	Column Name	Default Value	New Value

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	100.00	44.00
tblConstructionPhase	NumDays	5.00	21.00
tblGrading	MaterialExported	0.00	125.00
tblOffRoadEquipment	UsageHours	8.00	9.00
tblOffRoadEquipment	UsageHours	1.00	9.00
tblOffRoadEquipment	UsageHours	6.00	9.00
tblOffRoadEquipment	UsageHours	6.00	9.00
tblOffRoadEquipment	UsageHours	7.00	9.00
tblOffRoadEquipment	UsageHours	4.00	9.00
tblOffRoadEquipment	UsageHours	6.00	9.00
tblOffRoadEquipment	UsageHours	8.00	9.00
tblOffRoadEquipment	UsageHours	6.00	9.00
tblOffRoadEquipment	UsageHours	7.00	9.00
tblOffRoadEquipment	UsageHours	7.00	9.00
tblOffRoadEquipment	UsageHours	7.00	9.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	1.00
tblVehicleTrips	SU_TR	0.00	1.00
tblVehicleTrips	WD_TR	0.00	1.00

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					

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2022	1.7689	17.5450	14.2613	0.0273	7.5770	0.8472	8.1583	3.8430	0.7931	4.3781	0.0000	2,664.8886	2,664.8886	0.5745	0.0877	2,693.5157
Maximum	**1.7689**	**17.5450**	**14.2613**	**0.0273**	**7.5770**	**0.8472**	**8.1583**	**3.8430**	**0.7931**	**4.3781**	**0.0000**	**2,664.8886**	**2,664.8886**	**0.5745**	**0.0877**	**2,693.5157**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.7689	17.5450	14.2613	0.0273	7.5770	0.8472	8.1583	3.8430	0.7931	4.3781	0.0000	2,664.8886	2,664.8886	0.5745	0.0877	2,693.5157
Maximum	**1.7689**	**17.5450**	**14.2613**	**0.0273**	**7.5770**	**0.8472**	**8.1583**	**3.8430**	**0.7931**	**4.3781**	**0.0000**	**2,664.8886**	**2,664.8886**	**0.5745**	**0.0877**	**2,693.5157**

	ROG	NOx	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					

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Area	8.8000e-003	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6700e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.8000e-003**	**2.0000e-005**	**2.0500e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**1.0000e-005**	**0.0000**	**4.6700e-003**

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	8.8000e-003	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6700e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.8000e-003**	**2.0000e-005**	**2.0500e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**1.0000e-005**	**0.0000**	**4.6700e-003**

	ROG	NOx	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

Date: 2/2/2022 2:30 PM

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/15/2022	7/28/2022	5	10	
2	Grading	Grading	7/29/2022	8/1/2022	5	2	
3	Building Construction	Building Construction	8/2/2022	9/30/2022	5	44	
4	Paving	Paving	10/1/2022	10/31/2022	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.13

Acres of Paving: 0.46

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	9.00	81	0.73
Demolition	Rubber Tired Dozers	1	9.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	9.00	97	0.37
Grading	Rubber Tired Dozers	1	9.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	9.00	97	0.37
Building Construction	Cranes	1	9.00	231	0.29
Building Construction	Forklifts	2	9.00	89	0.20
Building Construction	Generator Sets	1	9.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	9.00	97	0.37
Paving	Cement and Mortar Mixers	4	9.00	9	0.56
Paving	Pavers	1	9.00	130	0.42
Paving	Rollers	1	9.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	9.00	97	0.37

Trips and VMT

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	4	10.00	0.00	42.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	2	5.00	0.00	16.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	8.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9137	0.0000	0.9137	0.1384	0.0000	0.1384			0.0000			0.0000
Off-Road	1.7148	16.8144	13.1879	0.0236		0.8413	0.8413		0.7875	0.7875		2,274.9501	2,274.9501	0.5565		2,288.8625
Total	**1.7148**	**16.8144**	**13.1879**	**0.0236**	**0.9137**	**0.8413**	**1.7550**	**0.1384**	**0.7875**	**0.9258**		**2,274.9501**	**2,274.9501**	**0.5565**		**2,288.8625**

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

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Hauling	0.0196	0.7054	0.1645	2.6100e-003	0.0735	5.2400e-003	0.0788	0.0202	5.0100e-003	0.0252		285.9258	285.9258	0.0152	0.0454	299.8244
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0346	0.0253	0.3941	1.0200e-003	0.1118	7.2000e-004	0.1125	0.0296	6.6000e-004	0.0303		104.0127	104.0127	2.8200e-003	2.5000e-003	104.8288
Total	**0.0542**	**0.7307**	**0.5586**	**3.6300e-003**	**0.1853**	**5.9600e-003**	**0.1913**	**0.0498**	**5.6700e-003**	**0.0555**		**389.9385**	**389.9385**	**0.0180**	**0.0479**	**404.6532**

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					0.9137	0.0000	0.9137	0.1384	0.0000	0.1384			0.0000			0.0000
Off-Road	1.7148	16.8144	13.1879	0.0236		0.8413	0.8413		0.7875	0.7875	0.0000	2,274.9501	2,274.9501	0.5565		2,288.8625
Total	**1.7148**	**16.8144**	**13.1879**	**0.0236**	**0.9137**	**0.8413**	**1.7550**	**0.1384**	**0.7875**	**0.9258**	**0.0000**	**2,274.9501**	**2,274.9501**	**0.5565**		**2,288.8625**

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

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Hauling	0.0196	0.7054	0.1645	2.6100e-003	0.0735	5.2400e-003	0.0788	0.0202	5.0100e-003	0.0252		285.9258	285.9258	0.0152	0.0454	299.8244
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0346	0.0253	0.3941	1.0200e-003	0.1118	7.2000e-004	0.1125	0.0296	6.6000e-004	0.0303		104.0127	104.0127	2.8200e-003	2.5000e-003	104.8288
Total	**0.0542**	**0.7307**	**0.5586**	**3.6300e-003**	**0.1853**	**5.9600e-003**	**0.1913**	**0.0498**	**5.6700e-003**	**0.0555**		**389.9385**	**389.9385**	**0.0180**	**0.0479**	**404.6532**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.3811	0.0000	7.3811	3.7898	0.0000	3.7898			0.0000			0.0000
Off-Road	1.1270	11.7780	6.5474	0.0131		0.5709	0.5709		0.5253	0.5253		1,269.3086	1,269.3086	0.4105		1,279.5716
Total	**1.1270**	**11.7780**	**6.5474**	**0.0131**	**7.3811**	**0.5709**	**7.9520**	**3.7898**	**0.5253**	**4.3150**		**1,269.3086**	**1,269.3086**	**0.4105**		**1,279.5716**

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

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Hauling	0.0373	1.3436	0.3133	4.9700e-003	0.1400	9.9800e-003	0.1500	0.0384	9.5500e-003	0.0479		544.6205	544.6205	0.0289	0.0864	571.0942
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0173	0.0126	0.1971	5.1000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		52.0064	52.0064	1.4100e-003	1.2500e-003	52.4144
Total	**0.0546**	**1.3562**	**0.5104**	**5.4800e-003**	**0.1959**	**0.0103**	**0.2063**	**0.0532**	**9.8800e-003**	**0.0631**		**596.6268**	**596.6268**	**0.0303**	**0.0877**	**623.5085**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.3811	0.0000	7.3811	3.7898	0.0000	3.7898			0.0000			0.0000
Off-Road	1.1270	11.7780	6.5474	0.0131		0.5709	0.5709		0.5253	0.5253	0.0000	1,269.3086	1,269.3086	0.4105		1,279.5716
Total	**1.1270**	**11.7780**	**6.5474**	**0.0131**	**7.3811**	**0.5709**	**7.9520**	**3.7898**	**0.5253**	**4.3150**	**0.0000**	**1,269.3086**	**1,269.3086**	**0.4105**		**1,279.5716**

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

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Hauling	0.0373	1.3436	0.3133	4.9700e-003	0.1400	9.9800e-003	0.1500	0.0384	9.5500e-003	0.0479	544.6205	544.6205	0.0289	0.0864	571.0942	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0173	0.0126	0.1971	5.1000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152	52.0064	52.0064	1.4100e-003	1.2500e-003	52.4144	
Total	**0.0546**	**1.3562**	**0.5104**	**5.4800e-003**	**0.1959**	**0.0103**	**0.2063**	**0.0532**	**9.8800e-003**	**0.0631**	**596.6268**	**596.6268**	**0.0303**	**0.0877**	**623.5085**	

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4170	14.1453	13.8956	0.0243		0.7207	0.7207		0.6763	0.6763		2,340.4550	2,340.4550	0.5636		2,354.5441
Total	**1.4170**	**14.1453**	**13.8956**	**0.0243**		**0.7207**	**0.7207**		**0.6763**	**0.6763**		**2,340.4550**	**2,340.4550**	**0.5636**		**2,354.5441**

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					

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.9000e-003	0.1470	0.0504	5.9000e-004	0.0192	1.4000e-003	0.0206	5.5300e-003	1.3400e-003	6.8700e-003		63.1385	63.1385	2.1100e-003	9.1000e-003	65.9025
Worker	0.0277	0.0202	0.3153	8.2000e-004	0.0894	5.7000e-004	0.0900	0.0237	5.3000e-004	0.0242		83.2102	83.2102	2.2500e-003	2.0000e-003	83.8630
Total	**0.0336**	**0.1672**	**0.3657**	**1.4100e-003**	**0.1086**	**1.9700e-003**	**0.1106**	**0.0292**	**1.8700e-003**	**0.0311**		**146.3486**	**146.3486**	**4.3600e-003**	**0.0111**	**149.7656**

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	1.4170	14.1453	13.8956	0.0243		0.7207	0.7207		0.6763	0.6763	0.0000	2,340.4550	2,340.4550	0.5636		2,354.5441
Total	**1.4170**	**14.1453**	**13.8956**	**0.0243**		**0.7207**	**0.7207**		**0.6763**	**0.6763**	**0.0000**	**2,340.4550**	**2,340.4550**	**0.5636**		**2,354.5441**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vendor	5.9000e-003	0.1470	0.0504	5.9000e-004	0.0192	1.4000e-003	0.0206	5.5300e-003	1.3400e-003	6.8700e-003		63.1385	63.1385	2.1100e-003	9.1000e-003	65.9025
Worker	0.0277	0.0202	0.3153	8.2000e-004	0.0894	5.7000e-004	0.0900	0.0237	5.3000e-004	0.0242		83.2102	83.2102	2.2500e-003	2.0000e-003	83.8630
Total	**0.0336**	**0.1672**	**0.3657**	**1.4100e-003**	**0.1086**	**1.9700e-003**	**0.1106**	**0.0292**	**1.8700e-003**	**0.0311**		**146.3486**	**146.3486**	**4.3600e-003**	**0.0111**	**149.7656**

3.5 Paving - 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	0.8695	7.8448	9.2430	0.0149		0.3899	0.3899		0.3638	0.3638		1,364.2492	1,364.2492	0.3913		1,374.0318
Paving	0.0574					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9269**	**7.8448**	**9.2430**	**0.0149**		**0.3899**	**0.3899**		**0.3638**	**0.3638**		**1,364.2492**	**1,364.2492**	**0.3913**		**1,374.0318**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0623	0.0455	0.7094	1.8400e-003	0.2012	1.2900e-003	0.2025	0.0534	1.1900e-003	0.0546		187.2229	187.2229	5.0700e-003	4.5000e-003	188.6918
Total	**0.0623**	**0.0455**	**0.7094**	**1.8400e-003**	**0.2012**	**1.2900e-003**	**0.2025**	**0.0534**	**1.1900e-003**	**0.0546**		**187.2229**	**187.2229**	**5.0700e-003**	**4.5000e-003**	**188.6918**

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	0.8695	7.8448	9.2430	0.0149		0.3899	0.3899		0.3638	0.3638	0.0000	1,364.2492	1,364.2492	0.3913		1,374.0318
Paving	0.0574					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9269**	**7.8448**	**9.2430**	**0.0149**		**0.3899**	**0.3899**		**0.3638**	**0.3638**	**0.0000**	**1,364.2492**	**1,364.2492**	**0.3913**		**1,374.0318**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0623	0.0455	0.7094	1.8400e-003	0.2012	1.2900e-003	0.2025	0.0534	1.1900e-003	0.0546		187.2229	187.2229	5.0700e-003	4.5000e-003	188.6918
Total	**0.0623**	**0.0455**	**0.7094**	**1.8400e-003**	**0.2012**	**1.2900e-003**	**0.2025**	**0.0534**	**1.1900e-003**	**0.0546**		**187.2229**	**187.2229**	**5.0700e-003**	**4.5000e-003**	**188.6918**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.0033

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Mitigated	8.8000e-003	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6700e-003
Unmitigated	8.8000e-003	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.0800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6700e-003
Total	**8.7900e-003**	**2.0000e-005**	**2.0500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**1.0000e-005**		**4.6700e-003**

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					

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Architectural Coating	1.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.0800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6700e-003
Total	**8.7900e-003**	**2.0000e-005**	**2.0500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**1.0000e-005**		**4.6700e-003**

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

El Segundo (Ollie) - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

11.0 Vegetation

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule

Applied

El Segundo (Ollie) Construction

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	20.00	1000sqft	0.46	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Paving for generator pads and roadway

Construction Phase - Anticipated construction schedule

Off-road Equipment - Anticipated construction equipment

Off-road Equipment - anticipated construction equipment

Off-road Equipment - Anticipated construction equipment

Off-road Equipment - Anticipated construction equipment

Demolition - 7,860 sf concrete demo, approx. 427 tons

Grading - 125 cy export

Vehicle Trips - anticipated daily trips for employees

Table Name	Column Name	Default Value	New Value

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	100.00	44.00
tblConstructionPhase	NumDays	5.00	21.00
tblGrading	MaterialExported	0.00	125.00
tblOffRoadEquipment	UsageHours	8.00	9.00
tblOffRoadEquipment	UsageHours	1.00	9.00
tblOffRoadEquipment	UsageHours	6.00	9.00
tblOffRoadEquipment	UsageHours	6.00	9.00
tblOffRoadEquipment	UsageHours	7.00	9.00
tblOffRoadEquipment	UsageHours	4.00	9.00
tblOffRoadEquipment	UsageHours	6.00	9.00
tblOffRoadEquipment	UsageHours	8.00	9.00
tblOffRoadEquipment	UsageHours	6.00	9.00
tblOffRoadEquipment	UsageHours	7.00	9.00
tblOffRoadEquipment	UsageHours	7.00	9.00
tblOffRoadEquipment	UsageHours	7.00	9.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	1.00
tblVehicleTrips	SU_TR	0.00	1.00
tblVehicleTrips	WD_TR	0.00	1.00

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					

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2022	1.7709	17.5763	14.2373	0.0272	7.5770	0.8472	8.1583	3.8430	0.7932	4.3781	0.0000	2,659.4730	2,659.4730	0.5745	0.0878	2,688.1559
Maximum	**1.7709**	**17.5763**	**14.2373**	**0.0272**	**7.5770**	**0.8472**	**8.1583**	**3.8430**	**0.7932**	**4.3781**	**0.0000**	**2,659.4730**	**2,659.4730**	**0.5745**	**0.0878**	**2,688.1559**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.7709	17.5763	14.2373	0.0272	7.5770	0.8472	8.1583	3.8430	0.7932	4.3781	0.0000	2,659.4730	2,659.4730	0.5745	0.0878	2,688.1559
Maximum	**1.7709**	**17.5763**	**14.2373**	**0.0272**	**7.5770**	**0.8472**	**8.1583**	**3.8430**	**0.7932**	**4.3781**	**0.0000**	**2,659.4730**	**2,659.4730**	**0.5745**	**0.0878**	**2,688.1559**

	ROG	**NOx**	**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					

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Area	8.8000e-003	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6700e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.8000e-003**	**2.0000e-005**	**2.0500e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**1.0000e-005**	**0.0000**	**4.6700e-003**

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	8.8000e-003	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6700e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.8000e-003**	**2.0000e-005**	**2.0500e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**1.0000e-005**	**0.0000**	**4.6700e-003**

	ROG	NOx	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

Date: 2/2/2022 2:32 PM

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/15/2022	7/28/2022	5	10	
2	Grading	Grading	7/29/2022	8/1/2022	5	2	
3	Building Construction	Building Construction	8/2/2022	9/30/2022	5	44	
4	Paving	Paving	10/1/2022	10/31/2022	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.13

Acres of Paving: 0.46

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	9.00	81	0.73
Demolition	Rubber Tired Dozers	1	9.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	9.00	97	0.37
Grading	Rubber Tired Dozers	1	9.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	9.00	97	0.37
Building Construction	Cranes	1	9.00	231	0.29
Building Construction	Forklifts	2	9.00	89	0.20
Building Construction	Generator Sets	1	9.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	9.00	97	0.37
Paving	Cement and Mortar Mixers	4	9.00	9	0.56
Paving	Pavers	1	9.00	130	0.42
Paving	Rollers	1	9.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	9.00	97	0.37

Trips and VMT

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	4	10.00	0.00	42.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	2	5.00	0.00	16.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	8.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9137	0.0000	0.9137	0.1384	0.0000	0.1384			0.0000			0.0000
Off-Road	1.7148	16.8144	13.1879	0.0236		0.8413	0.8413		0.7875	0.7875		2,274.9501	2,274.9501	0.5565		2,288.8625
Total	**1.7148**	**16.8144**	**13.1879**	**0.0236**	**0.9137**	**0.8413**	**1.7550**	**0.1384**	**0.7875**	**0.9258**		**2,274.9501**	**2,274.9501**	**0.5565**		**2,288.8625**

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

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Hauling	0.0191	0.7340	0.1674	2.6100e-003	0.0735	5.2500e-003	0.0788	0.0202	5.0200e-003	0.0252		286.0096	286.0096	0.0152	0.0454	299.9120
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0371	0.0279	0.3619	9.7000e-004	0.1118	7.2000e-004	0.1125	0.0296	6.6000e-004	0.0303		98.5133	98.5133	2.8500e-003	2.6700e-003	99.3813
Total	**0.0562**	**0.7619**	**0.5292**	**3.5800e-003**	**0.1853**	**5.9700e-003**	**0.1913**	**0.0498**	**5.6800e-003**	**0.0555**		**384.5229**	**384.5229**	**0.0180**	**0.0481**	**399.2934**

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					0.9137	0.0000	0.9137	0.1384	0.0000	0.1384			0.0000			0.0000
Off-Road	1.7148	16.8144	13.1879	0.0236		0.8413	0.8413		0.7875	0.7875	0.0000	2,274.9501	2,274.9501	0.5565		2,288.8625
Total	**1.7148**	**16.8144**	**13.1879**	**0.0236**	**0.9137**	**0.8413**	**1.7550**	**0.1384**	**0.7875**	**0.9258**	**0.0000**	**2,274.9501**	**2,274.9501**	**0.5565**		**2,288.8625**

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

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Hauling	0.0191	0.7340	0.1674	2.6100e-003	0.0735	5.2500e-003	0.0788	0.0202	5.0200e-003	0.0252		286.0096	286.0096	0.0152	0.0454	299.9120
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0371	0.0279	0.3619	9.7000e-004	0.1118	7.2000e-004	0.1125	0.0296	6.6000e-004	0.0303		98.5133	98.5133	2.8500e-003	2.6700e-003	99.3813
Total	**0.0562**	**0.7619**	**0.5292**	**3.5800e-003**	**0.1853**	**5.9700e-003**	**0.1913**	**0.0498**	**5.6800e-003**	**0.0555**		**384.5229**	**384.5229**	**0.0180**	**0.0481**	**399.2934**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.3811	0.0000	7.3811	3.7898	0.0000	3.7898			0.0000			0.0000
Off-Road	1.1270	11.7780	6.5474	0.0131		0.5709	0.5709		0.5253	0.5253		1,269.3086	1,269.3086	0.4105		1,279.5716
Total	**1.1270**	**11.7780**	**6.5474**	**0.0131**	**7.3811**	**0.5709**	**7.9520**	**3.7898**	**0.5253**	**4.3150**		**1,269.3086**	**1,269.3086**	**0.4105**		**1,279.5716**

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

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Hauling	0.0364	1.3981	0.3188	4.9700e-003	0.1400	0.0100	0.1500	0.0384	9.5700e-003	0.0480		544.7801	544.7801	0.0289	0.0864	571.2610
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0185	0.0140	0.1809	4.8000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		49.2567	49.2567	1.4200e-003	1.3400e-003	49.6907
Total	**0.0549**	**1.4121**	**0.4997**	**5.4500e-003**	**0.1959**	**0.0104**	**0.2063**	**0.0532**	**9.9000e-003**	**0.0631**		**594.0368**	**594.0368**	**0.0303**	**0.0878**	**620.9517**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.3811	0.0000	7.3811	3.7898	0.0000	3.7898			0.0000			0.0000
Off-Road	1.1270	11.7780	6.5474	0.0131		0.5709	0.5709		0.5253	0.5253	0.0000	1,269.3086	1,269.3086	0.4105		1,279.5716
Total	**1.1270**	**11.7780**	**6.5474**	**0.0131**	**7.3811**	**0.5709**	**7.9520**	**3.7898**	**0.5253**	**4.3150**	**0.0000**	**1,269.3086**	**1,269.3086**	**0.4105**		**1,279.5716**

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

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Hauling	0.0364	1.3981	0.3188	4.9700e-003	0.1400	0.0100	0.1500	0.0384	9.5700e-003	0.0480		544.7801	544.7801	0.0289	0.0864	571.2610
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0185	0.0140	0.1809	4.8000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		49.2567	49.2567	1.4200e-003	1.3400e-003	49.6907
Total	**0.0549**	**1.4121**	**0.4997**	**5.4500e-003**	**0.1959**	**0.0104**	**0.2063**	**0.0532**	**9.9000e-003**	**0.0631**		**594.0368**	**594.0368**	**0.0303**	**0.0878**	**620.9517**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4170	14.1453	13.8956	0.0243		0.7207	0.7207		0.6763	0.6763		2,340.4550	2,340.4550	0.5636		2,354.5441
Total	**1.4170**	**14.1453**	**13.8956**	**0.0243**		**0.7207**	**0.7207**		**0.6763**	**0.6763**		**2,340.4550**	**2,340.4550**	**0.5636**		**2,354.5441**

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					

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.8300e-003	0.1530	0.0521	5.9000e-004	0.0192	1.4000e-003	0.0206	5.5300e-003	1.3400e-003	6.8800e-003		63.1622	63.1622	2.1000e-003	9.1100e-003	65.9296
Worker	0.0296	0.0223	0.2895	7.7000e-004	0.0894	5.7000e-004	0.0900	0.0237	5.3000e-004	0.0242		78.8107	78.8107	2.2800e-003	2.1400e-003	79.5051
Total	**0.0355**	**0.1754**	**0.3416**	**1.3600e-003**	**0.1086**	**1.9700e-003**	**0.1106**	**0.0292**	**1.8700e-003**	**0.0311**		**141.9729**	**141.9729**	**4.3800e-003**	**0.0113**	**145.4347**

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	1.4170	14.1453	13.8956	0.0243		0.7207	0.7207		0.6763	0.6763	0.0000	2,340.4550	2,340.4550	0.5636		2,354.5441
Total	**1.4170**	**14.1453**	**13.8956**	**0.0243**		**0.7207**	**0.7207**		**0.6763**	**0.6763**	**0.0000**	**2,340.4550**	**2,340.4550**	**0.5636**		**2,354.5441**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vendor	5.8300e-003	0.1530	0.0521	5.9000e-004	0.0192	1.4000e-003	0.0206	5.5300e-003	1.3400e-003	6.8800e-003		63.1622	63.1622	2.1000e-003	9.1100e-003	65.9296
Worker	0.0296	0.0223	0.2895	7.7000e-004	0.0894	5.7000e-004	0.0900	0.0237	5.3000e-004	0.0242		78.8107	78.8107	2.2800e-003	2.1400e-003	79.5051
Total	**0.0355**	**0.1754**	**0.3416**	**1.3600e-003**	**0.1086**	**1.9700e-003**	**0.1106**	**0.0292**	**1.8700e-003**	**0.0311**		**141.9729**	**141.9729**	**4.3800e-003**	**0.0113**	**145.4347**

3.5 Paving - 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	0.8695	7.8448	9.2430	0.0149		0.3899	0.3899		0.3638	0.3638		1,364.2492	1,364.2492	0.3913		1,374.0318
Paving	0.0574					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9269**	**7.8448**	**9.2430**	**0.0149**		**0.3899**	**0.3899**		**0.3638**	**0.3638**		**1,364.2492**	**1,364.2492**	**0.3913**		**1,374.0318**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0667	0.0503	0.6514	1.7400e-003	0.2012	1.2900e-003	0.2025	0.0534	1.1900e-003	0.0546		177.3240	177.3240	5.1300e-003	4.8100e-003	178.8864
Total	**0.0667**	**0.0503**	**0.6514**	**1.7400e-003**	**0.2012**	**1.2900e-003**	**0.2025**	**0.0534**	**1.1900e-003**	**0.0546**		**177.3240**	**177.3240**	**5.1300e-003**	**4.8100e-003**	**178.8864**

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	0.8695	7.8448	9.2430	0.0149		0.3899	0.3899		0.3638	0.3638	0.0000	1,364.2492	1,364.2492	0.3913		1,374.0318
Paving	0.0574					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9269**	**7.8448**	**9.2430**	**0.0149**		**0.3899**	**0.3899**		**0.3638**	**0.3638**	**0.0000**	**1,364.2492**	**1,364.2492**	**0.3913**		**1,374.0318**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0667	0.0503	0.6514	1.7400e-003	0.2012	1.2900e-003	0.2025	0.0534	1.1900e-003	0.0546		177.3240	177.3240	5.1300e-003	4.8100e-003	178.8864
Total	**0.0667**	**0.0503**	**0.6514**	**1.7400e-003**	**0.2012**	**1.2900e-003**	**0.2025**	**0.0534**	**1.1900e-003**	**0.0546**		**177.3240**	**177.3240**	**5.1300e-003**	**4.8100e-003**	**178.8864**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.0033

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Mitigated	8.8000e-003	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6700e-003
Unmitigated	8.8000e-003	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.0800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6700e-003
Total	**8.7900e-003**	**2.0000e-005**	**2.0500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**1.0000e-005**		**4.6700e-003**

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					

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Architectural Coating	1.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.0800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6700e-003
Total	**8.7900e-003**	**2.0000e-005**	**2.0500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**1.0000e-005**		**4.6700e-003**

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

El Segundo (Ollie) - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

11.0 Vegetation

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

El Segundo (Ollie) Operations

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	116.76	1000sqft	2.68	116,760.00	0
Parking Lot	70.00	Space	0.63	28,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Operational only

Construction Phase - Operational only run

Off-road Equipment - Anticipated construction equipment

Off-road Equipment -

Demolition -

Grading -

Vehicle Trips - antipated trips for 5 employees

Energy Use - Estimated energy use

Fleet Mix - employee trips

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	0.53	141.74
tblFleetMix	HHD	8.0320e-003	0.00
tblFleetMix	LDA	0.55	1.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9120e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.74	0.17
tblVehicleTrips	SU_TR	1.74	0.17
tblVehicleTrips	WD_TR	1.74	0.17

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.6911	25.7573	21.1853	0.0404	0.1677	1.2437	1.4114	0.0445	1.1562	1.2007	0.0000	3,902.8002	3,902.8002	1.0567	3.7500e-003	3,930.3352
Maximum	**2.6911**	**25.7573**	**21.1853**	**0.0404**	**0.1677**	**1.2437**	**1.4114**	**0.0445**	**1.1562**	**1.2007**	**0.0000**	**3,902.8002**	**3,902.8002**	**1.0567**	**3.7500e-003**	**3,930.3352**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.6911	25.7573	21.1853	0.0404	0.1677	1.2437	1.4114	0.0445	1.1562	1.2007	0.0000	3,902.8002	3,902.8002	1.0567	3.7500e-003	3,930.3352
Maximum	**2.6911**	**25.7573**	**21.1853**	**0.0404**	**0.1677**	**1.2437**	**1.4114**	**0.0445**	**1.1562**	**1.2007**	**0.0000**	**3,902.8002**	**3,902.8002**	**1.0567**	**3.7500e-003**	**3,930.3352**

	ROG	NOx	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

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6222	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Energy	0.0134	0.1220	0.1025	7.3000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003		146.3969	146.3969	2.8100e-003	2.6800e-003	147.2669
Mobile	0.0281	0.0272	0.5177	1.5700e-003	0.1904	1.0700e-003	0.1914	0.0505	9.9000e-004	0.0515		159.7634	159.7634	3.7500e-003	3.4800e-003	160.8952
Total	**2.6637**	**0.1494**	**0.6393**	**2.3000e-003**	**0.1904**	**0.0104**	**0.2008**	**0.0505**	**0.0103**	**0.0608**		**306.2012**	**306.2012**	**6.6700e-003**	**6.1600e-003**	**308.2057**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6222	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Energy	0.0134	0.1220	0.1025	7.3000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003		146.3969	146.3969	2.8100e-003	2.6800e-003	147.2669
Mobile	0.0281	0.0272	0.5177	1.5700e-003	0.1904	1.0700e-003	0.1914	0.0505	9.9000e-004	0.0515		159.7634	159.7634	3.7500e-003	3.4800e-003	160.8952
Total	**2.6637**	**0.1494**	**0.6393**	**2.3000e-003**	**0.1904**	**0.0104**	**0.2008**	**0.0505**	**0.0103**	**0.0608**		**306.2012**	**306.2012**	**6.6700e-003**	**6.1600e-003**	**308.2057**

	ROG	NOx	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**

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	7/15/2022	8/11/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.63

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40

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	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.0000**	**1.2427**	**1.2427**	**0.0000**	**1.1553**	**1.1553**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0519	0.0379	0.5912	1.5300e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		156.0191	156.0191	4.2200e-003	3.7500e-003	157.2432
Total	**0.0519**	**0.0379**	**0.5912**	**1.5300e-003**	**0.1677**	**1.0700e-003**	**0.1687**	**0.0445**	**9.9000e-004**	**0.0455**		**156.0191**	**156.0191**	**4.2200e-003**	**3.7500e-003**	**157.2432**

Mitigated Construction On-Site

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.0000**	**1.2427**	**1.2427**	**0.0000**	**1.1553**	**1.1553**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0519	0.0379	0.5912	1.5300e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		156.0191	156.0191	4.2200e-003	3.7500e-003	157.2432
Total	**0.0519**	**0.0379**	**0.5912**	**1.5300e-003**	**0.1677**	**1.0700e-003**	**0.1687**	**0.0445**	**9.9000e-004**	**0.0455**		**156.0191**	**156.0191**	**4.2200e-003**	**3.7500e-003**	**157.2432**

4.0 Operational Detail - Mobile

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0281	0.0272	0.5177	1.5700e-003	0.1904	1.0700e-003	0.1914	0.0505	9.9000e-004	0.0515		159.7634	159.7634	3.7500e-003	3.4800e-003	160.8952
Unmitigated	0.0281	0.0272	0.5177	1.5700e-003	0.1904	1.0700e-003	0.1914	0.0505	9.9000e-004	0.0515		159.7634	159.7634	3.7500e-003	3.4800e-003	160.8952

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	19.85	19.85	19.85	91,203	91,203
Total	19.85	19.85	19.85	91,203	91,203

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
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	16.60	8.40	6.90	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.00
Unrefrigerated Warehouse-No Rail	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.00

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0134	0.1220	0.1025	7.3000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003		146.3969	146.3969	2.8100e-003	2.6800e-003	147.2669
NaturalGas Unmitigated	0.0134	0.1220	0.1025	7.3000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003		146.3969	146.3969	2.8100e-003	2.6800e-003	147.2669

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1244.37	0.0134	0.1220	0.1025	7.3000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003		146.3969	146.3969	2.8100e-003	2.6800e-003	147.2669
Total		**0.0134**	**0.1220**	**0.1025**	**7.3000e-004**		**9.2700e-003**	**9.2700e-003**		**9.2700e-003**	**9.2700e-003**		**146.3969**	**146.3969**	**2.8100e-003**	**2.6800e-003**	**147.2669**

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1.24437	0.0134	0.1220	0.1025	7.3000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003		146.3969	146.3969	2.8100e-003	2.6800e-003	147.2669
Total		**0.0134**	**0.1220**	**0.1025**	**7.3000e-004**		**9.2700e-003**	**9.2700e-003**		**9.2700e-003**	**9.2700e-003**		**146.3969**	**146.3969**	**2.8100e-003**	**2.6800e-003**	**147.2669**

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	2.6222	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Unmitigated	2.6222	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436

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El Segundo (Ollie) Operations - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2987					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3218					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7800e-003	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Total	**2.6222**	**1.7000e-004**	**0.0191**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**0.0409**	**0.0409**	**1.1000e-004**		**0.0436**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2987					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3218					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7800e-003	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	2.6222	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436

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

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

El Segundo (Ollie) Operations

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	116.76	1000sqft	2.68	116,760.00	0
Parking Lot	70.00	Space	0.63	28,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Operational only

Construction Phase - Operational only run

Off-road Equipment - Anticipated construction equipment

Off-road Equipment -

Demolition -

Grading -

Vehicle Trips - antipated trips for 5 employees

Energy Use - Estimated energy use

Fleet Mix - employee trips

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	0.53	141.74
tblFleetMix	HHD	8.0320e-003	0.00
tblFleetMix	LDA	0.55	1.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9120e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.74	0.17
tblVehicleTrips	SU_TR	1.74	0.17
tblVehicleTrips	WD_TR	1.74	0.17

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.6948	25.7613	21.1369	0.0403	0.1677	1.2437	1.4114	0.0445	1.1562	1.2007	0.0000	3,894.5511	3,894.5511	1.0567	4.0100e-003	3,922.1640
Maximum	**2.6948**	**25.7613**	**21.1369**	**0.0403**	**0.1677**	**1.2437**	**1.4114**	**0.0445**	**1.1562**	**1.2007**	**0.0000**	**3,894.5511**	**3,894.5511**	**1.0567**	**4.0100e-003**	**3,922.1640**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.6948	25.7613	21.1369	0.0403	0.1677	1.2437	1.4114	0.0445	1.1562	1.2007	0.0000	3,894.5511	3,894.5511	1.0567	4.0100e-003	3,922.1640
Maximum	**2.6948**	**25.7613**	**21.1369**	**0.0403**	**0.1677**	**1.2437**	**1.4114**	**0.0445**	**1.1562**	**1.2007**	**0.0000**	**3,894.5511**	**3,894.5511**	**1.0567**	**4.0100e-003**	**3,922.1640**

	ROG	NOx	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

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6222	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Energy	0.0134	0.1220	0.1025	7.3000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003		146.3969	146.3969	2.8100e-003	2.6800e-003	147.2669
Mobile	0.0269	0.0299	0.4795	1.4800e-003	0.1904	1.0700e-003	0.1914	0.0505	9.9000e-004	0.0515		150.4537	150.4537	3.8700e-003	3.7100e-003	151.6564
Total	**2.6625**	**0.1521**	**0.6011**	**2.2100e-003**	**0.1904**	**0.0104**	**0.2008**	**0.0505**	**0.0103**	**0.0608**		**296.8915**	**296.8915**	**6.7900e-003**	**6.3900e-003**	**298.9668**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6222	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Energy	0.0134	0.1220	0.1025	7.3000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003		146.3969	146.3969	2.8100e-003	2.6800e-003	147.2669
Mobile	0.0269	0.0299	0.4795	1.4800e-003	0.1904	1.0700e-003	0.1914	0.0505	9.9000e-004	0.0515		150.4537	150.4537	3.8700e-003	3.7100e-003	151.6564
Total	**2.6625**	**0.1521**	**0.6011**	**2.2100e-003**	**0.1904**	**0.0104**	**0.2008**	**0.0505**	**0.0103**	**0.0608**		**296.8915**	**296.8915**	**6.7900e-003**	**6.3900e-003**	**298.9668**

	ROG	NOx	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**

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	7/15/2022	8/11/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.63

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40

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	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.0000**	**1.2427**	**1.2427**	**0.0000**	**1.1553**	**1.1553**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0556	0.0419	0.5428	1.4500e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		147.7700	147.7700	4.2700e-003	4.0100e-003	149.0720
Total	**0.0556**	**0.0419**	**0.5428**	**1.4500e-003**	**0.1677**	**1.0700e-003**	**0.1687**	**0.0445**	**9.9000e-004**	**0.0455**		**147.7700**	**147.7700**	**4.2700e-003**	**4.0100e-003**	**149.0720**

Mitigated Construction On-Site

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.0000**	**1.2427**	**1.2427**	**0.0000**	**1.1553**	**1.1553**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0556	0.0419	0.5428	1.4500e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		147.7700	147.7700	4.2700e-003	4.0100e-003	149.0720
Total	**0.0556**	**0.0419**	**0.5428**	**1.4500e-003**	**0.1677**	**1.0700e-003**	**0.1687**	**0.0445**	**9.9000e-004**	**0.0455**		**147.7700**	**147.7700**	**4.2700e-003**	**4.0100e-003**	**149.0720**

4.0 Operational Detail - Mobile

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0269	0.0299	0.4795	1.4800e-003	0.1904	1.0700e-003	0.1914	0.0505	9.9000e-004	0.0515		150.4537	150.4537	3.8700e-003	3.7100e-003	151.6564
Unmitigated	0.0269	0.0299	0.4795	1.4800e-003	0.1904	1.0700e-003	0.1914	0.0505	9.9000e-004	0.0515		150.4537	150.4537	3.8700e-003	3.7100e-003	151.6564

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	19.85	19.85	19.85	91,203	91,203
Total	19.85	19.85	19.85	91,203	91,203

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
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	16.60	8.40	6.90	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.00
Unrefrigerated Warehouse-No Rail	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.00

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0134	0.1220	0.1025	7.3000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003		146.3969	146.3969	2.8100e-003	2.6800e-003	147.2669
NaturalGas Unmitigated	0.0134	0.1220	0.1025	7.3000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003		146.3969	146.3969	2.8100e-003	2.6800e-003	147.2669

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1244.37	0.0134	0.1220	0.1025	7.3000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003		146.3969	146.3969	2.8100e-003	2.6800e-003	147.2669
Total		**0.0134**	**0.1220**	**0.1025**	**7.3000e-004**		**9.2700e-003**	**9.2700e-003**		**9.2700e-003**	**9.2700e-003**		**146.3969**	**146.3969**	**2.8100e-003**	**2.6800e-003**	**147.2669**

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1.24437	0.0134	0.1220	0.1025	7.3000e-004		9.2700e-003	9.2700e-003		9.2700e-003	9.2700e-003		146.3969	146.3969	2.8100e-003	2.6800e-003	147.2669
Total		**0.0134**	**0.1220**	**0.1025**	**7.3000e-004**		**9.2700e-003**	**9.2700e-003**		**9.2700e-003**	**9.2700e-003**		**146.3969**	**146.3969**	**2.8100e-003**	**2.6800e-003**	**147.2669**

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	2.6222	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Unmitigated	2.6222	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2987					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3218					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7800e-003	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Total	**2.6222**	**1.7000e-004**	**0.0191**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**0.0409**	**0.0409**	**1.1000e-004**		**0.0436**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2987					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3218					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7800e-003	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	2.6222	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436

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

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule

Applied

El Segundo (Ollie) Construction

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	20.00	1000sqft	0.46	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Paving for generator pads and roadway

Construction Phase - Anticipated construction schedule

Off-road Equipment - Anticipated construction equipment

Off-road Equipment - anticipated construction equipment

Off-road Equipment - Anticipated construction equipment

Off-road Equipment - Anticipated construction equipment

Demolition - 7,860 sf concrete demo, approx. 427 tons

Grading - 125 cy export

Vehicle Trips - anticipated daily trips for employees

Table Name	Column Name	Default Value	New Value

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	100.00	44.00
tblConstructionPhase	NumDays	5.00	21.00
tblGrading	MaterialExported	0.00	125.00
tblOffRoadEquipment	UsageHours	8.00	9.00
tblOffRoadEquipment	UsageHours	1.00	9.00
tblOffRoadEquipment	UsageHours	6.00	9.00
tblOffRoadEquipment	UsageHours	6.00	9.00
tblOffRoadEquipment	UsageHours	7.00	9.00
tblOffRoadEquipment	UsageHours	4.00	9.00
tblOffRoadEquipment	UsageHours	6.00	9.00
tblOffRoadEquipment	UsageHours	8.00	9.00
tblOffRoadEquipment	UsageHours	6.00	9.00
tblOffRoadEquipment	UsageHours	7.00	9.00
tblOffRoadEquipment	UsageHours	7.00	9.00
tblOffRoadEquipment	UsageHours	7.00	9.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	1.00
tblVehicleTrips	SU_TR	0.00	1.00
tblVehicleTrips	WD_TR	0.00	1.00

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

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Year	tons/yr										MT/yr					
2022	0.0523	0.4991	0.4931	9.0000e-004	0.0175	0.0248	0.0423	5.9600e-003	0.0233	0.0292	0.0000	78.0378	78.0378	0.0181	5.7000e-004	78.6604
Maximum	**0.0523**	**0.4991**	**0.4931**	**9.0000e-004**	**0.0175**	**0.0248**	**0.0423**	**5.9600e-003**	**0.0233**	**0.0292**	**0.0000**	**78.0378**	**78.0378**	**0.0181**	**5.7000e-004**	**78.6604**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0523	0.4991	0.4931	9.0000e-004	0.0175	0.0248	0.0423	5.9600e-003	0.0233	0.0292	0.0000	78.0377	78.0377	0.0181	5.7000e-004	78.6603
Maximum	**0.0523**	**0.4991**	**0.4931**	**9.0000e-004**	**0.0175**	**0.0248**	**0.0423**	**5.9600e-003**	**0.0233**	**0.0292**	**0.0000**	**78.0377**	**78.0377**	**0.0181**	**5.7000e-004**	**78.6603**

	ROG	NOx	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	7-15-2022	9-30-2022	0.4548	0.4548
		Highest	0.4548	0.4548

2.2 Overall Operational

Unmitigated Operational

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5900e-003	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5900e-003**	**0.0000**	**2.6000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.0000**	**5.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5900e-003	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5900e-003**	**0.0000**	**2.6000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.0000**	**5.3000e-004**

	ROG	NOx	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	7/15/2022	7/28/2022	5	10	
2	Grading	Grading	7/29/2022	8/1/2022	5	2	
3	Building Construction	Building Construction	8/2/2022	9/30/2022	5	44	
4	Paving	Paving	10/1/2022	10/31/2022	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.13

Acres of Paving: 0.46

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	9.00	81	0.73
Demolition	Rubber Tired Dozers	1	9.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	9.00	97	0.37

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Rubber Tired Dozers	1	9.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	9.00	97	0.37
Building Construction	Cranes	1	9.00	231	0.29
Building Construction	Forklifts	2	9.00	89	0.20
Building Construction	Generator Sets	1	9.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	9.00	97	0.37
Paving	Cement and Mortar Mixers	4	9.00	9	0.56
Paving	Pavers	1	9.00	130	0.42
Paving	Rollers	1	9.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	9.00	97	0.37

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	4	10.00	0.00	42.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	2	5.00	0.00	16.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	8.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Fugitive Dust					4.5700e-003	0.0000	4.5700e-003	6.9000e-004	0.0000	6.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5700e-003	0.0841	0.0659	1.2000e-004		4.2100e-003	4.2100e-003		3.9400e-003	3.9400e-003	0.0000	10.3190	10.3190	2.5200e-003	0.0000	10.3821
Total	**8.5700e-003**	**0.0841**	**0.0659**	**1.2000e-004**	**4.5700e-003**	**4.2100e-003**	**8.7800e-003**	**6.9000e-004**	**3.9400e-003**	**4.6300e-003**	**0.0000**	**10.3190**	**10.3190**	**2.5200e-003**	**0.0000**	**10.3821**

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	1.0000e-004	3.7100e-003	8.3000e-004	1.0000e-005	3.6000e-004	3.0000e-005	3.9000e-004	1.0000e-004	3.0000e-005	1.2000e-004	0.0000	1.2971	1.2971	7.0000e-005	2.1000e-004	1.3602
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.4000e-004	1.8600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4535	0.4535	1.0000e-005	1.0000e-005	0.4575
Total	**2.7000e-004**	**3.8500e-003**	**2.6900e-003**	**1.0000e-005**	**9.1000e-004**	**3.0000e-005**	**9.4000e-004**	**2.5000e-004**	**3.0000e-005**	**2.7000e-004**	**0.0000**	**1.7506**	**1.7506**	**8.0000e-005**	**2.2000e-004**	**1.8177**

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					

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Fugitive Dust					4.5700e-003	0.0000	4.5700e-003	6.9000e-004	0.0000	6.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5700e-003	0.0841	0.0659	1.2000e-004		4.2100e-003	4.2100e-003		3.9400e-003	3.9400e-003	0.0000	10.3190	10.3190	2.5200e-003	0.0000	10.3821
Total	**8.5700e-003**	**0.0841**	**0.0659**	**1.2000e-004**	**4.5700e-003**	**4.2100e-003**	**8.7800e-003**	**6.9000e-004**	**3.9400e-003**	**4.6300e-003**	**0.0000**	**10.3190**	**10.3190**	**2.5200e-003**	**0.0000**	**10.3821**

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	1.0000e-004	3.7100e-003	8.3000e-004	1.0000e-005	3.6000e-004	3.0000e-005	3.9000e-004	1.0000e-004	3.0000e-005	1.2000e-004	0.0000	1.2971	1.2971	7.0000e-005	2.1000e-004	1.3602
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.4000e-004	1.8600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4535	0.4535	1.0000e-005	1.0000e-005	0.4575
Total	**2.7000e-004**	**3.8500e-003**	**2.6900e-003**	**1.0000e-005**	**9.1000e-004**	**3.0000e-005**	**9.4000e-004**	**2.5000e-004**	**3.0000e-005**	**2.7000e-004**	**0.0000**	**1.7506**	**1.7506**	**8.0000e-005**	**2.2000e-004**	**1.8177**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Fugitive Dust					7.3800e-003	0.0000	7.3800e-003	3.7900e-003	0.0000	3.7900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1300e-003	0.0118	6.5500e-003	1.0000e-005		5.7000e-004	5.7000e-004		5.3000e-004	5.3000e-004	0.0000	1.1515	1.1515	3.7000e-004	0.0000	1.1608
Total	**1.1300e-003**	**0.0118**	**6.5500e-003**	**1.0000e-005**	**7.3800e-003**	**5.7000e-004**	**7.9500e-003**	**3.7900e-003**	**5.3000e-004**	**4.3200e-003**	**0.0000**	**1.1515**	**1.1515**	**3.7000e-004**	**0.0000**	**1.1608**

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	4.0000e-005	1.4200e-003	3.2000e-004	0.0000	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4941	0.4941	3.0000e-005	8.0000e-005	0.5182
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.9000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0454	0.0454	0.0000	0.0000	0.0458
Total	**6.0000e-005**	**1.4300e-003**	**5.1000e-004**	**0.0000**	**1.9000e-004**	**1.0000e-005**	**2.1000e-004**	**5.0000e-005**	**1.0000e-005**	**6.0000e-005**	**0.0000**	**0.5395**	**0.5395**	**3.0000e-005**	**8.0000e-005**	**0.5639**

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					

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Fugitive Dust					7.3800e-003	0.0000	7.3800e-003	3.7900e-003	0.0000	3.7900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1300e-003	0.0118	6.5500e-003	1.0000e-005		5.7000e-004	5.7000e-004		5.3000e-004	5.3000e-004	0.0000	1.1515	1.1515	3.7000e-004	0.0000	1.1608
Total	**1.1300e-003**	**0.0118**	**6.5500e-003**	**1.0000e-005**	**7.3800e-003**	**5.7000e-004**	**7.9500e-003**	**3.7900e-003**	**5.3000e-004**	**4.3200e-003**	**0.0000**	**1.1515**	**1.1515**	**3.7000e-004**	**0.0000**	**1.1608**

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	4.0000e-005	1.4200e-003	3.2000e-004	0.0000	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4941	0.4941	3.0000e-005	8.0000e-005	0.5182
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.9000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0454	0.0454	0.0000	0.0000	0.0458
Total	**6.0000e-005**	**1.4300e-003**	**5.1000e-004**	**0.0000**	**1.9000e-004**	**1.0000e-005**	**2.1000e-004**	**5.0000e-005**	**1.0000e-005**	**6.0000e-005**	**0.0000**	**0.5395**	**0.5395**	**3.0000e-005**	**8.0000e-005**	**0.5639**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Off-Road	0.0312	0.3112	0.3057	5.4000e-004		0.0159	0.0159		0.0149	0.0149	0.0000	46.7110	46.7110	0.0113	0.0000	46.9921
Total	**0.0312**	**0.3112**	**0.3057**	**5.4000e-004**		**0.0159**	**0.0159**		**0.0149**	**0.0149**	**0.0000**	**46.7110**	**46.7110**	**0.0113**	**0.0000**	**46.9921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3000e-004	3.3900e-003	1.1300e-003	1.0000e-005	4.2000e-004	3.0000e-005	4.5000e-004	1.2000e-004	3.0000e-005	1.5000e-004	0.0000	1.2603	1.2603	4.0000e-005	1.8000e-004	1.3156
Worker	6.0000e-004	5.0000e-004	6.5300e-003	2.0000e-005	1.9300e-003	1.0000e-005	1.9400e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.5964	1.5964	5.0000e-005	4.0000e-005	1.6105
Total	**7.3000e-004**	**3.8900e-003**	**7.6600e-003**	**3.0000e-005**	**2.3500e-003**	**4.0000e-005**	**2.3900e-003**	**6.3000e-004**	**4.0000e-005**	**6.7000e-004**	**0.0000**	**2.8568**	**2.8568**	**9.0000e-005**	**2.2000e-004**	**2.9261**

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	0.0312	0.3112	0.3057	5.4000e-004		0.0159	0.0159		0.0149	0.0149	0.0000	46.7109	46.7109	0.0113	0.0000	46.9921

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	**0.0312**	**0.3112**	**0.3057**	**5.4000e-004**		**0.0159**	**0.0159**		**0.0149**	**0.0149**	**0.0000**	**46.7109**	**46.7109**	**0.0113**	**0.0000**	**46.9921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3000e-004	3.3900e-003	1.1300e-003	1.0000e-005	4.2000e-004	3.0000e-005	4.5000e-004	1.2000e-004	3.0000e-005	1.5000e-004	0.0000	1.2603	1.2603	4.0000e-005	1.8000e-004	1.3156
Worker	6.0000e-004	5.0000e-004	6.5300e-003	2.0000e-005	1.9300e-003	1.0000e-005	1.9400e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.5964	1.5964	5.0000e-005	4.0000e-005	1.6105
Total	**7.3000e-004**	**3.8900e-003**	**7.6600e-003**	**3.0000e-005**	**2.3500e-003**	**4.0000e-005**	**2.3900e-003**	**6.3000e-004**	**4.0000e-005**	**6.7000e-004**	**0.0000**	**2.8568**	**2.8568**	**9.0000e-005**	**2.2000e-004**	**2.9261**

3.5 Paving - 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	9.1300e-003	0.0824	0.0971	1.6000e-004		4.0900e-003	4.0900e-003		3.8200e-003	3.8200e-003	0.0000	12.9951	12.9951	3.7300e-003	0.0000	13.0883
Paving	6.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	**9.7300e-003**	**0.0824**	**0.0971**	**1.6000e-004**		**4.0900e-003**	**4.0900e-003**		**3.8200e-003**	**3.8200e-003**	**0.0000**	**12.9951**	**12.9951**	**3.7300e-003**	**0.0000**	**13.0883**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	5.4000e-004	7.0200e-003	2.0000e-005	2.0700e-003	1.0000e-005	2.0800e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.7144	1.7144	5.0000e-005	5.0000e-005	1.7295
Total	**6.5000e-004**	**5.4000e-004**	**7.0200e-003**	**2.0000e-005**	**2.0700e-003**	**1.0000e-005**	**2.0800e-003**	**5.5000e-004**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**1.7144**	**1.7144**	**5.0000e-005**	**5.0000e-005**	**1.7295**

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	9.1300e-003	0.0824	0.0971	1.6000e-004		4.0900e-003	4.0900e-003		3.8200e-003	3.8200e-003	0.0000	12.9951	12.9951	3.7300e-003	0.0000	13.0882
Paving	6.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	**9.7300e-003**	**0.0824**	**0.0971**	**1.6000e-004**		**4.0900e-003**	**4.0900e-003**		**3.8200e-003**	**3.8200e-003**	**0.0000**	**12.9951**	**12.9951**	**3.7300e-003**	**0.0000**	**13.0882**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	5.4000e-004	7.0200e-003	2.0000e-005	2.0700e-003	1.0000e-005	2.0800e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.7144	1.7144	5.0000e-005	5.0000e-005	1.7295
Total	**6.5000e-004**	**5.4000e-004**	**7.0200e-003**	**2.0000e-005**	**2.0700e-003**	**1.0000e-005**	**2.0800e-003**	**5.5000e-004**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**1.7144**	**1.7144**	**5.0000e-005**	**5.0000e-005**	**1.7295**

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

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	1.5900e-003	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Unmitigated	1.5900e-003	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004

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

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

SubCategory	tons/yr										MT/yr					
Architectural Coating	2.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Total	**1.5900e-003**	**0.0000**	**2.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.0000**	**5.3000e-004**

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	2.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Total	**1.5900e-003**	**0.0000**	**2.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.0000**	**5.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

El Segundo (Ollie) - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

El Segundo (Ollie) Operations

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	116.76	1000sqft	2.68	116,760.00	0
Parking Lot	70.00	Space	0.63	28,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Operational only

Construction Phase - Operational only run

Off-road Equipment - Anticipated construction equipment

Off-road Equipment -

Demolition -

Grading -

Vehicle Trips - antipated trips for 5 employees

Energy Use - Estimated energy use

Fleet Mix - employee trips

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	0.53	141.74
tblFleetMix	HHD	8.0320e-003	0.00
tblFleetMix	LDA	0.55	1.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9120e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.3970e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.4000e-004	0.00
tblFleetMix	SBUS	6.9200e-004	0.00
tblFleetMix	UBUS	6.1700e-004	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.74	0.17
tblVehicleTrips	SU_TR	1.74	0.17
tblVehicleTrips	WD_TR	1.74	0.17

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0269	0.2576	0.2115	4.0000e-004	1.6400e-003	0.0124	0.0141	4.4000e-004	0.0116	0.0120	0.0000	35.3508	35.3508	9.5900e-003	4.0000e-005	35.6015
Maximum	**0.0269**	**0.2576**	**0.2115**	**4.0000e-004**	**1.6400e-003**	**0.0124**	**0.0141**	**4.4000e-004**	**0.0116**	**0.0120**	**0.0000**	**35.3508**	**35.3508**	**9.5900e-003**	**4.0000e-005**	**35.6015**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0269	0.2576	0.2115	4.0000e-004	1.6400e-003	0.0124	0.0141	4.4000e-004	0.0116	0.0120	0.0000	35.3508	35.3508	9.5900e-003	4.0000e-005	35.6015
Maximum	**0.0269**	**0.2576**	**0.2115**	**4.0000e-004**	**1.6400e-003**	**0.0124**	**0.0141**	**4.4000e-004**	**0.0116**	**0.0120**	**0.0000**	**35.3508**	**35.3508**	**9.5900e-003**	**4.0000e-005**	**35.6015**

	ROG	NOx	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	7-15-2022	9-30-2022	0.2845	0.2845
		Highest	0.2845	0.2845

2.2 Overall Operational

Date: 2/2/2022 6:00 PM

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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																
Energy																
Mobile																
Waste																
Water																
Total																

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																
Energy																
Mobile																
Waste																

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water																
Total																

	ROG	NOx	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	7/15/2022	8/11/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.63

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40

Trips and VMT

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**0.0000**	**0.0124**	**0.0124**	**0.0000**	**0.0116**	**0.0116**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

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

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Worker	5.1000e-004	4.3000e-004	5.5700e-003	1.0000e-005	1.6400e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3606	1.3606	4.0000e-005	4.0000e-005	1.3726
Total	**5.1000e-004**	**4.3000e-004**	**5.5700e-003**	**1.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6500e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3606**	**1.3606**	**4.0000e-005**	**4.0000e-005**	**1.3726**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**0.0000**	**0.0124**	**0.0124**	**0.0000**	**0.0116**	**0.0116**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

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

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Worker	5.1000e-004	4.3000e-004	5.5700e-003	1.0000e-005	1.6400e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3606	1.3606	4.0000e-005	4.0000e-005	1.3726
Total	**5.1000e-004**	**4.3000e-004**	**5.5700e-003**	**1.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6500e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3606**	**1.3606**	**4.0000e-005**	**4.0000e-005**	**1.3726**

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	4.8200e-003	5.5400e-003	0.0893	2.7000e-004	0.0340	2.0000e-004	0.0342	9.0200e-003	1.8000e-004	9.2000e-003	0.0000	25.2226	25.2226	6.4000e-004	6.2000e-004	25.4232
Unmitigated	4.8200e-003	5.5400e-003	0.0893	2.7000e-004	0.0340	2.0000e-004	0.0342	9.0200e-003	1.8000e-004	9.2000e-003	0.0000	25.2226	25.2226	6.4000e-004	6.2000e-004	25.4232

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	19.85	19.85	19.85	91,203	91,203
Total	19.85	19.85	19.85	91,203	91,203

4.3 Trip Type Information

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	16.60	8.40	6.90	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.0033
Unrefrigerated Warehouse-No Rail	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.0000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated																
Electricity Unmitigated																
NaturalGas Mitigated																
NaturalGas Unmitigated																

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0																
Unrefrigerated Warehouse-No Rail	454196																
Total																	

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					
Parking Lot	0																
Unrefrigerated Warehouse-No Rail	454196																
Total																	

5.3 Energy by Land Use - Electricity

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	9800				
Unrefrigerated Warehouse-No Rail	1.69664e+007				
Total					

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	9800				
Unrefrigerated Warehouse-No Rail	1.69664e+007				
Total					

6.0 Area Detail

6.1 Mitigation Measures Area

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated																
Unmitigated																

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																
Consumer Products																
Landscaping																
Total																

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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																
Consumer Products																
Landscaping																
Total																

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	70.9167	0.8851	0.0214	99.4246
Unmitigated	70.9167	0.8851	0.0214	99.4246

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0				
Unrefrigerated Warehouse-No Rail	27.0008 / 0				
Total					

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0				
Unrefrigerated Warehouse-No Rail	27.0008 / 0				
Total					

8.0 Waste Detail

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				
Unmitigated				

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0				
Unrefrigerated Warehouse-No Rail	109.75				
Total					

El Segundo (Ollie) Operations - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0				
Unrefrigerated Warehouse-No Rail	109.75				
Total					

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

APPENDIX B

ASSEMBLY BILL 52 COMMUNICATIONS

GABRIELENO BAND OF MISSION INDIANS - KIZH NATION
Historically known as The Gabrielino Tribal Council - San Gabriel Band of Mission Indians
recognized by the State of California as the aboriginal tribe of the Los Angeles basin

May 13, 2022

Project Name: 444 North Nash Street Data Center Project

Dear Eduardo Schonborn

Thank you for your letter dated May 9, 2022 regarding AB52 consultation. The above proposed project location is within our Ancestral Tribal Territory; therefore, our Tribal Government requests to schedule a consultation with you as the lead agency, to discuss the project and the surrounding location in further detail.

Please contact us at your earliest convenience. ***Please Note:AB 52, "consultation" shall have the same meaning as provided in SB 18 (Govt. Code Section 65352.4).***

Thank you for your time,

Andrew Salas, Chairman
Gabrieleno Band of Mission Indians – Kizh Nation
1(844)390-0787

City of El Segundo

Planning Division

June 20, 2022

[VIA EMAIL]

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas
P.O. Box 393
Covina, CA 91723

Re: 444 North Nash Street Data Center Project

Dear Mr. Salas,

Thank you for your prompt response to our notification of the proposed 444 North Nash Street Data Center Project (Amendment to EA-971) pursuant to Assembly Bill 52 (AB52). We understand based on your recent correspondence that you are not available for a consultation for this Project until June 30, 2022. Given the time constraints associated with the proposed Project, we are writing to ask if you would consider an alternative approach in lieu of having the consultation on June 30th. We propose for your consideration that the Applicant would agree to the mitigation measures outlined below, which are consistent with Gabrieleno Band of Mission Indians – Kizh Nation proposed TCR Mitigation Measures for another recent/ representative Los Angeles County project, subject to minor refinements as set forth below.

First, to provide proper context for the activities at 444 North Nash Street, there is currently ongoing work being performed pursuant to the previously approved 2013 T5 Data Center Expansion Project EA 971 (2013 Expansion project) Initial Study/Mitigated Negative Declaration (2013 IS/MND) (RBF Consulting, 2012).1 Particularly, there are four generators and associated site improvements currently being installed at the property's northeast portion, as part of the 2013 Expansion project. The 2013 Expansion project evaluated archaeological resources as part of the 2013 IS/MND and the 2013 IS/MND for the 2013 Expansion project concluded the following:

> *"The Project site has already been subject to extensive disruption and may contain artificial fill materials. Given the highly disturbed condition of the site, the potential for ground-disturbing activities to impact an as yet unidentified archeological resource is considered remote. Therefore, Project implementation would result in*

1 Per Sec 11(c), "This act shall apply only to a project that has a notice of preparation or a notice of negative declaration of mitigation negative declaration filed on or after July 1, 2015." The 2013 Expansion project's notice period ended January 2, 2013 (https://ceqanet.opr.ca.gov/2012121003), thus, is exempt from AB52 requirements.

a less than significant impact involving an adverse change in the significance of an archaeological resource."

The Amendment to EA-971 (current Project) enables the installation of an additional generator and also involves the siting of a drywell on the Project site's northwest corner. Although the property is fully developed, and the current Project site has already been subject to extensive disruption and may contain artificial fill materials associated with the 2013 Expansion project, as well as the property's original development, we desire to facilitate monitoring of the Project site, and thus, offer the measures provided below in lieu of consultation.

If you are in agreement with this alternative approach, please provide your comments to the suggested text refinements below. Otherwise, we will be prepared to consult with you on June 30th. We appreciate in advance your considering this alternative approach.

Sincerely,

Eduardo Schonborn, AICP
Planning Manager

Cc: Project File

TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities

A. The project applicant shall retain a Native American Monitor ("Monitor") from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground- disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching, where excavation exceeds 3.0 feet in depth.

B. A copy of the executed monitoring agreement shall be submitted to the ~~lead agency~~ City prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.

C. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground- disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/~~lead agency~~ City upon written request to the Tribe.

D. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.

E. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor ~~and/or Kizh archaeologist~~. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.

TCR-2: Unanticipated Discovery of Human Remains and Associated Funerary Objects

A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.

B. If Native American human remains and/or grave goods are discovered or recognized on the project site, then all construction activities shall immediately cease. Health and Safety Code Section 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and all ground-disturbing activities shall immediately halt and shall remain halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission, and Public Resources Code Section 5097.98 shall be followed.

C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).

D. Construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or burial goods, if the monitor determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Kizh monitor and/or archaeologist deems necessary). (CEQA Guidelines Section 15064.5(f).)

E. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods.

F. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

TCR-3: Procedures for Burials and Funerary Remains:

A. As the Most Likely Descendant (“MLD”), the Koo-nas-gna Burial Policy shall be implemented. To the Tribe, the term “human remains” encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains.

B. If the discovery of human remains includes four or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created.

C. The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects. Cremations will either be removed in bulk or by means as necessary to ensure complete recovery of all sacred materials.

D. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be

posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed.

E. In the event preservation in place is not possible despite good faith efforts by the project applicant/developer and/or landowner, before ground-disturbing activities may resume on the project site, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects.

F. Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.

G. The Tribe will work closely with the project's qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery-related forms of documentation shall be approved in advance by the Tribe. If any data recovery is performed, once complete, a final report shall be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains.

APPENDIX C

GEOTECHNICAL ENGINEERING REPORT

Geotechnical Engineering Report

El Segundo Data Center Addition
El Segundo, Los Angeles County, California
September 1, 2021
Terracon Project No. 60215198

Prepared for:
serverfarm
El Segundo, California

Prepared by:
Terracon Consultants, Inc.
Tustin, California

September 1, 2021

serverfarm
444 N. Nash Street
El Segundo, California 90245

Attn: Mr. Sam Brown
P: (314) 813-1489
E: sam@sfrdc.com

Re: Geotechnical Engineering Report
El Segundo Data Center Addition
444 N Nash Street
El Segundo, Los Angeles County, California
Terracon Project No. 60215198

Dear Mr. Brown:

We have completed the Geotechnical Engineering services for the above referenced project. This study was performed in general accordance with Terracon Proposal No. P60215198 dated July 23, 2021. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations and floor slabs for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report or if we may be of further service, please contact us.

Sincerely,
Terracon Consultants, Inc.

Ellie Nezhad

Ellie Nezhad, P.E.(TX)
Senior Staff Engineer

Scott G. Lawson, P.E., G.E.
Senior Engineer

APR review provided by F. Fred Buhamdan, P.E.

REGISTERED PROFESSIONAL ENGINEER
SCOTT G. LAWSON
No. GE 2829
Exp. 9/30/21
GEOTECHNICAL
STATE OF CALIFORNIA

REPORT TOPICS

Note: This report was originally delivered in a web-based format. **Orange Bold** text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the Terracon GeoReport logo will bring you back to this page. For more interactive features, please view your project online at client.terracon.com.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES
SITE LOCATION AND EXPLORATION PLANS
EXPLORATION RESULTS (Boring Logs, Laboratory Data, and Cone Penetration Test Data)
SUPPORTING INFORMATION (SHAFT Analyses, LPILE Soil Parameters, General Notes and Unified Soil Classification System)

Geotechnical Engineering Report

El Segundo Data Center Addition
444 N Nash Street
El Segundo, Los Angeles County, California

Terracon Project No. 60215198

September 1, 2021

INTRODUCTION

This report presents the results of our subsurface exploration and geotechnical engineering services performed for the proposed data center addition to be located at 444 N Nash Street in El Segundo, Los Angeles County, California. The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Groundwater conditions
- Site preparation and earthwork
- Infiltration Design and Considerations
- Foundation design and construction
- Floor slab design and construction
- Seismic site classification per CBC
- Pavement design and construction

The geotechnical engineering Scope of Services for this project included the advancement of four test borings to depths ranging from approximately 26½ to 51½ feet below existing site grades and three cone penetration test soundings (CPTs) to depths ranging from approximately 34 to 50 feet below existing site grades. Three of the borings were used for percolation testing.

Maps showing the site and boring locations are shown in the **Site Location** and **Exploration Plan** sections, respectively. The results of the laboratory testing performed on soil samples obtained from the site during the field exploration are included on the boring logs and as separate graphs in the **Exploration Results** section.

SITE CONDITIONS

The following description of site conditions is derived from our site visit in association with the field exploration.

Item	Description
Parcel Information	The project is located at 444 N Nash Street in El Segundo, Los Angeles County, California. Approximate coordinates for the center of the site are 33.9217°N, 118.3864°W.

Item	Description
Existing Improvements	The site is currently developed with an approximately 112,000 SF Data Center building situated in the center of the property. A concrete access driveway borders the building. A substation is located in the southeast corner of the site.
Current Ground Cover	Concrete driveways and parking areas. North of the existing building there is an area of asphalt concrete pavement. The border of the site is landscaped with grasses and shrubs.
Existing Topography	The site is relatively flat and has an approximate elevation ranging between 100 feet and 104 feet above mean sea level.

PROJECT DESCRIPTION

Item	Description
Provided Documents	Terracon was provided the following report: ■ Report of Geotechnical Investigation, Proposed T5-LA Data Center, 444 North Nash Street, El Segundo, California prepared by AMEC, Inc. dated September 8th, 2011.
Proposed Structures	The project includes the construction of a two-story building addition along the north side of the existing building. The addition is anticipated to match the height of the existing building, but the overall additional square footage is unknown at this time. Furthermore, ancillary electrical equipment is planned in the south area of the site.
Construction	■ Reinforced concrete superstructure and masonry walls supported on 18 to 30-inch diameter auger cast piles. ■ Electrical equipment supported on mat foundation system.
Finished Floor Elevation	Assumed to be within one foot of existing grade.
Maximum Loads[1]	■ Interior Columns: 884 kips ■ Exterior Columns: 442 kips ■ Walls: 5.2 kips per linear foot (klf) ■ Slabs: 575 pounds per square foot (psf) plus weight of slab
Grading	Minimal cut/fill – assumed to be less than one foot
Infiltration Systems	It is our assumption that infiltration systems are anticipated onsite. The location, type, and depth of these systems was not provided at the time of preparation of this report. Based on subsurface information, the site is underlain by fill and clayey soils in the upper 6½ feet. In our experience these soils will not be conducive to infiltration of stormwater. Based on this, our experience, and given the footprint of the building, deep drywell systems are anticipated.
Pavements	It is our understanding that new pavements will be constructed and are included in this project.

Item	Description
Traffic Loading (assumed)	We assume both rigid (concrete) and flexible (asphalt) pavement sections should be considered. Anticipated traffic is as follows: ■ Automobile Parking Area: Traffic Index of 4.5 ■ Driving Lanes: Traffic Index of 5.5

1. Provided by the client.

GEOTECHNICAL CHARACTERIZATION

We have developed a general characterization of the subsurface soil and groundwater conditions based upon our review of the data and our understanding of the geologic setting and planned construction. The following table provides our geotechnical characterization.

The geotechnical characterization forms the basis of our geotechnical calculations and evaluation of site preparation, foundation options and pavement options. As noted in **General Comments**, the characterization is based upon widely spaced exploration points across the site, and variations are likely.

Stratum	Approximate Depth to Bottom of Stratum (feet)	Material Description	Consistency/Density
Surface	7 to 8½ inches thickness	Concrete	N/A
	5 to 6 inches thickness	Aggregate Base	
1	4 to 6½	Fill (SM and SP-SM)	Loose to medium dense
2	10 [1]	SM	Loose
3	15 to 20	CL	Stiff to very stiff
4	51.5	SM, SP, SP-SM	Medium dense to very dense

1. Encountered in Boring B-1

Conditions encountered at each boring location are indicated on the individual boring logs shown in the **Exploration Results** section and are attached to this report. Stratification boundaries on the boring logs represent the approximate location of changes in native soil types; in situ, the transition between materials may be gradual.

Lab Results

Laboratory tests were conducted on selected soil samples and the test results are presented in the **Exploration Results** section and on the boring logs. Atterberg limit test results indicate that the on-site soils generally have low to medium plasticity. A consolidation test indicates that the sandy fil materials encountered at an approximate depth of 2½ to 4 feet bgs have a low collapse potential when saturated under normal footing loads of 2,000 psf. A direct shear test performed

on a sample taken at boring B-3 at a depth of 2½ feet bgs indicates the soil tested has a cohesion of approximately 560 psf and effective friction angle of 35°.

Thermal Resistivity Testing

Terracon subcontracted Geotherm USA to perform the laboratory thermal resistivity testing on a soil sample obtained from B-1 at an approximate depth 1 to 2½ feet bgs. To estimate thermal properties of the soils, the sample from B-1 was remolded to 90 percent relative compaction and moisture conditioned to the optimum moisture content as determined by ASTM Standard D1557. Thermal testing was performed in accordance with the IEEE Standard (IEEE-442).

We recommend that the thermal resistivity results be discussed with an electrical design team to determine the influence on underground equipment and backfill materials. The laboratory thermal resistivity test results will be issued in a separate letter.

Groundwater

Groundwater was not observed in the borings while drilling, or for the short duration the boring remained open. These observations represent groundwater conditions at the time of the field exploration and may not be indicative of other times, or at other locations.

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff and other factors not evident at the time the borings were performed. Therefore, groundwater levels during construction or at other times in the life of the structure may be higher or lower than the levels indicated on the boring logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

According to data collected from the Los Angeles County Public Works Water Data Library for the State of California from well number 1318E, located ½ mile south of the site, the highest groundwater elevation level, between October 12, 1988 and October 17, 2008, was recorded at greater than 100 feet bgs. [1]

SEISMIC CONSIDERATIONS

The 2019 California Building Code (CBC) Seismic Design Parameters have been generated using the SEAOC/OSHPD Seismic Design Maps Tool. This web-based software application calculates seismic design parameters in accordance with ASCE 7-16, and 2019 CBC. The 2019 CBC requires that a site-specific ground motion study be performed in accordance with Section 11.4.8 of ASCE 7-16 for Site Class D sites with a mapped S_1 value greater than or equal 0.2.

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[1] *Groundwater elevation was obtained from a monitoring well (well id: 3S14W18C01) located at a distance of approximately ½ mile south of the project site (www.dpw.lacounty.gov/general/wells#).*

However, Section 11.4.8 of ASCE 7-16 includes an exception from such analysis for specific structures on Site Class D sites. The commentary for Section 11 of ASCE 7-16 (Page 534 of Section C11 of ASCE 7-16) states that "In general, this exception effectively limits the requirements for site-specific hazard analysis to very tall and or flexible structures at Site Class D sites." Based on our understanding of the proposed structures, it is our assumption that the exception in Section 11.4.8 applies to the proposed structure. However, the structural engineer should verify the applicability of this exception.

Based on this exception, the spectral response accelerations presented below were calculated using the site coefficients (F_a and F_v) from Tables 1613.2.3(1) and 1613.2.3(2) presented in Section 16.4.4 of the 2019 CBC.

Description	Value
2019 California Building Code Site Classification (CBC) [1]	D [2]
Site Latitude (°N)	33.9217
Site Longitude (°W)	118.3864
S_s Spectral Acceleration for a 0.2-Second Period	1.85
S_1 Spectral Acceleration for a 1-Second Period	0.651
F_a Site Coefficient for a 0.2-Second Period	1.0
F_v Site Coefficient for a 1-Second Period	1.7

1. Seismic site classification in general accordance with the *2019 California Building Code*.
2. The 2019 California Building Code (CBC) requires a site soil profile determination extending to a depth of 100 feet for seismic site classification. The current scope does not include the required 100-foot soil profile determination. Borings and CPTs were extended to a maximum depth of 51½ feet, and this seismic site class definition considers that similar or denser soils continue below the maximum depth of the subsurface exploration. Additional exploration to deeper depths would be required to confirm the conditions below the current depth of exploration.

Typically, a site-specific ground motion study will generate less conservative coefficients and acceleration values which may reduce construction costs. We recommend consulting with a structural engineer to evaluate the need for such study and its potential impact on construction costs. Terracon should be contacted if a site-specific ground motion study is desired.

Faulting and Estimated Ground Motions

The site is located in southern California, which is a seismically active area. The type and magnitude of seismic hazards affecting the site are dependent on the distance to causative faults, the intensity, and the magnitude of the seismic event. As calculated using the USGS Unified Hazard Tool, the Newport-Inglewood fault, which is considered to have the most significant effect at the site from a design standpoint, has a maximum credible earthquake magnitude of 6.71 and is located approximately 5.7 kilometers from the site.

Based on the USGS Design Maps Summary Report, using the American Society of Civil Engineers (ASCE 7-16) standard, the peak ground acceleration (PGA_M) at the project site is expected to be 0.877 g. Based on the USGS Unified Hazard Tool, the project site has a mode magnitude of 6.34. Furthermore, the site is not located within an Alquist-Priolo Earthquake Fault Zone based on our review of the State Fault Hazard Maps.[2]

LIQUEFACTION

Liquefaction is a mode of ground failure that results from the generation of high pore water pressures during earthquake ground shaking, causing loss of shear strength. Liquefaction is typically a hazard where loose sandy soils exist below groundwater. The California Geological Survey (CGS) has designated certain areas as potential liquefaction hazard zones. These are areas considered at a risk of liquefaction-related ground failure during a seismic event, based upon mapped surficial deposits and the presence of a relatively shallow water table.

The project site is not located within a liquefaction hazard zone as designated by the CGS. Based on CGS maps and the anticipated depth to groundwater, liquefaction hazard potential at the site is considered low. Other geologic hazards related to liquefaction, such as lateral spreading, are therefore also considered low.

DRY SEISMIC SETTLEMENT ANALYSIS

The dry seismic settlement analysis for the site was performed in general accordance with the DMG Special Publication 117. The seismic settlement analysis utilized the software "LiquefyPro" by CivilTech Software and boring B-1. A Peak Ground Acceleration (PGA) of 0.88 g and the mean magnitude of 6.3 for the project site were used. Calculations utilized the historical high groundwater depth based on the available data. Settlement analysis used the Ishihara/Yoshimine method and the fines percentage were corrected for liquefaction using the Stark/Olson method.

Based on calculation results, seismically induced settlement of unsaturated sands is estimated to be between ½ and ¾ inches. Differential seismic settlement is anticipated to be less than ½ of an inch. The detailed analysis and results are attached to this report in **Supporting Documents** section of the **Appendix**.

CORROSIVITY

The table below lists the results of laboratory soluble sulfate, soluble chloride, electrical resistivity, and pH testing. The values may be used to estimate potential corrosive characteristics of the on-

[2] California Geological Survey (CGS), https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/.

site soils with respect to contact with the various underground materials which will be used for project construction.

Corrosivity Test Results Summary						
Boring	**Sample Depth (ft)**	**Soil Description**	**Soluble Sulfate (%)**	**Chlorides (ppm)**	**Electrical Resistivity (Ω-cm)**	**pH**
B-4	0-2.5	Silty Sand	0.0489	121	1,800	7.3

Results of soluble sulfate testing indicate samples of the on-site soils tested possess negligible sulfate concentrations when classified in accordance with Table 19.3.1.1 of the ACI Design Manual. Concrete should be designed in accordance with the exposure class S0 provisions of the ACI Design Manual, Section 318, Chapter 19.

STORMWATER MANAGEMENT

Three (3) in-situ percolation tests were performed to approximate depths of 15 to 25 feet or 20 to 30 feet bgs. A 2-inch thick layer of gravel was placed in the bottom of each boring after the borings were drilled to investigate the soil profile. A 3-inch diameter perforated pipe was installed on top of the gravel layer in each boring. Gravel was used to backfill between the perforated pipes and the boring sidewall. The borings were then filled with water for a pre-soak period of 24 hours. Testing began after a pre-soak period. At the beginning of the test, the pipes were refilled with water and readings were taken at standardized time intervals. Percolation rates are provided in the following table:

TEST RESULTS				
Test Location (depth, feet bgs)	**Soil Classification**	**Slowest Measured Percolation Rate (in/hr.)**	**Correlated Infiltration Rate[1] (in/hr.)**	**Water Head (in)**
B-1 (15 to 25 ft)	Sandy Lean Clay	>500	54	102
B-2 (15 to 25 ft)	Silty Sand	>500	56	18
B-4 (20 to 30 ft)	Silty Sand	>500	>100	84

1. If proposed infiltration system will mainly rely on vertical downward seepage, the correlated infiltration rates should be used.

The field test results are not intended to be design rates. They represent the result of our tests, at the depths and locations indicated, as described above. The design rate should be determined by the designer by applying an appropriate factor of safety. Based on the County of Los Angeles

Department of Public Works GS200.2 document, the following reduction factors are recommended:

LA County Reduction Factor	Value
RF_t	2
RF_v	1
RF_s	2
RF, Total Reduction Factor $RF=RF_t x RF_v x RF_s$	4

With time, the bottoms of infiltration systems tend to plug with organics, sediments, and other debris. Long term maintenance will likely be required to remove these deleterious materials to help reduce decreases in actual percolation rates.

The percolation tests were performed with clear water, whereas the storm water will likely not be clear, but may contain organics, fines, and grease/oil. The presence of these deleterious materials will tend to decrease the rate that water percolates from the infiltration systems. Design of the storm water infiltration systems should account for the presence of these materials and should incorporate structures/devices to remove these deleterious materials.

Based on the soils encountered in our borings, we expect the percolation rates of the soils could be different than measured in the field due to variations in fines and gravel content. The design elevation and size of the proposed infiltration system should account for this expected variability in infiltration rates.

Infiltration testing should be performed after construction of the infiltration system to verify the design infiltration rates. It should be noted that siltation and vegetation growth along with other factors may affect the infiltration rates of the infiltration areas. The actual infiltration rate may vary from the values reported here. Infiltration systems should be located a minimum of 10 feet from any existing or proposed foundation system.

GEOTECHNICAL OVERVIEW

The site appears suitable for the proposed construction based upon geotechnical conditions encountered in the test borings, provided that the recommendations provided in this report are implemented in the design and construction phases of this project.

The proposed building addition may be supported on auger cast piles with conventional slab on grade floors. The proposed exterior equipment pad may be supported on a shallow mat foundation.

The recommendations contained in this report are based upon the results of field and laboratory testing (presented in the **Exploration Results** section), engineering analyses, and our current understanding of the proposed project.

The **General Comments** section provides an understanding of the report limitations.

EARTHWORK

The following recommendations include site preparation, excavation, subgrade preparation and placement of engineered fills on the project. The recommendations presented for design and construction of earth supported elements including foundations, slabs, and pavements are contingent upon following the recommendations outlined in this section.

Earthwork on the project should be observed and evaluated by Terracon. The evaluation of earthwork should include observation and testing of engineered fill, subgrade preparation, foundation bearing soils, and other geotechnical conditions exposed during the construction of the project.

Site Preparation

Strip and remove existing vegetation and pavements and other deleterious materials from proposed building and pavement areas. Exposed surfaces should be free of mounds and depressions which could prevent uniform compaction. The site should be initially graded to create a relatively level surface to receive fill and provide for a relatively uniform thickness of fill beneath proposed building structures.

Our explorations indicate the site has approximately 4 to 6½ feet of fill material across the site. The fill soils consist of silty sand with trace gravel. Terracon does not have any documentation to show if the fill placement or grading operations were inspected and if fill compaction was tested. However, the field penetration test results and the in-situ dry density laboratory results for borings within the proposed footprint of the structural additions indicate that the fill materials encountered have received good compaction efforts during construction.

Although no evidence of utilities, or underground facilities such as septic tanks, cesspools, basements, and utilities was observed during the site reconnaissance, such features could be encountered during construction. If unexpected fills, utilities, or underground facilities are encountered, such features should be removed, and the excavation thoroughly cleaned prior to backfill placement and/or construction.

Subgrade Preparation

We recommend that the fill materials in the area of the equipment pad foundation be removed and recompacted to a minimum depth of 2 feet below bottom of proposed foundations. Considering that the proposed building addition will be supported on deep foundations, fill

materials below the building addition interior slab on-grade should be removed to a depth of 2 feet below bottom of slab. Fill materials encountered on site may be re-used as engineered fill provided any deleterious materials are removed.

Exposed areas which will receive fill, once properly cleared and benched where necessary, should be scarified to a minimum depth of 10 inches, moisture conditioned, and compacted per the compaction requirements in this report.

Areas of exterior slabs and pavement should be scarified to a minimum depth of 10 inches, moisture conditioned, and compacted per the compaction requirements in this report. However, it should be noted there is an inherent risk for the owner to support pavements and flatwork over existing fill materials. Also, compressible fill or unsuitable material may exist within or buried by the fill which may not be discovered during construction. This risk of unforeseen conditions cannot be eliminated without completely removing the existing fill.

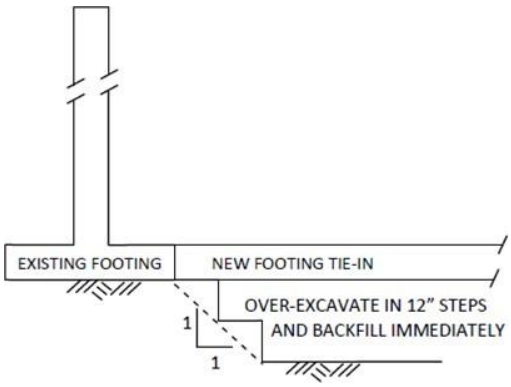
Based upon the subsurface conditions determined from the geotechnical exploration, subgrade soils exposed during construction are anticipated to be relatively workable. However, the workability of the subgrade may be affected by precipitation, repetitive construction traffic or other factors. If unworkable conditions develop, workability may be improved by scarifying and drying.

Excavation

It is anticipated that excavations for the proposed construction can be accomplished with conventional earthmoving equipment.

The bottom of excavations should be thoroughly cleaned of loose soils and disturbed materials prior to backfill placement and/or construction.

If new foundations are constructed adjacent to the existing foundations, there is a risk that the bearing material could become undermined and/or overstressed due to overlapping stresses. Provisions should be made during construction to prevent undermining or disturbing the soils supporting the existing foundations. Excavations should not extend below an imaginary 1H:1V inclined plane projecting below the bottom edge of any adjacent existing foundations as shown in the figure to the right.



Maintaining a sufficient clear distance between new and existing foundations will reduce the potential for increased bearing stresses and additional foundation settlement. Connections between the existing building and the new addition should allow for some differential movement.

Onsite soils partially consist of cohesionless sandy soils. Such soils have the tendency to cave and slough during excavations. Therefore, formwork may be needed for some foundation excavations.

Individual contractors are responsible for designing and constructing stable, temporary excavations. Excavations should be sloped or shored in the interest of safety following local, and federal regulations, including current OSHA excavation and trench safety standards.

Fill Materials and Placement

All fill materials should be inorganic soils free of vegetation, debris, and fragments larger than 6 inches in size. Pea gravel or other similar non-cementatious, poorly-graded materials should not be used as fill or backfill without the prior approval of the geotechnical engineer.

Clean on-site sandy soils and fill materials or approved imported materials may be used as fill material for the following:

- general site grading
- foundation areas
- interior floor slab areas
- foundation backfill
- pavement areas

Existing fill materials are underlain by lean clay soils with expected expansion potential. Such materials should not be used in structural areas but may be blended with sandy soils such that the resulting materials conform with the low volume change materials specifications provided in this report.

Imported soils for use as fill material within proposed building and structure areas should conform to low volume change materials as indicated in the following specifications:

Gradation	**Percent Finer by Weight (ASTM C 136)**
3”	100
No. 4 Sieve	50-100
No. 200 Sieve	10-40

- Liquid Limit ..... 30 (max)
- Plasticity Index..... 15 (max)
- Maximum expansion index* ..... 20 (max)

*ASTM D 4829

The contractor shall notify the Geotechnical Engineer of import sources sufficiently ahead of their use so that the sources can be observed and approved as to the physical characteristic of the import material. For all import material, the contractor shall also submit current verified reports from a recognized analytical laboratory indicating that the import has a "not applicable" (Class S0)

potential for sulfate attack based upon current ACI criteria and is "mildly corrosive" to ferrous metal and copper. The reports shall be accompanied by a written statement from the contractor that the laboratory test results are representative of all import material that will be brought to the job.

Engineered fill should be placed and compacted in horizontal lifts, using equipment and procedures that will produce recommended moisture contents and densities throughout the lift. Fill lifts should not exceed 10 inches loose thickness.

Compaction Requirements

Recommended compaction and moisture content criteria for engineered fill materials are as follows:

Material Type and Location	Per the Modified Proctor Test (ASTM D 1557)		
	Minimum Compaction Requirement	Range of Moisture Contents for Compaction Above Optimum	
		Minimum	Maximum
Onsite sandy soil/fill materials or approved imported fill soils:			
Beneath foundations:	90%	0%	+4%
Beneath slabs:	90%	0%	+4%
Utility trenches (pavement and structural areas)*:	90%	0%	+4%
On-site native soils			
Beneath asphalt pavements:	95%	+2%	+5%
Beneath concrete pavements:	95%	+2%	+5%
Utility trenches (Landscape areas):	90%	+2%	+5%
Exterior Slabs:	90%	+2%	+5%
Miscellaneous backfill:	90%	+2%	+5%
Aggregate base (beneath pavements):	95%	0%	+4%

* Upper 12 inches should be compacted to 95% within pavement and structural areas. Low-volume change imported soils should be used in structural areas.

Grading and Drainage

Positive drainage should be provided during construction and maintained throughout the life of the development. Infiltration of water into utility trenches or foundation excavations should be prevented during construction. Planters and other surface features which could retain water in areas adjacent to the building or pavements should be sealed or eliminated. In areas where sidewalks or paving do not immediately adjoin the structure, we recommend that protective slopes be provided with a minimum grade of approximately 5 percent for at least 10 feet from perimeter walls. Backfill against footings, exterior walls, and in utility and sprinkler line trenches should be well compacted and free of all construction debris to reduce the possibility of moisture infiltration.

We recommend a minimum horizontal setback distance of 10 feet from the perimeter of any building and the high-water elevation of the nearest storm-water infiltration system. Roof drainage should discharge into splash blocks or extensions when the ground surface beneath such features is not protected by exterior slabs or paving. Sprinkler systems and landscaped irrigation should not be installed within 5 feet of foundation walls.

Utility Trenches

It is anticipated that the on-site soils and fill materials will provide suitable support for underground utilities and piping that may be installed. Any soft and/or unsuitable material encountered at the bottom of excavations should be removed and be replaced with an adequate bedding material. A non-expansive granular material with a sand equivalent greater than 30 should be used for bedding and shading of utilities, unless allowed or specified otherwise by the utility manufacturer.

On-site materials are considered suitable for backfill of utility and pipe trenches from one foot above the top of the pipe to the final ground surface, provided the material is free of organic matter and deleterious substances. Imported low volume change soils should be used for trench backfill in structural areas.

Trench backfill should be mechanically placed and compacted as discussed earlier in this report. Compaction of initial lifts should be accomplished with hand-operated tampers or other lightweight compactors. Where trenches are placed beneath slabs or footings, the backfill should satisfy the gradation and expansion index requirements of engineered fill discussed in this report. Flooding or jetting for placement and compaction of backfill is not recommended.

Construction Considerations

Upon completion of filling and grading, care should be taken to maintain the subgrade moisture content prior to construction of floor slabs and pavements. Construction traffic over the completed subgrade should be avoided to the extent practical. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. If the subgrade should become desiccated, saturated, or disturbed, the affected material should be removed or these materials should be scarified, moisture conditioned, and recompacted prior to floor slab and pavement construction.

We recommend that the earthwork portion of this project be completed during extended periods of dry weather if possible. If earthwork is completed during the wet season (typically November through April) it may be necessary to take extra precautionary measures to protect subgrade soils. Wet season earthwork operations may require additional mitigative measures beyond that which would be expected during the drier summer and fall months. This could include diversion of surface runoff around exposed soils and draining of ponded water on the site. Once subgrades are established, it may be necessary to protect the exposed subgrade soils from construction traffic.

Construction Observation and Testing

The geotechnical engineer should be retained during the construction phase of the project to observe earthwork and to perform necessary tests and observations during subgrade preparation, proof-rolling, placement and compaction of controlled compacted fills, backfilling of excavations to the completed subgrade.

The exposed subgrade and each lift of compacted fill should be tested, evaluated, and reworked as necessary until approved by the Geotechnical Engineer prior to placement of additional lifts. Each lift of fill should be tested for density and water content at a frequency of at least one test for every 2,500 square feet of compacted fill in the building areas and 5,000 square feet in pavement areas. One density and water content test for every 50 linear feet of compacted utility trench backfill. This testing frequency criteria may be adjusted during construction as specified by the geotechnical engineer of record.

In areas of foundation excavations, the bearing subgrade should be evaluated under the direction of the Geotechnical Engineer. In the event that unanticipated conditions are encountered, the Geotechnical Engineer should prescribe mitigation options.

In addition to the documentation of the essential parameters necessary for construction, the continuation of the Geotechnical Engineer into the construction phase of the project provides the continuity to maintain the Geotechnical Engineer's evaluation of subsurface conditions, including assessing variations and associated design changes.

SHALLOW FOUNDATIONS

If the site has been prepared in accordance with the requirements noted in **Earthwork**, the following design parameters are applicable for shallow foundations.

DESCRIPTION	RECOMENDATION
Foundation Type	Mat foundation for exterior equipment pad
Bearing Material[1]	Engineered fill extending to a minimum depth of 3 feet below the bottom of foundations.
Allowable Bearing Pressure[5]	■ 2,400 psf for foundation widths up to 10 feet ■ 1,500 psf for foundation widths up to 20 feet ■ 1,200 psf for foundation widths up to 30 feet ■ 1,100 psf for foundation widths up to 40 feet
Modulus of Subgrade Reaction, k_{v1}[2]**, for a small loaded area (1 Sq. ft or less)**	200 pci
Modulus Correction Factor	$k_v = k_{v1} [(B+1)/2B)]^2$
Minimum Embedment Depth Below Finished Grade	12 inches

DESCRIPTION	RECOMENDATION
Total Estimated Static Settlement[3,4]	1 inch

1. Unsuitable or soft soils should be over-excavated and replaced per the recommendations presented in the Earthwork.
2. k_{v1} values should be reduced to account for dimensional effects of large loaded areas, where k_v is the corrected modulus value and B is the mat width in feet
3. Settlement calculations were performed utilizing Westergaard and Hough's methods[3] to estimate the static settlement for the assumed foundation dimensions.
4. Differential settlements are estimated to be 50% of total static settlement.
5. Bearing pressures for various foundation widths were based on allowable settlement tolerance of 1 inch.

Finished grade is defined as the lowest adjacent grade within five feet of the foundation for perimeter (or exterior) footings.

The allowable foundation bearing pressure applies to dead loads plus design live load conditions. The design bearing pressure may be increased by one-third when considering total loads that include wind or seismic conditions. The weight of the foundation concrete below grade may be neglected in dead load computations.

Foundations should be reinforced as necessary to reduce the potential for distress caused by differential foundation movement. Foundation excavations should be observed by the geotechnical engineer. If the soil conditions encountered differ significantly from those presented in this report, supplemental recommendations will be required.

DEEP FOUNDATIONS

The proposed building addition may be supported on auger cast piles. Design recommendations for foundations for the proposed structure and related structural elements are presented in the following paragraphs.

Auger Cast Pile Design Recommendations

Total required embedment of the piles should be determined by the structural engineer based on structural loading and parameters provided in this report.

The allowable end bearing and side friction components of resistance were evaluated and are presented in the graphs provided in the **Supporting Documents** section of this report. The allowable total downward capacity is based on a factor of safety of 2.5 for side resistance and 3.0 for end bearing. The depth below ground surface indicated in the attached graphs is referenced from the existing ground surface at the site at the time of the field exploration. The upper 2 feet of

[3] FHWA Geotechnical Engineering Circular No. 6 – Shallow Foundations, FHWA-SA-02-054.

soil was ignored in our analysis to account for disturbance around the pile near the ground surface. The capacity presented is based on a minimum pile spacing of 3 pile diameters. Allowable tension capacity may be taken as 60 percent of the allowable Side Resistance capacity shown in the graph, plus the weight of the pile. The anticipated vertical deflection (settlement) at the pile top under allowable compressive service loads is estimated to be less than 0.5 inch.

The required depths of pile embedment should also be determined for design lateral loads and overturning moments to determine the most critical design condition. We anticipate that lateral load analyses of the pile foundations will be performed by the project designer/structural engineer based on the subsurface data presented in this report. In order to aid in the foundation analyses, Terracon has developed a soil profile for use in the computer program LPILE and GROUP produced by Ensoft, Inc. The soil profile is provided in the **Supporting Documents** section of this report.

If piles are spaced closer than 6 pile diameters, the group reduction factors provided in the following table should be applied to reduce pile lateral capacity.

Lateral Capacity Reduction Factors for Group Effects			
Pile Center-to-Center Spacing (in the direction of loading)	**Group Efficiency Factor (P-Multiplier)**		
	Row 1	**Row 2**	**Row 3 and higher**
3 x Pile Diameter (B)	0.75	0.55	0.40
5 B	1.00	0.85	0.70
6 B	1.00	1.00	1.00

It should be noted that the load capacities provided herein are based on the stresses induced in the supporting soils. The structural capacity of the shafts should be checked to assure that they can safely accommodate the combined stresses induced by axial and lateral forces. Furthermore, the response of the auger cast piles to lateral loads is dependent upon the soil/structure interaction as well as the shaft's actual diameter, length, stiffness and "fixity" (fixed or free-head condition). The lateral load design parameters are valid within the elastic range of the soil.

Auger Cast Pile Construction Considerations

An auger-cast pile is formed by drilling to an appropriate predetermined depth with a continuous-flight, hollow-stem auger. Cement grout is then pumped down the stem of the auger under high pressure as the auger is withdrawn. Reinforcing should be lowered into the unset concrete column to provide lateral and/or tension capabilities. The actual volume of grout required to fill an auger-cast pile borehole should be no less than 115 percent of the nominal pile volume. Reinforcement should be installed as soon after the auger has been withdrawn as possible. Steel reinforcement cages should extend the full length of the augur cast piles, with spacers and centralizers employed to ensure proper alignment.

Drilling to design depths should be possible with conventional single flight power augers. However, due to the presence of very dense materials at the site (based on refusal during cone penetration testing), consideration should be given to obtaining a unit price for difficult excavation in the contract documents for the project. Because auger-cast piles are drilled, obstacles such as concrete or rocks in the subsurface can cause difficult installation conditions. If obstacles are encountered during drilling, the piles may require relocation at the time of construction.

Only competent drilling contractors with experience in the installation of auger-cast piles in similar soil and ground-water conditions should be considered for the pile construction. We recommend a minimum spacing for all piles of three-pile diameters center to center. Adjacent piles, which are located within five-pile diameters of each other, should be allowed to set for at least 18 hours prior to drilling the second pile.

We recommend that all pile installations be observed on a full-time basis by an experienced geotechnical engineer in order to evaluate that the soils encountered are consistent with the recommended design parameters. If the subsurface soil conditions encountered differ significantly from those presented in this report, supplemental recommendations will be required.

FLOOR SLABS

DESCRIPTION	RECOMMENDATION
Interior floor system	Slab-on-grade concrete
Floor slab support	Engineered fill extending to a minimum depth of 2 feet below the bottom of floor slabs..
Subbase	Minimum 4-inches of Aggregate Base
Modulus of subgrade reaction[1]	160 pounds per square inch per inch (psi/in) (The modulus was obtained based on estimates obtained from NAVFAC 7.1 design charts). This value is for a small loaded area (1 Sq. ft or less) such as for forklift wheel loads or point loads and should be adjusted for larger loaded areas.
Modulus of subgrade reaction for racking posts with up to 40 kip loads	80 psi/in (The modulus was obtained based on engineered fill, aggregate sub-base)
Modulus Correction Factor[1]	$k_v = k_{v1}\,[(B+1)/2B)]^2$

1. k_{v1} values should be reduced to account for dimensional effects of large loaded areas, where k_v is the corrected modulus value and B is the mat width in feet.

The use of a vapor retarder should be considered beneath concrete slabs on grade covered with wood, tile, carpet, or other moisture sensitive or impervious coverings, or when the slab will support equipment sensitive to moisture. When conditions warrant the use of a vapor retarder,

the slab designer should refer to ACI 302 and/or ACI 360 for procedures and cautions regarding the use and placement of a vapor retarder.

Saw-cut control joints should be placed in the slab to help control the location and extent of cracking. For additional recommendations refer to the ACI Design Manual. Joints or cracks should be sealed with a water-proof, non-extruding compressible compound specifically recommended for heavy duty concrete pavement and wet environments.

Where floor slabs are tied to perimeter walls or turn-down slabs to meet structural or other construction objectives, our experience indicates differential movement between the walls and slabs will likely be observed in adjacent slab expansion joints or floor slab cracks beyond the length of the structural dowels. The Structural Engineer should account for potential differential settlement through use of sufficient control joints, appropriate reinforcing or other means.

PAVEMENTS

General Pavement Comments

Pavement designs are provided for the traffic conditions and pavement life conditions as noted in **Project Description** and in the following sections of this report. A critical aspect of pavement performance is site preparation. Pavement designs noted in this section must be applied to the site which has been prepared as recommended in the **Earthwork** section.

Pavement Design Parameters

An estimated design R-Value was used to calculate the asphalt concrete pavement thickness sections and the Portland cement concrete pavement sections. R-value testing should be completed prior to pavement construction to verify the design R-value.

Assuming the pavement subgrades will be prepared as recommended within this report, the following pavement sections should be considered minimums for this project for the traffic indices assumed in the table below. As more specific traffic information becomes available, we should be contacted to reevaluate the pavement calculations.

Pavement Section Thicknesses

The following table provides options for AC and PCC Sections:

	Recommended Pavement Section Thickness (inches) [1]	
	Light (Automobile) Parking Assumed Traffic Index (TI) = 4.5	**On-site Driveways and Delivery Areas Assumed TI = 5.5**
Section I Portland Cement Concrete	5.0-inches PCC over 4-inches Class II Aggregate Base	6.0-inches PCC over 4-inches Class II Aggregate Base

	Recommended Pavement Section Thickness (inches) [1]	
	Light (Automobile) Parking Assumed Traffic Index (TI) = 4.5	**On-site Driveways and Delivery Areas Assumed TI = 5.5**
(600 psi Flexural Strength)		
Section II Asphaltic Concrete	3-inches AC over 5-inches Class II Aggregate Base	3-inches AC over 7-inches Class II Aggregate Base

1. All materials should meet the CALTRANS Standard Specifications for Highway Construction.

These pavement sections are considered minimal sections based upon the expected traffic and the existing subgrade conditions. However, they are expected to function with periodic maintenance and overlays if good drainage is provided and maintained.

Subsequent to clearing, grubbing, and removal of topsoil, subgrade soils beneath all pavements should be scarified, moisture conditioned, and compacted to a minimum depth of 10 inches. All materials should meet the CALTRANS Standard Specifications for Highway Construction. Aggregate base materials should meet the gradation and quality requirement of Class 2 Aggregate Base (¾ inch maximum) in Caltrans Standard Specifications, latest edition, Sections 25 through 29.

All concrete for rigid pavements should have a minimum flexural strength of 600 psi (4,250 psi Compressive Strength) and be placed with a maximum slump of four inches. Proper joint spacing will also be required to prevent excessive slab curling and shrinkage cracking. All joints should be sealed to prevent entry of foreign material and dowelled where necessary for load transfer.

Preventative maintenance should be planned and provided for through an on-going pavement management program in order to enhance future pavement performance. Preventative maintenance activities are intended to slow the rate of pavement deterioration, and to preserve the pavement investment.

Preventative maintenance consists of both localized maintenance (e.g. crack sealing and patching) and global maintenance (e.g. surface sealing). Preventative maintenance is usually the first priority when implementing a planned pavement maintenance program and provides the highest return on investment for pavements.

Pavement Construction Considerations

Materials and construction of pavements for the project should be in accordance with the requirements and specifications of the State of California Department of Transportation, or other approved local governing specifications.

Base course or pavement materials should not be placed when the surface is wet. Surface drainage should be provided away from the edge of paved areas to minimize lateral moisture transmission into the subgrade.

GENERAL COMMENTS

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Natural variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in this report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence or collaboration through this system are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. The findings and recommendations presented in this report were prepared in a manner consistent with the standards of care and skill ordinarily exercised by members of its profession completing similar studies and practicing under similar conditions in the geographic vicinity and at the time these services have been performed. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly impact excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety, and cost estimating including, excavation support, and dewatering requirements/design are the responsibility of others. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES

Field Exploration

Advancement Technique	Quantity	Depth (feet)	Location
Hollow Stem Auger Boring	4	26½ to 51½ feet	General site area
Cone Penetration Test (CPT)	3	34 to 50 feet	

Boring Layout and Elevations: Unless otherwise noted, Terracon personnel provided the boring layout. Coordinates were obtained with a handheld GPS unit (estimated horizontal accuracy of about ±10 feet). If elevations and a more precise boring layout are desired, we recommend borings be surveyed following completion of fieldwork.

Subsurface Exploration Procedures: We advanced the borings with a truck-mounted drill rig using continuous hollow stem flight augers. Four samples were obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter. Soil sampling was performed using split-barrel sampling procedures. In the split-barrel sampling procedure, a standard 2-inch outer diameter split-barrel sampling spoon is driven into the ground by a 140-pound automatic hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration is recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths. A 2.5-inch O.D. split-barrel Modified California sampling spoon with 2.0-inch I.D. tube lined sampler was also used for sampling. The Modified California split-barrel sampling procedures are similar to standard split spoon sampling procedure; however, blow counts are typically recorded for 6-inch intervals for a total of 12 inches of penetration. The samples were placed in appropriate containers, taken to our soil laboratory for testing, and classified by a geotechnical engineer. In addition, we observed and recorded groundwater levels during drilling and sampling. For safety purposes, all borings were backfilled with auger cuttings after their completion. Pavements were patched with cold-mix asphalt and/or pre-mixed concrete, as appropriate.

For the cone penetrometer testing, the CPT rig hydraulically pushes an instrumented cone through the soil while nearly continuous readings are recorded to a portable computer. The cone is equipped with electronic load cells to measure tip resistance and sleeve resistance and a pressure transducer to measure the generated ambient pore pressure. The face of the cone has an apex angle of 60° and an area of 15 cm^2. Digital Data representing the tip resistance, friction resistance, pore water pressure, and probe inclination angle are recorded about every 2 centimeters while advancing through the ground at a rate between 1½ and 2½ centimeters per second. These measurements are correlated to various soil properties used for geotechnical design. No soil samples are gathered through this subsurface investigation technique. CPT

testing was conducted in general accordance with ASTM D5778 “Standard Test Method for Performing Electronic Friction Cone and Piezocone Penetration Testing of Soils.”

The sampling depths, penetration distances, and other sampling information was recorded on the field boring logs. The samples were placed in appropriate containers and taken to our soil laboratory for testing and classification by a Geotechnical Engineer. Our exploration team prepared field boring logs as part of the drilling operations. These field logs included visual classifications of the materials encountered during drilling and our interpretation of the subsurface conditions between samples. Final boring logs were prepared from the field logs. The final boring logs represent the Geotechnical Engineer's interpretation of the field logs and include modifications based on observations and tests of the samples in our laboratory.

Laboratory Testing

The project engineer reviewed the field data and assigned laboratory tests to understand the engineering properties of the various soil strata, as necessary, for this project. Procedural standards noted below are for reference to methodology in general. In some cases, variations to methods were applied because of local practice or professional judgment. Standards noted below include reference to other, related standards. Such references are not necessarily applicable to describe the specific test performed.

- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D7263 Standard Test Methods for Laboratory Determination of Dry Density (Unit Weight) of Soil Specimens
- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM C136 Standard Test Methods for Determining the Amount of Material Finer than 75-µm (No. 200) Sieve in Soils by Washing
- ASTM D4546 Standard Test Methods for One-Dimensional Consolidation Properties of Soils Using Incremental Loading
- ASTM D3080 Standard Test Method for Direct Shear Test of Soils Under Consolidated Drained Conditions
- ASTM D1557 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort
- ASTM D5334 Standard Test Method for Determination of Thermal Conductivity of Soil and Soft Rock by Thermal Needle Probe Procedure
- Corrosivity Testing will include pH, chlorides, sulfates, sulfides, and electrical lab resistivity

The laboratory testing program included examination of soil samples by an engineer. Based on the material’s texture and plasticity, we described and classified the soil samples in accordance with the Unified Soil Classification System.

SITE LOCATION AND EXPLORATION PLANS

EXPLORATION PLAN

El Segundo Data Center ■ El Segundo, CA

August 26, 2021 ■ Terracon Project No. 60215198

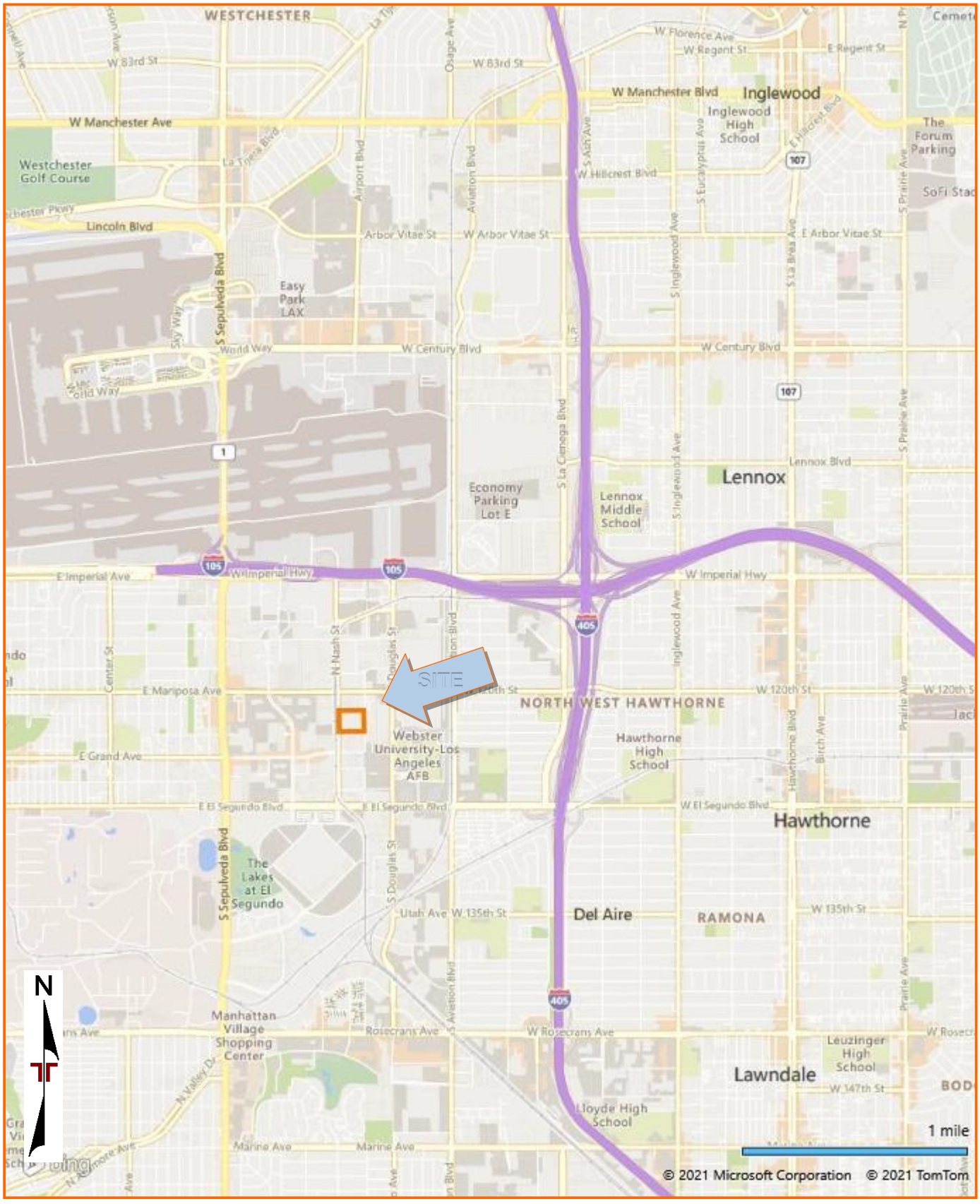


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

EXPLORATION PLAN

El Segundo Data Center ■ El Segundo, CA
August 31, 2021 ■ Terracon Project No. 60215198

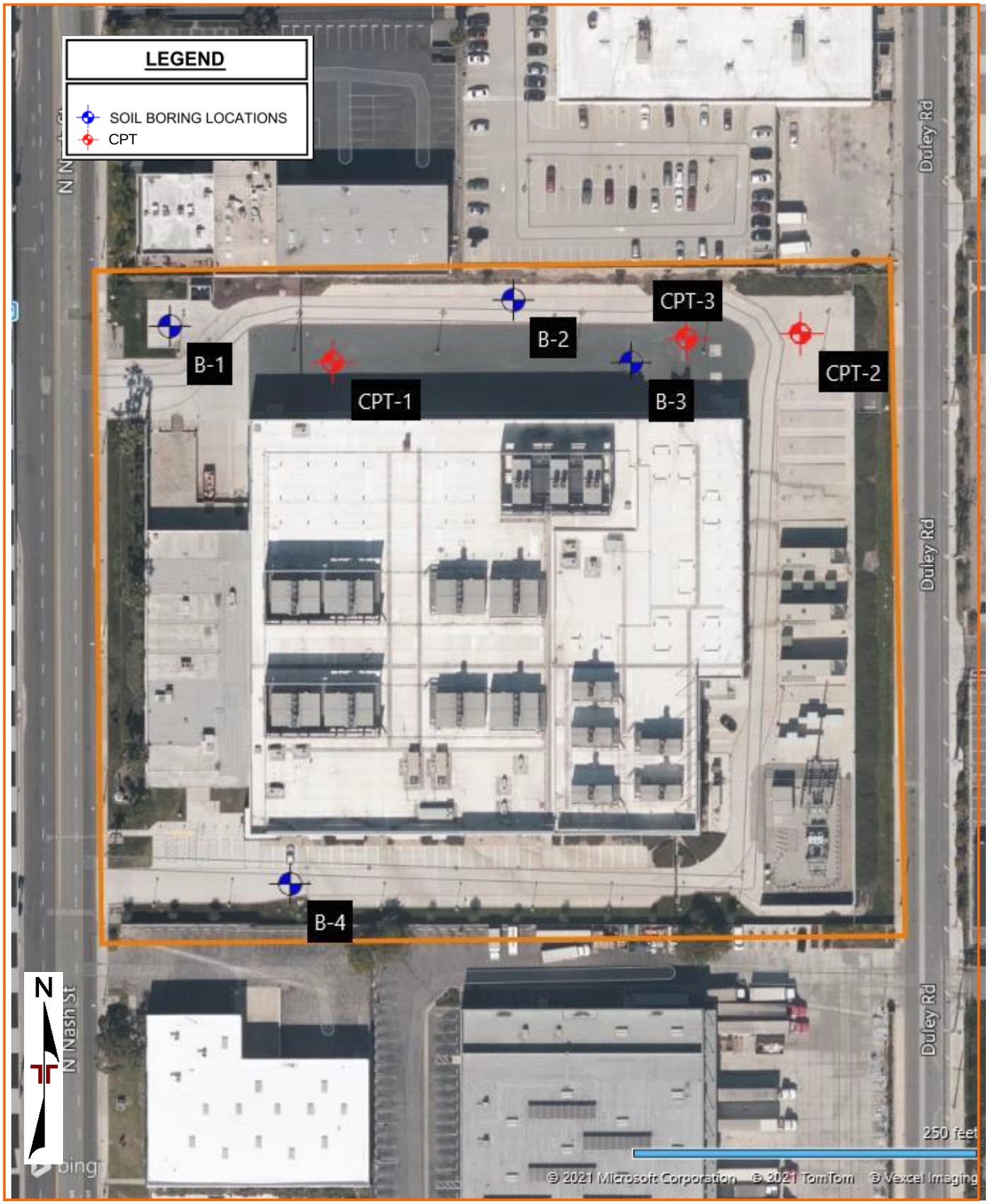


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

EXPLORATION RESULTS

BORING LOG NO. B-1

PROJECT: El Segundo DC

CLIENT: Serverfarm LLC
Dover, DE

SITE: 444 Nash Street
El Segundo, CA

LOCATION See Exploration Plan

Latitude: 33.9223° Longitude: -118.387°

DEPTH	GRAPHIC LOG		DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	STRENGTH TEST: TEST TYPE	STRENGTH TEST: COMPRESSIVE STRENGTH (tsf)	STRENGTH TEST: STRAIN (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS: LL-PL-PI	PERCENT FINES
0.6		**CONCRETE**, 7 inches of thickness											
1.0		**AGGREGATE BASE COURSE**, 5 inches											
		FILL - POORLY GRADED SAND WITH SILT (SP-SM) trace gravel, grayish brown, loose				4-5-6				11	100	NP	10
4.0		**SILTY SAND (SM)**, brown, loose	5			3-4-5				14	113		
7.0		**SANDY LEAN CLAY (CL)**, brown, very stiff gray				5-6-8				21	105		
			10			2-6-13				18	109		56
			15			4-12-17 N=29							
20.0		**SILTY SAND (SM)**, light tan to light brown, medium dense, native	20			3-8-15 N=23							
		dense	25			5-17-28 N=45							
26.5		***Boring Terminated at 26.5 Feet***											

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
HSA

Abandonment Method:
Boring backfilled with bentonite grout upon completion

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Groundwater not encountered

Terracon
1421 Edinger Ave, Ste C
Tustin, CA

Boring Started:

Boring Completed: 08-13-2021

Drill Rig: CME-75

Driller: JEFF

Project No.: 60215198

BORING LOG NO. B-2

PROJECT: El Segundo DC

CLIENT: Serverfarm LLC
Dover, DE

SITE: 444 Nash Street
El Segundo, CA

LOCATION See Exploration Plan

Latitude: 33.9224° Longitude: -118.386°

DEPTH	GRAPHIC LOG		DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	STRENGTH TEST: TEST TYPE	STRENGTH TEST: COMPRESSIVE STRENGTH (tsf)	STRENGTH TEST: STRAIN (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS: LL-PL-PI	PERCENT FINES
0.7		**CONCRETE**, 8.5 inches of thickness											
1.2		**AGGREGATE BASE COURSE**, 6 inches											
		FILL - SILTY SAND (SM), brown to dark brown											
		loose				3-5-10				14	118		
		trace gravel, medium dense	5			5-11-16				10	121		
6.5		**LEAN CLAY (CL)**, brown to black, stiff				3-6-10				25	100		
			10			3-6-12				20	107		80
15.0		**SILTY SAND (SM)**, light brown, medium dense	15			3-6-8 N=14				15		NP	42
		brown	20			6-15-25 N=40							
25.0		**POORLY GRADED SAND WITH SILT (SP-SM)**, trace	25			9-24-28 N=52							
26.5		gravel, light brown to tan, very dense											
		Boring Terminated at 26.5 Feet											

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
HSA

Abandonment Method:
Boring backfilled with bentonite grout upon completion

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Groundwater not encountered

Terracon
1421 Edinger Ave, Ste C
Tustin, CA

Boring Started:

Boring Completed: 08-13-2021

Drill Rig: CME-75

Driller: JEFF

Project No.: 60215198

BORING LOG NO. B-3

PROJECT: El Segundo DC

CLIENT: Serverfarm LLC
Dover, DE

SITE: 444 Nash Street
El Segundo, CA

LOCATION See Exploration Plan

Latitude: 33.9223° Longitude: -118.386°

GRAPHIC LOG	DEPTH	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	STRENGTH TEST: TEST TYPE	STRENGTH TEST: COMPRESSIVE STRENGTH (tsf)	STRENGTH TEST: STRAIN (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS: LL-PL-PI	PERCENT FINES
	0.0 **FILL - SILTY SAND (SM)**, brown; medium dense				5-16-15				11	120		
	5.0 **LEAN CLAY (CL)**, brown to dark brown, stiff	5			4-5-8				23	101		
					3-7-11				22	104	48-25-23	76
		10			5-4-9				14	118		
	15.0 **POORLY GRADED SAND (SP)**, brown, loose to dense	15			3-6-7 N=13							
		20			4-11-19 N=30				3			2
	trace gravel, light tan to brown	25			7-11-19 N=30							
		30			7-13-23 N=36							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
HSA

Abandonment Method:
Boring backfilled with bentonite grout upon completion

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Groundwater not encountered

Terracon
1421 Edinger Ave, Ste C
Tustin, CA

Boring Started:

Boring Completed: 08-13-2021

Drill Rig: CME-75

Driller: JEFF

Project No.: 60215198

BORING LOG NO. B-3

PROJECT: El Segundo DC

CLIENT: Serverfarm LLC
Dover, DE

SITE: 444 Nash Street
El Segundo, CA

LOCATION See Exploration Plan

Latitude: 33.9223° Longitude: -118.386°

DEPTH

GRAPHIC LOG	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	STRENGTH TEST: TEST TYPE	STRENGTH TEST: COMPRESSIVE STRENGTH (tsf)	STRENGTH TEST: STRAIN (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS: LL-PL-PI	PERCENT FINES
	35			6-13-21 N=34				1			1
	40			6-21-39 N=60							
	45			12-27-45 N=72							
	50			9-17-38 N=55							

POORLY GRADED SAND (SP), brown, loose to dense *(continued)*

45.0

SILTY SAND (SM), light brown to light tan, very dense

51.5

Boring Terminated at 51.5 Feet

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
HSA

Abandonment Method:
Boring backfilled with bentonite grout upon completion

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Groundwater not encountered

Terracon
1421 Edinger Ave, Ste C
Tustin, CA

Boring Started:

Boring Completed: 08-13-2021

Drill Rig: CME-75

Driller: JEFF

Project No.: 60215198

BORING LOG NO. B-4

PROJECT: El Segundo DC

CLIENT: Serverfarm LLC
Dover, DE

SITE: 444 Nash Street
El Segundo, CA

LOCATION See Exploration Plan

Latitude: 33.9212° Longitude: -118.387°

DEPTH	GRAPHIC LOG		DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	STRENGTH TEST: TEST TYPE	STRENGTH TEST: COMPRESSIVE STRENGTH (tsf)	STRENGTH TEST: STRAIN (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS: LL-PL-PI	PERCENT FINES
0.6		**CONCRETE**, 7.5 inches of thickness											
1.0		**AGGREGATE BASE COURSE**, 5 inches											
		FILL - SILTY SAND (SM), brown trace gravel, medium dense				11-26-28				9	125		
6.0		loose	5			8-6-9				11	115		
		LEAN CLAY (CL), dark brown to black very stiff				3-7-11				21	104	48-28-20	75
10.0		**SILTY CLAYEY SAND (SC-SM)**, light brown, loose to medium dense	10			5-7-11							
			15			3-8-14 N=22							
20.0		**SILTY SAND (SM)**, brown, medium dense	20			4-9-14 N=23							
25.0		Cobbles at 24 feet **POORLY GRADED SAND WITH SILT (SP-SM)**, trace cobbles, tan to light orange, dense	25			25-50							
30.0			30										
31.5		**SILTY SAND (SM)**, tan to light brown, dense				7-16-22 N=38							
		Boring Terminated at 31.5 Feet											

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
HSA

Abandonment Method:
Boring backfilled with bentonite grout upon completion

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Groundwater not encountered

Terracon
1421 Edinger Ave, Ste C
Tustin, CA

Boring Started:

Boring Completed: 08-13-2021

Drill Rig: CME-75

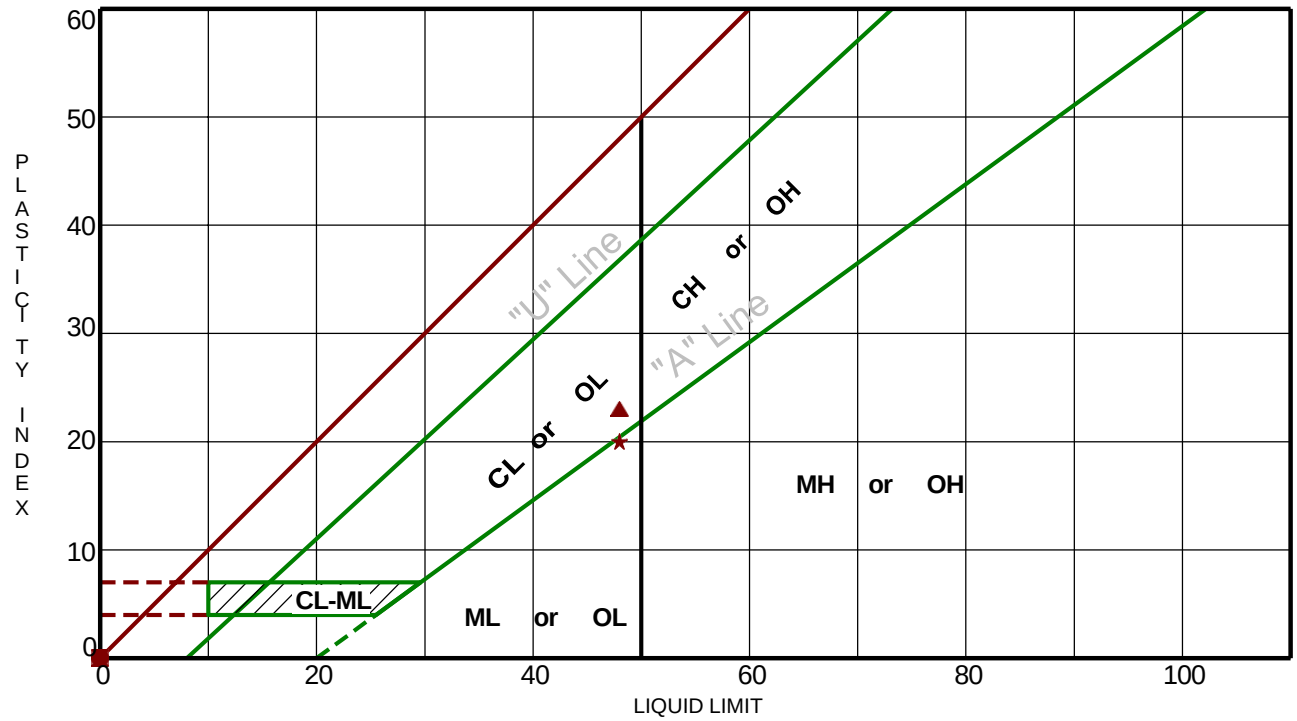
Driller: JEFF

Project No.: 60215198

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 60215198 EL SEGUNDO DC.GPJ TERRACON_DATATEMPLATE.GDT 9/1/21

ATTERBERG LIMITS RESULTS

ASTM D4318



Boring ID		Depth	LL	PL	PI	Fines	USCS	Description
●	B-1	2.5 - 4	NP	NP	NP	10.3	SP-SM	POORLY GRADED SAND WITH SILT
⊠	B-2	15 - 16.5	NP	NP	NP	41.5	SM	SILTY SAND
▲	B-3	7.5 - 9	48	25	23	75.9	CL	LEAN CLAY
★	B-4	7.5 - 9	48	28	20	74.7	CL	LEAN CLAY

PROJECT: El Segundo DC

PROJECT NUMBER: 60215198

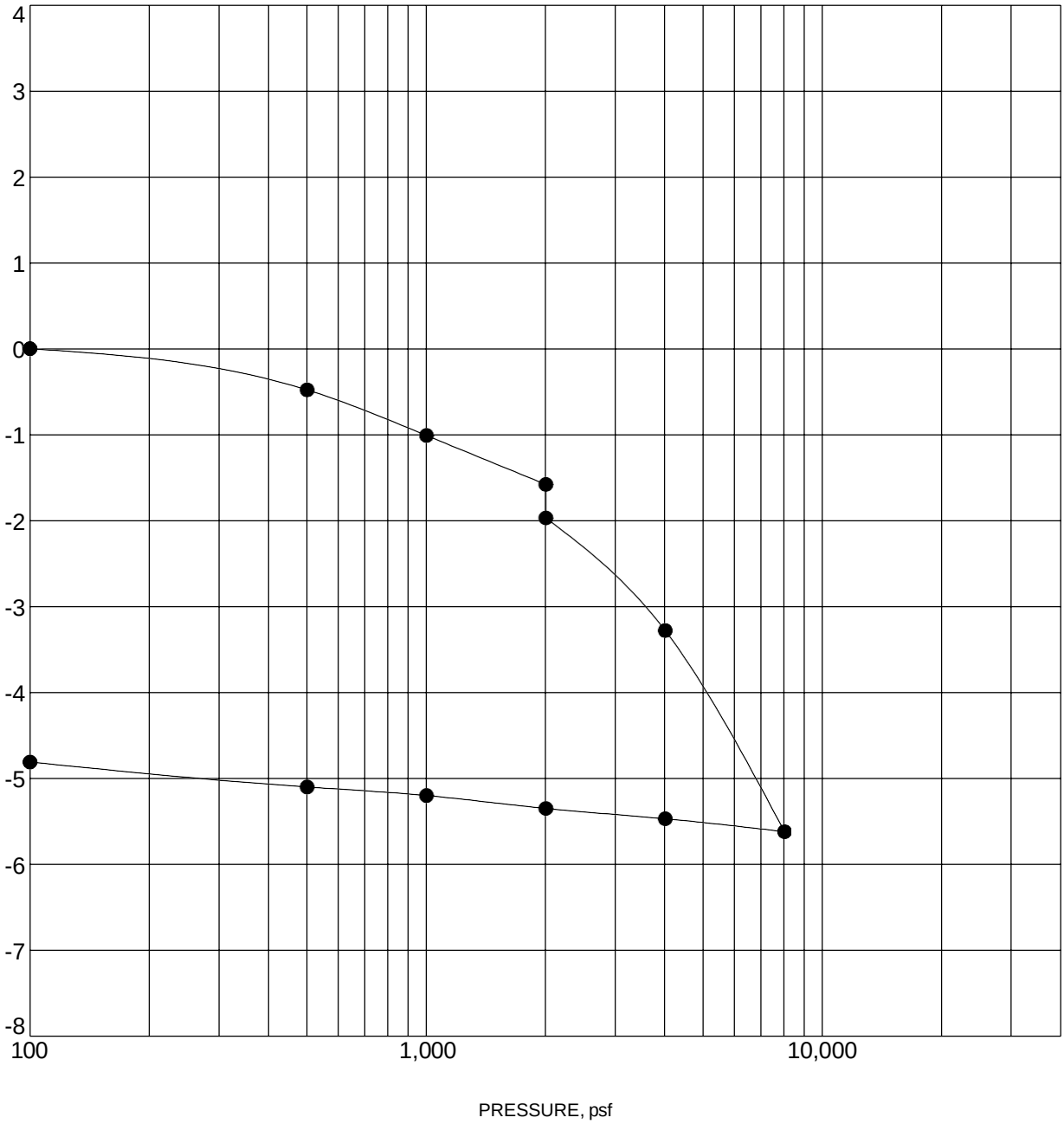
SITE: 444 Nash Street
El Segundo, CA

Terracon
1421 Edinger Ave, Ste C
Tustin, CA

CLIENT: Serverfarm LLC
Dover, DE

SWELL CONSOLIDATION TEST

ASTM D4546



Specimen Identification			Classification	γ_d, pcf	WC, %
●	B-1	2.5 - 4 ft	POORLY GRADED SAND WITH SILT	100	11

NOTES: Water added at 2,000 psf

PROJECT: El Segundo DC

SITE: 444 Nash Street
El Segundo, CA

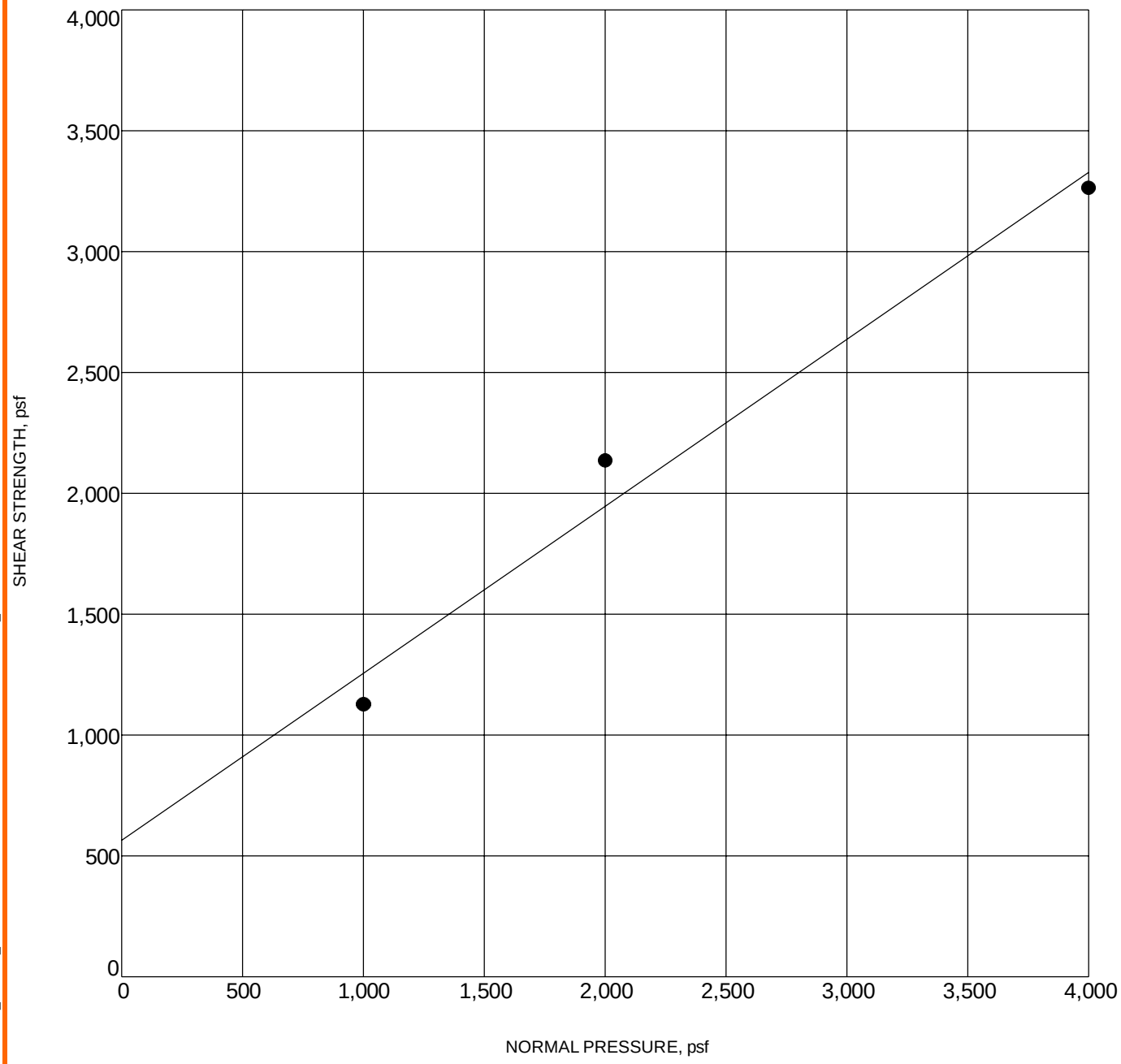
Terracon
1421 Edinger Ave, Ste C
Tustin, CA

PROJECT NUMBER: 60215198

CLIENT: Serverfarm LLC
Dover, DE

EXHIBIT: B-1

DIRECT SHEAR TEST ASTM D3080



Specimen Identification	Classification	γ_d, pcf	WC,%	c, psf	ϕ°
● B-3 2.5ft	Silty Sand (SM)	120	11	564	35

PROJECT: El Segundo DC

PROJECT NUMBER: 60215198

SITE: 444 Nash Street
El Segundo, CA

Terracon
1421 Edinger Ave, Ste C
Tustin, CA

CLIENT: Serverfarm LLC
Dover, DE

SUMMARY

OF

CONE PENETRATION TEST DATA

Project:

El Segundo Data Center
El Segundo, Ca
August 13, 2021

Prepared for:

Ms. Ellie Nezhad
Terracon Consultants, Inc.
1421 Edinger Avenue, Ste C
Tustin, CA 92780
Office (949) 261-0051 / Fax (949) 261-6110

Prepared by:

KEHOE TESTING & ENGINEERING
5415 Industrial Drive
Huntington Beach, CA 92649-1518
Office (714) 901-7270 / Fax (714) 901-7289
www.kehoetesting.com

TABLE OF CONTENTS

SUMMARY
OF
CONE PENETRATION TEST DATA

1. INTRODUCTION

This report presents the results of a Cone Penetration Test (CPT) program carried out for the El Segundo Data Center project located in El Segundo, California. The work was performed by Kehoe Testing & Engineering (KTE) on August 13, 2021. The scope of work was performed as directed by Terracon Consultants, Inc. personnel.

2. SUMMARY OF FIELD WORK

The fieldwork consisted of performing CPT soundings at three locations to determine the soil lithology. A summary is provided in **TABLE 2.1**.

LOCATION	DEPTH OF CPT (ft)	COMMENTS/NOTES:
CPT-1	34	Refusal
CPT-2	50	
CPT-3	41	Refusal

TABLE 2.1 - Summary of CPT Soundings

3. FIELD EQUIPMENT & PROCEDURES

The CPT soundings were carried out by **KTE** using an integrated electronic cone system manufactured by Vertek. The CPT soundings were performed in accordance with ASTM standards (D5778). The cone penetrometers were pushed using a 30-ton CPT rig. The cone used during the program was a 15 cm^2 cone and recorded the following parameters at approximately 2.5 cm depth intervals:

- Cone Resistance (qc)
- Sleeve Friction (fs)
- Dynamic Pore Pressure (u)
- Inclination
- Penetration Speed

At location CPT-3, shear wave measurements were obtained at various depths. The shear wave is generated using an air-actuated hammer, which is located inside the front jack of the CPT rig. The cone has a triaxial geophone, which recorded the shear wave signal generated by the air hammer.

The above parameters were recorded and viewed in real time using a laptop computer. Data is stored at the KTE office for up to 2 years for future analysis and reference. A complete set of baseline readings was taken prior to each sounding to determine temperature shifts and any zero load offsets. Monitoring base line readings ensures that the cone electronics are operating properly.

4. CONE PENETRATION TEST DATA & INTERPRETATION

The Cone Penetration Test data is presented in graphical form in the attached Appendix. These plots were generated using the CPeT-IT program. Penetration depths are referenced to ground surface. The soil behavior type on the CPT plots is derived from the attached CPT SBT plot (Robertson, "Interpretation of Cone Penetration Test…", 2009) and presents major soil lithologic changes. The stratigraphic interpretation is based on relationships between cone resistance (qc), sleeve friction (fs), and penetration pore pressure (u). The friction ratio (Rf), which is sleeve friction divided by cone resistance, is a calculated parameter that is used along with cone resistance to infer soil behavior type. Generally, cohesive soils (clays) have high friction ratios, low cone resistance and generate excess pore water pressures. Cohesionless soils (sands) have lower friction ratios, high cone bearing and generate little (or negative) excess pore water pressures.

The CPT data files have also been provided. These files can be imported in CPeT-IT (software by GeoLogismiki) and other programs to calculate various geotechnical parameters.

It should be noted that it is not always possible to clearly identify a soil type based on qc, fs and u. In these situations, experience, judgement and an assessment of the pore pressure data should be used to infer the soil behavior type.

If you have any questions regarding this information, please do not hesitate to call our office at (714) 901-7270.

Sincerely,

KEHOE TESTING & ENGINEERING

Steven P. Kehoe
President

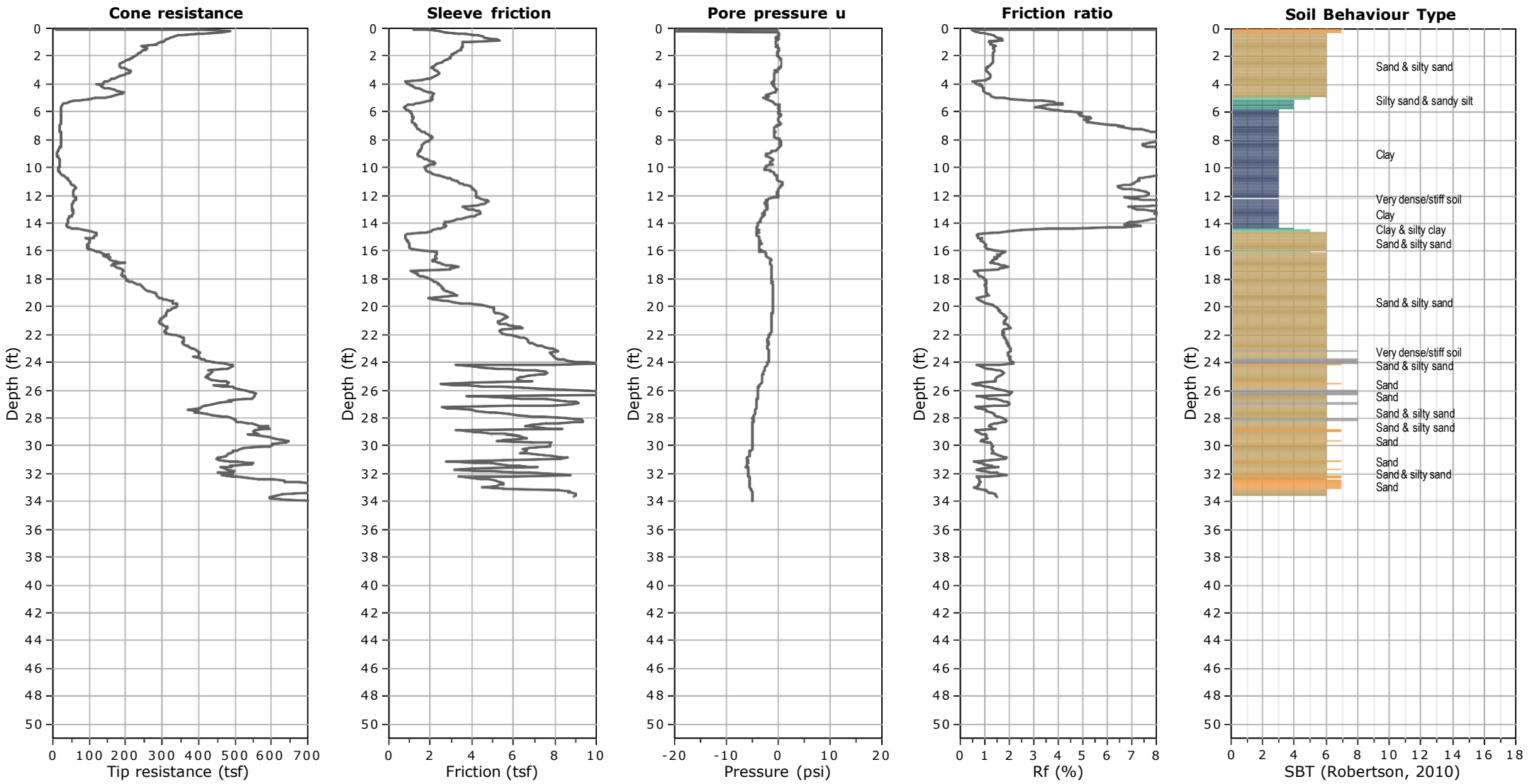
08/17/21-hh-3216

APPENDIX

Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **Terracon Consultants / El Segundo Data Center**
Location: **El Segundo, CA**

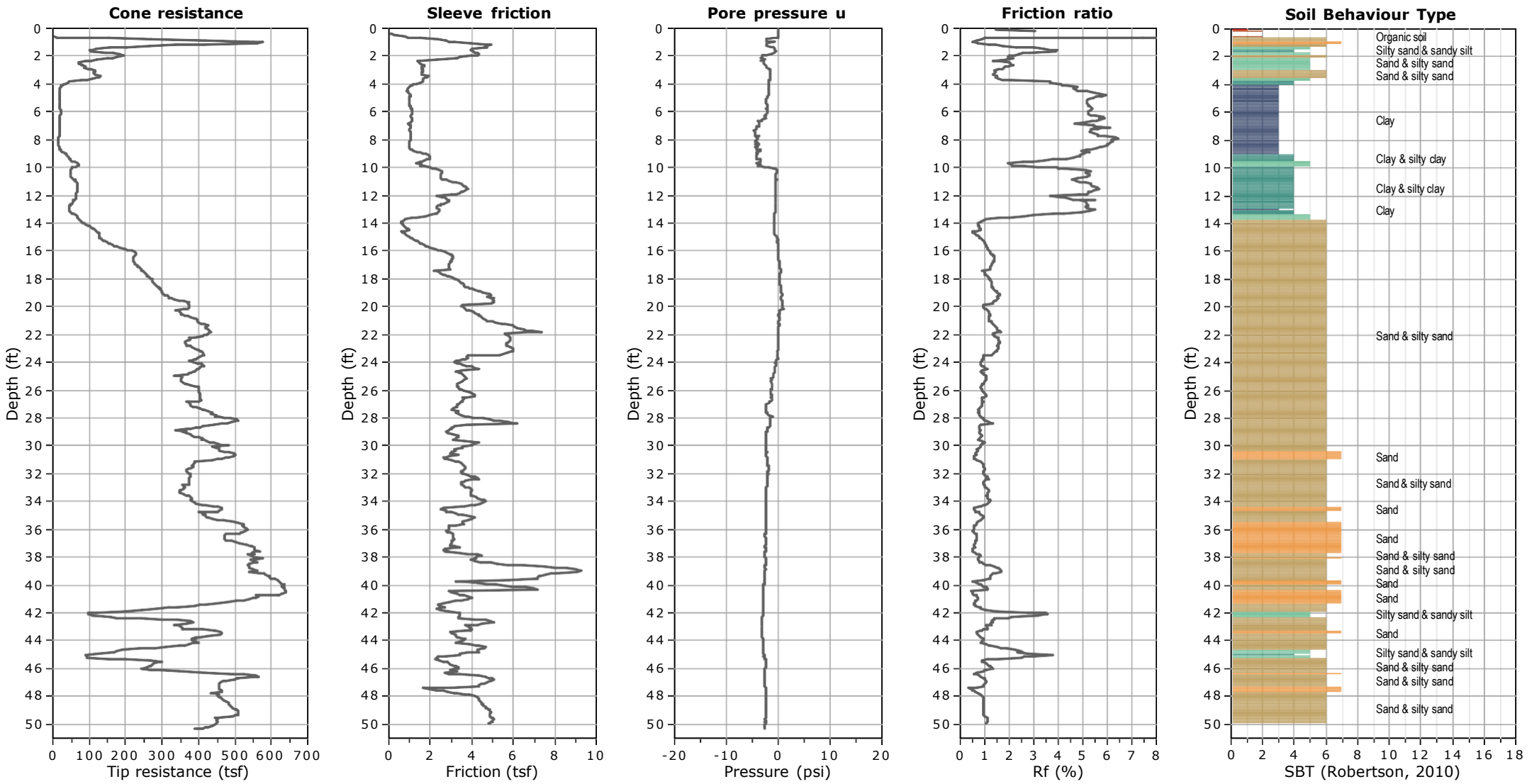
CPT-1
Total depth: 34.00 ft, Date: 8/13/2021



Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **Terracon Consultants / El Segundo Data Center**
Location: **El Segundo, CA**

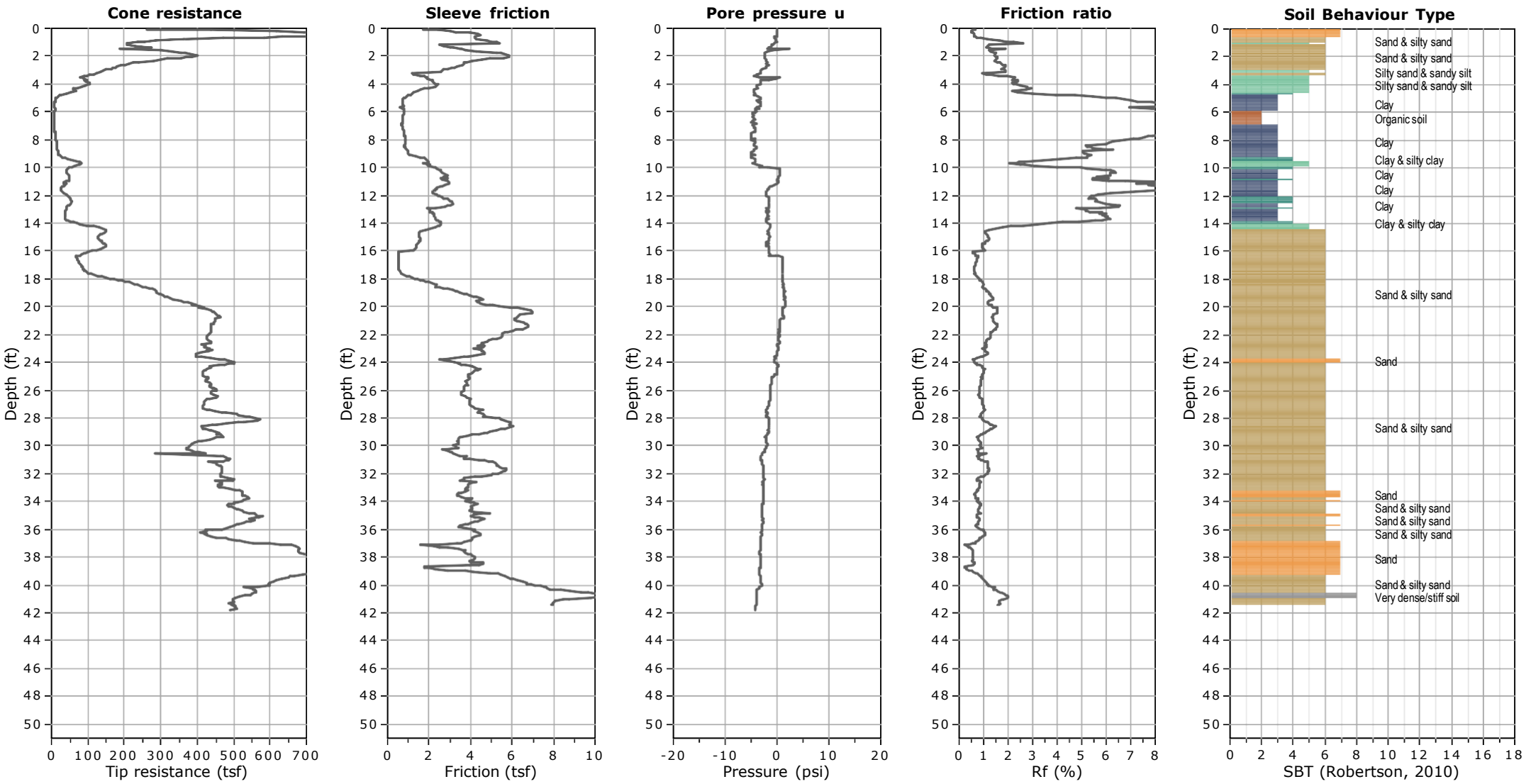
CPT-2
Total depth: 50.36 ft, Date: 8/13/2021



Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **Terracon Consultants / El Segundo Data Center**
Location: **El Segundo, CA**

CPT-3
Total depth: 41.80 ft, Date: 8/13/2021



Kehoe Testing & Engineering
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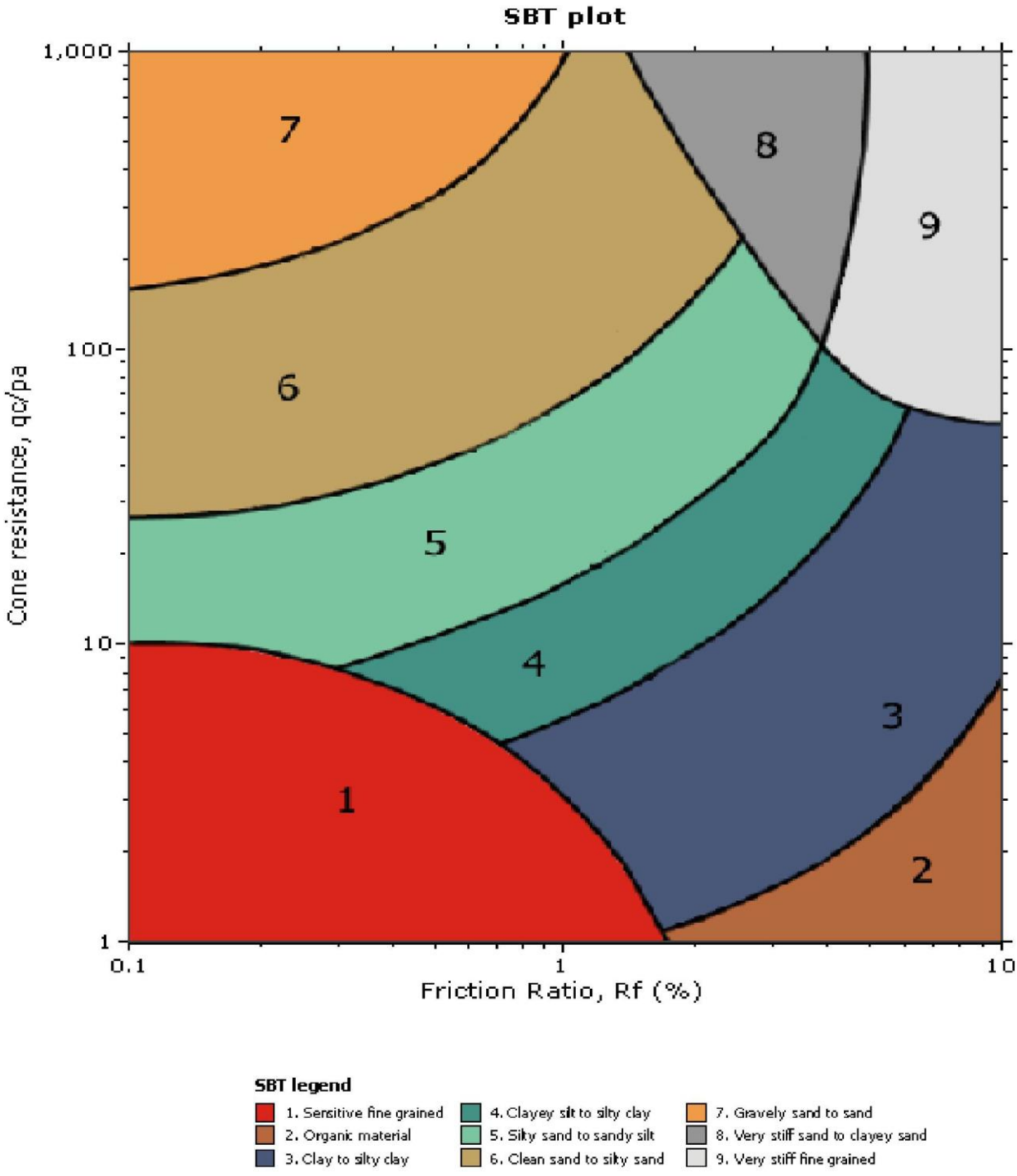


Terracon Consultants
El Segundo Data Center
El Segundo, CA

CPT Shear Wave Measurements

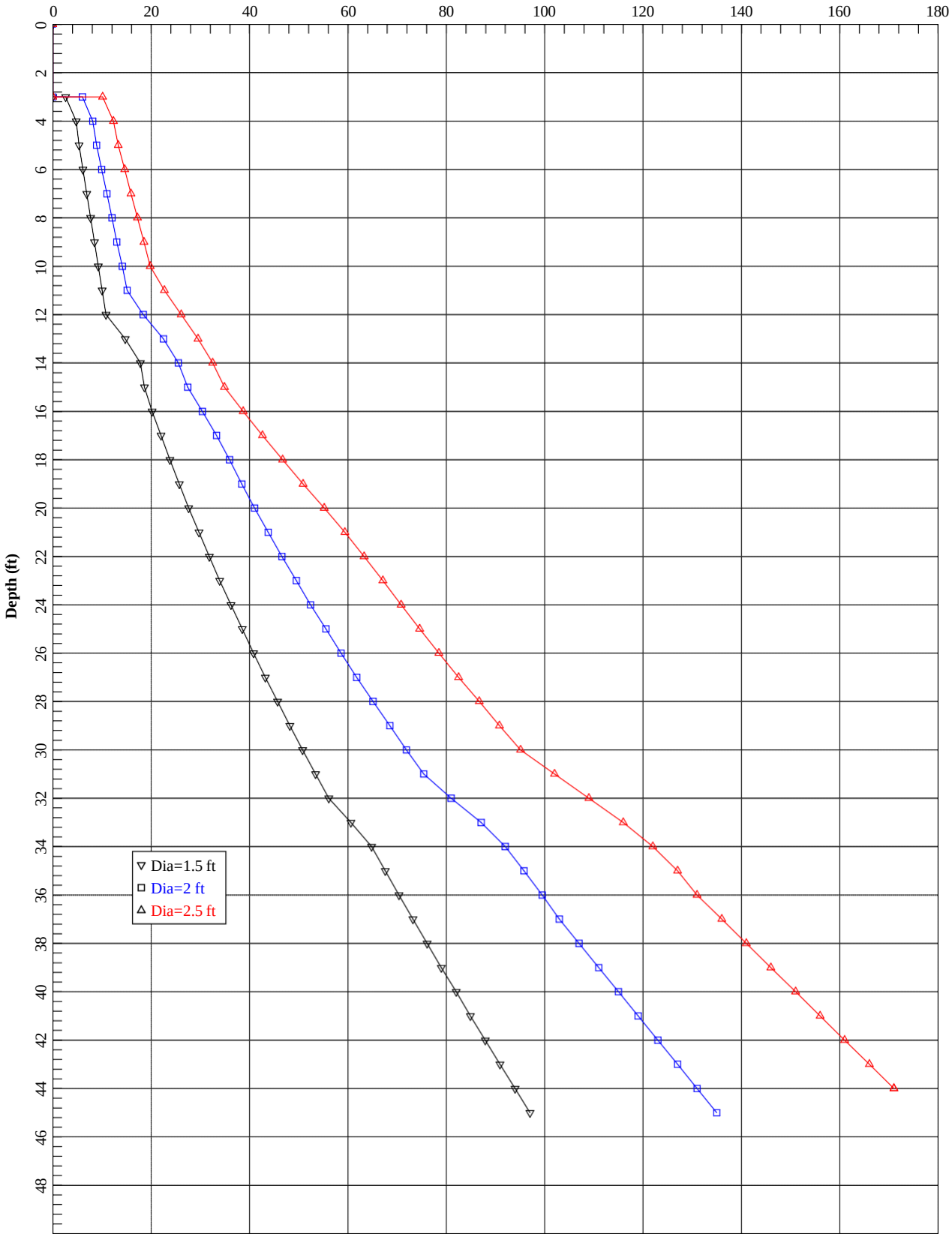
Location	Tip Depth (ft)	Geophone Depth (ft)	Travel Distance (ft)	S-Wave Arrival (msec)	S-Wave Velocity from Surface (ft/sec)	Interval S-Wave Velocity (ft/sec)
CPT-3	11.02	10.02	10.22	14.88	687	
	20.01	19.01	19.11	28.04	682	676
	30.54	29.54	29.61	36.40	813	1255
	40.09	39.09	39.14	44.20	886	1222

Shear Wave Source Offset - 2 ft

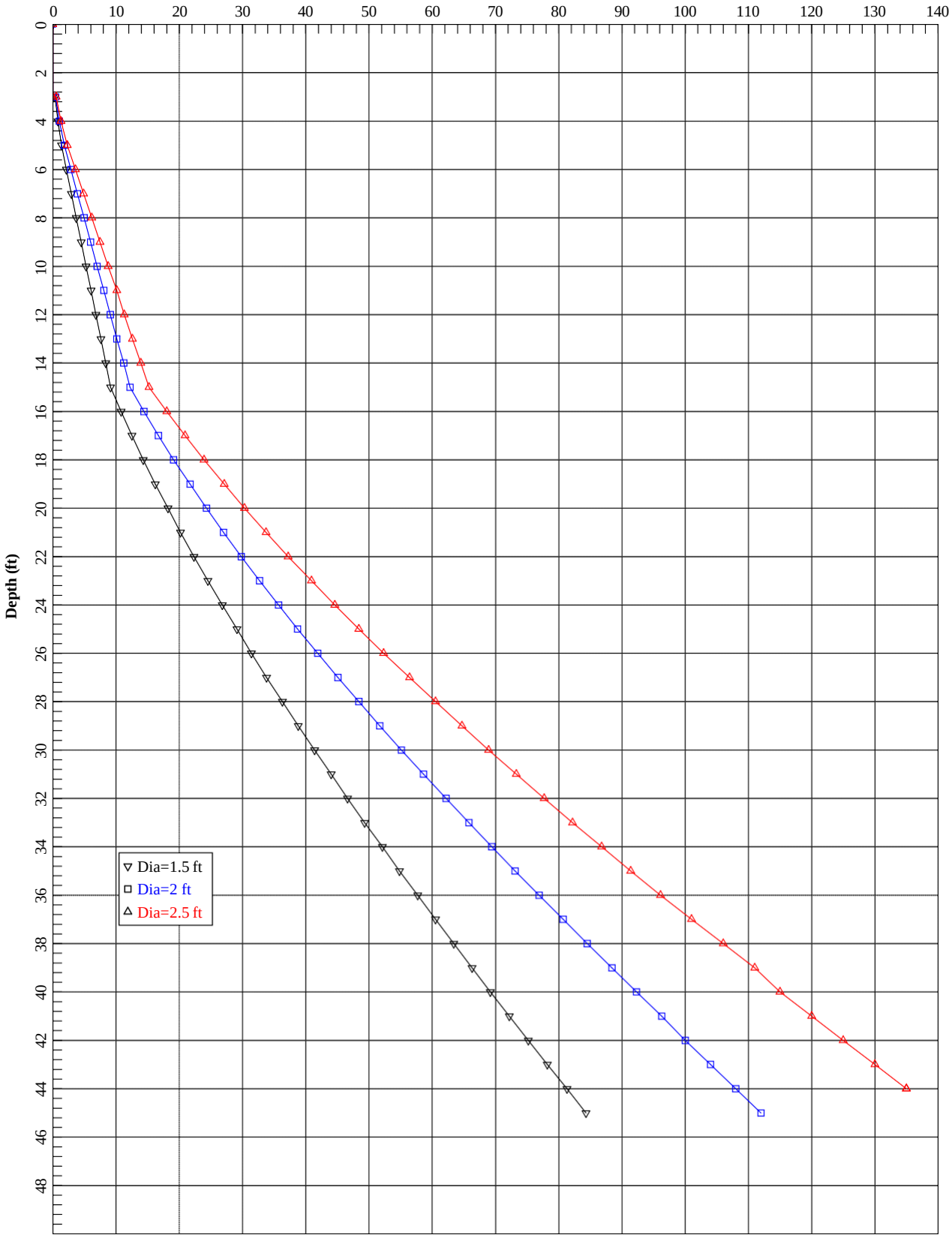
S-Wave Velocity from Surface = Travel Distance/S-Wave Arrival
Interval S-Wave Velocity = (Travel Dist2-Travel Dist1)/(Time2-Time1)

SUPPORTING INFORMATION

Allowable Downward Capacity
Total Resistance/F.S. (tons)



Allowable Side Resistance
Side Resistance/F.S. (tons)



Allowable tension capacity may be taken as 60 percent of the allowable Side Resistance capacity shown in the graph, plus the weight of the pile.

LPILE (v2019) Recommended Engineering Properties of Soils				
Top Depth **Bottom Depth**	**Effective Unit Weight (pcf)**	**L-PILE/ GROUP Soil Type**	**Internal Angle of Friction** **(Degrees)**	**Cohesion (psf)**
2 5	115	Sand	30	--
5 15	120	Stiff Clay w/o free water	--	1500
15 35	125	Sand	36	--
35 50	125	Sand	38	--

Use LPILE default values for K and ε_{50} values

GENERAL NOTES

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS
El Segundo DC ■ El Segundo, CA
Terracon Project No. 60215198

SAMPLING	WATER LEVEL	FIELD TESTS
Auger Cuttings Modified Dames & Moore Ring Sampler Standard Penetration Test	**Water Initially Encountered** **Water Level After a Specified Period of Time** **Water Level After a Specified Period of Time** **Cave In Encountered** Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.	**N** Standard Penetration Test Resistance (Blows/Ft.) **(HP)** Hand Penetrometer **(T)** Torvane **(DCP)** Dynamic Cone Penetrometer **UC** Unconfined Compressive Strength **(PID)** Photo-Ionization Detector **(OVA)** Organic Vapor Analyzer

DESCRIPTIVE SOIL CLASSIFICATION

Soil classification as noted on the soil boring logs is based Unified Soil Classification System. Where sufficient laboratory data exist to classify the soils consistent with ASTM D2487 "Classification of Soils for Engineering Purposes" this procedure is used. ASTM D2488 "Description and Identification of Soils (Visual-Manual Procedure)" is also used to classify the soils, particularly where insufficient laboratory data exist to classify the soils in accordance with ASTM D2487. In addition to USCS classification, coarse grained soils are classified on the basis of their in-place relative density, and fine-grained soils are classified on the basis of their consistency. See "Strength Terms" table below for details. The ASTM standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

LOCATION AND ELEVATION NOTES

Exploration point locations as shown on the Exploration Plan and as noted on the soil boring logs in the form of Latitude and Longitude are approximate. See Exploration and Testing Procedures in the report for the methods used to locate the exploration points for this project. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS

RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance		CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance		
Descriptive Term (Density)	**Standard Penetration or N-Value Blows/Ft.**	**Descriptive Term (Consistency)**	**Unconfined Compressive Strength Qu, (tsf)**	**Standard Penetration or N-Value Blows/Ft.**
Very Loose	0 - 3	Very Soft	less than 0.25	0 - 1
Loose	4 - 9	Soft	0.25 to 0.50	2 - 4
Medium Dense	10 - 29	Medium Stiff	0.50 to 1.00	4 - 8
Dense	30 - 50	Stiff	1.00 to 2.00	8 - 15
Very Dense	> 50	Very Stiff	2.00 to 4.00	15 - 30
		Hard	> 4.00	> 30

RELEVANCE OF SOIL BORING LOG

The soil boring logs contained within this document are intended for application to the project as described in this document. Use of these soil boring logs for any other purpose may not be appropriate.

APPENDIX D

HEALTH RISK ASSESSMENT TECHNICAL MEMORANDUM

MEMORANDUM

To:	Rita Garcia and James Thomas
	Kimley-Horn and Associates, Inc.
From:	Heidi Rous and Noemi Wyss
	Kimley-Horn and Associates, Inc.
Date:	October 27, 2022
Subject:	Project Ollie – Health Risk Assessment

Purpose

The purpose of this Health Risk Assessment (HRA) is to evaluate potential health risks associated with Toxic Air Contaminants (TAC) including Diesel Particulate Matter (DPM) resulting from the implementation of the proposed Nash Street Data Center Expansion Project (proposed Project) located at 444 North Nash Street in the City of El Segundo (City), in the County of Los Angeles (County). This HRA was prepared in accordance with the requirements of the South Coast Air Quality Management District (SCAQMD) and guidance from the Office of Environmental Health Hazard Assessment (OEHHA) to determine if health risks are likely to occur from the Project. Technical data is included as see Appendix A: Modeling Data.

Project Location

The Project site is located in the northeast quadrant of the City of El Segundo (City), in the County of Los Angeles (County), approximately 18-miles southwest of downtown Los Angeles. It is approximately 0.5-mile south of Los Angeles International Airport (LAX). Regional access to the site is provided via the San Diego Freeway (Interstate 405) located approximately 1.0-mile to the west and Interstate 105 located approximately to the south. Additionally, Sepulveda Boulevard (Highway 1) is located approximately 0.5-mile to the east. The Project site is 0.5-acre of a larger 6.13-acre parcel site (Assessor's Parcel Number 4138-003-007) mid-way between East Mariposa Avenue on the north and East Grand Avenue on the south. The Project site is fully developed and is currently occupied by an approximately 116,756-SF data center and 70 parking spaces that include 3 ADA required spaces. On the east side of the parcel, there are three existing generators as well as a Southern California Edison substation at the southeast corner of the parcel.

Project Description

The proposed project would install up to seven additional emergency generators on concrete platforms on the property. Five of the generators would be located on the north side of the building while two would be on the east side adjacent to eight existing[1] generators on the property.

[1] *At the time this technical study was performed four generators were installed and operational and four generators were being installed, pursuant to adoption of an MND and City approval in 2013. The presence of eight generators is the defined baseline for this technical study*

Health Risk Thresholds and Methodology

Health Risk Assessment Thresholds

Project health risks are determined by examining the types and levels of air toxics generated and the associated impacts on factors that affect air quality. While the final determination of significance thresholds is within the purview of the lead agency pursuant to the State CEQA Guidelines, the SCAQMD recommends that the following air pollution thresholds be used by lead agencies in determining whether the impacts from the Project are significant. If the lead agency finds that the Project has the potential to exceed the air pollution thresholds, the Project should be considered significant. A project's impacts would be considered significant with respect to toxic air contaminant emissions if any of the following occurred:

- **Cancer Risk:** Emit contaminants that exceed the maximum individual cancer risk of 10 in one million.
- **Cancer Burden**: Emit contaminants resulting in a cancer burden greater than 0.5 excess cancer cases (in areas with individual cancer risk greater than 1 in 1 million)
- **Non-Cancer Risk:** Emit contaminants that exceed the maximum hazard quotient of 1 in one million.

Cancer risk is expressed in terms of expected incremental incidence per million population. The SCAQMD has established an incidence rate of 10 persons per million as the maximum acceptable incremental cancer risk due to DPM exposure. This threshold serves to determine whether or not a given project has a potentially significant development-specific and cumulative impact. The 10 in one million standard is a health-protective significance threshold. A risk level of 10 in one million implies a likelihood that up to 10 persons, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration of time. This risk would be an excess cancer that is in addition to any cancer risk borne by a person not exposed to these air toxics. To put this risk in perspective, the risk of contracting cancer from all air toxics in the basin is 420 in a million which is 42 times more than the SCAQMD's threshold of 10 in one million.[2]

Because the proposed generators are subject to SCAQMD rules and regulations, additional thresholds of significance may apply. Specifically, Rule 1401 *New Source Review of Toxic Air Contaminants* establishes limits for maximum individual cancer risk (MICR), cancer burden, and noncancer acute and chronic hazard index (HI) from new permit units, relocations, or modifications to existing permit units which emit applicable toxic air contaminants. DPM is a substance listed in Table 1 of the Rule.[3] Therefore, the requirements to allow the construction and use of the new generators are as follows:

1. **MICR and Cancer Burden:** The cumulative increase in MICR which is the sum of the calculated MICR values for all toxic air contaminants emitted from the new, relocated or modified permit unit will not result in any of the following:

[2]South Coast Air Quality Management District, *MATES V Estimated Risk*, https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23/page/home/?data_id=dataSource_105-a5ba9580e3aa43508a793fac819a5a4d%3A315&views=view_38%2Cview_1, Accessed February 2, 2022.

[3] SCAQMD, Rule 1401; http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1401.pdf?sfvrsn=4 ; page 1401-17; Accessed January 26, 2022.

(A) an increased MICR greater than one in one million (1.0 x 10-6) at any receptor location, if the permit unit is constructed without TBACT;

(B) an increased MICR greater than ten in one million (10 x 10-6) at any receptor location, if the permit unit is constructed with T-BACT;

(C) a cancer burden greater than 0.5.

2. **Chronic Hazard Index:** The cumulative increase in total chronic HI for any target organ system due to total emissions from the new, relocated or modified permit unit owned or operated by the applicant for which applications were deemed complete on or after the date when the risk value for the compound is finalized by the state Office of Environmental Health Hazard Assessment (OEHHA) will not exceed 1.0 at any receptor location.
3. **Acute Hazard Index:** The cumulative increase in total acute HI for any target organ system due to total emissions from the new, relocated or modified permit unit owned or operated by the applicant for which applications were deemed complete on or after the date when the risk value for the compound is finalized by OEHHA will not exceed 1.0 at any receptor location.

SCAQMD Rule 1402 *Control of Toxic Air Contaminants From Existing Sources* reduces the health risk associated with emissions of TACs from existing sources by specifying notification risk levels, action risk levels, and significant risk levels (see Table 1: Facility-wide Risk Levels) for MICR, cancer burden, and non-cancer acute and chronic HI applicable to total facility emissions. The rule establishes requirements to implement Risk Reduction Plans to achieve specified risk limits, as required by the Hot Spots Act and this rule.

Table 1: Facility-wide Risk Levels

Indicator	Notification Risk Level	Action Risk Level	Significant Risk Level
MICR	10 in one million	25 in one million	100 in one million
Cancer burden	N/A	0.5	N/A
Acute HI	1.0	3.0	5.0
Chronic HI	1.0	3.0	5.0

Cancer burden means the estimated increase in the occurrence of cancer cases in a population subject to a MICR of greater than or equal to one in one million (1.0 x 10-6) resulting from exposure to TACs. The SCAQMD has also established non-carcinogenic risk parameters for use in HRAs. 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 (REL). An REL is a concentration at or below which health effects are not likely to occur. A hazard index of less than 1.0 means that adverse health effects are not expected. Within this analysis, non-carcinogenic exposures of less than 1.0 are considered less than significant.

Methodology

This HRA was prepared in accordance with SCAQMD guidance which largely follows OEHHA but includes some notable local preferences. The report evaluates potential health risks associated with exposure of sensitive receptors to emissions from emergency generators located on the project site.

Dispersion Modeling

The air dispersion modeling for the operational risk assessment was performed using U.S. EPA AERMOD dispersion model. AERMOD is a steady-state, multiple-source, Gaussian dispersion model designed for use with emission sources situated in terrain where ground elevations can exceed the stack heights of the emission sources (not a factor in this case). AERMOD requires hourly meteorological data consisting of wind vector, wind speed, temperature, stability class, and mixing height. AERMOD regulatory defaults, the "Urban" modeling option for the County, and "Elevated" terrain were used for this assessment. In addition, National Elevation Dataset (NED) terrain data was imported into AERMOD for the Project. Surface and upper air meteorological data is provided by CARB. Surface and upper air meteorological data from the Los Angeles International Airport was selected as being the most representative for meteorology based on proximity to the Project site.

The emission sources in the model are point sources for the emergency generators located on the project site. Generator emissions were assigned a release height of 20 feet (6.1 meters).

AERMOD was run to obtain the peak 1-hour and annual average (period) concentration in micrograms per cubic meter ($\mu g/m^3$) of PM_{10} at the nearby sensitive receptors. According to the SCAQMD's Supplemental Guidelines for Preparing Risk Assessments for AB 2588, air dispersion modeling is required to estimate annual average concentrations to calculate the Maximally Exposed Individual Resident (MEIR), the maximum chronic HI, the zones of impact, and excess cancer burden, as well as peak hourly concentrations to calculate the health impact from substances with acute non-cancer health effects. To achieve these goals, a receptor grid was placed over the nearest sensitive receptors to cover the zone of impact. According to the SCAQMD, in order "to identify the maximum impacted receptors (i.e. peak cancer risk and peak hazard indices) a grid spacing of 100 meters or less must be used" (see page 16 of SCAQMD's Supplemental Guidelines). Due to the size of the Project site, receptors were modeled with a maximum of 50-meter grid spacing. In addition, National Elevation Dataset (NED) terrain data was imported into AERMOD for the Project. The modeling and assessment was prepared in accordance with the SCAQMD Modeling Guidance for AERMOD.[4]

The cancer risk calculations were based on applying age sensitivity weighting factors for each emissions period modeled. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. The chronic and carcinogenic health risk calculations are based on the standardized equations contained in the OEHHA Guidance Manual. Only the risk associated with the worst-case location of the proposed Project was assessed. Risk levels were calculated according to the California Office of Environmental Health Hazard Assessment (OEHHA) guidance document, *Air Toxics Hot Spots Program Risk Assessment Guidelines* (February 2015).

Note that the concentration estimate developed using this methodology is conservative and is not a specific prediction of the actual concentrations that would occur at the Project site at any given point in time. Actual 1-hour and annual average concentrations are dependent on many variables, including specific distances during time periods of adverse meteorology. A health risk computation was performed to determine the risk of developing an excess cancer risk calculated on these worst-case exposure duration scenarios. The chronic and carcinogenic health risk calculations are based on the standardized

[4] South Coast Air Quality Management District, *SCAQMD Modeling Guidance for AERMOD*, www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/modeling-guidance, accessed January 19, 2022.

equations contained in the OEHHA Guidance Manual. Only the risk associated with the worst-case location of the Project was assessed.

Risk and Hazard Assessment

Cancer Risk. Based on the OEHHA methodology, residential inhalation cancer risk from annual average DPM concentrations are calculated by multiplying the daily inhalation dose, cancer potency factor, age sensitivity factor (ASF), frequency of time spent at home, and exposure duration divided by averaging time, yielding the excess cancer risk. These factors are discussed in more detail below. It is important to note that exposure duration is based on continual heavy truck operations along nearby roadways. Exposure through inhalation (Dose-air) is a function of breathing rate, exposure frequency, and concentration of substance in the air. To estimate cancer risk, the dose was estimated by applying the following formula to each ground-level concentration:

$$\text{Dose-air} = C_{air} * (BR/BW) * A * EF * 10^{-6}$$

Where:

Dose-air	=	dose through inhalation (mg/kg/day)
C_{air}	=	air concentration ($\mu g/m^3$) from air dispersion model
(BR/BW)	=	daily breathing rate normalized to body weight (L/kg bodyweight-day)
A	=	inhalation absorption factor (unitless)
EF	=	exposure frequency (approximately 350 days per year for residential)
10^{-6}	=	conversion factor (micrograms to milligrams, liters to cubic meters)

OEHHA developed ASFs to consider the increased sensitivity to carcinogens during early-life exposure. In the absence of chemical-specific data, OEHHA recommends a default ASF presented in Table 2: Default Age Sensitivity Factors, Fraction of Time at Home, and Daily Breathing Rates. Fraction of time at home (FAH) during the day is used to adjust exposure duration and cancer risk from a specific facility's emissions, based on the assumption that exposure to the facility's emissions are not occurring away from home. OEHHA recommends the FAH values presented in Table 1.

Table 2: Default Age Sensitivity Factors, Fraction of Time at Home, and Daily Breathing Rates

Age	Default Age Sensitivity Factor[1] (ASF)	Fraction of Time at Home (FAH)	Daily Breathing Rate (L/kg BW-day[2])
Third trimester	10	85%	361
0 to 2 years	10	85%	1,090
Ages 2 through 15 years	3	72%	745
Ages 16 and greater	1	73%	335

1. Accounts for potential increased sensitivity to carcinogens during childhood.
2. 95th percentile daily breathing rate normalized to body weight (L/kg body weight-day)
Source: California Office of Environmental Health Hazard Assessment, *Air Toxics Program Guidance Manual for the Preparation of Health Risk Assessments*, February 2015.

To estimate the cancer risk, the dose is multiplied by the cancer potency factor, the ASF, the exposure duration divided by averaging time, and the frequency of time spent at home (for residents only):

$$Risk_{inh\text{-}res} = (Dose_{air} * CPF * ASF * (ED/AT) * FAH)$$

Where:

$Risk_{inh\text{-}res}$	=	residential inhalation cancer risk (potential chances per million)
$Dose_{air}$	=	daily dose through inhalation (mg/kg-day)
CPF	=	inhalation cancer potency factor (mg/kg-day^{-1})
ASF	=	age sensitivity factor for a specified age group (unitless)
ED	=	exposure duration (in years) for a specified age group
AT	=	averaging time of lifetime cancer risk (years)
FAH	=	Fraction of time spent at home (unitless)

Chronic Non-Cancer Hazard. Non-cancer chronic impacts are calculated by dividing the annual average concentration by the REL for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. The following equation was used to determine the non-cancer risk:

$$\text{Hazard Quotient} = C_i/REL_i$$

Where:

Ci	=	Concentration in the air of substance i (annual average concentration in µg/m^3)
RELi	=	Chronic noncancer Reference Exposure Level for substance i (µg/m^3)

Acute Non-Cancer Hazard. The potential for acute non-cancer hazards is evaluated by comparing the maximum short-term exposure level to an acute REL. RELs are designed to protect sensitive individuals within the population. The calculation of acute non-cancer impacts is similar to the procedure for chronic non-cancer impacts. The equation is as follows:

$$\text{Acute HQ} = \text{Maximum Hourly Air Concentration (µg/m}^3\text{)} / \text{Acute REL (µg/m}^3\text{)}$$

Health Risk Computation

A health risk computation was performed to determine the risk of developing an excess cancer risk calculated on a 30-year exposure scenario using CARB's Risk Assessment Stand Alone Tool (RAST). Health risk were analyzed at the point of maximum impact and are a conservative estimate. The pollutant concentrations are then used to estimate the long-term cancer health risk to an individual as well as the non-cancer chronic health index.

The off-site impacts would occur from the diesel trucks on the adjacent freeway. The cancer and chronic health risks are based on the annual average concentration of PM_{10}. As DPM does not have short-term toxicity values, acute risks were conservatively evaluated using hourly $PM_{2.5}$ concentrations and the REL for acrolein. The chronic and carcinogenic health risk calculations are based on the standardized equations contained in the U.S. EPA *Human Health Evaluation Manual* (1991) and the OEHHA Guidance Manual (2015).

Potential Health Risk Impacts

CARB identified DPM as a TAC in 1998. Mobile sources (including trucks, buses, automobiles, trains, ships, and farm equipment) are by far the largest source of diesel emissions. The exhaust from diesel engines

includes hundreds of different gaseous and particulate components, many of which are toxic. Diesel exhaust is composed of two phases, either gas or particulate – both contribute to the risk. The gas phase is composed of many of the urban TACs, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, and polycyclic aromatic hydrocarbons. The particulate phase has many different types that can be classified by size or composition. The sizes of diesel particulates of greatest health concern are fine and ultrafine particles. These particles may be composed of elemental carbon with adsorbed compounds such as organics, sulfates, nitrates, metals, and other trace elements. Diesel exhaust is emitted from a broad range of on- and off-road diesel engines.

Operational Health Risk Assessment

The Project would increase the number of on-site emergency generators from 8 to 15 which would potentially expose nearby sensitive receptors to an increase in air toxics and resultant health risks. Emergency generator emission rates were calculated using generator specifications.

Based on the AERMOD outputs, expected annual average diesel $PM_{2.5}$ emission concentrations from the Project's emergency generators to the sensitive receptors would be 0.003 µg/m^3 in the opening year. As shown in Table 3: Operational Risk Assessment Results, the highest calculated carcinogenic risk resulting from the Project is 4 per million s, which is below the lowest threshold of 10 per million. Acute and chronic hazards also would be below the Rule 1401 threshold of 1.0 and Rule 1402 threshold of 3.0.

Table 3: Operational Risk Assessment Results

Exposure Scenario	Pollutant Concentration (µg/m^3)	Maximum Cancer Risk (Risk per Million)	Chronic Noncancer Hazard	Acute Noncancer Hazard
Emergency Generator Individual (worker)	0.0001	0.01	0.00002	0.004
Emergency Generator Individual (resident)	0.0003	0.25	0.0001	0.004
Emergency Generator Facility (worker)	0.002	0.10	0.0004	0.058
Emergency Generator Facility (resident)	0.005	4.03	0.0009	0.058
Exceed CEQA Threshold?[3]	**No**	**No**	**No**	**No**
Exceed 1401 Threshold?[4]	**No**	**No**	**No**	**No**
Exceed 1402 Threshold?[5]	**No**	**No**	**No**	**No**

1. Refer to Appendix A: Modeling Data.
2. The maximum cancer for would be experienced at the soccer field northwest of the project site based on worst-case exposure durations for the Project, 95th percentile breathing rates, and 25-year averaging time for workers. The residents are located east of the project site.
3. CEQA threshold is expose sensitive receptors to substantial pollutant concentrations (10 in one million cancer risk and 1.0 acute and chronic noncancer risk).
4. SCAQMD 1401 Threshold is 10 in one million cancer risk and 1.0 acute and chronic noncancer risk.
5. SCAQMD 1402 Threshold is 25 in one million cancer risk and 3.0 acute and chronic noncancer risk.

The pollutant concentrations modeled in AERMOD represent the exposure levels outdoors. The analysis conservatively does not include indoor exposure adjustments for residents. However, the typical person spends the majority of time indoors rather than remaining outdoors in the same location for 24 hours a

day.[5] Therefore, the AERMOD outdoor pollutant concentrations are not necessarily representative of actual exposure at the Project site and tend to overestimate exposure. The risk calculations are based on the pollutant concentration at the worst-case location and conservatively assume: no cleaner technology or lower emissions in future years, and 95th percentile breathing rates. Table 2 shows the cancer risk at the Project site would be less than significant.

Conclusion

As described above, impacts related to cancer risk would be less than applicable thresholds, limits, and action levels. Therefore, impacts related to health risk from the Project would be less than significant.

[5] California Air Resources Board Research Division and University of California, Berkeley, *Activity Patterns of California Residents,* May 1991. The study indicates that on average, adults and adolescents in California spent almost 15 hours per day inside the ir homes, and 6 hours in other indoor locations, for a total of 21 hours (87% of the day). Approximately two hours per day were spent in transit, and just over one hour per day was spent in outdoor locations.

1 REFERENCES

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12. South Coast Air Quality Management District, *Air Toxics Control Plan for the Next Ten Years*, March 2000.
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14. South Coast Air Quality Management District, *SCAQMD Meteorological Data for AERMOD,* www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/aermod-table-1, accessed February 21, 2020.
15. South Coast Air Quality Management District, *Multiple Air Toxics Exposure Study (MATES V)*, August 2021.
16. South Coast Air Quality Management District, *SCAQMD Modeling Guidance for AERMOD*, www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/modeling-guidance, accessed February 21, 2020.
17. South Coast Air Quality Management District, *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*, August 2003.
18. United States Environmental Protection Agency, *Exposure Factors Handbook: 2011 Edition*, September 2011.

Appendix A

Modeling Data

Table 1 Emergency Standby Generator Specifications[4]

Permitting Status		Existing Generators		Permitted Generators	Future Generators	
Manufacturer		CAT	CAT	CAT	CAT	CAT
Model		3516C HD	C-15	3516C	3516C	C-32
Rating	kWe	2,500	550	2,500	2,500	1,250
Power generation per unit @ 100% load	kWm	2,709	581	2,710	2,710	1,355
	HP	3,633	779	3,634	3,634	1,816
Number of units		3	1	4	5	2
Annual maximum maintenance and testing hours		50	50	50	50	50
Fuel type		Diesel	Diesel	Diesel	Diesel	Diesel
Fuel high heat value	MMBtu/gal	0.138	0.138	0.138	0.138	0.138

1. Based on manufacturer specifications for CAT 3516c HD (existing) and CAT 3516C (proposed). C-15 information based on Certified Equipment Permits (CEP) provided by SCAQMD in December 2010.

2. Per SCAQMD Rule 1470(c) (2)(C) (i), maintenance and testing operations are limited to 50 hours per year per generator.

3. Potential to emit (PTE) of an engine is based on the limit of 50 hours on maintenane and testing operations per year, in accordance with South Coast AQMD's policy and procedures No. EC-02-09, dated 2/24/2009.

4. Total operation of emergency generators will be limited to 200 hours per year per generator and to be exempt from emissions limits set under Rule 1110.2 pursuant to Rule 1110.2(i)(1)(B).

Table 2 Emission Factors at 100% Operational Load

Pollutant	CAT 3516C HD Emission Factors (per generator)		CAT C-15 Emission Factors (per generator)		CAT 3516C Emission Factors (per generator)		CAT 3516C Emission Factors (per generator)		CAT C-32 Emission Factors (per generator)	
	g/hp-hr	lb/hr	g/hp-hr	lb/hr	g/hp-hr	lb/hr	g/hp-hr	lb/hr	g/hp-hr	lb/hr
Nox	3.7	29.63	2.85	4.89	3.79	30.36	3.79	30.36	3.79	15.17
CO	0.76	6.09	1.83	3.14	0.45	3.61	0.45	3.61	0.76	3.04
PM_{10}	0.05	0.40	0.098	0.17	0.05	0.40	0.05	0.40	0.05	0.20
$PM_{2.5}$	0.05	0.40	0.098	0.17	0.05	0.40	0.05	0.40	0.05	0.20
PM	0.05	0.40	0.098	0.17	0.05	0.40	0.05	0.40	0.05	0.20
SO_2	0.006	0.05	0.006	0.01	0.006	0.05	0.006	0.05	0.006	0.02
VOC	0.14	1.12	0.09	0.15	0.02	0.16	0.02	0.16	0.14	0.56
CO_2	518	4148.87	518	889.61	518	4150.01	518	4150.01	518	2073.52
N_2O	0.004	0.03	0.004	0.01	0.004	0.03	0.004	0.03	0.004	0.02
CH4	0.02	0.16	0.02	0.03	0.02	0.16	0.02	0.16	0.02	0.08
CO_2e	519	4156.88	519	891.33	519	4158.02	519	4158.02	519	2077.52
Benzene	0.002	0.02	0.002	0.00	0.02	0.16	0.02	0.16	0.002	0.01
Toluene	8.90E-04	0.01	8.90E-04	0.00	8.90E-04	0.01	8.90E-04	0.01	8.90E-04	0.00
Formaldehyde	2.50E-04	0.00	2.50E-04	0.00	2.50E-04	0.00	2.50E-04	0.00	2.50E-04	0.00
Acetaldehyde	8.00E-05	0.00	8.00E-05	0.00	8.00E-05	0.00	8.00E-05	0.00	8.00E-05	0.00
Acrolein	2.50E-05	0.00	2.50E-05	0.00	2.50E-05	0.00	2.50E-05	0.00	2.50E-05	0.00
Naphthalene	4.10E-04	0.00	4.10E-04	0.00	4.10E-04	0.00	4.10E-04	0.00	4.10E-04	0.00
Total HAP	0.005	0.04	5.00E-03	0.01	5.00E-03	0.04	5.00E-03	0.04	0.005	0.02

1. Existing CAT 3516C HD information based on manufacturer specifications. C-15 information based on Certified Equipment Permits (CEP) provided by SCAQMD in December 2010.

Emission factors of proposed CAT 3516C are based on CEP Application Number 554732. Emission factors were converted from (g/hp-hr) to (lb/hr) by multiplying the corresponding engine power (bhp) and converting from grams to pounds.

2. Conservatively estimate $PM=PM_{10}=PM_{2.5}$.

3. SO_2 emissions based on AP-42 Section 3.4 (10/96) emission rate of 8.09e-3 lb/hp-hr. Sulfur content of ultra-low sulfur diesel is 15 ppm.

4. Global Warming Potential from 40 CFR 98 Subpart A Table A-1. Emission factors from 40 CFR 98 Table C-1 and C-2 for petroleum fuel.

5. HAP emissions based on AP-42 Table 3.4-3. Speciated organic compound emission factors for large uncontrolled stationary diesel engines.

6. Proposed generators (CAT 3516C) is EPA Tier 2 certified and certified through SCAQMD, therefore meets the emission limits set under Rule 1470(c) (2)(C)(vii).

7. Sample Calculation:

$$100\%\ Load\ NO_x\left(^{lb}/_{hr}\right) = 3.70\ \left(^{g}/_{hp-hr}\right) * 3.633\ hp * \left(\frac{1\ lb}{453.592\ g}\right) = 29.63\ lb/hr$$

Table 3 Estimated Facility-wide Projected Annual Emissions and PTE[1]

Pollutant	CAT 3516C HD (total) PTE tpy	CAT C-15 (total) PTE tpy	CAT 3516C (total) PTE tpy	Future CAT 3516C (total) PTE tpy	Future CAT C-32 (total) PTE tpy	Facility-wide Emissions PTE lb/day	Facility-wide Emissions PTE tpy	Title V Threshold[2] tpy
Nox	2.22	0.12	3.04	3.80	0.76	54.44	9.94	10
CO	0.46	0.08	0.36	0.45	0.15	8.21	1.50	50
PM_{10}	0.03	0.004	0.04	0.05	0.01	0.74	0.13	70
$PM_{2.5}$	0.03	0.004	0.04	0.05	0.01	0.74	0.13	---
PM	0.03	0.004	0.04	0.05	0.01	0.74	0.13	---
SO2	0.00	2.6E-04	0.00	0.01	0.00	0.09	0.02	100
VOC	0.08	0.004	0.02	0.02	0.03	0.83	0.15	10
CO_2e	311.77	22.28	415.80	519.75	103.88	7525.92	1,373.48	100,000
Total HAP	0.003	2.15E-04	0.004	0.005	0.001	0.07	0.01	25

1. Potential to emit (PTE) is based on the limit of 50 hours on maintenance and testing operation per generator per year, in accordance with SCAQMD's policy and procedures No. EC-02-09, dated 2/24/2009. Maximum lb/day emissions are based on 365 days/year.

2. Title V thresholds pursuant to South Coast AQMD Rule 3001(b)(2) Table 2 and 3001(c)(9).

Pollutant	CAT 3516C Emission Factors (per generator)			CAT 3512C Emission Factors (per generator)			CAT C-15 Emission Factors (per generator)		
	g/hp-hr	lb/hr	g/s	g/hp-hr	lb/hr	g/s	g/hp-hr	lb/hr	g/s
PM	0.05	0.40	0.000288	0.05	0.20	0.000144	0.098	0.170	0.000122

		1hr	8hr	24hr	period
Facility	Worker	0.14524	0.0823	0.04279	0.00164
	Resident	0.14524	0.0823	0.04279	0.00456
Individual	Worker	0.01023	0.00536	0.0027	0.00014
	Resident	0.01023	0.00536	0.0027	0.00028

HARP 2 Risk Summary

Facility Workers

				Cancer	Chronic	Acute	
INDEX	**POLID/CAS**	**Pollutant**	**CONC**	**INH_RISK**	**RESP**	**CONC**	**RESP**
1	9901	DieselExhPM	1.64E-03	1.02E-07	3.28E-04	1.45E-01	0.00E+00
2	107028	Acrolein	0.00E+00	0.00E+00	0.00E+00	1.45E-01	5.81E-02
	Risk per Million (DPM)			0.10			

Individual Workers

				Cancer	Chronic	Acute	
INDEX	**POLID/CAS**	**Pollutant**	**CONC**	**INH_RISK**	**RESP**	**CONC**	**RESP**
1	9901	DieselExhPM	1.20E-04	7.43E-09	2.40E-05	1.02E-02	0.00E+00
2	107028	Acrolein	0.00E+00	0.00E+00	0.00E+00	1.02E-02	4.09E-03
	Risk per Million (DPM)			0.01			

Facility Residents

				Cancer	Chronic	Acute	
INDEX	**POLID/CAS**	**Pollutant**	**CONC**	**INH_RISK**	**RESP**	**CONC**	**RESP**
1	9901	DieselExhPM	4.56E-03	4.03E-06	9.12E-04	3.65E-02	0.00E+00
2	107028	Acrolein	0.00E+00	0.00E+00	0.00E+00	3.65E-02	1.46E-02
	Risk per Million (DPM)			4.03			

Individual Residents

				Cancer	Chronic	Acute	
INDEX	**POLID/CAS**	**Pollutant**	**CONC**	**INH_RISK**	**RESP**	**CONC**	**RESP**
1	9901	DieselExhPM	2.80E-04	2.48E-07	5.60E-05	1.02E-02	0.00E+00
2	107028	Acrolein	0.00E+00	0.00E+00	0.00E+00	1.02E-02	4.09E-03
	Risk per Million (DPM)			0.25			

```
**
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** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 2/3/2022
** File: C:\Lakes\AERMOD View\Ollie\Ollie Facility Residents\Ollie Facility
Residents.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\Ollie\Ollie Facility Residents\Ollie Facility R
   MODELOPT DFAULT CONC
   AVERTIME 1 8 24 PERIOD
   URBANOPT 10040000 LA_County
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL "Ollie Facility Residents.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      371900.716  3754412.638       30.880
** DESCRSRC Generator 1 (3516C)
   LOCATION STCK5        POINT      371911.078  3754405.392       30.810
** DESCRSRC Generator 1 (3512C)
   LOCATION STCK6        POINT      371920.501  3754360.065       30.830
** DESCRSRC Generator 2 (3512C)
   LOCATION STCK7        POINT      371906.503  3754367.603       31.020
** DESCRSRC Generator 2 (3516C)
   LOCATION STCK8        POINT      371925.885  3754411.213       30.740
** DESCRSRC Generator 3 (3516C)
   LOCATION STCK9        POINT      371916.194  3754377.832       30.910
** DESCRSRC Generator 4 (3516C)
   LOCATION STCK10       POINT      371886.044  3754417.136       31.060
** DESCRSRC Generator 5 (3516C)
```

```
   LOCATION STCK11       POINT      371917.271  3754415.520       30.760
** DESCRSRC Generator 6 (3516C)
   LOCATION STCK12       POINT      371924.270  3754349.297       30.760
** DESCRSRC Generator 7 (3516C)
   LOCATION STCK13       POINT      371901.657  3754390.754       31.010
** DESCRSRC Generator 8 (3516C)
   LOCATION STCK14       POINT      371888.197  3754402.060       31.080
** DESCRSRC Generator 9 (3516C)
   LOCATION STCK15       POINT      371913.502  3754348.758       30.920
** DESCRSRC Generator 10 (3516C)
   LOCATION STCK16       POINT      371917.809  3754393.446       30.840
** DESCRSRC Generator 11 (3516C)
   LOCATION STCK17       POINT      371925.347  3754384.831       30.810
** DESCRSRC Generator 12 (3516C)
   LOCATION STCK18       POINT      371925.347  3754371.371       30.790
** DESCRSRC Generator 1 (C-15)
** Source Parameters **
   SRCPARAM STCK1         0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK5         0.000144     5.000   763.850 224.39084     0.229

   SRCPARAM STCK6         0.000144     5.000   763.850 224.39084     0.229

   SRCPARAM STCK7         0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK8         0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK9         0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK10        0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK11        0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK12        0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK13        0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK14        0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK15        0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK16        0.000288     5.000   763.850  31.62397     0.229

   SRCPARAM STCK17        0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK18        0.000122     5.000   763.850 224.39084     0.229

   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
```

```
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Ollie Facility Residents.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.SFC
   PROFFILE LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.PFL
   SURFDATA 23174 2012 LOS_ANGELES/INT'L_ARPT
   UAIRDATA 3190 2012
   PROFBASE 30.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "OLLIE FACILITY RESIDENTS.AD\01H1GALL.PLT" 31
   PLOTFILE 8 ALL 1ST "OLLIE FACILITY RESIDENTS.AD\08H1GALL.PLT" 32
   PLOTFILE 24 ALL 1ST "OLLIE FACILITY RESIDENTS.AD\24H1GALL.PLT" 33
   PLOTFILE PERIOD ALL "OLLIE FACILITY RESIDENTS.AD\PE00GALL.PLT" 34
   SUMMFILE "Ollie Facility Residents.sum"
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
```

```
** ZONEINX  0
**
```

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 2/3/2022
** File: C:\Lakes\AERMOD View\Ollie\Ollie Facility Residents\Ollie Facility
Residents.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\Ollie\Ollie Facility Residents\Ollie Facility R
   MODELOPT DFAULT CONC
   AVERTIME 1 8 24 PERIOD
   URBANOPT 10040000 LA_County
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL "Ollie Facility Residents.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      371900.716  3754412.638       30.880
** DESCRSRC Generator 1 (3516C)
   LOCATION STCK5        POINT      371911.078  3754405.392       30.810
** DESCRSRC Generator 1 (3512C)
   LOCATION STCK6        POINT      371920.501  3754360.065       30.830
** DESCRSRC Generator 2 (3512C)
   LOCATION STCK7        POINT      371906.503  3754367.603       31.020
** DESCRSRC Generator 2 (3516C)
   LOCATION STCK8        POINT      371925.885  3754411.213       30.740
** DESCRSRC Generator 3 (3516C)
   LOCATION STCK9        POINT      371916.194  3754377.832       30.910
** DESCRSRC Generator 4 (3516C)
   LOCATION STCK10       POINT      371886.044  3754417.136       31.060
** DESCRSRC Generator 5 (3516C)
```

```
   LOCATION STCK11       POINT      371917.271  3754415.520       30.760
** DESCRSRC Generator 6 (3516C)
   LOCATION STCK12       POINT      371924.270  3754349.297       30.760
** DESCRSRC Generator 7 (3516C)
   LOCATION STCK13       POINT      371901.657  3754390.754       31.010
** DESCRSRC Generator 8 (3516C)
   LOCATION STCK14       POINT      371888.197  3754402.060       31.080
** DESCRSRC Generator 9 (3516C)
   LOCATION STCK15       POINT      371913.502  3754348.758       30.920
** DESCRSRC Generator 10 (3516C)
   LOCATION STCK16       POINT      371917.809  3754393.446       30.840
** DESCRSRC Generator 11 (3516C)
   LOCATION STCK17       POINT      371925.347  3754384.831       30.810
** DESCRSRC Generator 12 (3516C)
   LOCATION STCK18       POINT      371925.347  3754371.371       30.790
** DESCRSRC Generator 1 (C-15)
** Source Parameters **
   SRCPARAM STCK1         0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK5         0.000144     5.000   763.850 224.39084     0.229
   SRCPARAM STCK6         0.000144     5.000   763.850 224.39084     0.229
   SRCPARAM STCK7         0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK8         0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK9         0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK10        0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK11        0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK12        0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK13        0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK14        0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK15        0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK16        0.000288     5.000   763.850  31.62397     0.229
   SRCPARAM STCK17        0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK18        0.000122     5.000   763.850 224.39084     0.229
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Ollie Facility Residents.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
```

```
ME STARTING
   SURFFILE LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.SFC
   PROFFILE LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.PFL
   SURFDATA 23174 2012 LOS_ANGELES/INT'L_ARPT
   UAIRDATA 3190 2012
   PROFBASE 30.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "OLLIE FACILITY RESIDENTS.AD\01H1GALL.PLT" 31
   PLOTFILE 8 ALL 1ST "OLLIE FACILITY RESIDENTS.AD\08H1GALL.PLT" 32
   PLOTFILE 24 ALL 1ST "OLLIE FACILITY RESIDENTS.AD\24H1GALL.PLT" 33
   PLOTFILE PERIOD ALL "OLLIE FACILITY RESIDENTS.AD\PE00GALL.PLT" 34
   SUMMFILE "Ollie Facility Residents.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of           16 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 SO W320      67        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
 SO W320      68        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
 SO W320      69        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
 SO W320      70        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
 SO W320      71        PPARM: Input Parameter May Be Out-of-Range for Parameter
```

```
       VS
 SO W320      72        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
 SO W320      73        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
 SO W320      74        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
 SO W320      75        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
 SO W320      76        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
 SO W320      77        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
 SO W320      78        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
 SO W320      80        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
 SO W320      81        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
 ME W186     106       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
     0.50
 ME W187     106       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:41:55

                                   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                          ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    15 Source(s),
```

```
   for Total of    1 Urban Area(s):
   Urban Population =  10040000.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        ADJ_U*   - Use ADJ_U* option for SBL in AERMET
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_10

 **Model Calculates  3 Short Term Average(s) of:   1-HR   8-HR  24-HR
     and Calculates PERIOD Averages

 **This Run Includes:     15 Source(s);       1 Source Group(s); and     190
Receptor(s)

                with:     15 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 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)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **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) = 30.00 ; 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: Ollie Facility Residents.err

**File for Summary of Results: Ollie Facility Residents.sum

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	BASE X (METERS)	STACK Y (METERS)	STACK ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR VARY BY	EMIS RATE SCALAR
STCK1	0	0.28800E-03	371900.7	3754412.6	30.9	5.00	763.85	224.39	0.23	NO	YES	NO	
STCK5	0	0.14400E-03	371911.1	3754405.4	30.8	5.00	763.85	224.39	0.23	NO	YES	NO	
STCK6	0	0.14400E-03	371920.5	3754360.1	30.8	5.00	763.85	224.39	0.23	NO	YES	NO	
STCK7	0	0.28800E-03	371906.5	3754367.6	31.0	5.00	763.85	224.39	0.23	NO	YES	NO	

```
 STCK8            0   0.28800E-03  371925.9 3754411.2    30.7     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK9            0   0.28800E-03  371916.2 3754377.8    30.9     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK10           0   0.28800E-03  371886.0 3754417.1    31.1     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK11           0   0.28800E-03  371917.3 3754415.5    30.8     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK12           0   0.28800E-03  371924.3 3754349.3    30.8     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK13           0   0.28800E-03  371901.7 3754390.8    31.0     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK14           0   0.28800E-03  371888.2 3754402.1    31.1     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK15           0   0.28800E-03  371913.5 3754348.8    30.9     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK16           0   0.28800E-03  371917.8 3754393.4    30.8     5.00   763.85
31.62      0.23    NO      YES   NO
 STCK17           0   0.28800E-03  371925.3 3754384.8    30.8     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK18           0   0.12200E-03  371925.3 3754371.4    30.8     5.00   763.85
224.39     0.23    NO      YES   NO
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                       ***        13:41:55

                                  PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                          *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
 -----------                                              ----------


  ALL        STCK1       , STCK5       , STCK6       , STCK7       , STCK8       ,
STCK9       , STCK10      , STCK11      ,

             STCK12      , STCK13      , STCK14      , STCK15      , STCK16      ,
STCK17      , STCK18      ,
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                       ***        13:41:55

                                  PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*
```

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	10040000.	STCK1 , STCK5 , STCK6 , STCK7 , STCK8 , STCK9 , STCK10 , STCK11 ,
		STCK12 , STCK13 , STCK14 , STCK15 , STCK16 , STCK17 , STCK18 ,

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART4 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

372595.6, 372625.6, 372655.6, 372685.6, 372715.6, 372745.6, 372775.6, 372805.6, 372835.6, 372865.6,

*** Y-COORDINATES OF GRID ***
(METERS)

3754133.9, 3754163.9, 3754193.9, 3754223.9, 3754253.9, 3754283.9, 3754313.9, 3754343.9, 3754373.9, 3754403.9,
3754433.9, 3754463.9, 3754493.9, 3754523.9, 3754553.9, 3754583.9, 3754613.9, 3754643.9, 3754673.9,

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)									
	372595.60	372625.60	372655.60	372685.60	372715.60	372745.60	372775.60	372805.60	372835.60	
3754673.87	30.20	30.00	29.70	29.60	29.70	29.30	29.30	29.40	29.40	
3754643.87	30.10	30.00	29.80	29.70	29.40	29.30	29.20	29.00	28.90	
3754613.87	30.30	30.50	30.40	30.90	30.30	29.80	29.60	29.80	29.80	
3754583.87	30.30	30.50	30.40	30.60	30.40	29.70	29.50	29.60	30.00	
3754553.87	30.30	30.10	30.00	29.90	29.70	29.50	29.30	29.30	29.30	
3754523.87	30.20	30.10	30.20	30.00	29.90	29.70	29.60	29.60	29.40	
3754493.87	30.30	30.20	30.10	29.90	30.00	29.80	29.60	29.60	29.50	
3754463.87	30.30	30.30	30.30	29.40	29.40	29.30	29.20	29.10	29.00	
3754433.87	30.40	30.20	30.10	29.50	29.90	29.70	29.60	29.50	29.40	
3754403.87	30.40	30.00	29.80	29.40	29.40	29.20	29.10	29.00	29.00	
3754373.87	30.40	30.40	30.20	30.00	29.80	29.70	29.50	29.40	29.20	
3754343.87	30.40	30.50	30.30	30.10	29.90	29.70	29.60	29.50	29.50	
3754313.87	30.40	30.40	30.30	30.10	29.90	29.70	29.70	29.60	29.60	
3754283.87	30.40	30.50	30.30	30.30	30.10	30.00	29.90	29.80	29.90	
3754253.87	30.40	30.20	29.90	29.80	29.70	29.60	29.50	29.40	29.40	
3754223.87	30.30	30.40	30.30	30.10	30.00	29.90	29.70	29.60	29.50	
3754193.87	30.10	30.20	30.10	29.80	29.60	29.50	29.40	29.30	29.30	
3754163.87	30.40	30.30	30.20	29.90	29.80	29.60	29.50	29.40	29.40	
3754133.87	30.30	30.50	30.50	30.50	30.50	30.20	29.80	29.50	29.50	

*** NETWORK ID: UCART4 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 372865.60
3754673.87	29.30
3754643.87	28.80
3754613.87	29.90
3754583.87	30.30
3754553.87	29.20
3754523.87	29.30
3754493.87	29.50
3754463.87	28.90
3754433.87	29.30
3754403.87	28.80
3754373.87	29.20
3754343.87	29.30
3754313.87	29.40
3754283.87	29.60
3754253.87	29.20
3754223.87	29.40
3754193.87	29.20
3754163.87	29.20
3754133.87	29.30

*** NETWORK ID: UCART4 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)

```
   (METERS) |     372595.60    372625.60    372655.60    372685.60    372715.60
372745.60    372775.60    372805.60    372835.60
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  3754673.87 |         30.20        30.00        29.70        29.60        29.70
    29.30        29.30        29.40        29.40
  3754643.87 |         30.10        30.00        29.80        29.70        29.40
    29.30        29.20        29.00        28.90
  3754613.87 |         30.30        30.50        30.40        30.90        30.30
    29.80        29.60        29.80        29.80
  3754583.87 |         30.30        30.50        30.40        30.60        30.40
    29.70        29.50        29.60        30.00
  3754553.87 |         30.30        30.10        30.00        29.90        29.70
    29.50        29.30        29.30        29.30
  3754523.87 |         30.20        30.10        30.20        30.00        29.90
    29.70        29.60        29.60        29.40
  3754493.87 |         30.30        30.20        30.10        29.90        30.00
    29.80        29.60        29.60        29.50
  3754463.87 |         30.30        30.30        30.30        29.40        29.40
    29.30        29.20        29.10        29.00
  3754433.87 |         30.40        30.20        30.10        29.50        29.90
    29.70        29.60        29.50        29.40
  3754403.87 |         30.40        30.00        29.80        29.40        29.40
    29.20        29.10        29.00        29.00
  3754373.87 |         30.40        30.40        30.20        30.00        29.80
    29.70        29.50        29.40        29.20
  3754343.87 |         30.40        30.50        30.30        30.10        29.90
    29.70        29.60        29.50        29.50
  3754313.87 |         30.40        30.40        30.30        30.10        29.90
    29.70        29.70        29.60        29.60
  3754283.87 |         30.40        30.50        30.30        30.30        30.10
    30.00        29.90        29.80        29.90
  3754253.87 |         30.40        30.20        29.90        29.80        29.70
    29.60        29.50        29.40        29.40
  3754223.87 |         30.30        30.40        30.30        30.10        30.00
    29.90        29.70        29.60        29.50
  3754193.87 |         30.10        30.20        30.10        29.80        29.60
    29.50        29.40        29.30        29.30
  3754163.87 |         30.40        30.30        30.20        29.90        29.80
    29.60        29.50        29.40        29.40
  3754133.87 |         30.30        30.50        30.50        30.50        30.50
    30.20        29.80        29.50        29.50
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                       ***        13:41:55

                                   PAGE   9
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*
```

*** NETWORK ID: UCART4 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 372865.60
3754673.87	29.30
3754643.87	28.80
3754613.87	29.90
3754583.87	30.30
3754553.87	29.20
3754523.87	29.30
3754493.87	29.50
3754463.87	28.90
3754433.87	29.30
3754403.87	28.80
3754373.87	29.20
3754343.87	29.30
3754313.87	29.40
3754283.87	29.60
3754253.87	29.20
3754223.87	29.40
3754193.87	29.20
3754163.87	29.20
3754133.87	29.30

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** 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

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           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.SFC
Met Version: 16216
Profile file: LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 23174 Upper air station no.: 3190
Name: LOS_ANGELES/INT'L_ARPT Name: UNKNOWN

Year: 2012 Year: 2012

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
12	01	01	1	01	-5.9	0.105	-9.000	-9.000	-999.	82.	17.6	0.10	2.55	1.00	1.35	246.	10.1	282.5	2.0

```
 12 01 01   1 02  -21.8  0.218 -9.000 -9.000 -999.  244.     52.3  0.10   2.55
1.00    2.67  268.   10.1  282.0    2.0
 12 01 01   1 03  -10.3  0.139 -9.000 -9.000 -999.  127.     23.6  0.10   2.55
1.00    1.76  311.   10.1  281.4    2.0
 12 01 01   1 04   -3.3  0.080 -9.000 -9.000 -999.   55.     14.1  0.10   2.55
1.00    0.97  280.   10.1  282.0    2.0
 12 01 01   1 05  -10.9  0.144 -9.000 -9.000 -999.  131.     24.4  0.10   2.55
1.00    1.81  267.   10.1  281.4    2.0
 12 01 01   1 06  -20.5  0.205 -9.000 -9.000 -999.  223.     46.3  0.10   2.55
1.00    2.52  283.   10.1  282.5    2.0
 12 01 01   1 07   -5.5  0.101 -9.000 -9.000 -999.   83.     16.9  0.10   2.55
1.00    1.30  324.   10.1  281.4    2.0
 12 01 01   1 08   -4.3  0.096 -9.000 -9.000 -999.   71.     18.6  0.10   2.55
0.55    1.23   90.   10.1  282.5    2.0
 12 01 01   1 09   45.7  0.183  0.378  0.007   43.  188.    -12.2  0.10   2.55
0.32    1.67  106.   10.1  289.2    2.0
 12 01 01   1 10  117.3  0.180  0.751  0.007  131.  184.     -4.5  0.10   2.55
0.24    1.42  105.   10.1  293.8    2.0
 12 01 01   1 11  168.5  0.173  1.222  0.005  391.  173.     -2.8  0.10   2.55
0.21    1.25   27.   10.1  297.5    2.0
 12 01 01   1 12  186.3  0.227  1.521  0.005  680.  260.     -5.7  0.10   2.55
0.20    1.86   63.   10.1  299.2    2.0
 12 01 01   1 13  190.2  0.253  1.817  0.005 1136.  306.     -7.7  0.10   2.55
0.20    2.16  300.   10.1  296.4    2.0
 12 01 01   1 14  160.2  0.448  1.842  0.005 1405.  720.    -50.6  0.10   2.55
0.21    4.68  276.   10.1  291.4    2.0
 12 01 01   1 15  108.6  0.466  1.661  0.005 1520.  764.    -83.9  0.10   2.55
0.24    5.02  270.   10.1  289.9    2.0
 12 01 01   1 16   37.3  0.455  1.167  0.005 1543.  737.   -228.8  0.10   2.55
0.33    5.10  270.   10.1  288.1    2.0
 12 01 01   1 17  -31.4  0.381 -9.000 -9.000 -999.  569.    159.8  0.10   2.55
0.59    4.54  268.   10.1  287.5    2.0
 12 01 01   1 18  -36.0  0.365 -9.000 -9.000 -999.  529.    146.4  0.10   2.55
1.00    4.37  274.   10.1  286.4    2.0
 12 01 01   1 19  -29.6  0.301 -9.000 -9.000 -999.  398.     99.5  0.10   2.55
1.00    3.63  271.   10.1  286.4    2.0
 12 01 01   1 20  -21.0  0.213 -9.000 -9.000 -999.  239.     49.9  0.10   2.55
1.00    2.61  271.   10.1  286.4    2.0
 12 01 01   1 21  -10.3  0.140 -9.000 -9.000 -999.  128.     24.0  0.10   2.55
1.00    1.77  281.   10.1  286.4    2.0
 12 01 01   1 22  -22.9  0.230 -9.000 -9.000 -999.  265.     58.3  0.10   2.55
1.00    2.81  270.   10.1  285.9    2.0
 12 01 01   1 23  -37.0  0.374 -9.000 -9.000 -999.  550.    154.2  0.10   2.55
1.00    4.48  272.   10.1  285.9    2.0
 12 01 01   1 24  -24.0  0.243 -9.000 -9.000 -999.  299.     65.0  0.10   2.55
1.00    2.96  274.   10.1  285.9    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
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*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , STCK5 , STCK6 , STCK7 , STCK8 , STCK9 , STCK10 , STCK11 , STCK12 , STCK13 , STCK14 , STCK15 , STCK16 , STCK17 , STCK18 ,

*** NETWORK ID: UCART4 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 372595.60	372625.60	372655.60	372685.60	372715.60	372745.60	372775.60	372805.60	372835.60
3754673.87	0.00305	0.00303	0.00300	0.00296	0.00293	0.00287	0.00283	0.00278	0.00273
3754643.87	0.00342	0.00337	0.00331	0.00324	0.00317	0.00310	0.00302	0.00295	0.00287
3754613.87	0.00380	0.00372	0.00362	0.00355	0.00343	0.00331	0.00321	0.00312	0.00303
3754583.87	0.00412	0.00400	0.00386	0.00374	0.00361	0.00345	0.00333	0.00322	0.00313
3754553.87	0.00437	0.00419	0.00401	0.00385	0.00369	0.00354	0.00339	0.00327	0.00315
3754523.87	0.00452	0.00430	0.00411	0.00392	0.00374	0.00357	0.00342	0.00328	0.00314
3754493.87	0.00456	0.00432	0.00410	0.00389	0.00371	0.00354	0.00337	0.00323	0.00309
3754463.87	0.00446	0.00422	0.00400	0.00375	0.00357	0.00340	0.00324	0.00310	0.00296
3754433.87	0.00424	0.00400	0.00378	0.00356	0.00341	0.00324	0.00309	0.00295	0.00282
3754403.87	0.00391	0.00368	0.00348	0.00329	0.00314

3754673.87 | 0.00268
3754643.87 | 0.00280
3754613.87 | 0.00295
3754583.87 | 0.00304

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , STCK5 , STCK6 , STCK7 , STCK8 , STCK9 , STCK10 , STCK11 , STCK12 , STCK13 , STCK14 , STCK15 , STCK16 , STCK17 , STCK18 ,

*** NETWORK ID: UCART4 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)			
	372595.60	372625.60	372655.60	372685.60	372715.60
3754673.9	0.03302 (15100118)	0.03162 (15102818)	0.03028 (15102818)	0.02900 (15102818)	0.02782 (14092718)
3754643.9	0.03358 (15102818)	0.03201 (16031321)	0.03062 (16031321)	0.02934 (15062622)	0.02805 (15062622)
3754613.9	0.03415 (16031319)	0.03276 (16031319)	0.03135 (16081419)	0.03025 (15101718)	0.02888 (15101718)
3754583.9	0.03492 (16081419)	0.03338 (15101718)	0.03189		
3754553.87	0.00303				
3754523.87	0.00302				
3754493.87	0.00297				
3754463.87	0.00284				
3754433.87	0.00270				
3754403.87	0.00251				
3754373.87	0.00232				
3754343.87	0.00210				
3754313.87	0.00188				
3754283.87	0.00166				
3754253.87	0.00145				
3754223.87	0.00126				
3754193.87	0.00109				
3754163.87	0.00094				
3754133.87	0.00081				

(15101718)   0.03057 (15101718)   0.02915 (16081820)
 3754553.9 | 0.03522 (16081819)   0.03357 (15102118)   0.03210
(15102118)   0.03069 (15102118)   0.02928 (15102118)
 3754523.9 | 0.03564 (15102118)   0.03385 (15091522)   0.03236
(16081220)   0.03087 (16081220)   0.02950 (16081220)
 3754493.9 | 0.03600 (16042019)   0.03423 (16042019)   0.03257
(16081120)   0.03103 (16081120)   0.02971 (14081119)
 3754463.9 | 0.03628 (14072220)   0.03456 (14072220)   0.03294
(14072220)   0.03101 (14072220)   0.02964 (16061920)
 3754433.9 | 0.03652 (15100120)   0.03464 (15100120)   0.03295
(15100120)   0.03116 (15091519)   0.02998 (15091519)
 3754403.9 | 0.03653 (12100919)   0.03448 (12100919)   0.03270
(12100919)   0.03104 (14092720)   0.02972 (14092720)
 3754373.9 | 0.03648 (14051924)   0.03468 (14051924)   0.03291
(13051319)   0.03134 (15102018)   0.02994 (15102018)
 3754343.9 | 0.03651 (12100818)   0.03476 (12100818)   0.03299
(14102520)   0.03144 (14102520)   0.03000 (14102520)
 3754313.9 | 0.03616 (12102320)   0.03447 (13062521)   0.03284
(13062521)   0.03128 (13062521)   0.02982 (13062521)
 3754283.9 | 0.03595 (15111001)   0.03429 (15111001)   0.03257
(15111001)   0.03111 (12102320)   0.02973 (14111518)
 3754253.9 | 0.03561 (15042619)   0.03378 (13102805)   0.03212
(13102805)   0.03065 (13102805)   0.02925 (14013104)
 3754223.9 | 0.03498 (13102806)   0.03336 (16042722)   0.03180
(16042722)   0.03026 (16042722)   0.02899 (14013104)
 3754193.9 | 0.03462 (13102806)   0.03317 (13102806)   0.03163
(13102806)   0.03006 (13102806)   0.02860 (13102806)
 3754163.9 | 0.03406 (15110418)   0.03256 (15110418)   0.03114
(14040106)   0.02977 (14040106)   0.02852 (15110717)
 3754133.9 | 0.03367 (15040319)   0.03240 (15040319)   0.03097
(15040319)   0.02974 (15110418)   0.02856 (15110418)

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                               *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   STCK1   , STCK5
 , STCK6   , STCK7   , STCK8   ,
                 STCK9   , STCK10   , STCK11   , STCK12   , STCK13
 , STCK14   , STCK15   , STCK16   ,
                 STCK17   , STCK18   ,

                                    *** NETWORK ID: UCART4   ; NETWORK TYPE: GRIDCART ***

Y-COORD (METERS)	X-COORD (METERS)			
	372745.60	372775.60	372805.60	372835.60	372865.60
3754673.9	0.02660 (13033119)	0.02559 (15062622)	0.02481 (12081419)	0.02398 (12081419)	0.02313 (15091319)
3754643.9	0.02699 (12081419)	0.02595 (12081419)	0.02492 (15091319)	0.02403 (15091319)	0.02316 (14061620)
3754613.9	0.02756 (15101718)	0.02640 (15101718)	0.02543 (16090919)	0.02454 (16090919)	0.02375 (16082119)
3754583.9	0.02773 (16081820)	0.02658 (15102118)	0.02565 (16071620)	0.02486 (15092818)	0.02409 (15092818)
3754553.9	0.02795 (15102118)	0.02669 (13100618)	0.02571 (13100618)	0.02478 (16101620)	0.02385 (16101620)
3754523.9	0.02816 (16081220)	0.02698 (14081119)	0.02597 (14081119)	0.02494 (16091019)	0.02402 (16091019)
3754493.9	0.02837 (14081119)	0.02714 (15020819)	0.02608 (15090519)	0.02509 (12100920)	0.02418 (12100920)
3754463.9	0.02838 (14072720)	0.02721 (14072720)	0.02611 (14072720)	0.02507 (14072720)	0.02409 (14072720)
3754433.9	0.02861 (15091519)	0.02741 (14082819)	0.02635 (14082819)	0.02535 (14082819)	0.02441 (14082819)
3754403.9	0.02843 (15102018)	0.02726 (15102018)	0.02618 (14082819)	0.02521 (14082819)	0.02422 (14082819)
3754373.9	0.02867 (15102018)	0.02745 (15102018)	0.02634 (15102018)	0.02526 (15102018)	0.02432 (15102018)
3754343.9	0.02865 (14102520)	0.02744 (14102520)	0.02630 (14102520)	0.02529 (13100219)	0.02429 (13100219)
3754313.9	0.02845 (13062521)	0.02726 (15112719)	0.02613 (15112719)	0.02513 (14020821)	0.02417 (14020821)
3754283.9	0.02850 (14111518)	0.02733 (14111518)	0.02622 (14111518)	0.02525 (14111518)	0.02419 (14111518)
3754253.9	0.02800 (14013104)	0.02681 (15052204)	0.02577 (14111518)	0.02486 (14111518)	0.02392 (14111518)
3754223.9	0.02789 (14013104)	0.02678 (14013104)	0.02575 (14013104)	0.02476 (14013104)	0.02382 (14013104)
3754193.9	0.02727 (15110717)	0.02616 (13100920)	0.02529 (13100920)	0.02447 (13100920)	0.02363 (13100920)
3754163.9	0.02735 (15110717)	0.02625 (15110717)	0.02517 (15110717)	0.02416 (15110717)	0.02313 (15110717)
3754133.9	0.02727 (15110418)	0.02606 (14040106)	0.02499 (14040106)	0.02410 (15110717)	0.02319 (15110717)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , STCK5 , STCK6 , STCK7 , STCK8 , STCK9 , STCK10 , STCK11 , STCK12 , STCK13 , STCK14 , STCK15 , STCK16 , STCK17 , STCK18 ,

*** NETWORK ID: UCART4 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 372595.60	372625.60	372655.60	372685.60	372715.60
3754673.9	0.02745m(16031324)	0.02679m(16031324)	0.02600m(16031324)	0.02524m(16031324)	0.02451m(16031324)
3754643.9	0.02876m(16031324)	0.02780m(16031324)	0.02676m(16031324)	0.02574m(16031324)	0.02463m(16031324)
3754613.9	0.02948m(16031324)	0.02838m(16031324)	0.02711m(16031324)	0.02610m(16031324)	0.02469m(16031324)
3754583.9	0.02924m(16031324)	0.02791m(16031324)	0.02646m(16031324)	0.02521m(16031324)	0.02385m(16031324)
3754553.9	0.02810m(16031324)	0.02644m(16031324)	0.02509 (15121024)	0.02383 (15121024)	0.02261 (15121024)
3754523.9	0.02822 (15121024)	0.02662 (15121024)	0.02519 (15121024)	0.02385 (15091524)	0.02311 (15091524)
3754493.9	0.02787 (15121024)	0.02617 (15121024)	0.02505 (15091524)	0.02410 (15091524)	0.02333 (15091524)
3754463.9	0.02679 (15091524)	0.02577 (15091524)	0.02480 (15091524)	0.02344 (15091524)	0.02258 (15091524)
3754433.9	0.02745 (15052208)	0.02595 (15052208)	0.02461 (15052208)	0.02322 (15052208)	0.02221 (15052208)
3754403.9	0.02745 (15052208)	0.02584 (15052208)	0.02453 (12100924)	0.02343 (12100924)	0.02258 (12100924)
3754373.9	0.02682 (12100924)	0.02576 (12100924)	0.02466 (12100924)	0.02364 (12100924)	0.02269 (12100924)
3754343.9	0.02687 (16030624)	0.02553 (16030624)	0.02419 (16030624)	0.02295 (16030624)	0.02201 (12100924)
3754313.9	0.02631 (16030624)	0.02506 (16030624)	0.02392		

```
(12121524)      0.02285 (12121524)      0.02186 (12121524)
 3754283.9 |      0.02627 (12121524)      0.02526 (12121524)      0.02417
(12121524)      0.02324 (12121524)      0.02228 (12121524)
 3754253.9 |      0.02548 (12121524)      0.02452 (12121524)      0.02355
(12121524)      0.02271 (12121524)      0.02191 (12121524)
 3754223.9 |      0.02387 (12121524)      0.02329 (12121524)      0.02262
(12121524)      0.02192 (12121524)      0.02126 (12121524)
 3754193.9 |      0.02163 (12121524)      0.02133 (12121524)      0.02092
(12121524)      0.02040 (12121524)      0.01991 (12121524)
 3754163.9 |      0.01980 (12110908)      0.01917 (12110908)      0.01893
(12121524)      0.01865 (12121524)      0.01839 (12121524)
 3754133.9 |      0.01795 (12110908)      0.01763 (12110908)      0.01721
(12110908)      0.01678 (12121524)      0.01673 (12121524)
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                              *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       , STCK5
 , STCK6       , STCK7       , STCK8       ,
                 STCK9       , STCK10      , STCK11      , STCK12      , STCK13
 , STCK14      , STCK15      , STCK16      ,
                 STCK17      , STCK18      ,

                                   *** NETWORK ID: UCART4   ;  NETWORK TYPE:
GRIDCART ***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

  Y-COORD  |                                                  X-COORD (METERS)
  (METERS) |      372745.60               372775.60               372805.60
      372835.60               372865.60
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

 3754673.9 |      0.02355m(16031324)      0.02275m(16031324)
0.02196m(16031324)      0.02115m(16031324)      0.02032m(16031324)
 3754643.9 |      0.02361m(16031324)      0.02262m(16031324)
0.02162m(16031324)      0.02069m(16031324)      0.01979m(16031324)
 3754613.9 |      0.02337m(16031324)      0.02222m(16031324)
0.02126m(16031324)      0.02028m(16031324)      0.01937m(16031324)
 3754583.9 |      0.02239m(16031324)      0.02120m(16031324)
0.02018m(16031324)      0.01942 (15091524)      0.01908 (15091524)
 3754553.9 |      0.02160 (15091524)      0.02098 (15091524)      0.02045
```

(15091524)   0.01991 (15091524)   0.01934 (15091524)
 3754523.9 | 0.02233 (15091524)   0.02161 (15091524)   0.02095
(15091524)   0.02024 (15091524)   0.01959 (15091524)
 3754493.9 | 0.02244 (15091524)   0.02160 (15091524)   0.02087
(15091524)   0.02014 (15091524)   0.01947 (15091524)
 3754463.9 | 0.02172 (15091524)   0.02090 (15091524)   0.02012
(15091524)   0.01939 (15091524)   0.01869 (15091524)
 3754433.9 | 0.02133 (12100924)   0.02058 (12100924)   0.01987
(12100924)   0.01919 (12100924)   0.01854 (12100924)
 3754403.9 | 0.02170 (12100924)   0.02090 (12100924)   0.02015
(12100924)   0.01947 (12100924)   0.01876 (12100924)
 3754373.9 | 0.02183 (12100924)   0.02099 (12100924)   0.02023
(12100924)   0.01948 (12100924)   0.01882 (12100924)
 3754343.9 | 0.02118 (12100924)   0.02043 (12100924)   0.01972
(12100924)   0.01907 (12100924)   0.01839 (12100924)
 3754313.9 | 0.02093 (12121524)   0.02014 (12121524)   0.01935
(12121524)   0.01864 (12121524)   0.01791 (12121524)
 3754283.9 | 0.02141 (12121524)   0.02060 (12121524)   0.01983
(12121524)   0.01915 (12121524)   0.01840 (12121524)
 3754253.9 | 0.02114 (12121524)   0.02041 (12121524)   0.01971
(12121524)   0.01906 (12121524)   0.01838 (12121524)
 3754223.9 | 0.02062 (12121524)   0.01996 (12121524)   0.01936
(12121524)   0.01876 (12121524)   0.01818 (12121524)
 3754193.9 | 0.01944 (12121524)   0.01896 (12121524)   0.01849
(12121524)   0.01803 (12121524)   0.01755 (12121524)
 3754163.9 | 0.01807 (12121524)   0.01775 (12121524)   0.01742
(12121524)   0.01708 (12121524)   0.01669 (12121524)
 3754133.9 | 0.01656 (12121524)   0.01633 (12121524)   0.01609
(12121524)   0.01589 (12121524)   0.01562 (12121524)

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                               *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
                                   INCLUDING SOURCE(S):   STCK1   , STCK5
 , STCK6   , STCK7   , STCK8   ,
                 STCK9   , STCK10   , STCK11   , STCK12   , STCK13
 , STCK14   , STCK15   , STCK16   ,
                 STCK17   , STCK18   ,

                                   *** NETWORK ID: UCART4   ; NETWORK TYPE: GRIDCART ***

                                        ** CONC OF PM_10   IN MICROGRAMS/M**3
                    **

Y-COORD (METERS)	X-COORD (METERS) 372595.60	372625.60	372655.60	372685.60	372715.60
3754673.9	0.01072m(16031324)	0.01046m(16031324)	0.01015m(16031324)	0.00985m(16031324)	0.00957m(16031324)
3754643.9	0.01122m(16031324)	0.01085m(16031324)	0.01044m(16031324)	0.01005m(16031324)	0.00961m(16031324)
3754613.9	0.01151m(16031324)	0.01108m(16031324)	0.01058m(16031324)	0.01041 (14071724)	0.01013 (14071724)
3754583.9	0.01187 (14071724)	0.01166 (14071724)	0.01137 (14071724)	0.01113 (14071724)	0.01080 (14071724)
3754553.9	0.01275 (14071724)	0.01231 (14071724)	0.01190 (14071724)	0.01149 (14071724)	0.01108 (14071724)
3754523.9	0.01370c(14040124)	0.01302c(14040124)	0.01241c(14040124)	0.01180c(14040124)	0.01124c(14040124)
3754493.9	0.01456c(14040124)	0.01376c(14040124)	0.01301c(14040124)	0.01232c(14040124)	0.01170c(14040124)
3754463.9	0.01507c(14040124)	0.01419c(14040124)	0.01339c(14040124)	0.01255c(14040124)	0.01188c(14040124)
3754433.9	0.01550 (14032624)	0.01449 (14032624)	0.01358 (14032624)	0.01273 (14032624)	0.01202 (14032624)
3754403.9	0.01566 (14032624)	0.01460 (14032624)	0.01366 (14032624)	0.01280 (14032624)	0.01205 (14032624)
3754373.9	0.01539 (14032624)	0.01441 (14033024)	0.01360 (14033024)	0.01286 (14033024)	0.01219 (14033024)
3754343.9	0.01504 (12110924)	0.01411 (12110924)	0.01330 (14033024)	0.01261 (14033024)	0.01197 (14033024)
3754313.9	0.01498 (12110924)	0.01408 (12110924)	0.01325 (12110924)	0.01248 (12110924)	0.01177 (12110924)
3754283.9	0.01454 (12110924)	0.01374 (12110924)	0.01297 (12110924)	0.01228 (12110924)	0.01162 (12110924)
3754253.9	0.01380 (12110924)	0.01308 (12110924)	0.01240 (12110924)	0.01179 (12110924)	0.01122 (12110924)
3754223.9	0.01282 (12110924)	0.01228 (12110924)	0.01174 (12110924)	0.01121 (12110924)	0.01072 (12110924)
3754193.9	0.01167 (12110924)	0.01128 (12110924)	0.01087 (12110924)	0.01044 (12110924)	0.01003 (12110924)
3754163.9	0.01051 (12110924)	0.01023 (12110924)	0.00994 (12110924)	0.00962 (12110924)	0.00931 (12110924)
3754133.9	0.00928 (12110924)	0.00915 (12110924)	0.00898 (12110924)	0.00879 (12110924)	0.00858 (12110924)

↑ *** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD View\Ollie\Ollie Facility Residents\Ollie Facility R *** 02/03/22
*** AERMET - VERSION 16216 *** ***
*** 13:41:55

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , STCK5 , STCK6 , STCK7 , STCK8 , STCK9 , STCK10 , STCK11 , STCK12 , STCK13 , STCK14 , STCK15 , STCK16 , STCK17 , STCK18 ,

*** NETWORK ID: UCART4 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)				
	372745.60	372775.60	372805.60	372835.60	372865.60
3754673.9	0.00920m(16031324)	0.00888m(16031324)	0.00858m(16031324)	0.00826m(16031324)	0.00794 (14071724)
3754643.9	0.00922m(16031324)	0.00891 (14071724)	0.00875 (14071724)	0.00859 (14071724)	0.00843 (14071724)
3754613.9	0.00985 (14071724)	0.00961 (14071724)	0.00942 (14071724)	0.00920 (14071724)	0.00900 (14071724)
3754583.9	0.01038 (14071724)	0.01006 (14071724)	0.00979 (14071724)	0.00957 (14071724)	0.00933 (14071724)
3754553.9	0.01067 (14071724)	0.01028 (14071724)	0.00994 (14071724)	0.00961 (14071724)	0.00929 (14071724)
3754523.9	0.01077 (14071724)	0.01035 (14071724)	0.00997 (14071724)	0.00958 (14071724)	0.00922 (14071724)
3754493.9	0.01110c(14040124)	0.01055c(14040124)	0.01005c(14040124)	0.00958c(14040124)	0.00915c(14040124)
3754463.9	0.01125c(14040124)	0.01068c(14040124)	0.01014c(14040124)	0.00965c(14040124)	0.00920c(14040124)
3754433.9	0.01134 (14032624)	0.01072 (14032624)	0.01015 (14032624)	0.00965c(14040124)	0.00919 (14033024)
3754403.9	0.01141 (14033024)	0.01086 (14033024)	0.01035 (14033024)	0.00989 (14033024)	0.00944 (14033024)
3754373.9	0.01158 (14033024)	0.01101 (14033024)	0.01049 (14033024)	0.01001 (14033024)	0.00957 (14033024)
3754343.9	0.01139 (14033024)	0.01085 (14033024)	0.01036 (14033024)	0.00991 (14033024)	0.00947 (14033024)
3754313.9	0.01113 (12110924)	0.01055 (12110924)	0.01000 (12110924)	0.00958 (14033024)	0.00918 (14033024)
3754283.9	0.01102 (12110924)	0.01046 (12110924)	0.00995		

(12110924)   0.00948 (12110924)   0.00902 (12110924)
 3754253.9 | 0.01068 (12110924)   0.01017 (12110924)   0.00970
(12110924)   0.00927 (12110924)   0.00885 (12110924)
 3754223.9 | 0.01025 (12110924)   0.00980 (12110924)   0.00938
(12110924)   0.00898 (12110924)   0.00861 (12110924)
 3754193.9 | 0.00965 (12110924)   0.00927 (12110924)   0.00892
(12110924)   0.00858 (12110924)   0.00825 (12110924)
 3754163.9 | 0.00900 (12110924)   0.00870 (12110924)   0.00841
(12110924)   0.00813 (12110924)   0.00785 (12110924)
 3754133.9 | 0.00834 (12110924)   0.00809 (12110924)   0.00785
(12110924)   0.00763 (12110924)   0.00739 (12110924)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43848 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   0.00456 AT (372595.60, 3754493.87,
30.30,   30.30,   0.00) GC UCART4
          2ND HIGHEST VALUE IS   0.00452 AT (372595.60, 3754523.87,
30.20,   30.20,   0.00) GC UCART4
          3RD HIGHEST VALUE IS   0.00446 AT (372595.60, 3754463.87,
30.30,   30.30,   0.00) GC UCART4
          4TH HIGHEST VALUE IS   0.00437 AT (372595.60, 3754553.87,
30.30,   30.30,   0.00) GC UCART4
          5TH HIGHEST VALUE IS   0.00432 AT (372625.60, 3754493.87,
30.20,   30.20,   0.00) GC UCART4
          6TH HIGHEST VALUE IS   0.00430 AT (372625.60, 3754523.87,
30.10,   30.10,   0.00) GC UCART4
          7TH HIGHEST VALUE IS   0.00424 AT (372595.60, 3754433.87,
30.40,   30.40,   0.00) GC UCART4
          8TH HIGHEST VALUE IS   0.00422 AT (372625.60, 3754463.87,
30.30,   30.30,   0.00) GC UCART4
          9TH HIGHEST VALUE IS   0.00419 AT (372625.60, 3754553.87,

```
30.10,    30.10,    0.00)  GC  UCART4
         10TH HIGHEST VALUE IS       0.00412 AT (  372595.60,  3754583.87,
30.30,    30.30,    0.00)  GC  UCART4


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:41:55

                                   PAGE  21
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                                ***  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       0.03653  ON 12100919: AT (  372595.60,
3754403.87,    30.40,    30.40,    0.00)  GC  UCART4


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:41:55

                                   PAGE  22
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                                ***  THE SUMMARY OF HIGHEST  8-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       0.02948m ON 16031324: AT (  372595.60,
3754613.87,    30.30,    30.30,    0.00)  GC  UCART4


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

↑ *** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD View\Ollie\Ollie Facility Residents\Ollie Facility R *** 02/03/22
*** AERMET - VERSION 16216 *** ***
*** 13:41:55

PAGE 23
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 24-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       0.01566  ON 14032624: AT (  372595.60,
3754403.87,    30.40,    30.40,    0.00)  GC  UCART4


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

↑ *** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD View\Ollie\Ollie Facility

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 16 Warning Message(s)
A Total of 718 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 458 Calm Hours Identified

A Total of 260 Missing Hours Identified (0.59 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
SO W320 67 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 68 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 69 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 70 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 71 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 72 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 73 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 74 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 75 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 76 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 77 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 78 PPARM: Input Parameter May Be Out-of-Range for Parameter

```
       VS
SO W320      80        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
SO W320      81        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
ME W186     106       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
     0.50
ME W187     106       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
```

*HARP - HRACalc v19044 2/3/2022 3:03:20 PM - Cancer Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Ollie El Segundo\Ollie_Ops_15_Residents_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE\	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_RISK	MMILK_RISK	WATER_RISK	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISK
1			9901	DieselExhP	0.00456	4.03E-06	30YrCancerHighEnd	*	4.03E-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
2			107028	Acrolein	0	0.00E+00	30YrCancerHighEnd	*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

PIG_RISK	CHICKEN_RISK	EGG_RISK	1ST_DRIVER	2ND_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
0.00E+00	0.00E+00	0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 2/3/2022 3:03:20 PM - Acute Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Ollie El Segundo\Ollie_Ops_15_Residents_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE\	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE\	RESP	SKIN	EYE	BONE/TEE1	ENDO	BLOOD	ODOR	GENERAL
	1		9901	DieselExhP	0.03653	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	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		107028	Acrolein	0.03653	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E-02	0.00E+00	1.46E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 2/3/2022 3:03:20 PM - Chronic Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Ollie El Segundo\Ollie_Ops_15_Residents_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE\	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE\	RESP	SKIN	EYE	BONE/TEET	ENDO	BLOOD	ODOR
	1		9901	DieselExhP	0.00456	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.12E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2		107028	Acrolein	0	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

GENERAL	DETAILS	INH_CONC	SOIL_DOSE	DERMAL_D	MMILK_DC	WATER_DC	FISH_DOSE	CROP_DOS	BEEF_DOSE	DAIRY_DOS	PIG_DOSE	CHICKEN_E	EGG_DOSE
0.00E+00	*	4.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1ST_DRIVE	2ND_DRIVE	3RD_DRIVE	PASTURE_(	FISH_CONC	WATER_CONC
INHALATIO	NA	NA	0.00E+00	0.00E+00	0.00E+00
INHALATIO	NA	NA	0.00E+00	0.00E+00	0.00E+00

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 2/3/2022
** File: C:\Lakes\AERMOD View\Ollie\Ollie.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\Ollie\Ollie.isc
   MODELOPT DFAULT CONC
   AVERTIME 1 8 24 PERIOD
   URBANOPT 10040000 LA_County
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL Ollie.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      371900.716  3754412.638       30.880
** DESCRSRC Generator 1 (3516C)
   LOCATION STCK5        POINT      371911.078  3754405.392       30.810
** DESCRSRC Generator 1 (3512C)
   LOCATION STCK6        POINT      371920.501  3754360.065       30.830
** DESCRSRC Generator 2 (3512C)
   LOCATION STCK7        POINT      371906.503  3754367.603       31.020
** DESCRSRC Generator 2 (3516C)
   LOCATION STCK8        POINT      371925.885  3754411.213       30.740
** DESCRSRC Generator 3 (3516C)
   LOCATION STCK9        POINT      371916.194  3754377.832       30.910
** DESCRSRC Generator 4 (3516C)
   LOCATION STCK10       POINT      371886.044  3754417.136       31.060
** DESCRSRC Generator 5 (3516C)
   LOCATION STCK11       POINT      371917.271  3754415.520       30.760
```

```
** DESCRSRC Generator 6 (3516C)
   LOCATION STCK12       POINT      371924.270  3754349.297       30.760
** DESCRSRC Generator 7 (3516C)
   LOCATION STCK13       POINT      371901.657  3754390.754       31.010
** DESCRSRC Generator 8 (3516C)
   LOCATION STCK14       POINT      371888.197  3754402.060       31.080
** DESCRSRC Generator 9 (3516C)
   LOCATION STCK15       POINT      371913.502  3754348.758       30.920
** DESCRSRC Generator 10 (3516C)
   LOCATION STCK16       POINT      371917.809  3754393.446       30.840
** DESCRSRC Generator 11 (3516C)
   LOCATION STCK17       POINT      371925.347  3754384.831       30.810
** DESCRSRC Generator 12 (3516C)
   LOCATION STCK18       POINT      371925.347  3754371.371       30.790
** DESCRSRC Generator 1 (C-15)
** Source Parameters **
   SRCPARAM STCK1         0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK5         0.000144     5.000   763.850 224.39084     0.229

   SRCPARAM STCK6         0.000144     5.000   763.850 224.39084     0.229

   SRCPARAM STCK7         0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK8         0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK9         0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK10        0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK11        0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK12        0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK13        0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK14        0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK15        0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK16        0.000288     5.000   763.850  31.62397     0.229

   SRCPARAM STCK17        0.000288     5.000   763.850 224.39084     0.229

   SRCPARAM STCK18        0.000122     5.000   763.850 224.39084     0.229

   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
```

```
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED Ollie.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.SFC
   PROFFILE LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.PFL
   SURFDATA 23174 2012 LOS_ANGELES/INT'L_ARPT
   UAIRDATA 3190 2012
   PROFBASE 30.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST Ollie.AD\01H1GALL.PLT 31
   PLOTFILE 8 ALL 1ST Ollie.AD\08H1GALL.PLT 32
   PLOTFILE 24 ALL 1ST Ollie.AD\24H1GALL.PLT 33
   PLOTFILE PERIOD ALL Ollie.AD\PE00GALL.PLT 34
   SUMMFILE Ollie.sum
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
```

**

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 2/3/2022
** File: C:\Lakes\AERMOD View\Ollie\Ollie.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\Ollie\Ollie.isc
   MODELOPT DFAULT CONC
   AVERTIME 1 8 24 PERIOD
   URBANOPT 10040000 LA_County
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL Ollie.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      371900.716  3754412.638       30.880
** DESCRSRC Generator 1 (3516C)
   LOCATION STCK5        POINT      371911.078  3754405.392       30.810
** DESCRSRC Generator 1 (3512C)
   LOCATION STCK6        POINT      371920.501  3754360.065       30.830
** DESCRSRC Generator 2 (3512C)
   LOCATION STCK7        POINT      371906.503  3754367.603       31.020
** DESCRSRC Generator 2 (3516C)
   LOCATION STCK8        POINT      371925.885  3754411.213       30.740
** DESCRSRC Generator 3 (3516C)
   LOCATION STCK9        POINT      371916.194  3754377.832       30.910
** DESCRSRC Generator 4 (3516C)
   LOCATION STCK10       POINT      371886.044  3754417.136       31.060
** DESCRSRC Generator 5 (3516C)
   LOCATION STCK11       POINT      371917.271  3754415.520       30.760
```

```
** DESCRSRC Generator 6 (3516C)
   LOCATION STCK12       POINT      371924.270  3754349.297       30.760
** DESCRSRC Generator 7 (3516C)
   LOCATION STCK13       POINT      371901.657  3754390.754       31.010
** DESCRSRC Generator 8 (3516C)
   LOCATION STCK14       POINT      371888.197  3754402.060       31.080
** DESCRSRC Generator 9 (3516C)
   LOCATION STCK15       POINT      371913.502  3754348.758       30.920
** DESCRSRC Generator 10 (3516C)
   LOCATION STCK16       POINT      371917.809  3754393.446       30.840
** DESCRSRC Generator 11 (3516C)
   LOCATION STCK17       POINT      371925.347  3754384.831       30.810
** DESCRSRC Generator 12 (3516C)
   LOCATION STCK18       POINT      371925.347  3754371.371       30.790
** DESCRSRC Generator 1 (C-15)
** Source Parameters **
   SRCPARAM STCK1         0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK5         0.000144     5.000   763.850 224.39084     0.229
   SRCPARAM STCK6         0.000144     5.000   763.850 224.39084     0.229
   SRCPARAM STCK7         0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK8         0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK9         0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK10        0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK11        0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK12        0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK13        0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK14        0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK15        0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK16        0.000288     5.000   763.850  31.62397     0.229
   SRCPARAM STCK17        0.000288     5.000   763.850 224.39084     0.229
   SRCPARAM STCK18        0.000122     5.000   763.850 224.39084     0.229
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**********************************
** AERMOD Receptor Pathway
**********************************
**
**
RE STARTING
   INCLUDED Ollie.rou
RE FINISHED
**
**********************************
** AERMOD Meteorology Pathway
**********************************
**
**
ME STARTING
```

```
   SURFFILE LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.SFC
   PROFFILE LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.PFL
   SURFDATA 23174 2012 LOS_ANGELES/INT'L_ARPT
   UAIRDATA 3190 2012
   PROFBASE 30.0 METERS
ME FINISHED
**
************************************
** AERMOD Output Pathway
************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST Ollie.AD\01H1GALL.PLT 31
   PLOTFILE 8 ALL 1ST Ollie.AD\08H1GALL.PLT 32
   PLOTFILE 24 ALL 1ST Ollie.AD\24H1GALL.PLT 33
   PLOTFILE PERIOD ALL Ollie.AD\PE00GALL.PLT 34
   SUMMFILE Ollie.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of           16 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 SO W320      67        PPARM: Input Parameter May Be Out-of-Range for Parameter
        VS
 SO W320      68        PPARM: Input Parameter May Be Out-of-Range for Parameter
        VS
 SO W320      69        PPARM: Input Parameter May Be Out-of-Range for Parameter
        VS
 SO W320      70        PPARM: Input Parameter May Be Out-of-Range for Parameter
        VS
 SO W320      71        PPARM: Input Parameter May Be Out-of-Range for Parameter
        VS
```

```
 SO W320      72        PPARM: Input Parameter May Be Out-of-Range for Parameter
        VS
 SO W320      73        PPARM: Input Parameter May Be Out-of-Range for Parameter
        VS
 SO W320      74        PPARM: Input Parameter May Be Out-of-Range for Parameter
        VS
 SO W320      75        PPARM: Input Parameter May Be Out-of-Range for Parameter
        VS
 SO W320      76        PPARM: Input Parameter May Be Out-of-Range for Parameter
        VS
 SO W320      77        PPARM: Input Parameter May Be Out-of-Range for Parameter
        VS
 SO W320      78        PPARM: Input Parameter May Be Out-of-Range for Parameter
        VS
 SO W320      80        PPARM: Input Parameter May Be Out-of-Range for Parameter
        VS
 SO W320      81        PPARM: Input Parameter May Be Out-of-Range for Parameter
        VS
 ME W186     106       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     106       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 ************************************
 *** SETUP Finishes Successfully ***
 ************************************

 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie.isc
                             ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                             ***       15:46:41

                                      PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                                ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    15 Source(s),
   for Total of    1 Urban Area(s):
```

```
   Urban Population =  10040000.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        ADJ_U*   - Use ADJ_U* option for SBL in AERMET
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_10

 **Model Calculates  3 Short Term Average(s) of:   1-HR   8-HR  24-HR
     and Calculates PERIOD Averages

 **This Run Includes:     15 Source(s);       1 Source Group(s); and      44
Receptor(s)

                with:     15 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 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)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **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) =   30.00 ; 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: Ollie.err

 **File for Summary of Results: Ollie.sum

 *** AERMOD - VERSION 21112 ***   *** C:\Lakes\AERMOD View\Ollie\Ollie.isc
                           ***   02/03/22
 *** AERMET - VERSION 16216 ***   ***
                          ***   15:46:41

                                    PAGE   2
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                                                *** POINT SOURCE DATA ***

               NUMBER EMISSION RATE   BASE   STACK   STACK
STACK   STACK   BLDG   URBAN CAP/ EMIS RATE
   SOURCE   PART. (GRAMS/SEC)   X   Y   ELEV.   HEIGHT TEMP.
EXIT VEL. DIAMETER EXISTS SOURCE HOR   SCALAR
     ID   CATS.   (METERS) (METERS) (METERS) (METERS) (DEG.K)
(M/SEC) (METERS)   VARY BY
 -
- -

 STCK1   0   0.28800E-03 371900.7 3754412.6   30.9   5.00   763.85
224.39   0.23   NO   YES   NO
 STCK5   0   0.14400E-03 371911.1 3754405.4   30.8   5.00   763.85
224.39   0.23   NO   YES   NO
 STCK6   0   0.14400E-03 371920.5 3754360.1   30.8   5.00   763.85
224.39   0.23   NO   YES   NO
 STCK7   0   0.28800E-03 371906.5 3754367.6   31.0   5.00   763.85
224.39   0.23   NO   YES   NO
 STCK8   0   0.28800E-03 371925.9 3754411.2   30.7   5.00   763.85

```
224.39     0.23    NO      YES   NO
 STCK9           0   0.28800E-03  371916.2 3754377.8    30.9     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK10          0   0.28800E-03  371886.0 3754417.1    31.1     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK11          0   0.28800E-03  371917.3 3754415.5    30.8     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK12          0   0.28800E-03  371924.3 3754349.3    30.8     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK13          0   0.28800E-03  371901.7 3754390.8    31.0     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK14          0   0.28800E-03  371888.2 3754402.1    31.1     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK15          0   0.28800E-03  371913.5 3754348.8    30.9     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK16          0   0.28800E-03  371917.8 3754393.4    30.8     5.00   763.85
31.62     0.23    NO      YES   NO
 STCK17          0   0.28800E-03  371925.3 3754384.8    30.8     5.00   763.85
224.39     0.23    NO      YES   NO
 STCK18          0   0.12200E-03  371925.3 3754371.4    30.8     5.00   763.85
224.39     0.23    NO      YES   NO
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie.isc
                          ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                         ***        15:46:41

                                    PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                          *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
 -----------                                              ----------


  ALL        STCK1       , STCK5       , STCK6       , STCK7       , STCK8       ,
STCK9       , STCK10      , STCK11      ,

             STCK12      , STCK13      , STCK14      , STCK15      , STCK16      ,
STCK17      , STCK18      ,
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie.isc
                          ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                         ***        15:46:41

                                    PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*
```

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	10040000.	STCK1 , STCK5 , STCK6 , STCK7 , STCK8 , STCK9 , STCK10 , STCK11 ,
		STCK12 , STCK13 , STCK14 , STCK15 , STCK16 , STCK17 , STCK18 ,

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

371990.6, 372020.6, 372050.6,

*** Y-COORDINATES OF GRID ***
(METERS)

3754134.3, 3754164.3, 3754194.3,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD | X-COORD (METERS)

```
    (METERS) |     371990.59    372020.59    372050.59
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

  3754194.30 |         30.30        30.10        30.10
  3754164.30 |         30.40        30.20        30.30
  3754134.30 |         30.50        30.10        30.30
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie.isc
                           ***       02/03/22
 *** AERMET - VERSION  16216 ***   ***
                           ***      15:46:41

                                    PAGE   7
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                  *** NETWORK ID: UCART1   ;  NETWORK TYPE:
GRIDCART ***

                                                * HILL HEIGHT SCALES IN METERS *

    Y-COORD  |                                                 X-COORD (METERS)
    (METERS) |     371990.59    372020.59    372050.59
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

  3754194.30 |         30.30        30.10        30.10
  3754164.30 |         30.40        30.20        30.30
  3754134.30 |         30.50        30.10        30.30
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie.isc
                           ***       02/03/22
 *** AERMET - VERSION  16216 ***   ***
                           ***      15:46:41

                                    PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                       *** GRIDDED RECEPTOR NETWORK SUMMARY ***

                                  *** NETWORK ID: UCART3   ;  NETWORK TYPE:
GRIDCART ***

                                         *** X-COORDINATES OF GRID ***
                                                  (METERS)

       371767.6,  371797.6,  371827.6,  371857.6,  371887.6,  371917.6,  371947.6,

                                         *** Y-COORDINATES OF GRID ***
                                                  (METERS)

      3754568.8, 3754598.8, 3754628.8, 3754658.8, 3754688.8,
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	371767.65	371797.65	371827.65	371857.65	371887.65	371917.65	371947.65		
3754688.79	31.20	31.50	31.50	31.40	31.30	31.10	30.90		
3754658.79	31.20	31.40	31.30	31.40	31.20	31.10	31.00		
3754628.79	31.10	31.30	31.20	31.40	31.10	31.00	31.00		
3754598.79	31.00	31.20	31.10	31.20	30.90	30.80	30.90		
3754568.79	31.00	31.00	31.00	31.00	30.80	30.80	30.60		

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	371767.65	371797.65	371827.65	371857.65	371887.65	371917.65	371947.65		
3754688.79	31.20	31.50	31.50	31.40	31.30	31.10	30.90		

```
  3754658.79 |         31.20        31.40        31.30        31.40        31.20
    31.10        31.00
  3754628.79 |         31.10        31.30        31.20        31.40        31.10
    31.00        31.00
  3754598.79 |         31.00        31.20        31.10        31.20        30.90
    30.80        30.90
  3754568.79 |         31.00        31.00        31.00        31.00        30.80
    30.80        30.60
```


*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

```
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54,   3.09,   5.14,   8.23,
10.80,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.SFC
Met Version: 16216
Profile file: LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 23174 Upper air station no.: 3190
Name: LOS_ANGELES/INT'L_ARPT Name: UNKNOWN

Year: 2012 Year: 2012

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
12	01	01	1	01	-5.9	0.105	-9.000	-9.000	-999.	82.	17.6	0.10	2.55	1.00	1.35	246.	10.1	282.5	2.0
12	01	01	1	02	-21.8	0.218	-9.000	-9.000	-999.	244.	52.3	0.10	2.55	1.00	2.67	268.	10.1	282.0	2.0
12	01	01	1	03	-10.3	0.139	-9.000	-9.000	-999.	127.	23.6	0.10	2.55	1.00	1.76	311.	10.1	281.4	2.0
12	01	01	1	04	-3.3	0.080	-9.000	-9.000	-999.	55.	14.1	0.10	2.55	1.00	0.97	280.	10.1	282.0	2.0
12	01	01	1	05	-10.9	0.144	-9.000	-9.000	-999.	131.	24.4	0.10	2.55	1.00	1.81	267.	10.1	281.4	2.0
12	01	01	1	06	-20.5	0.205	-9.000	-9.000	-999.	223.	46.3	0.10	2.55	1.00	2.52	283.	10.1	282.5	2.0
12	01	01	1	07	-5.5	0.101	-9.000	-9.000	-999.	83.	16.9	0.10	2.55	1.00	1.30	324.	10.1	281.4	2.0
12	01	01	1	08	-4.3	0.096	-9.000	-9.000	-999.	71.	18.6	0.10	2.55	0.55	1.23	90.	10.1	282.5	2.0
12	01	01	1	09	45.7	0.183	0.378	0.007	43.	188.	-12.2	0.10	2.55	0.32	1.67	106.	10.1	289.2	2.0
12	01	01	1	10	117.3	0.180	0.751	0.007	131.	184.	-4.5	0.10	2.55	0.24	1.42	105.	10.1	293.8	2.0
12	01	01	1	11	168.5	0.173	1.222	0.005	391.	173.	-2.8	0.10	2.55	0.21	1.25	27.	10.1	297.5	2.0
12	01	01	1	12	186.3	0.227	1.521	0.005	680.	260.	-5.7	0.10	2.55	0.20	1.86	63.	10.1	299.2	2.0

```
 12 01 01   1 13  190.2  0.253  1.817  0.005 1136.  306.     -7.7  0.10   2.55
0.20    2.16  300.   10.1  296.4    2.0
 12 01 01   1 14  160.2  0.448  1.842  0.005 1405.  720.    -50.6  0.10   2.55
0.21    4.68  276.   10.1  291.4    2.0
 12 01 01   1 15  108.6  0.466  1.661  0.005 1520.  764.    -83.9  0.10   2.55
0.24    5.02  270.   10.1  289.9    2.0
 12 01 01   1 16   37.3  0.455  1.167  0.005 1543.  737.   -228.8  0.10   2.55
0.33    5.10  270.   10.1  288.1    2.0
 12 01 01   1 17  -31.4  0.381 -9.000 -9.000 -999.  569.    159.8  0.10   2.55
0.59    4.54  268.   10.1  287.5    2.0
 12 01 01   1 18  -36.0  0.365 -9.000 -9.000 -999.  529.    146.4  0.10   2.55
1.00    4.37  274.   10.1  286.4    2.0
 12 01 01   1 19  -29.6  0.301 -9.000 -9.000 -999.  398.     99.5  0.10   2.55
1.00    3.63  271.   10.1  286.4    2.0
 12 01 01   1 20  -21.0  0.213 -9.000 -9.000 -999.  239.     49.9  0.10   2.55
1.00    2.61  271.   10.1  286.4    2.0
 12 01 01   1 21  -10.3  0.140 -9.000 -9.000 -999.  128.     24.0  0.10   2.55
1.00    1.77  281.   10.1  286.4    2.0
 12 01 01   1 22  -22.9  0.230 -9.000 -9.000 -999.  265.     58.3  0.10   2.55
1.00    2.81  270.   10.1  285.9    2.0
 12 01 01   1 23  -37.0  0.374 -9.000 -9.000 -999.  550.    154.2  0.10   2.55
1.00    4.48  272.   10.1  285.9    2.0
 12 01 01   1 24  -24.0  0.243 -9.000 -9.000 -999.  299.     65.0  0.10   2.55
1.00    2.96  274.   10.1  285.9    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 12 01 01 01   10.1 1  246.    1.35   282.6   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie.isc
                           ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                         ***        15:46:41

                                    PAGE  13
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                *** THE PERIOD ( 43848 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL       ***
                                   INCLUDING SOURCE(S):     STCK1       , STCK5
 , STCK6       , STCK7       , STCK8       ,
                 STCK9       , STCK10      , STCK11      , STCK12      , STCK13
 , STCK14      , STCK15      , STCK16      ,
                 STCK17      , STCK18      ,

                                    *** NETWORK ID: UCART1   ;  NETWORK TYPE:
GRIDCART ***
```

```
                                    ** CONC OF PM_10    IN MICROGRAMS/M**3
                  **

    Y-COORD  |                                                 X-COORD (METERS)
    (METERS) |     371990.59    372020.59    372050.59
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - -

  3754194.30 |       0.00125      0.00118      0.00110
  3754164.30 |       0.00111      0.00108      0.00102
  3754134.30 |       0.00100      0.00098      0.00094
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie.isc
                          ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                         ***        15:46:41

                                    PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                               *** THE PERIOD ( 43848 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       , STCK5
 , STCK6       , STCK7       , STCK8       ,
                 STCK9       , STCK10      , STCK11      , STCK12      , STCK13
 , STCK14      , STCK15      , STCK16      ,
                 STCK17      , STCK18      ,

                                  *** NETWORK ID: UCART3   ;  NETWORK TYPE:
GRIDCART ***

                                    ** CONC OF PM_10    IN MICROGRAMS/M**3
                  **

    Y-COORD  |                                                 X-COORD (METERS)
    (METERS) |     371767.65    371797.65    371827.65    371857.65    371887.65
371917.65    371947.65
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - -

  3754688.79 |       0.00095      0.00093      0.00090      0.00088      0.00086
  0.00085      0.00084
  3754658.79 |       0.00107      0.00105      0.00103      0.00099      0.00097
  0.00095      0.00094
  3754628.79 |       0.00122      0.00121      0.00118      0.00114      0.00110
  0.00108      0.00107
  3754598.79 |       0.00140      0.00140      0.00138      0.00133      0.00128
  0.00124      0.00123
  3754568.79 |       0.00162      0.00164      0.00163      0.00157      0.00150
  0.00145      0.00142
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie.isc
```

                               *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   STCK1   , STCK5
 , STCK6   , STCK7   , STCK8   ,
                 STCK9   , STCK10   , STCK11   , STCK12   , STCK13
 , STCK14   , STCK15   , STCK16   ,
                 STCK17   , STCK18   ,

                                   *** NETWORK ID: UCART1   ; NETWORK TYPE:
GRIDCART ***

                                        ** CONC OF PM_10   IN MICROGRAMS/M**3
                  **

  Y-COORD | X-COORD (METERS)
  (METERS) | 371990.59   372020.59   372050.59
 -
- -

 3754194.3 | 0.14524 (15111617)   0.13521 (16032223)   0.12248
(16032222)
 3754164.3 | 0.12640 (15111620)   0.12022 (15102923)   0.11211
(16032223)
 3754134.3 | 0.11299 (15111622)   0.10718 (15102923)   0.10131
(16032223)

                               *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   STCK1   , STCK5
 , STCK6   , STCK7   , STCK8   ,
                 STCK9   , STCK10   , STCK11   , STCK12   , STCK13
 , STCK14   , STCK15   , STCK16   ,
                 STCK17   , STCK18   ,

                                   *** NETWORK ID: UCART3   ; NETWORK TYPE:
GRIDCART ***

```
                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

  Y-COORD  |                                                  X-COORD (METERS)
  (METERS) |       371767.65            371797.65            371827.65
       371857.65            371887.65
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

 3754688.8 |      0.08105 (14022807)      0.06916 (14022807)      0.04971
(14022807)      0.03966 (12111714)      0.05240 (16121603)
 3754658.8 |      0.09341 (14022807)      0.08414 (14022807)      0.06292
(14022807)      0.04392 (12111714)      0.05168 (16121603)
 3754628.8 |      0.10421 (14022807)      0.10086 (14022807)      0.07957
(14022807)      0.04777 (14022807)      0.04843 (16121603)
 3754598.8 |      0.10974 (14022807)      0.11712 (14022807)      0.09980
(14022807)      0.06247 (14022807)      0.05326 (14022808)
 3754568.8 |      0.10958 (14121203)      0.12736 (14022807)      0.12143
(14022807)      0.08135 (14022807)      0.05929 (12020713)
```



```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       , STCK5
 , STCK6       , STCK7       , STCK8       ,
                 STCK9       , STCK10      , STCK11      , STCK12      , STCK13
 , STCK14      , STCK15      , STCK16      ,
                 STCK17      , STCK18      ,

                                   *** NETWORK ID: UCART3   ;  NETWORK TYPE:
GRIDCART ***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

  Y-COORD  |                                                  X-COORD (METERS)
  (METERS) |       371917.65            371947.65
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

 3754688.8 |      0.06228 (14022819)      0.07405 (14022819)
 3754658.8 |      0.06516 (14022819)      0.07782 (14022819)
 3754628.8 |      0.06711 (14022819)      0.08030 (14022819)
```

```
 3754598.8 |      0.06635 (14022819)      0.08009 (14022819)
 3754568.8 |      0.06191 (14022819)      0.07715 (15100404)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie.isc
                           ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                          ***        15:46:41

                                     PAGE  18
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL       ***
                                   INCLUDING SOURCE(S):     STCK1       , STCK5
 , STCK6       , STCK7       , STCK8       ,
                 STCK9       , STCK10      , STCK11      , STCK12      , STCK13
 , STCK14      , STCK15      , STCK16      ,
                 STCK17      , STCK18      ,

                                     *** NETWORK ID: UCART1   ;  NETWORK TYPE:
GRIDCART ***

                                          ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

  Y-COORD  |                                                  X-COORD (METERS)
  (METERS) |       371990.59              372020.59              372050.59
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - -

 3754194.3 |      0.08230 (15111624)      0.07876 (15102924)      0.07246
(15102924)
 3754164.3 |      0.07564 (15111624)      0.07162 (15102924)      0.07287
(15102924)
 3754134.3 |      0.06778 (15111624)      0.06377 (15111624)      0.06818
(15102924)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie.isc
                           ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                          ***        15:46:41

                                     PAGE  19
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL       ***
                                   INCLUDING SOURCE(S):     STCK1       , STCK5
 , STCK6       , STCK7       , STCK8       ,
                 STCK9       , STCK10      , STCK11      , STCK12      , STCK13
 , STCK14      , STCK15      , STCK16      ,
                 STCK17      , STCK18      ,
```

Y-COORD (METERS)	X-COORD (METERS)				
	371767.65	371797.65	371827.65	371857.65	371887.65
3754688.8	0.02909 (16122324)	0.02579 (13050516)	0.02128 (13050516)	0.01514 (13050516)	0.01260 (16031116)
3754658.8	0.03255 (16122324)	0.02996 (13050516)	0.02558 (13050516)	0.01832 (13050516)	0.01421 (16031116)
3754628.8	0.03554 (16122324)	0.03404 (13050516)	0.03047 (13050516)	0.02217 (13050516)	0.01598 (16031116)
3754598.8	0.03723 (16122324)	0.03705 (13050516)	0.03563 (13050516)	0.02686 (13050516)	0.01786 (16031116)
3754568.8	0.03649 (16122324)	0.03754 (13050416)	0.04021 (13050516)	0.03234 (13050516)	0.01966 (16031116)

Y-COORD (METERS)	X-COORD (METERS)	
	371917.65	371947.65

```
 3754688.8 |      0.01982 (14022824)      0.02910 (14022824)
 3754658.8 |      0.02088 (14022824)      0.03173 (14022824)
 3754628.8 |      0.02170 (14022824)      0.03432 (14022824)
 3754598.8 |      0.02250 (16013116)      0.03637 (14022824)
 3754568.8 |      0.02617 (16013116)      0.03688 (14022824)
```



```
                                *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):     STCK1       , STCK5
 , STCK6       , STCK7       , STCK8       ,
                 STCK9       , STCK10      , STCK11      , STCK12      , STCK13
 , STCK14      , STCK15      , STCK16      ,
                 STCK17      , STCK18      ,

                                     *** NETWORK ID: UCART1   ;  NETWORK TYPE:
GRIDCART ***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

  Y-COORD  |                                                 X-COORD (METERS)
  (METERS) |       371990.59              372020.59              372050.59
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 3754194.3 |      0.04279 (15111624)      0.03762 (15111624)      0.03180
(15121224)
 3754164.3 |      0.03859 (15111624)      0.03680 (15111624)      0.03276
(15121224)
 3754134.3 |      0.03403 (15111624)      0.03403 (15111624)      0.03157
(15102924)
```



```
                                *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):     STCK1       , STCK5
 , STCK6       , STCK7       , STCK8       ,
```

```
                STCK9       , STCK10      , STCK11      , STCK12      , STCK13
 , STCK14      , STCK15      , STCK16      ,
                STCK17      , STCK18      ,

                                    *** NETWORK ID: UCART3   ;  NETWORK TYPE:
GRIDCART ***

                                         ** CONC OF PM_10    IN MICROGRAMS/M**3
                  **

  Y-COORD  |                                                  X-COORD (METERS)
  (METERS) |       371767.65              371797.65              371827.65
       371857.65              371887.65
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 3754688.8 |      0.01768 (13050524)      0.01762 (13050524)      0.01573
(13050524)      0.01220 (13050524)      0.00882 (14022824)
 3754658.8 |      0.01863 (13050524)      0.01950 (13050524)      0.01813
(13050524)      0.01434 (13050524)      0.00959 (14022824)
 3754628.8 |      0.01897 (13050524)      0.02111 (13050524)      0.02065
(13050524)      0.01686 (13050524)      0.01094 (13050524)
 3754598.8 |      0.01974 (16122324)      0.02198 (13050524)      0.02304
(13050524)      0.01973 (13050524)      0.01285 (13050524)
 3754568.8 |      0.01972 (16122324)      0.02154 (13050524)      0.02475
(13050524)      0.02280 (13050524)      0.01513 (13050524)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie.isc
                          ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                         ***        15:46:41

                                    PAGE  23
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):     STCK1       , STCK5
 , STCK6       , STCK7       , STCK8       ,
                STCK9       , STCK10      , STCK11      , STCK12      , STCK13
 , STCK14      , STCK15      , STCK16      ,
                STCK17      , STCK18      ,

                                    *** NETWORK ID: UCART3   ;  NETWORK TYPE:
GRIDCART ***

                                         ** CONC OF PM_10    IN MICROGRAMS/M**3
                  **

  Y-COORD  |                                                  X-COORD (METERS)
  (METERS) |       371917.65              371947.65
```

- -

```
 3754688.8 |      0.01021 (14022824)      0.01285 (14022824)
 3754658.8 |      0.01112 (14022824)      0.01426 (14022824)
 3754628.8 |      0.01202 (14022824)      0.01579 (14022824)
 3754598.8 |      0.01280 (14022824)      0.01727 (14022824)
 3754568.8 |      0.01344 (14022824)      0.01836 (14022824)
```


*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43848 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       0.00164 AT (  371797.65,  3754568.79,   31.00,    31.00,    0.00)  GC  UCART3
          2ND HIGHEST VALUE IS       0.00163 AT (  371827.65,  3754568.79,   31.00,    31.00,    0.00)  GC  UCART3
          3RD HIGHEST VALUE IS       0.00162 AT (  371767.65,  3754568.79,   31.00,    31.00,    0.00)  GC  UCART3
          4TH HIGHEST VALUE IS       0.00157 AT (  371857.65,  3754568.79,   31.00,    31.00,    0.00)  GC  UCART3
          5TH HIGHEST VALUE IS       0.00150 AT (  371887.65,  3754568.79,   30.80,    30.80,    0.00)  GC  UCART3
          6TH HIGHEST VALUE IS       0.00145 AT (  371917.65,  3754568.79,   30.80,    30.80,    0.00)  GC  UCART3
          7TH HIGHEST VALUE IS       0.00142 AT (  371947.65,  3754568.79,   30.60,    30.60,    0.00)  GC  UCART3
          8TH HIGHEST VALUE IS       0.00140 AT (  371797.65,  3754598.79,   31.20,    31.20,    0.00)  GC  UCART3
          9TH HIGHEST VALUE IS       0.00140 AT (  371767.65,  3754598.79,   31.00,    31.00,    0.00)  GC  UCART3
         10TH HIGHEST VALUE IS       0.00138 AT (  371827.65,  3754598.79,   31.10,    31.10,    0.00)  GC  UCART3
```

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM_10   IN MICROGRAMS/M**3
**

GROUP ID	AVERAGE	CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	0.14524	ON 15111617:	AT (371990.59, 3754194.30, 30.30, 30.30, 0.00)	GC	UCART1

*** THE SUMMARY OF HIGHEST 8-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 0.08230 ON 15111624: AT (371990.59, 3754194.30, 30.30, 30.30, 0.00) GC UCART1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** THE SUMMARY OF HIGHEST 24-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 0.04279 ON 15111624: AT (371990.59, 3754194.30, 30.30, 30.30, 0.00) GC UCART1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   16 Warning Message(s)
A Total of   718 Informational Message(s)

A Total of   43848 Hours Were Processed

A Total of   458 Calm Hours Identified

A Total of   260 Missing Hours Identified (0.59 Percent)

   ******** FATAL ERROR MESSAGES ********
              *** NONE ***

   ********   WARNING MESSAGES   ********
SO W320   67   PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
SO W320   68   PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
SO W320   69   PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
SO W320   70   PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
SO W320   71   PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
SO W320   72   PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
SO W320   73   PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
SO W320   74   PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
SO W320   75   PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
SO W320   76   PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
SO W320   77   PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
SO W320   78   PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
SO W320   80   PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS

```
SO W320      81        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
ME W186     106       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
     0.50
ME W187     106       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


   ***********************************
   *** AERMOD Finishes Successfully ***
   ***********************************
```

*HARP - HRACalc v19044 2/3/2022 4:04:17 PM - Cancer Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Ollie El Segundo\Ollie_Ops_15_Workers_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_R	MMILK_RIS	WATER_RI	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISK
1			9901	DieselExhP	0.00164	1.02E-07	25YrCance	*	1.02E-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
2			107028	Acrolein	0	0.00E+00	25YrCance	*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

PIG_RISK	CHICKEN_F	EGG_RISK	1ST_DRIVE	2ND_DRIVI	PASTURE_(	FISH_CONC	WATER_CONC
0.00E+00	0.00E+00	0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 2/3/2022 4:04:17 PM - Acute Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Ollie El Segundo\Ollie_Ops_15_Workers_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL
1			9901	DieselExhP	0.14524	NonCancerAcute	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	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			107028	Acrolein	0.14524	NonCancerAcute	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.81E-02	0.00E+00	5.81E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 2/3/2022 4:04:17 PM - Chronic Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Ollie El Segundo\Ollie_Ops_15_Workers_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE\	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE\	RESP	SKIN	EYE	BONE/TEET	ENDO	BLOOD	ODOR
	1		9901	DieselExhP	0.00164	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.28E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2		107028	Acrolein	0	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

GENERAL	DETAILS	INH_CONC	SOIL_DOSE	DERMAL_D	MMILK_DC	WATER_DC	FISH_DOSE	CROP_DOS	BEEF_DOSE	DAIRY_DOS	PIG_DOSE	CHICKEN_E	EGG_DOSE
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	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1ST_DRIVE	2ND_DRIVE	3RD_DRIVE	PASTURE_(	FISH_CONC	WATER_CONC
INHALATIO	NA	NA	0.00E+00	0.00E+00	0.00E+00
INHALATIO	NA	NA	0.00E+00	0.00E+00	0.00E+00

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 1/24/2022
** File: C:\Lakes\AERMOD View\Ollie\Ollie Individual Resident\Ollie Individual
Resident.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\Ollie\Ollie Facility Residents\Ollie Facility R
   MODELOPT DFAULT CONC
   AVERTIME 1 8 24 PERIOD
   URBANOPT 10040000 LA_County
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL "Ollie Individual Resident.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      371900.716  3754412.638       30.880
** DESCRSRC Generator 1 (3516C)
** Source Parameters **
   SRCPARAM STCK1         0.000288     5.000   763.850 224.39084     0.229

   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
```

```
RE STARTING
   INCLUDED "Ollie Individual Resident.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.SFC
   PROFFILE LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.PFL
   SURFDATA 23174 2012 LOS_ANGELES/INT'L_ARPT
   UAIRDATA 3190 2012
   PROFBASE 30.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "OLLIE INDIVIDUAL RESIDENT.AD\01H1GALL.PLT" 31
   PLOTFILE 8 ALL 1ST "OLLIE INDIVIDUAL RESIDENT.AD\08H1GALL.PLT" 32
   PLOTFILE 24 ALL 1ST "OLLIE INDIVIDUAL RESIDENT.AD\24H1GALL.PLT" 33
   PLOTFILE PERIOD ALL "OLLIE INDIVIDUAL RESIDENT.AD\PE00GALL.PLT" 34
   SUMMFILE "Ollie Individual Resident.sum"
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
**
```

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 1/24/2022
** File: C:\Lakes\AERMOD View\Ollie\Ollie Individual Resident\Ollie Individual
Resident.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\Ollie\Ollie Facility Residents\Ollie Facility R
   MODELOPT DFAULT CONC
   AVERTIME 1 8 24 PERIOD
   URBANOPT 10040000 LA_County
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL "Ollie Individual Resident.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      371900.716  3754412.638       30.880
** DESCRSRC Generator 1 (3516C)
** Source Parameters **
   SRCPARAM STCK1         0.000288     5.000   763.850 224.39084     0.229
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
```

```
   INCLUDED "Ollie Individual Resident.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.SFC
   PROFFILE LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.PFL
   SURFDATA 23174 2012 LOS_ANGELES/INT'L_ARPT
   UAIRDATA 3190 2012
   PROFBASE 30.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "OLLIE INDIVIDUAL RESIDENT.AD\01H1GALL.PLT" 31
   PLOTFILE 8 ALL 1ST "OLLIE INDIVIDUAL RESIDENT.AD\08H1GALL.PLT" 32
   PLOTFILE 24 ALL 1ST "OLLIE INDIVIDUAL RESIDENT.AD\24H1GALL.PLT" 33
   PLOTFILE PERIOD ALL "OLLIE INDIVIDUAL RESIDENT.AD\PE00GALL.PLT" 34
   SUMMFILE "Ollie Individual Resident.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            3 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 SO W320      39        PPARM: Input Parameter May Be Out-of-Range for Parameter
```

```
       VS
 ME W186      64       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
     0.50
 ME W187      64       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        01/24/22
 *** AERMET - VERSION  16216 ***   ***
                         ***       22:38:56

                                   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for     1 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =  10040000.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        ADJ_U*   - Use ADJ_U* option for SBL in AERMET
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.
```

```
 **The User Specified a Pollutant Type of:  PM_10

 **Model Calculates  3 Short Term Average(s) of:   1-HR   8-HR  24-HR
     and Calculates PERIOD Averages

 **This Run Includes:      1 Source(s);       1 Source Group(s); and     250
Receptor(s)

                with:      1 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 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)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **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) =    30.00 ;  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
```

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	BASE X (METERS)	BASE Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR VARY BY	EMIS RATE SCALAR
STCK1	0	0.28800E-03	371900.7	3754412.6	30.9	5.00	763.85	224.39	0.23	NO	YES	NO	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	STCK1 ,

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	10040000.	STCK1 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

371990.6, 372020.6, 372050.6,

*** Y-COORDINATES OF GRID ***
(METERS)

3754134.3, 3754164.3, 3754194.3,

*** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD View\Ollie\Ollie Facility Residents\Ollie Facility R *** 01/24/22
*** AERMET - VERSION 16216 *** ***
*** 22:38:56

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)		
	371990.59	372020.59	372050.59

*** NETWORK ID: UCART2   ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)			
	371627.60	371657.60	371687.60	371717.60
3754535.26	32.20	32.10	31.40	31.50
3754505.26	32.30	32.40	32.30	32.10
3754475.26	32.30	32.30	32.30	32.20
3754445.26	32.20	31.80	31.80	32.20

*** NETWORK ID: UCART2   ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)			
	371627.60	371657.60	371687.60	371717.60
3754535.26	32.20	32.10	31.40	31.50
3754505.26	32.30	32.40	32.30	32.10
3754475.26	32.30	32.30	32.30	32.20
3754445.26	32.20	31.80	31.80	32.20

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** X-COORDINATES OF GRID ***
(METERS)

371767.6, 371797.6, 371827.6, 371857.6, 371887.6, 371917.6, 371947.6,

*** Y-COORDINATES OF GRID ***
(METERS)

3754568.8, 3754598.8, 3754628.8, 3754658.8, 3754688.8,

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 371767.65	371797.65	371827.65	371857.65	371887.65	371917.65	371947.65
3754688.79	31.20	31.50	31.50	31.40	31.30	31.10	30.90
3754658.79	31.20	31.40	31.30	31.40	31.20	31.10	31.00
3754628.79	31.10	31.30	31.20	31.40	31.10	31.00	31.00
3754598.79	31.00	31.20	31.10	31.20	30.90	30.80	30.90
3754568.79	31.00	31.00	31.00	31.00	30.80	30.80	30.60

GRIDCART ***

                                                * HILL HEIGHT SCALES IN METERS *

    Y-COORD | X-COORD (METERS)
    (METERS) | 371767.65   371797.65   371827.65   371857.65   371887.65
371917.65   371947.65
 -
- -

  3754688.79 | 31.20   31.50   31.50   31.40   31.30
    31.10   30.90
  3754658.79 | 31.20   31.40   31.30   31.40   31.20
    31.10   31.00
  3754628.79 | 31.10   31.30   31.20   31.40   31.10
    31.00   31.00
  3754598.79 | 31.00   31.20   31.10   31.20   30.90
    30.80   30.90
  3754568.79 | 31.00   31.00   31.00   31.00   30.80
    30.80   30.60

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                                       *** GRIDDED RECEPTOR NETWORK SUMMARY ***

                                    *** NETWORK ID: UCART4   ; NETWORK TYPE:
GRIDCART ***

                                          *** X-COORDINATES OF GRID ***
                                                    (METERS)

       372595.6, 372625.6, 372655.6, 372685.6, 372715.6, 372745.6, 372775.6,
372805.6, 372835.6, 372865.6,

                                          *** Y-COORDINATES OF GRID ***
                                                    (METERS)

      3754133.9, 3754163.9, 3754193.9, 3754223.9, 3754253.9, 3754283.9, 3754313.9,
3754343.9, 3754373.9, 3754403.9,
      3754433.9, 3754463.9, 3754493.9, 3754523.9, 3754553.9, 3754583.9, 3754613.9,
3754643.9, 3754673.9,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART4 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)									
	372595.60	372625.60	372655.60	372685.60	372715.60	372745.60	372775.60	372805.60	372835.60	
3754673.87	30.20	30.00	29.70	29.60	29.70	29.30	29.30	29.40	29.40	
3754643.87	30.10	30.00	29.80	29.70	29.40	29.30	29.20	29.00	28.90	
3754613.87	30.30	30.50	30.40	30.90	30.30	29.80	29.60	29.80	29.80	
3754583.87	30.30	30.50	30.40	30.60	30.40	29.70	29.50	29.60	30.00	
3754553.87	30.30	30.10	30.00	29.90	29.70	29.50	29.30	29.30	29.30	
3754523.87	30.20	30.10	30.20	30.00	29.90	29.70	29.60	29.60	29.40	
3754493.87	30.30	30.20	30.10	29.90	30.00	29.80	29.60	29.60	29.50	
3754463.87	30.30	30.30	30.30	29.40	29.40	29.30	29.20	29.10	29.00	
3754433.87	30.40	30.20	30.10	29.50	29.90	29.70	29.60	29.50	29.40	
3754403.87	30.40	30.00	29.80	29.40	29.40	29.20	29.10	29.00	29.00	
3754373.87	30.40	30.40	30.20	30.00	29.80	29.70	29.50	29.40	29.20	
3754343.87	30.40	30.50	30.30	30.10	29.90	29.70	29.60	29.50	29.50	
3754313.87	30.40	30.40	30.30	30.10	29.90	29.70	29.70	29.60	29.60	
3754283.87	30.40	30.50	30.30	30.30	30.10	30.00	29.90	29.80	29.90	
3754253.87	30.40	30.20	29.90	29.80	29.70	29.60	29.50	29.40	29.40	
3754223.87	30.30	30.40	30.30	30.10	30.00	29.90	29.70	29.60	29.50	
3754193.87	30.10	30.20	30.10	29.80	29.60	29.50	29.40	29.30	29.30	

```
  3754163.87 |         30.40        30.30        30.20        29.90        29.80
    29.60        29.50        29.40        29.40
  3754133.87 |         30.30        30.50        30.50        30.50        30.50
    30.20        29.80        29.50        29.50
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        01/24/22
 *** AERMET - VERSION  16216 ***   ***
                       ***        22:38:56

                                  PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                *** NETWORK ID: UCART4   ;  NETWORK TYPE:
GRIDCART ***

                                           * ELEVATION HEIGHTS IN METERS *

    Y-COORD  |                                           X-COORD (METERS)
    (METERS) |     372865.60
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -

  3754673.87 |         29.30
  3754643.87 |         28.80
  3754613.87 |         29.90
  3754583.87 |         30.30
  3754553.87 |         29.20
  3754523.87 |         29.30
  3754493.87 |         29.50
  3754463.87 |         28.90
  3754433.87 |         29.30
  3754403.87 |         28.80
  3754373.87 |         29.20
  3754343.87 |         29.30
  3754313.87 |         29.40
  3754283.87 |         29.60
  3754253.87 |         29.20
  3754223.87 |         29.40
  3754193.87 |         29.20
  3754163.87 |         29.20
  3754133.87 |         29.30
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        01/24/22
 *** AERMET - VERSION  16216 ***   ***
                       ***        22:38:56

                                  PAGE  17
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                *** NETWORK ID: UCART4   ;  NETWORK TYPE:
```

GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)					
	372595.60	372625.60	372655.60	372685.60	372715.60	372745.60
372775.60	372805.60	372835.60				
3754673.87	30.20	30.00	29.70	29.60	29.70	29.30
29.30	29.40	29.40				
3754643.87	30.10	30.00	29.80	29.70	29.40	29.30
29.20	29.00	28.90				
3754613.87	30.30	30.50	30.40	30.90	30.30	29.80
29.60	29.80	29.80				
3754583.87	30.30	30.50	30.40	30.60	30.40	29.70
29.50	29.60	30.00				
3754553.87	30.30	30.10	30.00	29.90	29.70	29.50
29.30	29.30	29.30				
3754523.87	30.20	30.10	30.20	30.00	29.90	29.70
29.60	29.60	29.40				
3754493.87	30.30	30.20	30.10	29.90	30.00	29.80
29.60	29.60	29.50				
3754463.87	30.30	30.30	30.30	29.40	29.40	29.30
29.20	29.10	29.00				
3754433.87	30.40	30.20	30.10	29.50	29.90	29.70
29.60	29.50	29.40				
3754403.87	30.40	30.00	29.80	29.40	29.40	29.20
29.10	29.00	29.00				
3754373.87	30.40	30.40	30.20	30.00	29.80	29.70
29.50	29.40	29.20				
3754343.87	30.40	30.50	30.30	30.10	29.90	29.70
29.60	29.50	29.50				
3754313.87	30.40	30.40	30.30	30.10	29.90	29.70
29.70	29.60	29.60				
3754283.87	30.40	30.50	30.30	30.30	30.10	30.00
29.90	29.80	29.90				
3754253.87	30.40	30.20	29.90	29.80	29.70	29.60
29.50	29.40	29.40				
3754223.87	30.30	30.40	30.30	30.10	30.00	29.90
29.70	29.60	29.50				
3754193.87	30.10	30.20	30.10	29.80	29.60	29.50
29.40	29.30	29.30				
3754163.87	30.40	30.30	30.20	29.90	29.80	29.60
29.50	29.40	29.40				
3754133.87	30.30	30.50	30.50	30.50	30.50	30.20
29.80	29.50	29.50				

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART4   ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 372865.60
3754673.87	29.30
3754643.87	28.80
3754613.87	29.90
3754583.87	30.30
3754553.87	29.20
3754523.87	29.30
3754493.87	29.50
3754463.87	28.90
3754433.87	29.30
3754403.87	28.80
3754373.87	29.20
3754343.87	29.30
3754313.87	29.40
3754283.87	29.60
3754253.87	29.20
3754223.87	29.40
3754193.87	29.20
3754163.87	29.20
3754133.87	29.30

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

```
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.SFC
Met Version: 16216
Profile file: LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 23174 Upper air station no.: 3190
Name: LOS_ANGELES/INT'L_ARPT Name: UNKNOWN

Year: 2012 Year: 2012

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
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -
 12 01 01   1 01   -5.9  0.105 -9.000 -9.000 -999.   82.     17.6  0.10   2.55
1.00    1.35  246.   10.1  282.5    2.0
 12 01 01   1 02  -21.8  0.218 -9.000 -9.000 -999.  244.     52.3  0.10   2.55
1.00    2.67  268.   10.1  282.0    2.0
 12 01 01   1 03  -10.3  0.139 -9.000 -9.000 -999.  127.     23.6  0.10   2.55
1.00    1.76  311.   10.1  281.4    2.0
 12 01 01   1 04   -3.3  0.080 -9.000 -9.000 -999.   55.     14.1  0.10   2.55
1.00    0.97  280.   10.1  282.0    2.0
 12 01 01   1 05  -10.9  0.144 -9.000 -9.000 -999.  131.     24.4  0.10   2.55
1.00    1.81  267.   10.1  281.4    2.0
 12 01 01   1 06  -20.5  0.205 -9.000 -9.000 -999.  223.     46.3  0.10   2.55
1.00    2.52  283.   10.1  282.5    2.0
 12 01 01   1 07   -5.5  0.101 -9.000 -9.000 -999.   83.     16.9  0.10   2.55
1.00    1.30  324.   10.1  281.4    2.0
 12 01 01   1 08   -4.3  0.096 -9.000 -9.000 -999.   71.     18.6  0.10   2.55
0.55    1.23   90.   10.1  282.5    2.0
 12 01 01   1 09   45.7  0.183  0.378  0.007   43.  188.    -12.2  0.10   2.55
0.32    1.67  106.   10.1  289.2    2.0
 12 01 01   1 10  117.3  0.180  0.751  0.007  131.  184.     -4.5  0.10   2.55
0.24    1.42  105.   10.1  293.8    2.0
 12 01 01   1 11  168.5  0.173  1.222  0.005  391.  173.     -2.8  0.10   2.55
0.21    1.25   27.   10.1  297.5    2.0
 12 01 01   1 12  186.3  0.227  1.521  0.005  680.  260.     -5.7  0.10   2.55
0.20    1.86   63.   10.1  299.2    2.0
 12 01 01   1 13  190.2  0.253  1.817  0.005 1136.  306.     -7.7  0.10   2.55
0.20    2.16  300.   10.1  296.4    2.0
 12 01 01   1 14  160.2  0.448  1.842  0.005 1405.  720.    -50.6  0.10   2.55
0.21    4.68  276.   10.1  291.4    2.0
 12 01 01   1 15  108.6  0.466  1.661  0.005 1520.  764.    -83.9  0.10   2.55
0.24    5.02  270.   10.1  289.9    2.0
 12 01 01   1 16   37.3  0.455  1.167  0.005 1543.  737.   -228.8  0.10   2.55
0.33    5.10  270.   10.1  288.1    2.0
 12 01 01   1 17  -31.4  0.381 -9.000 -9.000 -999.  569.    159.8  0.10   2.55
0.59    4.54  268.   10.1  287.5    2.0
 12 01 01   1 18  -36.0  0.365 -9.000 -9.000 -999.  529.    146.4  0.10   2.55
1.00    4.37  274.   10.1  286.4    2.0
 12 01 01   1 19  -29.6  0.301 -9.000 -9.000 -999.  398.     99.5  0.10   2.55
1.00    3.63  271.   10.1  286.4    2.0
 12 01 01   1 20  -21.0  0.213 -9.000 -9.000 -999.  239.     49.9  0.10   2.55
1.00    2.61  271.   10.1  286.4    2.0
 12 01 01   1 21  -10.3  0.140 -9.000 -9.000 -999.  128.     24.0  0.10   2.55
1.00    1.77  281.   10.1  286.4    2.0
 12 01 01   1 22  -22.9  0.230 -9.000 -9.000 -999.  265.     58.3  0.10   2.55
1.00    2.81  270.   10.1  285.9    2.0
 12 01 01   1 23  -37.0  0.374 -9.000 -9.000 -999.  550.    154.2  0.10   2.55
1.00    4.48  272.   10.1  285.9    2.0
 12 01 01   1 24  -24.0  0.243 -9.000 -9.000 -999.  299.     65.0  0.10   2.55
```

```
1.00    2.96  274.   10.1  285.9    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 12 01 01 01   10.1 1  246.    1.35   282.6   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        01/24/22
 *** AERMET - VERSION  16216 ***   ***
                        ***        22:38:56

                                   PAGE  21
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                *** THE PERIOD ( 43848 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL       ***
                                   INCLUDING SOURCE(S):     STCK1       ,

                                    *** NETWORK ID: UCART1   ;  NETWORK TYPE:
GRIDCART ***

                                         ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

    Y-COORD  |                                                 X-COORD (METERS)
    (METERS) |     371990.59    372020.59    372050.59
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -

  3754194.30 |       0.00007      0.00006      0.00006
  3754164.30 |       0.00006      0.00006      0.00005
  3754134.30 |       0.00005      0.00005      0.00005
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        01/24/22
 *** AERMET - VERSION  16216 ***   ***
                        ***        22:38:56

                                   PAGE  22
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                *** THE PERIOD ( 43848 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL       ***
                                   INCLUDING SOURCE(S):     STCK1       ,

                                    *** NETWORK ID: UCART2   ;  NETWORK TYPE:
GRIDCART ***

                                         ** CONC OF PM_10    IN MICROGRAMS/M**3
```

**

Y-COORD (METERS)	371627.60	371657.60	371687.60	371717.60
3754535.26	0.00008	0.00009	0.00011	0.00012
3754505.26	0.00009	0.00010	0.00011	0.00013
3754475.26	0.00009	0.00010	0.00012	0.00014
3754445.26	0.00009	0.00011	0.00012	0.00014

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	371767.65	371797.65	371827.65	371857.65	371887.65	371917.65	371947.65
3754688.79	0.00006	0.00006	0.00006	0.00006	0.00006	0.00005	0.00005
3754658.79	0.00007	0.00007	0.00007	0.00007	0.00006	0.00006	0.00006
3754628.79	0.00008	0.00008	0.00008	0.00008	0.00007	0.00007	0.00007
3754598.79	0.00010	0.00010	0.00010	0.00009	0.00009	0.00008	0.00008
3754568.79	0.00011	0.00012	0.00011	0.00011	0.00010	0.00010	0.00010

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** NETWORK ID: UCART4 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)										
	372595.60	372625.60	372655.60	372685.60	372715.60	372745.60	372775.60	372805.60	372835.60		
3754673.87	0.00020	0.00020	0.00020	0.00019	0.00019	0.00019	0.00018	0.00018	0.00018		
3754643.87	0.00023	0.00022	0.00022	0.00021	0.00021	0.00020	0.00020	0.00019	0.00018		
3754613.87	0.00025	0.00024	0.00023	0.00023	0.00022	0.00021	0.00021	0.00020	0.00019		
3754583.87	0.00027	0.00026	0.00025	0.00024	0.00023	0.00022	0.00021	0.00020	0.00020		
3754553.87	0.00028	0.00027	0.00025	0.00024	0.00023	0.00022	0.00021	0.00020	0.00020		
3754523.87	0.00028	0.00027	0.00026	0.00024	0.00023	0.00022	0.00021	0.00020	0.00019		
3754493.87	0.00028	0.00026	0.00025	0.00024	0.00023	0.00022	0.00021	0.00020	0.00019		
3754463.87	0.00027	0.00025	0.00024	0.00022	0.00021	0.00020	0.00019	0.00019	0.00018		
3754433.87	0.00025	0.00023	0.00022	0.00021	0.00020	0.00019	0.00018	0.00017	0.00017		
3754403.87	0.00022	0.00021	0.00020	0.00019	0.00018	0.00017	0.00016	0.00016	0.00015		
3754373.87	0.00019	0.00018	0.00017	0.00017	0.00016	0.00015	0.00015	0.00014	0.00014		
3754343.87	0.00016	0.00016	0.00015	0.00014	0.00014	0.00013	0.00013	0.00013	0.00012		
3754313.87	0.00013	0.00013	0.00013	0.00012	0.00012	0.00011	0.00011	0.00011	0.00011		
3754283.87	0.00011	0.00011	0.00010	0.00010	0.00010	0.00010	0.00010	0.00009	0.00009		
3754253.87	0.00009	0.00009	0.00008	0.00008	0.00008	0.00008	0.00008	0.00008	0.00008		
3754223.87	0.00007	0.00007	0.00007	0.00007	0.00007						

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                               *** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                   INCLUDING SOURCE(S):   STCK1   ,

                                    *** NETWORK ID: UCART4   ; NETWORK TYPE:
GRIDCART ***

                                        ** CONC OF PM_10   IN MICROGRAMS/M**3
                    **

    Y-COORD | X-COORD (METERS)
    (METERS) | 372865.60
 -
- -

  3754673.87 | 0.00017
  3754643.87 | 0.00018
  3754613.87 | 0.00019
  3754583.87 | 0.00019
  3754553.87 | 0.00019
  3754523.87 | 0.00019
  3754493.87 | 0.00018
  3754463.87 | 0.00017
  3754433.87 | 0.00016
  3754403.87 | 0.00015
  3754373.87 | 0.00013
  3754343.87 | 0.00012
  3754313.87 | 0.00010
  3754283.87 | 0.00009
  3754253.87 | 0.00008
  3754223.87 | 0.00007
  3754193.87 | 0.00006
  3754163.87 | 0.00005
  3754133.87 | 0.00004

Residents\Ollie Facility R ***   01/24/22
*** AERMET - VERSION 16216 ***   ***
***   22:38:56

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   STCK1   ,

*** NETWORK ID: UCART1   ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10   IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 371990.59	372020.59	372050.59
3754194.3	0.00955 (15111620)	0.00896 (16032223)	0.00808 (15102922)
3754164.3	0.00837 (15111620)	0.00804 (15102923)	0.00754 (16032223)
3754134.3	0.00753 (15111622)	0.00715 (15102923)	0.00673 (16032223)

↑ *** AERMOD - VERSION 21112 ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility Residents\Ollie Facility R ***   01/24/22
*** AERMET - VERSION 16216 ***   ***
***   22:38:56

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   STCK1   ,

*** NETWORK ID: UCART2   ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10   IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 371627.60	371657.60	371687.60	371717.60

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- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 3754535.3 |      0.00571 (14121202)      0.00718 (14121202)      0.00875
(14121202)      0.01009 (14121202)
 3754505.3 |      0.00540 (14022802)      0.00528 (14121202)      0.00706
(14121202)      0.00922 (14121202)
 3754475.3 |      0.00697 (14022802)      0.00718 (14022802)      0.00706
(14022802)      0.00641 (14022802)
 3754445.3 |      0.00736 (14120218)      0.00796 (14120218)      0.00842
(14022802)      0.00852 (14022802)
1 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        01/24/22
 *** AERMET - VERSION  16216 ***   ***
                        ***        22:38:56

                                   PAGE  28
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       ,

                                   *** NETWORK ID: UCART3   ;  NETWORK TYPE:
GRIDCART ***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

  Y-COORD  |                                              X-COORD (METERS)
  (METERS) |       371767.65              371797.65              371827.65
       371857.65              371887.65
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - -

 3754688.8 |      0.00656 (14022807)      0.00542 (14022807)      0.00362
(14022807)      0.00294 (14022808)      0.00365 (16121603)
 3754658.8 |      0.00757 (14022807)      0.00669 (14022807)      0.00467
(14022807)      0.00330 (12031708)      0.00349 (12032514)
 3754628.8 |      0.00838 (14022807)      0.00809 (14022807)      0.00599
(14022807)      0.00375 (12031708)      0.00384 (12031709)
 3754598.8 |      0.00856 (14022807)      0.00935 (14022807)      0.00760
(14022807)      0.00421 (12020713)      0.00428 (14013012)
 3754568.8 |      0.01023 (14121203)      0.00983 (14022807)      0.00924
(14022807)      0.00514 (14022807)      0.00472 (14013012)
1 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        01/24/22
 *** AERMET - VERSION  16216 ***   ***
                        ***        22:38:56

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Y-COORD (METERS)	X-COORD (METERS)	
	371917.65	371947.65
3754688.8	0.00487 (14022819)	0.00549 (14022819)
3754658.8	0.00498 (14022819)	0.00554 (14022819)
3754628.8	0.00494 (14022819)	0.00555 (15100404)
3754598.8	0.00445 (14022819)	0.00623 (15100404)
3754568.8	0.00521 (16013113)	0.00646 (15100404)

Y-COORD (METERS)	X-COORD (METERS)			
	372595.60	372625.60	372655.60	372685.60	372715.60
3754673.9	0.00246 (16111619)	0.00234 (16031321)	0.00223 (16031321)	0.00214 (15062622)	0.00206 (15062622)
3754643.9	0.00249 (16101018)	0.00237 (16031319)	0.00227 (16081419)	0.00218 (16081419)	0.00208 (15101718)

 3754613.9 | 0.00255 (16081419)   0.00244 (16081419)   0.00233
(15101718)   0.00224 (15101718)   0.00213 (15101718)
 3754583.9 | 0.00257 (14072320)   0.00246 (16081819)   0.00236
(15102118)   0.00227 (15102118)   0.00217 (15102118)
 3754553.9 | 0.00261 (16070720)   0.00248 (15102118)   0.00236
(15091522)   0.00225 (16081220)   0.00215 (16081220)
 3754523.9 | 0.00262 (16042019)   0.00250 (16042019)   0.00239
(16042019)   0.00227 (16042019)   0.00217 (16081120)
 3754493.9 | 0.00265 (15082219)   0.00252 (14072220)   0.00240
(14072220)   0.00229 (14072220)   0.00219 (16061920)
 3754463.9 | 0.00267 (15101818)   0.00253 (15100120)   0.00242
(15100120)   0.00228 (15100120)   0.00218 (14091823)
 3754433.9 | 0.00268 (12100919)   0.00254 (12100919)   0.00241
(12100919)   0.00228 (12100919)   0.00219 (14092720)
 3754403.9 | 0.00267 (13051319)   0.00252 (13051319)   0.00240
(13051319)   0.00228 (13051319)   0.00218 (13051319)
 3754373.9 | 0.00267 (12100921)   0.00254 (12100921)   0.00241
(12100921)   0.00229 (14102520)   0.00219 (14102520)
 3754343.9 | 0.00265 (13062521)   0.00253 (13062521)   0.00241
(13062521)   0.00229 (13062521)   0.00219 (13062521)
 3754313.9 | 0.00264 (15111001)   0.00251 (15111001)   0.00239
(12102320)   0.00228 (12102320)   0.00217 (12102320)
 3754283.9 | 0.00261 (15042619)   0.00249 (13102805)   0.00237
(13102805)   0.00226 (13102805)   0.00215 (15052204)
 3754253.9 | 0.00257 (16042722)   0.00245 (16042722)   0.00232
(16042722)   0.00222 (15042619)   0.00212 (13102805)
 3754223.9 | 0.00255 (13102806)   0.00244 (13102806)   0.00232
(13102806)   0.00220 (13102806)   0.00210 (16102817)
 3754193.9 | 0.00248 (12110903)   0.00238 (12110903)   0.00228
(13102806)   0.00218 (13102806)   0.00209 (13102806)
 3754163.9 | 0.00246 (14030919)   0.00235 (15040319)   0.00225
(15110418)   0.00215 (15110418)   0.00206 (13022119)
 3754133.9 | 0.00242 (12110905)   0.00233 (12110905)   0.00224
(15040319)   0.00215 (15040319)   0.00207 (15040319)

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                               *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   STCK1   ,

                                   *** NETWORK ID: UCART4   ; NETWORK TYPE:
GRIDCART ***

                                        ** CONC OF PM_10   IN MICROGRAMS/M**3

**

Y-COORD (METERS)	372745.60	372775.60	372805.60	372835.60	372865.60
3754673.9	0.00197 (12081419)	0.00190 (12081419)	0.00183 (16101024)	0.00177 (15101718)	0.00170 (15101718)
3754643.9	0.00200 (15101718)	0.00192 (15101718)	0.00184 (15101718)	0.00177 (15101718)	0.00171 (16070320)
3754613.9	0.00203 (15042720)	0.00195 (15102118)	0.00188 (15102118)	0.00181 (16071620)	0.00175 (16071620)
3754583.9	0.00205 (15102118)	0.00196 (15102118)	0.00189 (16081220)	0.00183 (16101620)	0.00177 (16101620)
3754553.9	0.00206 (16081220)	0.00197 (16080419)	0.00189 (14081119)	0.00182 (14081119)	0.00175 (14081119)
3754523.9	0.00207 (16081120)	0.00199 (14081119)	0.00191 (15020819)	0.00183 (15090519)	0.00176 (15090519)
3754493.9	0.00209 (16061920)	0.00200 (14072720)	0.00192 (14072720)	0.00185 (14072720)	0.00178 (14072720)
3754463.9	0.00208 (15091519)	0.00199 (15091519)	0.00191 (13100218)	0.00184 (13100218)	0.00177 (14082819)
3754433.9	0.00209 (14092720)	0.00200 (14082819)	0.00193 (14082819)	0.00185 (14082819)	0.00179 (14082819)
3754403.9	0.00208 (15102018)	0.00200 (15102018)	0.00192 (15102018)	0.00185 (15102018)	0.00177 (15102018)
3754373.9	0.00210 (14102520)	0.00200 (14102520)	0.00192 (14102520)	0.00184 (14102520)	0.00177 (14102520)
3754343.9	0.00209 (13062521)	0.00200 (13062521)	0.00191 (14102520)	0.00184 (14102520)	0.00177 (14102520)
3754313.9	0.00207 (14111518)	0.00199 (14111518)	0.00191 (14111518)	0.00184 (14111518)	0.00176 (14111518)
3754283.9	0.00206 (15052204)	0.00198 (15052204)	0.00190 (14111518)	0.00184 (14111518)	0.00177 (14111518)
3754253.9	0.00204 (13102805)	0.00196 (14013104)	0.00188 (14013104)	0.00181 (14013104)	0.00174 (14013104)
3754223.9	0.00201 (16102817)	0.00192 (13100920)	0.00186 (13100920)	0.00179 (13100920)	0.00173 (13100920)
3754193.9	0.00200 (13102806)	0.00191 (15110717)	0.00184 (15110717)	0.00176 (15110717)	0.00170 (13100920)
3754163.9	0.00198 (14040106)	0.00190 (14040106)	0.00183 (15110717)	0.00177 (15110717)	0.00170 (15110717)
3754133.9	0.00198 (15110418)	0.00190 (15110418)	0.00182 (15110418)	0.00175 (15102019)	0.00169 (15102019)

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE   1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   STCK1   ,

*** NETWORK ID: UCART1   ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10   IN MICROGRAMS/M**3   **

Y-COORD (METERS)	X-COORD (METERS)		
	371990.59	372020.59	372050.59
3754194.3	0.00536 (15111624)	0.00521 (15102924)	0.00495 (15102924)
3754164.3	0.00492 (15111624)	0.00472 (15102924)	0.00489 (15102924)
3754134.3	0.00444 (15111624)	0.00420 (15111624)	0.00453 (15102924)

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE   1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   STCK1   ,

*** NETWORK ID: UCART2   ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10   IN MICROGRAMS/M**3   **

Y-COORD (METERS)	X-COORD (METERS)			
	371627.60	371657.60	371687.60	371717.60
3754535.3	0.00173 (16010316)	0.00191 (16010316)	0.00248	

(14121208)   0.00317 (14121208)
 3754505.3 | 0.00222 (14022808)   0.00199 (14022808)   0.00219
(16010316)   0.00241 (16010316)
 3754475.3 | 0.00258 (14022808)   0.00251 (14022808)   0.00232
(14022808)   0.00244 (12012316)
 3754445.3 | 0.00249 (14022808)   0.00254 (14022808)   0.00258
(14120316)   0.00294 (14120316)

↑ *** AERMOD - VERSION 21112 ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility Residents\Ollie Facility R ***   01/24/22
 *** AERMET - VERSION 16216 ***   ***
                        ***   22:38:56

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 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                              *** THE   1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   STCK1   ,

                                   *** NETWORK ID: UCART3   ; NETWORK TYPE: GRIDCART ***

                                        ** CONC OF PM_10   IN MICROGRAMS/M**3   **

  Y-COORD | X-COORD (METERS)
  (METERS) | 371767.65   371797.65   371827.65   371857.65   371887.65
 -

 3754688.8 | 0.00207 (13050516)   0.00190 (13050516)   0.00149
(13050516)   0.00097 (13050516)   0.00097 (16031116)
 3754658.8 | 0.00227 (13050516)   0.00220 (13050516)   0.00178
(13050516)   0.00116 (13050516)   0.00109 (16031116)
 3754628.8 | 0.00235 (13050516)   0.00248 (13050516)   0.00209
(13050516)   0.00135 (13050516)   0.00121 (16031116)
 3754598.8 | 0.00248 (13050416)   0.00262 (13050516)   0.00239
(13050516)   0.00157 (13050516)   0.00132 (16031116)
 3754568.8 | 0.00293 (14121208)   0.00283 (13050416)   0.00263
(13050516)   0.00180 (13050516)   0.00141 (16031116)

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                              *** THE   1ST HIGHEST 8-HR AVERAGE CONCENTRATION

VALUES FOR SOURCE GROUP: ALL   ***
                                 INCLUDING SOURCE(S):   STCK1   ,

                                  *** NETWORK ID: UCART3   ; NETWORK TYPE:
GRIDCART ***

                                       ** CONC OF PM_10   IN MICROGRAMS/M**3
                    **

  Y-COORD | X-COORD (METERS)
  (METERS) | 371917.65   371947.65
 -
- -

 3754688.8 | 0.00141 (14022824)   0.00216 (14022824)
 3754658.8 | 0.00146 (14022824)   0.00231 (14022824)
 3754628.8 | 0.00170 (16013116)   0.00241 (14022824)
 3754598.8 | 0.00200 (16013116)   0.00236 (14022824)
 3754568.8 | 0.00229 (16013116)   0.00219 (16013116)

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                                *** THE   1ST HIGHEST 8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                 INCLUDING SOURCE(S):   STCK1   ,

                                  *** NETWORK ID: UCART4   ; NETWORK TYPE:
GRIDCART ***

                                       ** CONC OF PM_10   IN MICROGRAMS/M**3
                    **

  Y-COORD | X-COORD (METERS)
  (METERS) | 372595.60   372625.60   372655.60
       372685.60   372715.60
 -
- -

 3754673.9 | 0.00206m(16031324)   0.00199m(16031324)
0.00192m(16031324)   0.00185m(16031324)   0.00178m(16031324)
 3754643.9 | 0.00210m(16031324)   0.00202m(16031324)
0.00193m(16031324)   0.00184m(16031324)   0.00175m(16031324)
 3754613.9 | 0.00210m(16031324)   0.00201m(16031324)
0.00191m(16031324)   0.00183m(16031324)   0.00172m(16031324)
 3754583.9 | 0.00202 (15121024)   0.00193 (15121024)   0.00184

(15121024)   0.00175 (15121024)   0.00167 (15121024)
 3754553.9 | 0.00206 (15121024)   0.00194 (15121024)   0.00184
(15121024)   0.00174 (15121024)   0.00164 (15121024)
 3754523.9 | 0.00204 (15121024)   0.00191 (15121024)   0.00181
(15121024)   0.00171 (15091524)   0.00165 (15091524)
 3754493.9 | 0.00196 (15121024)   0.00184 (15121024)   0.00175
(15091524)   0.00168 (15091524)   0.00163 (15091524)
 3754463.9 | 0.00199 (15052208)   0.00189 (15052208)   0.00180
(15052208)   0.00169 (15052208)   0.00161 (15052208)
 3754433.9 | 0.00200 (15052208)   0.00189 (15052208)   0.00179
(15052208)   0.00169 (15052208)   0.00162 (15052208)
 3754403.9 | 0.00194 (15052208)   0.00183 (15052208)   0.00174
(12100924)   0.00166 (12100924)   0.00160 (12100924)
 3754373.9 | 0.00195 (16030624)   0.00185 (16030624)   0.00175
(16030624)   0.00167 (16030624)   0.00158 (16030624)
 3754343.9 | 0.00192 (16030624)   0.00183 (16030624)   0.00174
(16030624)   0.00166 (16030624)   0.00158 (16030624)
 3754313.9 | 0.00184 (12121524)   0.00177 (12121524)   0.00170
(12121524)   0.00163 (12121524)   0.00156 (12121524)
 3754283.9 | 0.00180 (12121524)   0.00175 (12121524)   0.00168
(12121524)   0.00162 (12121524)   0.00157 (12121524)
 3754253.9 | 0.00171 (12121524)   0.00166 (12121524)   0.00160
(12121524)   0.00156 (12121524)   0.00151 (12121524)
 3754223.9 | 0.00158 (12110908)   0.00154 (12121524)   0.00151
(12121524)   0.00147 (12121524)   0.00144 (12121524)
 3754193.9 | 0.00146 (12110908)   0.00142 (12110908)   0.00137
(12110908)   0.00134 (12121524)   0.00132 (12121524)
 3754163.9 | 0.00134 (12110908)   0.00131 (12110908)   0.00128
(12110908)   0.00124 (12110908)   0.00120 (12121524)
 3754133.9 | 0.00120 (12110908)   0.00119 (12110908)   0.00117
(12110908)   0.00115 (12110908)   0.00112 (12110908)

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                               *** THE   1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
                                   INCLUDING SOURCE(S):   STCK1   ,

                                    *** NETWORK ID: UCART4   ; NETWORK TYPE: GRIDCART ***

                                        ** CONC OF PM_10   IN MICROGRAMS/M**3
                    **

  Y-COORD | X-COORD (METERS)

```
  (METERS) |       372745.60               372775.60               372805.60
       372835.60               372865.60
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -

 3754673.9 |      0.00170m(16031324)      0.00164m(16031324)
0.00157m(16031324)      0.00151m(16031324)      0.00145m(16031324)
 3754643.9 |      0.00167m(16031324)      0.00160m(16031324)
0.00152m(16031324)      0.00145m(16031324)      0.00138m(16031324)
 3754613.9 |      0.00162m(16031324)      0.00154m(16031324)
0.00147m(16031324)      0.00140m(16031324)      0.00135 (15091524)
 3754583.9 |      0.00157 (15121024)      0.00150 (15121024)      0.00146
(15091524)      0.00143 (15091524)      0.00141 (15091524)
 3754553.9 |      0.00158 (15091524)      0.00153 (15091524)      0.00148
(15091524)      0.00144 (15091524)      0.00140 (15091524)
 3754523.9 |      0.00159 (15091524)      0.00154 (15091524)      0.00149
(15091524)      0.00144 (15091524)      0.00139 (15091524)
 3754493.9 |      0.00157 (15091524)      0.00151 (15091524)      0.00146
(15091524)      0.00140 (15091524)      0.00136 (15091524)
 3754463.9 |      0.00153 (15052208)      0.00146 (15052208)      0.00140
(15052208)      0.00135 (12100924)      0.00131 (12100924)
 3754433.9 |      0.00155 (12100924)      0.00150 (12100924)      0.00145
(12100924)      0.00140 (12100924)      0.00135 (12100924)
 3754403.9 |      0.00154 (12100924)      0.00149 (12100924)      0.00144
(12100924)      0.00139 (12100924)      0.00134 (12100924)
 3754373.9 |      0.00152 (12100924)      0.00147 (12100924)      0.00142
(12100924)      0.00137 (12100924)      0.00132 (12100924)
 3754343.9 |      0.00151 (16030624)      0.00144 (16030624)      0.00138
(16030624)      0.00132 (16030624)      0.00127 (12100924)
 3754313.9 |      0.00150 (12121524)      0.00145 (12121524)      0.00140
(12121524)      0.00135 (12121524)      0.00130 (12121524)
 3754283.9 |      0.00151 (12121524)      0.00146 (12121524)      0.00141
(12121524)      0.00137 (12121524)      0.00132 (12121524)
 3754253.9 |      0.00147 (12121524)      0.00142 (12121524)      0.00138
(12121524)      0.00134 (12121524)      0.00130 (12121524)
 3754223.9 |      0.00141 (12121524)      0.00137 (12121524)      0.00133
(12121524)      0.00130 (12121524)      0.00126 (12121524)
 3754193.9 |      0.00130 (12121524)      0.00128 (12121524)      0.00126
(12121524)      0.00123 (12121524)      0.00120 (12121524)
 3754163.9 |      0.00119 (12121524)      0.00118 (12121524)      0.00117
(12121524)      0.00115 (12121524)      0.00113 (12121524)
 3754133.9 |      0.00109 (12110908)      0.00107 (12121524)      0.00106
(12121524)      0.00106 (12121524)      0.00105 (12121524)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        01/24/22
 *** AERMET - VERSION  16216 ***   ***
                          ***       22:38:56

                                   PAGE  38
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*
```

Y-COORD (METERS)	X-COORD (METERS)		
	371990.59	372020.59	372050.59
3754194.3	0.00270 (15111624)	0.00241 (15111624)	0.00206 (15121224)
3754164.3	0.00243 (15111624)	0.00233 (15111624)	0.00210 (15121224)
3754134.3	0.00216 (15111624)	0.00215 (15111624)	0.00202 (15121224)

Y-COORD (METERS)	X-COORD (METERS)			
	371627.60	371657.60	371687.60	371717.60
3754535.3	0.00080 (14121124)	0.00097 (14121124)	0.00115 (14121124)	0.00130 (14121124)
3754505.3	0.00076 (14022824)	0.00076 (14121124)	0.00095 (14121124)	0.00115 (14121124)

```
 3754475.3 |      0.00088 (14022824)      0.00086 (14022824)      0.00079
(14022824)      0.00087 (16062124)
 3754445.3 |      0.00087 (14120224)      0.00092 (14120224)      0.00096
(14120224)      0.00099 (14120324)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        01/24/22
 *** AERMET - VERSION  16216 ***   ***
                       ***        22:38:56

                                  PAGE  40
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                               *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       ,

                                   *** NETWORK ID: UCART3   ;  NETWORK TYPE:
GRIDCART ***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

  Y-COORD  |                                                 X-COORD (METERS)
  (METERS) |       371767.65              371797.65              371827.65
       371857.65              371887.65
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 3754688.8 |      0.00112 (13050524)      0.00113 (13050524)      0.00100
(13050524)      0.00074 (13050524)      0.00058 (14022824)
 3754658.8 |      0.00114 (13050524)      0.00123 (13050524)      0.00114
(13050524)      0.00086 (13050524)      0.00061 (14022824)
 3754628.8 |      0.00118 (16122324)      0.00128 (13050524)      0.00126
(13050524)      0.00098 (13050524)      0.00063 (14022824)
 3754598.8 |      0.00122 (16122324)      0.00125 (13050524)      0.00135
(13050524)      0.00111 (13050524)      0.00063 (14022824)
 3754568.8 |      0.00117 (16122324)      0.00118 (16122324)      0.00136
(13050524)      0.00122 (13050524)      0.00067 (13050524)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        01/24/22
 *** AERMET - VERSION  16216 ***   ***
                       ***        22:38:56

                                  PAGE  41
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                               *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       ,
```

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)	
	371917.65	371947.65
3754688.8	0.00071 (14022824)	0.00096 (14022824)
3754658.8	0.00076 (14022824)	0.00105 (14022824)
3754628.8	0.00079 (14022824)	0.00113 (14022824)
3754598.8	0.00079 (14022824)	0.00118 (14022824)
3754568.8	0.00083 (16013124)	0.00115 (14022824)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** NETWORK ID: UCART4 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)			
	372595.60	372625.60	372655.60	372685.60	372715.60
3754673.9	0.00080m(16031324)	0.00077m(16031324)	0.00075m(16031324)	0.00072m(16031324)	0.00069m(16031324)	
3754643.9	0.00082m(16031324)	0.00078m(16031324)	0.00075m(16031324)	0.00072m(16031324)	0.00068m(16031324)	
3754613.9	0.00082m(15121024)	0.00078m(15121024)	0.00075 (14071724)	0.00074 (14071724)	0.00072 (14071724)	
3754583.9	0.00089c(14040124)	0.00086c(14040124)	0.00082c(14040124)	0.00079c(14040124)	0.00076c(14040124)	
3754553.9	0.00098c(14040124)	0.00093c(14040124)	0.00089c(14040124)	0.00084c(14040124)	0.00081c(14040124)	

```
 3754523.9 |      0.00104c(14040124)      0.00099c(14040124)
0.00094c(14040124)      0.00089c(14040124)      0.00084c(14040124)
 3754493.9 |      0.00108c(14040124)      0.00102c(14040124)
0.00096c(14040124)      0.00091c(14040124)      0.00086c(14040124)
 3754463.9 |      0.00112 (14032624)      0.00105 (14032624)      0.00098
(14032624)      0.00092 (14032624)      0.00087 (14032624)
 3754433.9 |      0.00114 (14032624)      0.00106 (14032624)      0.00099
(14032624)      0.00093 (14032624)      0.00088 (14032624)
 3754403.9 |      0.00112 (14032624)      0.00105 (14032624)      0.00098
(14032624)      0.00092 (14032624)      0.00087 (14033024)
 3754373.9 |      0.00109 (12110924)      0.00102 (12110924)      0.00096
(12110924)      0.00091 (14033024)      0.00086 (14033024)
 3754343.9 |      0.00109 (12110924)      0.00103 (12110924)      0.00097
(12110924)      0.00091 (12110924)      0.00086 (12110924)
 3754313.9 |      0.00106 (12110924)      0.00100 (12110924)      0.00095
(12110924)      0.00090 (12110924)      0.00085 (12110924)
 3754283.9 |      0.00101 (12110924)      0.00096 (12110924)      0.00091
(12110924)      0.00087 (12110924)      0.00083 (12110924)
 3754253.9 |      0.00095 (12110924)      0.00090 (12110924)      0.00086
(12110924)      0.00082 (12110924)      0.00079 (12110924)
 3754223.9 |      0.00086 (12110924)      0.00084 (12110924)      0.00080
(12110924)      0.00077 (12110924)      0.00074 (12110924)
 3754193.9 |      0.00078 (12110924)      0.00076 (12110924)      0.00073
(12110924)      0.00071 (12110924)      0.00069 (12110924)
 3754163.9 |      0.00069 (12110924)      0.00068 (12110924)      0.00066
(12110924)      0.00065 (12110924)      0.00063 (12110924)
 3754133.9 |      0.00060 (12110924)      0.00060 (12110924)      0.00059
(12110924)      0.00058 (12110924)      0.00058 (12110924)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        01/24/22
 *** AERMET - VERSION  16216 ***   ***
                        ***       22:38:56

                                  PAGE  43
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                               *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       ,

                                   *** NETWORK ID: UCART4   ;  NETWORK TYPE:
GRIDCART ***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

  Y-COORD  |                                                 X-COORD (METERS)
  (METERS) |       372745.60               372775.60               372805.60
       372835.60               372865.60
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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- -

 3754673.9 | 0.00066m(16031324)   0.00064m(16031324)
0.00061m(16031324)   0.00059m(16031324)   0.00057 (14071724)
 3754643.9 | 0.00065 (14071724)   0.00064 (14071724)   0.00062
(14071724)   0.00061 (14071724)   0.00060 (14071724)
 3754613.9 | 0.00070 (14071724)   0.00068 (14071724)   0.00066
(14071724)   0.00064 (14071724)   0.00063 (14071724)
 3754583.9 | 0.00073c(14040124)   0.00070c(14040124)   0.00067
(14071724)   0.00065 (14071724)   0.00064 (14071724)
 3754553.9 | 0.00077c(14040124)   0.00073c(14040124)
0.00070c(14040124)   0.00067c(14040124)   0.00064c(14040124)
 3754523.9 | 0.00080c(14040124)   0.00076c(14040124)
0.00073c(14040124)   0.00069c(14040124)   0.00066c(14040124)
 3754493.9 | 0.00082c(14040124)   0.00078c(14040124)
0.00074c(14040124)   0.00070c(14040124)   0.00067c(14040124)
 3754463.9 | 0.00082 (14032624)   0.00078c(14040124)
0.00074c(14040124)   0.00070c(14040124)   0.00067c(14040124)
 3754433.9 | 0.00083 (14032624)   0.00078 (14032624)   0.00074
(14033024)   0.00071 (14033024)   0.00068 (14033024)
 3754403.9 | 0.00083 (14033024)   0.00079 (14033024)   0.00075
(14033024)   0.00072 (14033024)   0.00069 (14033024)
 3754373.9 | 0.00082 (14033024)   0.00078 (14033024)   0.00075
(14033024)   0.00071 (14033024)   0.00068 (14033024)
 3754343.9 | 0.00081 (12110924)   0.00077 (12110924)   0.00073
(12110924)   0.00069 (12110924)   0.00067 (14033024)
 3754313.9 | 0.00080 (12110924)   0.00076 (12110924)   0.00073
(12110924)   0.00069 (12110924)   0.00066 (12110924)
 3754283.9 | 0.00079 (12110924)   0.00075 (12110924)   0.00071
(12110924)   0.00068 (12110924)   0.00065 (12110924)
 3754253.9 | 0.00075 (12110924)   0.00072 (12110924)   0.00069
(12110924)   0.00066 (12110924)   0.00063 (12110924)
 3754223.9 | 0.00071 (12110924)   0.00069 (12110924)   0.00066
(12110924)   0.00063 (12110924)   0.00061 (12110924)
 3754193.9 | 0.00067 (12110924)   0.00064 (12110924)   0.00062
(12110924)   0.00060 (12110924)   0.00058 (12110924)
 3754163.9 | 0.00061 (12110924)   0.00060 (12110924)   0.00058
(12110924)   0.00056 (12110924)   0.00055 (12110924)
 3754133.9 | 0.00056 (12110924)   0.00055 (12110924)   0.00054
(12110924)   0.00052 (12110924)   0.00051 (12110924)

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                                      *** THE SUMMARY OF MAXIMUM PERIOD (43848
HRS) RESULTS ***

GROUP ID	NETWORK	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	0.00028	AT (372595.60, 3754523.87, 30.20, 30.20, 0.00)	GC	UCART4
	2ND HIGHEST VALUE IS	0.00028	AT (372595.60, 3754493.87, 30.30, 30.30, 0.00)	GC	UCART4
	3RD HIGHEST VALUE IS	0.00028	AT (372595.60, 3754553.87, 30.30, 30.30, 0.00)	GC	UCART4
	4TH HIGHEST VALUE IS	0.00027	AT (372625.60, 3754523.87, 30.10, 30.10, 0.00)	GC	UCART4
	5TH HIGHEST VALUE IS	0.00027	AT (372595.60, 3754583.87, 30.30, 30.30, 0.00)	GC	UCART4
	6TH HIGHEST VALUE IS	0.00027	AT (372595.60, 3754463.87, 30.30, 30.30, 0.00)	GC	UCART4
	7TH HIGHEST VALUE IS	0.00027	AT (372625.60, 3754553.87, 30.10, 30.10, 0.00)	GC	UCART4
	8TH HIGHEST VALUE IS	0.00026	AT (372625.60, 3754493.87, 30.20, 30.20, 0.00)	GC	UCART4
	9TH HIGHEST VALUE IS	0.00026	AT (372625.60, 3754583.87, 30.50, 30.50, 0.00)	GC	UCART4
	10TH HIGHEST VALUE IS	0.00026	AT (372655.60, 3754523.87, 30.20, 30.20, 0.00)	GC	UCART4

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** 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 0.01023 ON 14121203: AT (371767.65,
3754568.79, 31.00, 31.00, 0.00) GC UCART3

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 8-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 0.00536 ON 15111624: AT (371990.59,
3754194.30, 30.30, 30.30, 0.00) GC UCART1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM_10   IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE	NETWORK CONC OF TYPE GRID-ID	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)
ALL	HIGH 1ST HIGH VALUE IS	0.00270 ON	15111624:	AT (371990.59, 3754194.30, 30.30, 30.30, 0.00) GC UCART1

*** RECEPTOR TYPES: GC = GRIDCART
                     GP = GRIDPOLR
                     DC = DISCCART
                     DP = DISCPOLR

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   3 Warning Message(s)
A Total of   718 Informational Message(s)

A Total of   43848 Hours Were Processed

A Total of   458 Calm Hours Identified

A Total of   260 Missing Hours Identified (0.59 Percent)

```
   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
SO W320      39        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
ME W186      64       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
     0.50
ME W187      64       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


   ***********************************
   *** AERMOD Finishes Successfully ***
   ***********************************
```

*HARP - HRACalc v19044 1/24/2022 10:42:01 PM - Cancer Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Ollie El Segundo\Ollie_Ops_1_Residents_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE\	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_R	MMILK_RIS	WATER_RI	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISK
1			9901	DieselExhP	0.00028	2.48E-07	30YrCancel	*	2.48E-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
2			107028	Acrolein	0	0.00E+00	30YrCancel	*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

PIG_RISK	CHICKEN_F	EGG_RISK	1ST_DRIVE	2ND_DRIVI	PASTURE_(	FISH_CONC	WATER_CONC
0.00E+00	0.00E+00	0.00E+00	INHALATION		0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 1/24/2022 10:42:01 PM - Acute Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Ollie El Segundo\Ollie_Ops_1_Residents_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL
1			9901	DieselExhPM	0.01023	NonCancerAcute	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	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			107028	Acrolein	0.01023	NonCancerAcute	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.09E-03	0.00E+00	4.09E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 1/24/2022 10:42:01 PM - Chronic Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Ollie El Segundo\Ollie_Ops_1_Residents_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE\	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR
	1		9901	DieselExhP	0.00028	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.60E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2		107028	Acrolein	0	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

GENERAL	DETAILS	INH_CONC	SOIL_DOSE	DERMAL_DOSE	MMILK_DOSE	WATER_DOSE	FISH_DOSE	CROP_DOSE	BEEF_DOSE	DAIRY_DOSE	PIG_DOSE	CHICKEN_DOSE	EGG_DOSE
0.00E+00	*	2.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1ST_DRIVER	2ND_DRIVER	3RD_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
INHALATION			0.00E+00	0.00E+00	0.00E+00
INHALATION			0.00E+00	0.00E+00	0.00E+00

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 2/3/2022
** File: C:\Lakes\AERMOD View\Ollie\Ollie Individual Worker\Ollie Individual
Worker.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\Ollie\Ollie Facility Residents\Ollie Facility R
   MODELOPT DFAULT CONC
   AVERTIME 1 8 24 PERIOD
   URBANOPT 10040000 LA_County
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL "Ollie Individual Worker.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      371900.716  3754412.638       30.880
** DESCRSRC Generator 1 (3516C)
** Source Parameters **
   SRCPARAM STCK1         0.000288     5.000   763.850 224.39084     0.229

   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
```

```
RE STARTING
   INCLUDED "Ollie Individual Worker.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.SFC
   PROFFILE LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.PFL
   SURFDATA 23174 2012 LOS_ANGELES/INT'L_ARPT
   UAIRDATA 3190 2012
   PROFBASE 30.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "OLLIE INDIVIDUAL WORKER.AD\01H1GALL.PLT" 31
   PLOTFILE 8 ALL 1ST "OLLIE INDIVIDUAL WORKER.AD\08H1GALL.PLT" 32
   PLOTFILE 24 ALL 1ST "OLLIE INDIVIDUAL WORKER.AD\24H1GALL.PLT" 33
   PLOTFILE PERIOD ALL "OLLIE INDIVIDUAL WORKER.AD\PE00GALL.PLT" 34
   SUMMFILE "Ollie Individual Worker.sum"
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
**
```

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 2/3/2022
** File: C:\Lakes\AERMOD View\Ollie\Ollie Individual Worker\Ollie Individual
Worker.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\Ollie\Ollie Facility Residents\Ollie Facility R
   MODELOPT DFAULT CONC
   AVERTIME 1 8 24 PERIOD
   URBANOPT 10040000 LA_County
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL "Ollie Individual Worker.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      371900.716  3754412.638       30.880
** DESCRSRC Generator 1 (3516C)
** Source Parameters **
   SRCPARAM STCK1         0.000288     5.000   763.850 224.39084     0.229
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
```

```
   INCLUDED "Ollie Individual Worker.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.SFC
   PROFFILE LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.PFL
   SURFDATA 23174 2012 LOS_ANGELES/INT'L_ARPT
   UAIRDATA 3190 2012
   PROFBASE 30.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "OLLIE INDIVIDUAL WORKER.AD\01H1GALL.PLT" 31
   PLOTFILE 8 ALL 1ST "OLLIE INDIVIDUAL WORKER.AD\08H1GALL.PLT" 32
   PLOTFILE 24 ALL 1ST "OLLIE INDIVIDUAL WORKER.AD\24H1GALL.PLT" 33
   PLOTFILE PERIOD ALL "OLLIE INDIVIDUAL WORKER.AD\PE00GALL.PLT" 34
   SUMMFILE "Ollie Individual Worker.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            3 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 SO W320      39        PPARM: Input Parameter May Be Out-of-Range for Parameter
```

```
       VS
 ME W186      64       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
     0.50
 ME W187      64       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                         ***       15:36:14

                                   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for     1 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =  10040000.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        ADJ_U*   - Use ADJ_U* option for SBL in AERMET
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.
```

```
 **The User Specified a Pollutant Type of:  PM_10

 **Model Calculates  3 Short Term Average(s) of:   1-HR   8-HR  24-HR
     and Calculates PERIOD Averages

 **This Run Includes:      1 Source(s);       1 Source Group(s); and      44
Receptor(s)

                with:      1 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 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)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **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) =    30.00 ;  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
```

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	BASE X (METERS)	BASE Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR VARY BY	EMIS RATE SCALAR
STCK1	0	0.28800E-03	371900.7	3754412.6	30.9	5.00	763.85	224.39	0.23	NO	YES	NO	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	STCK1 ,

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	10040000.	STCK1 ,

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

371990.6, 372020.6, 372050.6,

*** Y-COORDINATES OF GRID ***
(METERS)

3754134.3, 3754164.3, 3754194.3,

*** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD View\Ollie\Ollie Facility Residents\Ollie Facility R *** 02/03/22
*** AERMET - VERSION 16216 *** *** 15:36:14

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)		
	371990.59	372020.59	372050.59

```
  3754194.30 |         30.30        30.10        30.10
  3754164.30 |         30.40        30.20        30.30
  3754134.30 |         30.50        30.10        30.30
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***       02/03/22
 *** AERMET - VERSION  16216 ***   ***
                        ***       15:36:14

                                  PAGE   7
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                *** NETWORK ID: UCART1   ;  NETWORK TYPE:
GRIDCART ***

                                          * HILL HEIGHT SCALES IN METERS *

    Y-COORD  |                                          X-COORD (METERS)
    (METERS) |     371990.59    372020.59    372050.59
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  3754194.30 |         30.30        30.10        30.10
  3754164.30 |         30.40        30.20        30.30
  3754134.30 |         30.50        30.10        30.30
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***       02/03/22
 *** AERMET - VERSION  16216 ***   ***
                        ***       15:36:14

                                  PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                     *** GRIDDED RECEPTOR NETWORK SUMMARY ***

                                *** NETWORK ID: UCART3   ;  NETWORK TYPE:
GRIDCART ***

                                       *** X-COORDINATES OF GRID ***
                                                 (METERS)

       371767.6,  371797.6,  371827.6,  371857.6,  371887.6,  371917.6,  371947.6,

                                       *** Y-COORDINATES OF GRID ***
                                                 (METERS)

      3754568.8, 3754598.8, 3754628.8, 3754658.8, 3754688.8,
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***       02/03/22
 *** AERMET - VERSION  16216 ***   ***
                        ***       15:36:14
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)					
	371767.65	371797.65	371827.65	371857.65	371887.65	371917.65	371947.65
3754688.79	31.20	31.50	31.50	31.40	31.30	31.10	30.90
3754658.79	31.20	31.40	31.30	31.40	31.20	31.10	31.00
3754628.79	31.10	31.30	31.20	31.40	31.10	31.00	31.00
3754598.79	31.00	31.20	31.10	31.20	30.90	30.80	30.90
3754568.79	31.00	31.00	31.00	31.00	30.80	30.80	30.60

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)					
	371767.65	371797.65	371827.65	371857.65	371887.65	371917.65	371947.65
3754688.79	31.20	31.50	31.50	31.40	31.30	31.10	30.90
3754658.79	31.20	31.40	31.30	31.40	31.20	31.10	31.00
3754628.79	31.10	31.30	31.20	31.40	31.10	31.00	31.00

3754598.79 | 31.00 31.20 31.10 31.20 30.90
30.80 30.90
3754568.79 | 31.00 31.00 31.00 31.00 30.80
30.80 30.60

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 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,

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.SFC
Met Version: 16216
Profile file: LosAngelesInt'lAirportADJU\KLAX_V9_ADJU\KLAX_v9.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 23174 Upper air station no.: 3190
Name: LOS_ANGELES/INT'L_ARPT Name: UNKNOWN

Year: 2012 Year: 2012

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
12	01	01	1	01	-5.9	0.105	-9.000	-9.000	-999.	82.	17.6	0.10	2.55	1.00	1.35	246.	10.1	282.5	2.0
12	01	01	1	02	-21.8	0.218	-9.000	-9.000	-999.	244.	52.3	0.10	2.55	1.00	2.67	268.	10.1	282.0	2.0
12	01	01	1	03	-10.3	0.139	-9.000	-9.000	-999.	127.	23.6	0.10	2.55	1.00	1.76	311.	10.1	281.4	2.0
12	01	01	1	04	-3.3	0.080	-9.000	-9.000	-999.	55.	14.1	0.10	2.55	1.00	0.97	280.	10.1	282.0	2.0
12	01	01	1	05	-10.9	0.144	-9.000	-9.000	-999.	131.	24.4	0.10	2.55	1.00	1.81	267.	10.1	281.4	2.0
12	01	01	1	06	-20.5	0.205	-9.000	-9.000	-999.	223.	46.3	0.10	2.55	1.00	2.52	283.	10.1	282.5	2.0
12	01	01	1	07	-5.5	0.101	-9.000	-9.000	-999.	83.	16.9	0.10	2.55	1.00	1.30	324.	10.1	281.4	2.0
12	01	01	1	08	-4.3	0.096	-9.000	-9.000	-999.	71.	18.6	0.10	2.55	0.55	1.23	90.	10.1	282.5	2.0
12	01	01	1	09	45.7	0.183	0.378	0.007	43.	188.	-12.2	0.10	2.55	0.32	1.67	106.	10.1	289.2	2.0
12	01	01	1	10	117.3	0.180	0.751	0.007	131.	184.	-4.5	0.10	2.55	0.24	1.42	105.	10.1	293.8	2.0
12	01	01	1	11	168.5	0.173	1.222	0.005	391.	173.	-2.8	0.10	2.55	0.21	1.25	27.	10.1	297.5	2.0
12	01	01	1	12	186.3	0.227	1.521	0.005	680.	260.	-5.7	0.10	2.55	0.20	1.86	63.	10.1	299.2	2.0
12	01	01	1	13	190.2	0.253	1.817	0.005	1136.	306.	-7.7	0.10	2.55	0.20	2.16	300.	10.1	296.4	2.0
12	01	01	1	14	160.2	0.448	1.842	0.005	1405.	720.	-50.6	0.10	2.55	0.21	4.68	276.	10.1	291.4	2.0

```
 12 01 01   1 15  108.6  0.466  1.661  0.005 1520.  764.    -83.9  0.10   2.55
0.24    5.02  270.   10.1  289.9    2.0
 12 01 01   1 16   37.3  0.455  1.167  0.005 1543.  737.   -228.8  0.10   2.55
0.33    5.10  270.   10.1  288.1    2.0
 12 01 01   1 17  -31.4  0.381 -9.000 -9.000 -999.  569.    159.8  0.10   2.55
0.59    4.54  268.   10.1  287.5    2.0
 12 01 01   1 18  -36.0  0.365 -9.000 -9.000 -999.  529.    146.4  0.10   2.55
1.00    4.37  274.   10.1  286.4    2.0
 12 01 01   1 19  -29.6  0.301 -9.000 -9.000 -999.  398.     99.5  0.10   2.55
1.00    3.63  271.   10.1  286.4    2.0
 12 01 01   1 20  -21.0  0.213 -9.000 -9.000 -999.  239.     49.9  0.10   2.55
1.00    2.61  271.   10.1  286.4    2.0
 12 01 01   1 21  -10.3  0.140 -9.000 -9.000 -999.  128.     24.0  0.10   2.55
1.00    1.77  281.   10.1  286.4    2.0
 12 01 01   1 22  -22.9  0.230 -9.000 -9.000 -999.  265.     58.3  0.10   2.55
1.00    2.81  270.   10.1  285.9    2.0
 12 01 01   1 23  -37.0  0.374 -9.000 -9.000 -999.  550.    154.2  0.10   2.55
1.00    4.48  272.   10.1  285.9    2.0
 12 01 01   1 24  -24.0  0.243 -9.000 -9.000 -999.  299.     65.0  0.10   2.55
1.00    2.96  274.   10.1  285.9    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 12 01 01 01   10.1 1  246.    1.35   282.6   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                       ***        15:36:14

                                  PAGE  13
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                               *** THE PERIOD ( 43848 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       ,

                                   *** NETWORK ID: UCART1   ;  NETWORK TYPE:
GRIDCART ***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

    Y-COORD  |                                              X-COORD (METERS)
    (METERS) |     371990.59    372020.59    372050.59
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

GRIDCART ***

** CONC OF PM_10   IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 371990.59	372020.59	372050.59
3754194.3	0.00955 (15111620)	0.00896 (16032223)	0.00808 (15102922)
3754164.3	0.00837 (15111620)	0.00804 (15102923)	0.00754 (16032223)
3754134.3	0.00753 (15111622)	0.00715 (15102923)	0.00673 (16032223)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):   STCK1   ,

*** NETWORK ID: UCART3   ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10   IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 371767.65	371797.65	371827.65	371857.65	371887.65
3754688.8	0.00656 (14022807)	0.00542 (14022807)	0.00362 (14022807)	0.00294 (14022808)	0.00365 (16121603)
3754658.8	0.00757 (14022807)	0.00669 (14022807)	0.00467 (14022807)	0.00330 (12031708)	0.00349 (12032514)
3754628.8	0.00838 (14022807)	0.00809 (14022807)	0.00599 (14022807)	0.00375 (12031708)	0.00384 (12031709)
3754598.8	0.00856 (14022807)	0.00935 (14022807)	0.00760 (14022807)	0.00421 (12020713)	0.00428 (14013012)
3754568.8	0.01023 (14121203)	0.00983 (14022807)	0.00924 (14022807)	0.00514 (14022807)	0.00472 (14013012)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** NETWORK ID: UCART3 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)	
	371917.65	371947.65
3754688.8	0.00487 (14022819)	0.00549 (14022819)
3754658.8	0.00498 (14022819)	0.00554 (14022819)
3754628.8	0.00494 (14022819)	0.00555 (15100404)
3754598.8	0.00445 (14022819)	0.00623 (15100404)
3754568.8	0.00521 (16013113)	0.00646 (15100404)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)		
	371990.59	372020.59	372050.59

```
 3754194.3 |      0.00536 (15111624)      0.00521 (15102924)      0.00495
(15102924)
 3754164.3 |      0.00492 (15111624)      0.00472 (15102924)      0.00489
(15102924)
 3754134.3 |      0.00444 (15111624)      0.00420 (15111624)      0.00453
(15102924)
```

```
                               *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       ,

                                   *** NETWORK ID: UCART3   ;  NETWORK TYPE:
GRIDCART ***

                                       ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

  Y-COORD  |                                                 X-COORD (METERS)
  (METERS) |       371767.65              371797.65              371827.65
       371857.65              371887.65
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -

 3754688.8 |      0.00207 (13050516)      0.00190 (13050516)      0.00149
(13050516)      0.00097 (13050516)      0.00097 (16031116)
 3754658.8 |      0.00227 (13050516)      0.00220 (13050516)      0.00178
(13050516)      0.00116 (13050516)      0.00109 (16031116)
 3754628.8 |      0.00235 (13050516)      0.00248 (13050516)      0.00209
(13050516)      0.00135 (13050516)      0.00121 (16031116)
 3754598.8 |      0.00248 (13050416)      0.00262 (13050516)      0.00239
(13050516)      0.00157 (13050516)      0.00132 (16031116)
 3754568.8 |      0.00293 (14121208)      0.00283 (13050416)      0.00263
(13050516)      0.00180 (13050516)      0.00141 (16031116)
```

```
                               *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
```

VALUES FOR SOURCE GROUP: ALL   ***
                                INCLUDING SOURCE(S):   STCK1   ,

                                 *** NETWORK ID: UCART3   ; NETWORK TYPE:
GRIDCART ***

                                      ** CONC OF PM_10   IN MICROGRAMS/M**3
                  **

  Y-COORD | X-COORD (METERS)
  (METERS) | 371917.65   371947.65
 -
- -

 3754688.8 | 0.00141 (14022824)   0.00216 (14022824)
 3754658.8 | 0.00146 (14022824)   0.00231 (14022824)
 3754628.8 | 0.00170 (16013116)   0.00241 (14022824)
 3754598.8 | 0.00200 (16013116)   0.00236 (14022824)
 3754568.8 | 0.00229 (16013116)   0.00219 (16013116)

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                               *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                INCLUDING SOURCE(S):   STCK1   ,

                                 *** NETWORK ID: UCART1   ; NETWORK TYPE:
GRIDCART ***

                                      ** CONC OF PM_10   IN MICROGRAMS/M**3
                  **

  Y-COORD | X-COORD (METERS)
  (METERS) | 371990.59   372020.59   372050.59
 -
- -

 3754194.3 | 0.00270 (15111624)   0.00241 (15111624)   0.00206
(15121224)
 3754164.3 | 0.00243 (15111624)   0.00233 (15111624)   0.00210
(15121224)
 3754134.3 | 0.00216 (15111624)   0.00215 (15111624)   0.00202
(15121224)

*** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   STCK1   ,

*** NETWORK ID: UCART3   ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10   IN MICROGRAMS/M**3
**

Y-COORD (METERS)	X-COORD (METERS) 371767.65	371797.65	371827.65	371857.65	371887.65
3754688.8	0.00112 (13050524)	0.00113 (13050524)	0.00100 (13050524)	0.00074 (13050524)	0.00058 (14022824)
3754658.8	0.00114 (13050524)	0.00123 (13050524)	0.00114 (13050524)	0.00086 (13050524)	0.00061 (14022824)
3754628.8	0.00118 (16122324)	0.00128 (13050524)	0.00126 (13050524)	0.00098 (13050524)	0.00063 (14022824)
3754598.8	0.00122 (16122324)	0.00125 (13050524)	0.00135 (13050524)	0.00111 (13050524)	0.00063 (14022824)
3754568.8	0.00117 (16122324)	0.00118 (16122324)	0.00136 (13050524)	0.00122 (13050524)	0.00067 (13050524)

*** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   STCK1   ,

*** NETWORK ID: UCART3   ; NETWORK TYPE: GRIDCART ***

** CONC OF PM_10   IN MICROGRAMS/M**3
**

```
 Y-COORD  |                                                  X-COORD (METERS)
 (METERS) |      371917.65             371947.65
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

 3754688.8 |      0.00071 (14022824)      0.00096 (14022824)
 3754658.8 |      0.00076 (14022824)      0.00105 (14022824)
 3754628.8 |      0.00079 (14022824)      0.00113 (14022824)
 3754598.8 |      0.00079 (14022824)      0.00118 (14022824)
 3754568.8 |      0.00083 (16013124)      0.00115 (14022824)
```



```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                        *** THE SUMMARY OF MAXIMUM PERIOD ( 43848
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       0.00012 AT (  371797.65,  3754568.79,
31.00,    31.00,    0.00)  GC  UCART3
          2ND HIGHEST VALUE IS       0.00011 AT (  371767.65,  3754568.79,
31.00,    31.00,    0.00)  GC  UCART3
          3RD HIGHEST VALUE IS       0.00011 AT (  371827.65,  3754568.79,
31.00,    31.00,    0.00)  GC  UCART3
          4TH HIGHEST VALUE IS       0.00011 AT (  371857.65,  3754568.79,
31.00,    31.00,    0.00)  GC  UCART3
          5TH HIGHEST VALUE IS       0.00010 AT (  371887.65,  3754568.79,
30.80,    30.80,    0.00)  GC  UCART3
          6TH HIGHEST VALUE IS       0.00010 AT (  371797.65,  3754598.79,
31.20,    31.20,    0.00)  GC  UCART3
          7TH HIGHEST VALUE IS       0.00010 AT (  371917.65,  3754568.79,
30.80,    30.80,    0.00)  GC  UCART3
          8TH HIGHEST VALUE IS       0.00010 AT (  371767.65,  3754598.79,
31.00,    31.00,    0.00)  GC  UCART3
          9TH HIGHEST VALUE IS       0.00010 AT (  371947.65,  3754568.79,
30.60,    30.60,    0.00)  GC  UCART3
```

```
         10TH HIGHEST VALUE IS       0.00010 AT (  371827.65,  3754598.79,
31.10,    31.10,    0.00)  GC  UCART3


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                       ***        15:36:14

                                  PAGE  25
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                                *** 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       0.01023  ON 14121203: AT (  371767.65,
3754568.79,    31.00,    31.00,    0.00)  GC  UCART3


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD View\Ollie\Ollie Facility
Residents\Ollie Facility R ***        02/03/22
 *** AERMET - VERSION  16216 ***   ***
                       ***        15:36:14

                                  PAGE  26
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                                *** THE SUMMARY OF HIGHEST  8-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   0.00536 ON 15111624: AT (371990.59,
3754194.30,   30.30,   30.30,   0.00) GC UCART1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** THE SUMMARY OF HIGHEST 24-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   0.00270 ON 15111624: AT (371990.59,
3754194.30,   30.30,   30.30,   0.00) GC UCART1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   3 Warning Message(s)
A Total of   718 Informational Message(s)

A Total of   43848 Hours Were Processed

A Total of   458 Calm Hours Identified

A Total of   260 Missing Hours Identified (0.59 Percent)

   ******** FATAL ERROR MESSAGES ********
              *** NONE ***

   ********   WARNING MESSAGES   ********
SO W320   39   PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
ME W186   64   MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
     0.50
ME W187   64   MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

   ****
   *** AERMOD Finishes Successfully ***
   ****

*HARP - HRACalc v19044 2/3/2022 3:38:12 PM - Cancer Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Ollie El Segundo\Ollie_Ops_1_Workers_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_RISK	MMILK_RISK	WATER_RISK	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISK
1			9901	DieselExhP	0.00012	7.43E-09	25YrCancerHighEnd_I	*	7.43E-09	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			107028	Acrolein	0	0.00E+00	25YrCancerHighEnd_I	*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

PIG_RISK	CHICKEN_RISK	EGG_RISK	1ST_DRIVER	2ND_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
0.00E+00	0.00E+00	0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 2/3/2022 3:38:12 PM - Acute Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Ollie El Segundo\Ollie_Ops_1_Workers_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL
1			9901	DieselExhPM	0.01023	NonCancerAcute	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	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			107028	Acrolein	0.01023	NonCancerAcute	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.09E-03	0.00E+00	4.09E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 2/3/2022 3:38:12 PM - Chronic Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Ollie El Segundo\Ollie_Ops_1_Workers_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR
	1		9901	DieselExhP	0.00012	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.40E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2		107028	Acrolein	0	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

GENERAL	DETAILS	INH_CONC	SOIL_DOSE	DERMAL_DOSE	MMILK_DOSE	WATER_DOSE	FISH_DOSE	CROP_DOSE	BEEF_DOSE	DAIRY_DOSE	PIG_DOSE	CHICKEN_DOSE	EGG_DOSE
0.00E+00	*	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1ST_DRIVER	2ND_DRIVER	3RD_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
INHALATION	NA	NA	0.00E+00	0.00E+00	0.00E+00
INHALATION	NA	NA	0.00E+00	0.00E+00	0.00E+00

APPENDIX E

LOW IMPACT DEVELOPMENT PLAN

This page is part of your document - DO NOT DISCARD

20211730089

Pages:
0016

Recorded/Filed in Official Records
Recorder's Office, Los Angeles County,
California

11/22/21 AT 09:38AM

FEES:	62.00
TAXES:	0.00
OTHER:	0.00
SB2:	75.00
PAID:	137.00

LEADSHEET

202111220170106

00021470949

012861840

SEQ:
01

SECURE - Daily - Time Sensitive

THIS FORM IS NOT TO BE DUPLICATED

E460077

444 Nash LID

RECORDING REQUESTED BY
AND MAIL TO:

CITY OF EL SEGUNDO
PLANNING & BUILDING
SAFETY DEPARTMENT
BUILDING SAFETY DIVISION
350 MAIN ST.
EL SEGUNDO, CA 90245

Space above this line is for Recorder's use

COVENANT AND AGREEMENT REGARDING THE MAINTENANCE OF LOW IMPACT DEVELOPMENT (LID) & NATIONAL POLLUTANTS DISCHARGE ELIMINATION SYSTEM (NPDES) BMPs

The undersigned, Nash DC, LLC ("Owner"), hereby certifies that it owns the real property described as follows ("Subject Property"), located in the County of Los Angeles, State of California:

LEGAL DESCRIPTION

ASSESSOR'S ID # 4138-003-007 TRACT NO. See attached "Exhibit A" LOT NO. _____

ADDRESS: 444 N Nash St. El Segundo, CA

Owner is aware of the City of El Segundo's requirements under the Los Angeles County MS4 National Pollutant Discharge Elimination System (NPDES) permit. The following post-construction BMP features have been installed on the Subject Property:

- ☐ Porous pavement
- ☐ Cistern/rain barrel
- ☐ Infiltration trench/pit
- ☐ Bioretention or biofiltration
- ☐ Rain garden/planter box
- ☐ Disconnect impervious surfaces
- ☑ Dry Well
- ☐ Storage containers
- ☐ Landscape and landscape irrigation
- ☐ Green roof
- ☐ Other _____

The location, including GPS x-y coordinates, and type of each post-construction BMP feature installed on the Subject Property is identified on the site diagram attached hereto as Exhibit 1.

Owner hereby covenants and agrees to maintain the above-described post-construction BMP features in a good and operable condition at all times, and in accordance with the LID/NPDES Maintenance Guidelines, attached hereto as Exhibit 2.

Owner further covenants and agrees that the above-described post-construction BMP features shall not be removed from the Subject Property unless and until they have been replaced with other post-construction BMP features in accordance with the City of El Segundo's requirements under the Los Angeles County MS4 NPDES permit.

Owner further covenants and agrees that if Owner hereafter sells the Subject Property, Owner shall provide printed educational materials to the buyer regarding the post-construction BMP features that are located on the Subject Property, including the type(s) and location(s) of all such features, and instructions for properly maintaining all such features.

Owner makes this Covenant and Agreement on behalf of itself and its successors and assigns. This Covenant and Agreement shall run with the Subject Property and shall be binding upon Owner, future owners, and their heirs, successors and assignees, and shall continue in effect until the release of this Covenant and Agreement by the City of El Segundo, in its sole discretion.

Owner(s):

By: _____ Date: 10-26-21

By: _____ Date: _____

A notary public or other officer completing the attached certificate verifies only the identity of the individual who signed the document to which the certificate is attached, and not the truthfulness, accuracy, or validity of that document.

(PLEASE ATTACH NOTARY)

FOR DEPARTMENT USE ONLY:

MUST BE APPROVED BY EL SEGUNDO BUILDING SAFETY DIVISION PRIOR TO RECORDING.

APPROVED BY: Christopher Wang (Print Name) _____ (Signature) Date 11/4/21

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of LOS ANGELES)

On OCTOBER 26TH 2021 before me, SUSAN SCHWARTZ, NOTARY PUBLIC,
Date *Here Insert Name and Title of the Officer*

personally appeared AVNER PAPOUCHADO
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____
Signature of Notary Public

SUSAN SCHWARTZ
Notary Public - California
Los Angeles County
Commission # 2331812
My Comm. Expires Aug 18, 2024

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____ Document Date: _____

Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____	Signer's Name: _____
☐ Corporate Officer — Title(s): _____	☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General	☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact	☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator	☐ Trustee ☐ Guardian or Conservator
☐ Other: _____	☐ Other: _____
Signer Is Representing: _____	Signer Is Representing: _____

Exhibit A

Legal Description

The Land referred to herein below is situated in the City of El Segundo, County of Los Angeles, State of California, and is described as follows:

THAT PORTION OF THE SOUTHEAST QUARTER OF SECTION 7, TOWNSHIP 3 SOUTH, RANGE 14 WEST, IN THE RANCHO SAUSAL REDONDO, IN THE CITY OF EL SEGUNDO, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 1 PAGES 507 AND 508 OF PATENTS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTH LINE OF SAID SECTION 7, DISTANT THEREON SOUTH 89° 55' 25" EAST 2642.25 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION 7, SAID POINT BEING THE SOUTHWEST CORNER OF SAID SOUTHEAST QUARTER; THENCE ALONG THE WESTERLY LINE OF SAID SOUTHEAST QUARTER, NORTH 00° 00' 23" WEST, A DISTANCE OF 1732.68 FEET; THENCE SOUTH 89° 58' 02" EAST, A DISTANCE OF 50.00 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 00° 00' 23" WEST, A DISTANCE OF 469.00 FEET TO A POINT; THENCE SOUTH 89° 58' 02" EAST, A DISTANCE OF 570.56 FEET TO A POINT IN A LINE PARALLEL WITH AND DISTANT WESTERLY 40.00 FEET, MEASURED AT RIGHT ANGLES FROM THE WEST LINE OF THE EAST HALF OF THE WEST HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 7; THENCE SOUTH 00° 00' 23" EAST, A DISTANCE OF 469.00 FEET TO A POINT; THENCE NORTH 89° 58' 02" WEST, A DISTANCE OF 570.56 FEET TO THE TRUE POINT OF BEGINNING.

SAID LAND IS A PORTION OF LOT 2 ON PARCEL MAP NO. 2428 FILED IN BOOK 33 PAGE 99 OF PARCEL MAPS, RECORDS OF SAID COUNTY.

SAID LAND IS ALSO SHOWN AS:

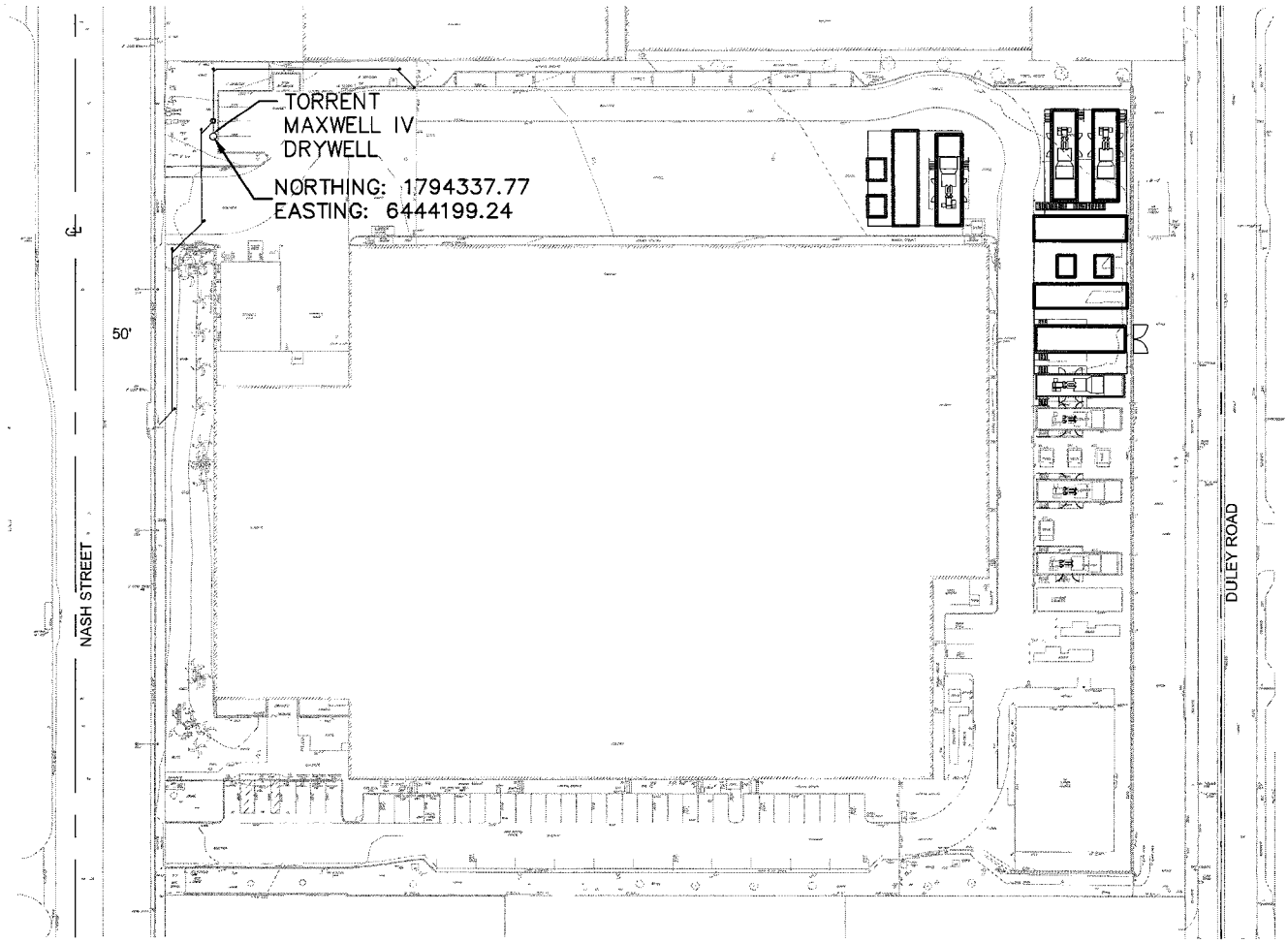
LOT 3 OF PARCEL MAP NO. 2622, IN THE CITY OF EL SEGUNDO, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP FILED IN BOOK 35 PAGE 89 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPTING ALL OIL, GAS AND OTHER HYDROCARBONS, AND ALL OTHER MINERALS, WHETHER SIMILAR TO THOSE SPECIFIED OR NOT, WITHIN OR THAT MAY BE PRODUCED FROM SAID LAND, WITH NO RIGHT OR INTEREST OF ANY KIND THEREIN, EXPRESS OR IMPLIED, IN THE SURFACE OF SAID LAND, BUT WITH THE SOLE AND EXCLUSIVE RIGHT FROM TIME TO TIME TO DRILL AND MAINTAIN WELLS AND SUPPORTING WORKS INTO OR THROUGH SUCH WELLS OR WORKS, OIL, GAS AND OTHER SUBSTANCES OF WHATEVER NATURE INCLUDING THE RIGHT TO PERFORM ANY AND ALL OPERATIONS DEEMED NECESSARY OR CONVENIENT FOR THE EXERCISE OF SAID RIGHTS, AS RESERVED BY STANDARD

OIL COMPANY, A CORPORATION, IN DEED RECORDED JUNE 30, 1969 AS INSTRUMENT NO. 759 IN BOOK D-4419 PAGE 266, OFFICIAL RECORDS.

EXHIBIT 1

PLOT PLAN
SITE ADDRESS 444 N NASH ST. EL SEGUNDO, CA
PLAN CHECK # B0672-21



LID SUMMARY OF BMPS

1 TORRENT MAXWELL IV DRYWELL

NORTH

GRAPHIC SCALE IN FEET
0 50 100 200

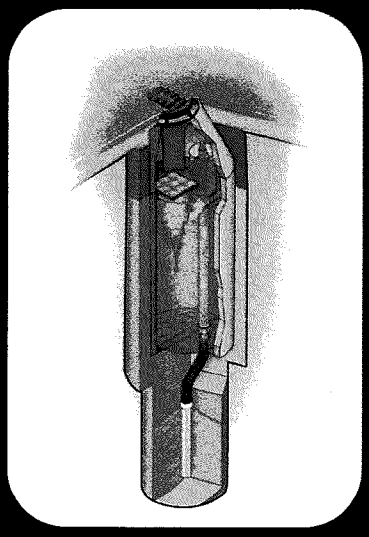
EXHIBIT 2

CALIFORNIA

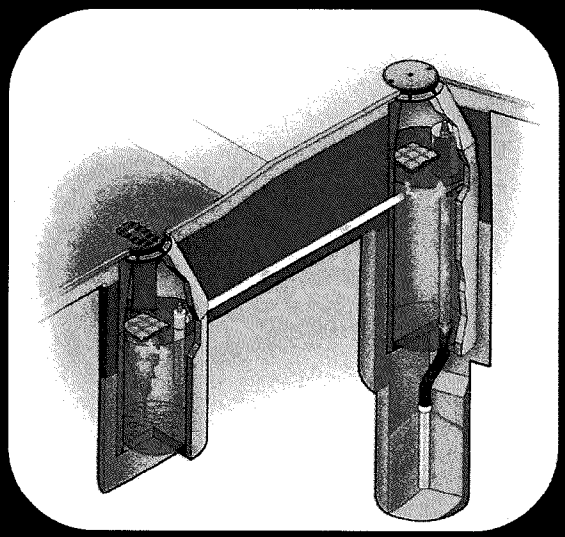
OPERATION AND MAINTENANCE MANUAL

for

MaxWell® Drywell Systems



MaxWell® IV



MaxWell® Plus

TORRENT RESOURCES

AN OLDCASTLE INFRASTRUCTURE COMPANY

January 2021

Company Overview

Torrent Resources (www.TorrentResources.com) is a full-service drainage solutions partner with a team of experts ready to address ever-growing stormwater management needs in California, Arizona, and throughout the western United States. Since 1972, Torrent Resources has set the standard in design and construction of stormwater drywell systems for the mitigation of excess surface runoff. In 1974, the company revolutionized the industry with its exclusive ***MaxWell®*** system – unmatched in efficiency and reliability by any other type of stormwater drywell system. To date, more than 70,000 MaxWell drywells have been installed and are successfully operating for both our municipal and private development customers.

Torrent Resources is a wholly-owned subsidiary of Oldcastle Infrastructure (www.oldcastleinfrastructure.com)

MaxWell Drywell System Description

The MaxWell is an enhanced stormwater treatment drywell which utilizes deep infiltration to capture and treat surface runoff and recharge groundwater. Maxwell drywells are used either as a stand-alone Best Management Practice (BMP) or in combination with other storage/treatment BMPs. The MaxWell system is not intended to provide significant storage volume, but instead is designed to dispose of accumulated stormwater to ensure maximum pretreatment efficiency.

A key feature of the MaxWell system is its pretreatment settling chamber(s) designed to remove sediment, debris, floating hydrocarbons, and other organic compounds prior to recharging the treated stormwater back into the sub-grade. The water is then further treated by the soil as it passes through the vadose zone to eventually replenish the groundwater resources.

There are two main types of MaxWell drywells systems, 1) the MaxWell IV, and 2) the MaxWell Plus. The ***MaxWell IV*** (the fourth iteration of enhanced drywell since 1974) provides pretreatment with a single 4-ft diameter settling chamber. The chamber is typically 15 - 25 feet deep with up to a 10-ft riser pipe (sump) fitted with a debris shield and screen to ensure stormwater is treated before entering the drywell rock shaft (4 - 6 feet diameter, up to 120 feet deep). The debris shield forces water to be drawn into the system from several inches beneath the surface, effectively isolating and containing floating trash, paper, debris and pavement oils within the chambers. The ***MaxWell Plus*** provides an additional chamber to increase pretreatment. The primary settling chamber includes a vented and screened outlet to capture trash, debris, and pollutants before treated water can enter the second chamber.

Each MaxWell chamber is equipped with two hydrophobic floating absorbent pillows, which will remove a wide range of hydrocarbons and organic liquids. The sponges are 100% water repellant, and wick floating petrochemical compounds from the surface of the water. Each pillow has a removal capacity of up to 1.35 gallons to accommodate effective, long-term treatment.

Typically, each chamber is equipped with a bolted 30" diameter cast-iron grate or solid manhole lid, at the surface. These metal grates and covers are embossed with the Torrent Resources company name, the MaxWell trade name, and the words "Storm Water Only" as a general reminder to the public as to the intended usage of the structure. In some cases, alternative covers may be required by a local jurisdiction and/or to address project constraints.

Note: The operation, inspection, and maintenance procedures described herein, can be performed without entering the drywell chambers. Should chamber entry be required for repairs or other unforeseen reasons, proper confined space protocols, equipment, and training shall be used.

Operation

All water is routed through the drywell system via gravity flow. There are no mechanical moving parts or electrical equipment. Any flow monitoring equipment is considered separate from the MaxWell system and not covered within this document. Likewise, all pipes and any apparatus used to bring water to and from the drywell are considered separate from the MaxWell system.

Inspection

Protocol

Inspection of MaxWell systems can be performed from the surface without entering the drywell. Inspections will typically require the following equipment:

- 3/4" socket wrench to remove/replace grate/lid bolts
- A manhole lid puller/lifter or similar means to safely remove the manhole lid
- Flashlight and/or mirror to reflect light into chamber
- 25-ft + measuring tape
- *Maintenance Data and Warranty Information* sheet provided by Torrent Resources after installation.
- Where necessary, appropriate traffic control and pedestrian safety measures may be needed to safely inspect the drywell.

The inspection should include, at a minimum, the following observations for each drywell/settling chamber:

1. Ensure that water in the chambers has drawdown within the required time (varies by jurisdiction, typically 48-96 hours). It is normal for a few inches of water to remain at the bottom of slurry-bottom chambers.
2. Ensure that there are no obstructions, trash, or debris that prevent water from entering or leaving the drywell chambers.
3. Measure the amount of sediment and trash accumulation by using a tape measure to determine the depth of material and subtracting that amount from the total chamber depth (reference *Maintenance Data and Warranty Information* sheet). If 2 feet or more of material has accumulated, then maintenance should be performed. For the MaxWell Plus system, it is common to see significantly more accumulation in the primary settling chamber.
4. Observe the presence and condition of all hydrocarbon pillows. Each chamber should have two hydrocarbon pillows. Pillows should be intact and free to float.
5. Ensure that all screens, shields, and pipes are intact and not damaged.
6. Most chambers have a concrete bottom. However, in some cases the bottom is made of geotextile fabric. If applicable, ensure the geotextile fabric is completely covering the bottom surface area and not damaged.

If drywell grates/lids were removed during inspection, replace (clean lip, if necessary, to ensure a flush fit) and re-secure with bolts.

Frequency

It is recommended that systems are inspected at least once each year and after major storms.

Maintenance

Protocol

Maintenance of MaxWell systems can be performed from the surface without entering the drywell. Maintenance operations will typically require the following equipment:

- 3/4" socket wrench to remove/replace grate/lid bolts
- A manhole lid puller/lifter or similar means to safely remove the manhole lid
- A long/extendable hook to remove riser pipe screen
- Flashlight and/or mirror to reflect light into chamber
- Vacuum truck with extension hose and jet rod
- Replacement absorptive pillows
- *Maintenance Data and Warranty Information* sheet provided by Torrent Resources after installation.
- Where necessary, appropriate traffic control and pedestrian safety measures may be needed to safely inspect the drywell.

Typical maintenance shall include removing all surface grates/lids to clean and service the drywell chambers. Removal of accumulated trash, debris, and sediment shall be done using a hydro-vacuum truck (see photo below). The hydro-vacuum truck utilizes streams of air and high-pressure water to dislodge built-up material, which is then removed via a vacuum hose and stored within the truck's tank until proper disposal. Obstructions or accumulated debris on inlets, screens, and/or connecting pipes is removed by jet-rodding (typically included on the hydro-vacuum truck) and then vacuumed. If the riser screen requires cleaning, the riser shield is fitted with a metal loop and can removed/replaced from the surface with a long hook. Certain MaxWells utilize a geotextile fabric bottom within the chambers; care should be taken to note the depth of the chamber and ensure that the fabric is not damaged or removed during the vacuuming process.

Absorbent pillows are typically removed during hydro-vacuum operations and disposed of with removed debris and sediment. If pillow replacement is required prior to hydro-vacuum operation, new pillows can be dropped in the chambers.

Following hydro-vacuum operations, drywell grates/lids should be replaced (clean lip, if necessary, to ensure a flush fit) and re-secured with bolts.

All removed material, including absorptive pillows, shall be disposed of in accordance with local regulations.

A written log shall be kept of all inspections and maintenance actions performed on the drywell systems Hydro-vacuum maintenance typically requires 2-4 hours per drywell system.

Refer to **Appendix A** for detailed maintenance steps and blank inspection and maintenance log.

Typical hydro-vacuum truck used for drywell maintenance

Frequency

The need for maintenance is assessed and determined by annual/post-storm inspections, as described above, and can vary from year to year. Additionally, the frequency of recurrent maintenance is heavily dependent on many factors including, but not limited to drywell drainage area size and condition, as well as the size and condition of any upstream BMPs. The following should therefore be considered only as general estimates for maintenance intervals:

Hydro-vacuum and jet-rod cleaning:

1-2 years for:

- urban right-of-ways and parcels with high trash, debris, and/or sediment loads

or

- drainage areas larger than 10 acres

3-5 years for:

- drainage areas with upstream BMPs and/or pretreatment (i.e. trash capture devices)

or

- drainage areas smaller than 5 acres

Pillow replacement:

1-5 years

Hydrocarbon pillows are typically replaced during hydro-vacuum cleaning; however, it is possible the pillows may need to be replaced sooner than a hydro-vacuum cleaning is required. This may be the case for drainage areas that have heavy vehicular use, but low sediment/trash loads (i.e. parking lots).

Repairs

Protocol

Should repairs be needed, all materials shall be replaced in accordance with the design specifications for the drywell. Confined space entry to the drywell may be required and shall only be done by trained staff with proper safety equipment.

Frequency

As needed.

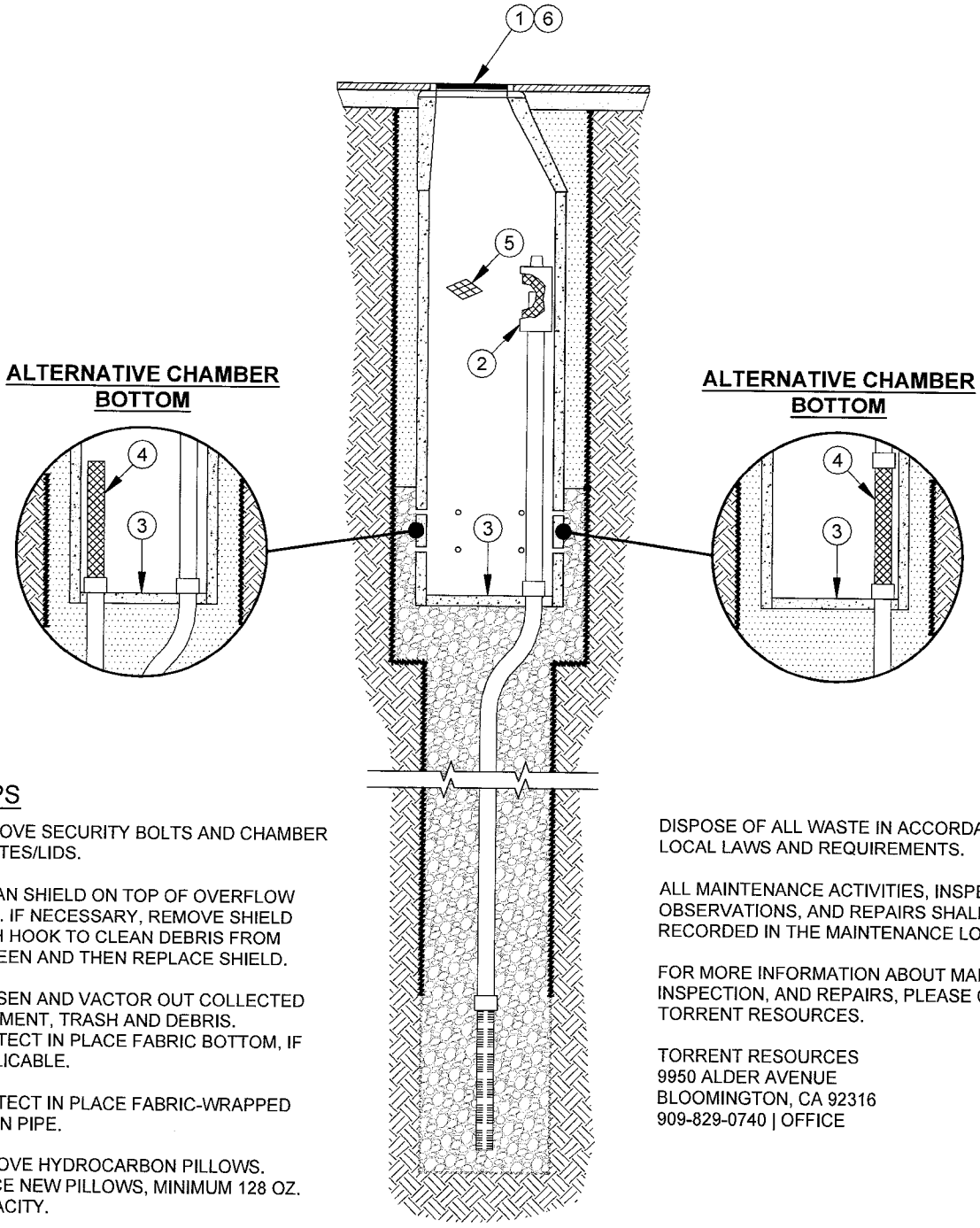
Torrent Resources can be contracted to assist with any MaxWell maintenance and/or repairs.

Lifespan

Torrent Resources has been installing MaxWell systems since 1974. Most of these drywells are still successfully operating today. With proper maintenance, a MaxWell drywell system will provide an efficient stormwater management solution for many decades. All MaxWell systems include a 5-year limited warranty – refer to the *Maintenance Data and Warranty Information* sheet provided by Torrent Resources after installation for warranty details.

APPENDIX A

The MaxWell® IV
MAINTENANCE PROCEDURES



STEPS

1. REMOVE SECURITY BOLTS AND CHAMBER GRATES/LIDS.
2. CLEAN SHIELD ON TOP OF OVERFLOW PIPE. IF NECESSARY, REMOVE SHIELD WITH HOOK TO CLEAN DEBRIS FROM SCREEN AND THEN REPLACE SHIELD.
3. LOOSEN AND VACTOR OUT COLLECTED SEDIMENT, TRASH AND DEBRIS. PROTECT IN PLACE FABRIC BOTTOM, IF APPLICABLE.
4. PROTECT IN PLACE FABRIC-WRAPPED DRAIN PIPE.
5. REMOVE HYDROCARBON PILLOWS. PLACE NEW PILLOWS, MINIMUM 128 OZ. CAPACITY.
6. REPLACE CHAMBER GRATES/LIDS AND SECURE WITH SECURITY BOLTS.

TYPICAL DETAIL
MAY VERY FROM DESIGN PLANS

DISPOSE OF ALL WASTE IN ACCORDANCE WITH LOCAL LAWS AND REQUIREMENTS.

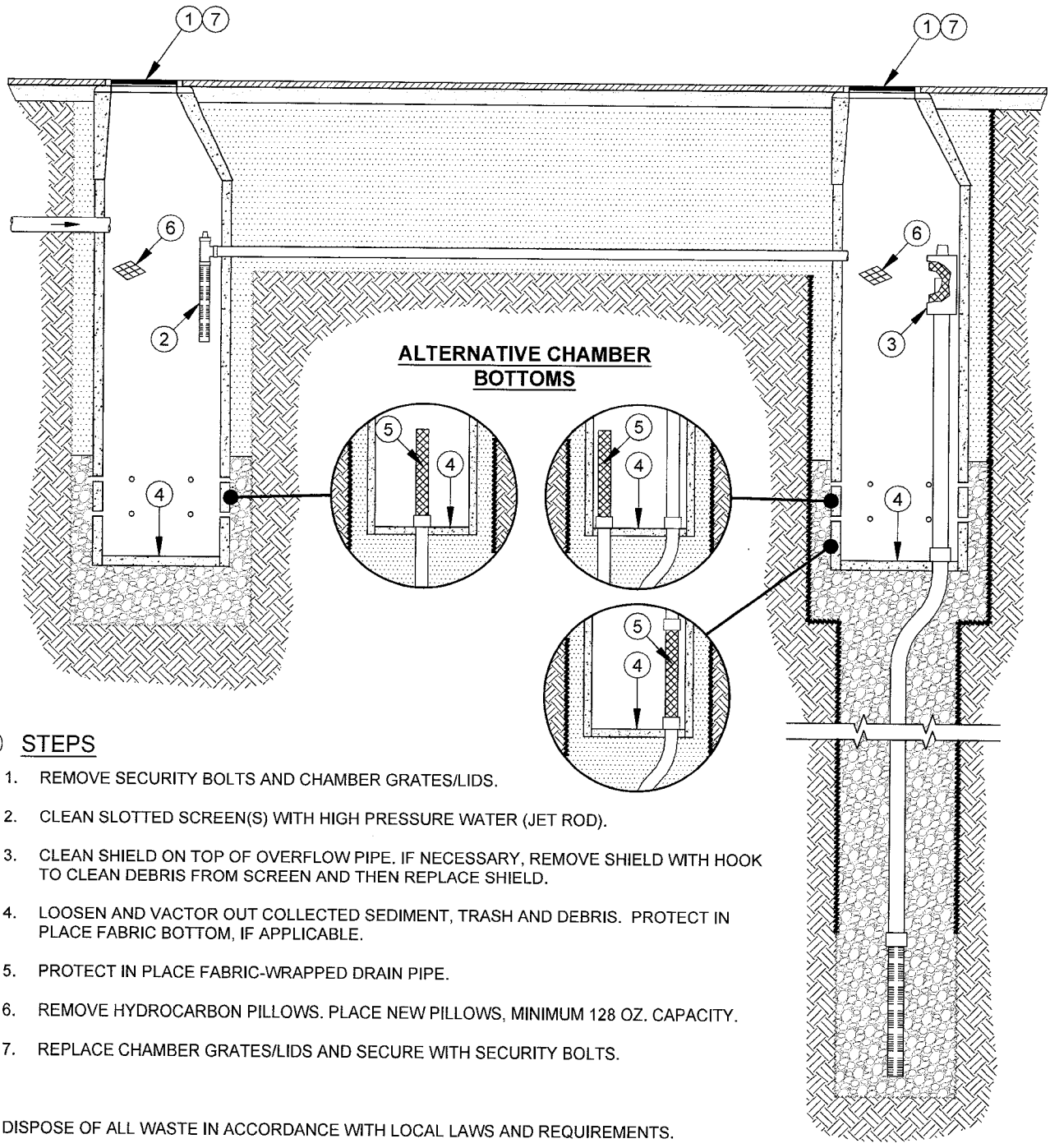
ALL MAINTENANCE ACTIVITIES, INSPECTION OBSERVATIONS, AND REPAIRS SHALL BE RECORDED IN THE MAINTENANCE LOG BOOK.

FOR MORE INFORMATION ABOUT MAINTENANCE, INSPECTION, AND REPAIRS, PLEASE CONTACT TORRENT RESOURCES.

TORRENT RESOURCES
9950 ALDER AVENUE
BLOOMINGTON, CA 92316
909-829-0740 | OFFICE

TORRENT® RESOURCES

The MaxWell® Plus
MAINTENANCE PROCEDURES



TYPICAL DETAIL
MAY VERY FROM DESIGN PLANS

STEPS

1. REMOVE SECURITY BOLTS AND CHAMBER GRATES/LIDS.
2. CLEAN SLOTTED SCREEN(S) WITH HIGH PRESSURE WATER (JET ROD).
3. CLEAN SHIELD ON TOP OF OVERFLOW PIPE. IF NECESSARY, REMOVE SHIELD WITH HOOK TO CLEAN DEBRIS FROM SCREEN AND THEN REPLACE SHIELD.
4. LOOSEN AND VACTOR OUT COLLECTED SEDIMENT, TRASH AND DEBRIS. PROTECT IN PLACE FABRIC BOTTOM, IF APPLICABLE.
5. PROTECT IN PLACE FABRIC-WRAPPED DRAIN PIPE.
6. REMOVE HYDROCARBON PILLOWS. PLACE NEW PILLOWS, MINIMUM 128 OZ. CAPACITY.
7. REPLACE CHAMBER GRATES/LIDS AND SECURE WITH SECURITY BOLTS.

DISPOSE OF ALL WASTE IN ACCORDANCE WITH LOCAL LAWS AND REQUIREMENTS.

ALL MAINTENANCE ACTIVITIES, INSPECTION OBSERVATIONS, AND REPAIRS SHALL BE RECORDED IN THE MAINTENANCE LOG BOOK.

FOR MORE INFORMATION ABOUT MAINTENANCE, INSPECTION, AND REPAIRS, PLEASE CONTACT TORRENT RESOURCES.

TORRENT RESOURCES
9950 ALDER AVENUE
BLOOMINGTON, CA 92316
909-829-0740 | OFFICE

TORRENT® RESOURCES

Inspection & Maintenance Log

TORRENT RESOURCES

Location: _____

Date	Description of Actions Performed/Comments	Performed By

APPENDIX F

NOISE ANALYSIS TECHNICAL MEMORANDUM

Kimley»Horn

MEMORANDUM

To:	Rita Garcia and James Thomas
	Kimley-Horn and Associates, Inc.
From:	Ryan Chiene, Melissa Thayer, and Heidi Rous
	Kimley-Horn and Associates, Inc.
Date:	October 27, 2022
Subject:	Project Ollie – Noise Analysis

Purpose

The purpose of this memorandum is to identify the noise impacts associated with construction and operations of the proposed Nash Street Data Center Expansion Project ("Project" or "proposed Project"), located at 444 North Nash Street in the City of El Segundo, California.

Project Location

The Project site is located in the northeast quadrant of the City of El Segundo (City), in the County of Los Angeles (County), approximately 18-miles southwest of downtown Los Angeles. It is approximately 0.5-mile south of Los Angeles International Airport (LAX). Regional access to the site is provided via the San Diego Freeway (Interstate 405) located approximately 1.0-mile to the west and Interstate 105 located approximately to the south. Additionally, Sepulveda Boulevard (Highway 1) is located approximately 0.5-mile to the east. The Project site is 0.5-acre of a larger 6.13-acre parcel site (Assessor's Parcel Number 4138-003-007) mid-way between East Mariposa Avenue on the north and East Grand Avenue on the south. The Project site is fully developed and is currently occupied by an approximately 116,756-SF data center and 70 parking spaces that include 3 ADA required spaces. On the east side of the parcel, there are three existing generators as well as a Southern California Edison (SCE) substation at the southeast corner of the parcel.

Project Description

The proposed Project would install up to seven emergency generators on concrete platforms on the property. Five of the generators would be located on the north side of the data center while two

would be on the east side adjacent to eight existing[1] generators on the property. The seven generators would include housing for mechanical equipment that would reduce noise and protect the equipment from outdoor conditions.

Noise Background

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound. A typical noise environment consists of a base of steady ambient noise that is the sum of various distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from traffic on a major highway.

Several rating scales have been developed to analyze the adverse effect of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise as well as the time of day when the noise occurs. For example, the equivalent continuous sound level (L_{eq}) is the average acoustic energy content of noise for a stated period of time; thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. The Day-Night Sound level (L_{dn}) is a 24-hour average L_{eq} with a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The Community Noise Equivalent Level (CNEL) is a 24-hour average L_{eq} with a 10 dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. and an additional 5 dBA weighting during the hours of 7:00 p.m. to 10:00 p.m. to account for noise sensitivity in the evening and nighttime.

[1] At the time this technical study was performed four generators were installed and operational and four generators were being installed, pursuant to adoption of an MND and City approval in 2013. The presence of eight generators is the defined baseline for this technical study.

Regulatory Setting

City of El Segundo General Plan

The Noise Element of the City's General Plan (1992) contains an overview of existing noise conditions in the City. Compared to other areas in Los Angeles County, the City of El Segundo is heavily affected by major sources of noise including the Los Angeles International Airport (LAX). The City is located in the 60-75 dBA noise contour of the LAX's noise contour map.[2]

City of El Segundo Municipal Code

The following sections of the El Segundo Municipal Code (ESMC) are applicable to the proposed project:

ESMC Section 7-2-1: (Declaration of Policy)

It is hereby declared to be the policy of the City to prohibit unnecessary, excessive and annoying noises and vibrations from all sources subject to its police power. Therefore, the City Council does ordain and declare that creating, maintaining, causing or allowing to be created, caused or maintained, any noise or vibration in a manner prohibited by or not in conformity with the provisions of this chapter, is a public nuisance as well as an infraction and shall be punishable as such. (Ord. 1242, 1-16-1996).

ESMC Section 7-2-4: Noise Standards

No person shall, at any location within the City, create any noise, nor shall any person allow the creation of any noise within the person's control on public or private property (hereinafter "noise source"), which causes the noise level when measured on any other property (hereinafter "receptor property"), to exceed the applicable noise standard, except as set forth in subsection C1 of this section.

A. Residential Property: Five (5) dBA above the ambient noise level.
B. Commercial and Industrial Property: Eight (8) dBA above the ambient noise level.
C. Adjustments:
    1. Increases to the noise standards as set forth in subsections A and B of this Section may be permitted in accordance with the following:

[2] City of Los Angeles, Los Angeles World Airports, *Los Angeles International Airport Noise Exposure Map Report Update*, August 2015.

Table 1: Noise Standards Adjustments	
Permitted Increase (dBA)	**Duration of Increase (minutes)***
0	30
5	15
10	5
15	1
20	Less than 1
*Cumulative minutes during any one hour	

2. *If the receptor property is located on a boundary between two (2) different noise zones, the lower noise level standard applicable to the quieter zone shall apply. (Ord. 1242, 1-16-1996).*

ESMC Section 7-2-7: Standards; Criteria:

The standards which shall be considered in determining whether a violation of the provisions of Section 7-2-6 of this Chapter exists shall include, but shall not be limited to, the following criteria:

A. *The frequency of the noise;*
B. *The intensity of the noise;*
C. *Whether the nature of the noise is usual or unusual;*
D. *The ambient noise level;*
E. *The proximity of the noise to residential sleeping facilities;*
F. *The nature and zoning of the area within which the noise emanates;*
G. *The density of the inhabitation of the area within which the noise emanates;*
H. *The time of the day or night the noise occurs;*
I. *The duration of the noise;*
J. *Whether the noise is recurrent, intermittent or constant; and*
K. *Whether the noise is produced by a commercial or noncommercial activity. (Ord. 1242, 1-16-1996)*

ESMC Section 7-2-8: Specific Prohibitions

The following acts, and the causing thereof, are declared to be in violation of this Chapter if they occur in such a manner as to disturb the peace, quiet and comfort of any reasonable person of normal sensitivity residing in the area; and occur:

A. *Between the Hours Of 10:00 P.M. And 7:00 A.M:*
   1. *Operating, playing or permitting the operation or playing of any radio, television, phonograph, drum, musical instrument, sound amplifier, or similar device which produces, reproduces or amplifies sound.*
   2. *Using or operating any loudspeaker, public address system or similar device.*

3. *Loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, garbage cans, or similar objects.*
4. *Repairing, building, rebuilding, adjusting or testing any motor vehicle.*

B. *Between The Hours Of 8:00 P.M. And 7:00 A.M:*
   1. *Refuse Collection Vehicles:*
      a. *Collection of refuse with a collection vehicle in a residential area or within five hundred feet (500') thereof;*
      b. *Operation or permitting the operation of the compacting mechanism of any motor vehicle which compacts refuse in a residential area or within five hundred feet (500') thereof.*
   2. *Loudspeakers/Public Address Systems: Using or operating for any commercial purpose any loudspeaker, public address system, or similar device on a public right of way or public space.*
   3. *Powered Model: Operating or permitting the operation of powered models. (Ord. 1242, 1-16-1996)*

ESMC Section 7-2-10: Exemptions

The following activities shall be exempted from the provisions of this Chapter:

D. *Construction Noise: Between the Hours Of 10:00 P.M. And 7:00 A.M: Noise sources associated with or vibration created by construction, repair, or remodeling of any real property, provided said activities do not take place between the hours of six o'clock (6:00) P.M. and seven o'clock (7:00) A.M. Monday through Saturday, or at any time on Sunday or a Federal holiday, and provided the noise level created by such activities does not exceed the noise standard of sixty five (65) dBA plus the limits specified in subsection 7-2-4C of this Chapter as measured on the receptor residential property line and provided any vibration created does not endanger the public health, welfare and safety.*

Existing Setting

Mobile sources of noise, especially aircraft and cars, are the most common and significant sources of noise in the City. Other sources of noise are the various land uses (i.e., residential, commercial, institutional, and recreational and parks activities) throughout the City that generate stationary-source noise. The primary sources of mobile traffic noise in the Project area are generated by motor vehicles traveling on North Nash Street and East Mariposa Avenue. The LAX airport is also located to the north of the Project site and is a primary source of mobile noise. According to the *Los Angeles International Airport Noise Exposure Map Report Update* (August 2015), the Project site is located outside the 65 dBA noise contour for LAX. The primary sources of stationary noise in the project vicinity are those associated with the existing generators, vehicles, and heating, ventilation, and air conditioning (HVAC) equipment. Such noise sources include idling vehicles and machinery noise. The

noise associated with these sources may represent a single-event noise occurrence or short-term noise.

The Project site is located in a highly developed area with a variey of commercial, office, and recreational uses in the surrounding area. Noise and vibration impacts are analyzed and discussed below for the nearest uses to the Project site as shown in Table 2: Noise and Vibration Receptor Distances.

Table 2: Noise and Vibration Receptor Distances

Description	Land Use	Type of Sensitivity	Distance and Direction
United States Postal Service	Commercial	Construction Noise	50 feet north of the Project construction area.
		Operational Noise	105 feet north of the proposed generators.
Campus El Segundo Soccer Fields	Recreational	Construction Noise	475 feet north of the Project construction area.
El Segundo Aquatics Center	Recreational	Construction Noise	670 feet southeast of the Project construction area.
Commercial/office building	Commercial	Construction Vibration	150 feet east of the Project construction area.
		Construction Vibration	105 feet east of the proposed generators.

Noise Measurements

In order to quantify noise levels in the Project area, Kimley-Horn conducted three short-term ambient noise measurements on Friday, December 17, 2021, using a Larson Davis SoundExpert LxT Type I sound level meter; see Appendix A: Noise Data. The measurements were taken between 7:28 a.m. and 8:53 a.m. Meteorological conditions consisted of clear skies, cool temperatures, and low wind. The average noise levels and sources of noise measured at each location are listed in Table 3: Noise Measurements and shown on Exhibit 2: Noise Measurement Locations. In addition, two noise measurements were taken to obtain reference noise levels for the operation of the proposed emergency generators. This data was used to determine impacts from the addition of future similar generators.

Table 3: Noise Measurements

No.	Location	Date	Time	Duration	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)
1	The northwest corner of the El Segundo Aquatics Center at 2240 E Grand Avenue.	12/17/2021	7:28 a.m.	10 min	65.1	58.6	74.5
2	Approximately 15 feet from Generator 1 at the Project site.	12/17/2021	8:09 a.m.	5 min	60.9	54.8	71.7
3	Approximately 15 feet from Generator 1 at the Project site (reference noise level measurement with generator running).	12/17/2021	8:16 a.m.	8 min	71.8	60.4	74.2
4	Approximately 35 feet east of the on-site generator area, along Duley Road (reference noise level measurement with generator running).	12/17/2021	8:35 a.m.	8 min	63.9	57.5	74.5
5	Approximately 35 feet east of the on-site generator area, along Duley Road.	12/17/2021	8:43 a.m.	10 min	61.2	72.9	72.9

dBA = A-weighted decibel; L_{eq} = Equivalent Noise Level; L_{min} = Minimum Noise Level; L_{max} = Maximum Noise Level
Source: Noise measurements taken by Kimley-Horn on December 17, 2021. See Appendix A for noise measurement results.

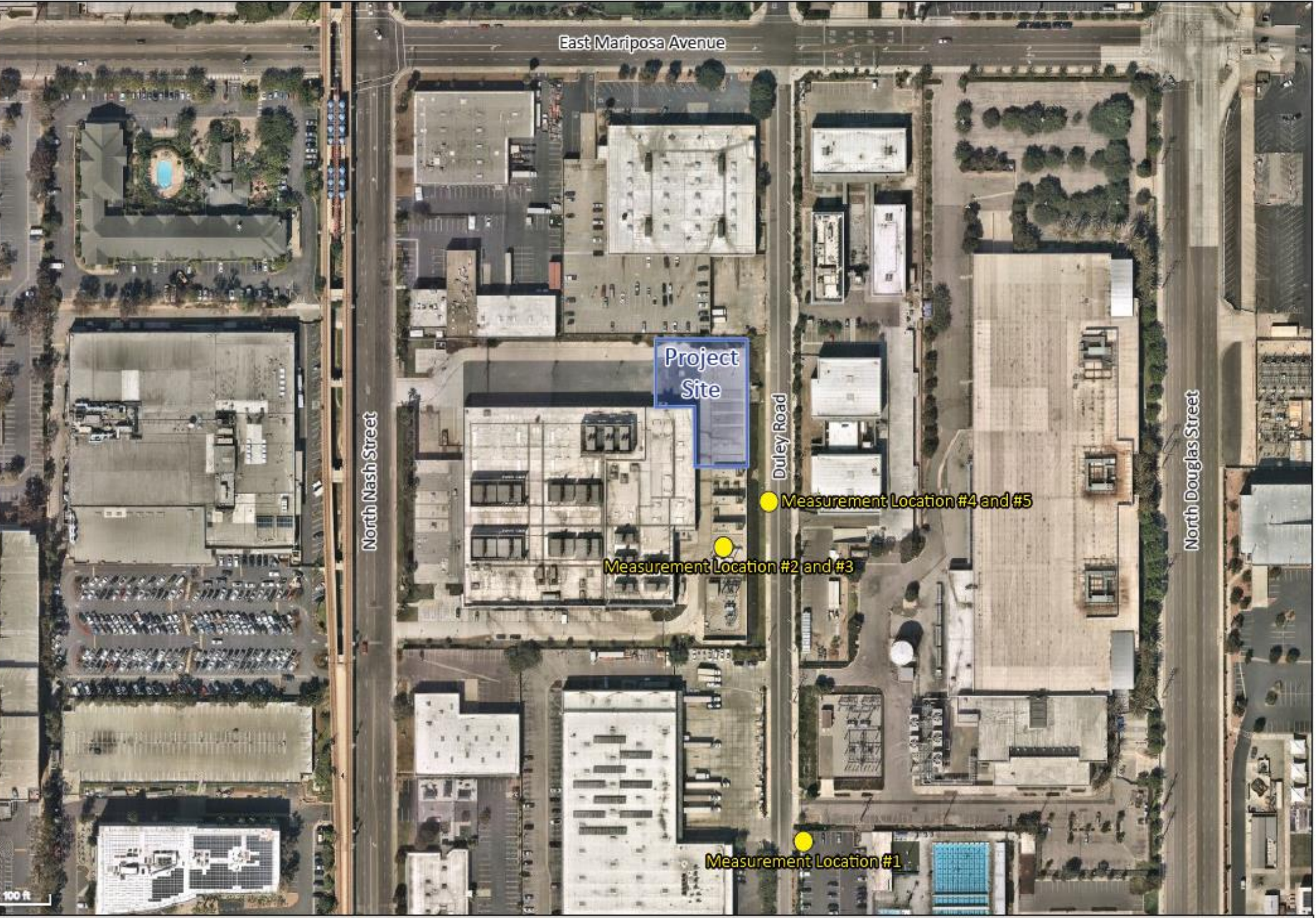


EXHIBIT 1: Noise Measurement Location Map

NOT TO SCALE

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Noise Impacts

Construction Noise

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. During construction, exterior noise levels could affect the sensitive receptors near the construction site. Construction activities may include demolition, trenching, geneator installation, and concrete pouring. Such activities may require concrete/industrial saws, backhoes during demolition; cranes, forklifts, generators, and tractors during gnerator installation;. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of e quipment or the hydraulic movement of machinery lifts). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical noise levels associated with individual construction equipment are listed in Table 4: Typical Construction Noise Levels.

Table 4: Typical Construction Noise Levels

Equipment	Typical Noise Level (dBA) at 50 feet from Source
Backhoe	80
Concrete Mixer	85
Crane, Mobile	83
Dozer	85
Generator	82
Concrete Saw	76
Truck	84

Note:
1. Calculated using the inverse square law formula for sound attenuation: $dBA_2 = dBA_1+20Log(d_1/d_2)$
   Where: dBA_2 = estimated noise level at receptor; dBA_1 = reference noise level; d_1 = reference distance; d_2 = receptor location distance.

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

Following the methodology for quantitative construction noise assessments in the Federal Transit Administration's (FTA's) *Transit Noise and Vibration Impact Assessment Manual* (September 2018) (FTA Noise and Vibration Manual), the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) was used to predict construction noise at the nearest receptors (i.e., the commercial and recreational uses located approximately 80 feet and 670 feet, respectively, from the Project construction area). Table 5: Project Construction Noise Levels shows the estimated exterior construction noise levels at the nearest sensitive receptors.

Table 5: Project Construction Noise Levels

Construction Phase	Receptor Location			Worst Case Modeled Exterior Noise Level (dBA L_{eq})[2]	Noise Threshold (dBA L_{eq})[3]	Exceeded?
	Land Use	Direction	Distance (feet)[1]			
Demolition	Commercial	North	80	79.7	85	No
	Recreational	Southeast	670	61.3	85	No
Grading	Commercial	North	80	78.6	85	No
	Recreational	Southeast	670	60.1	85	No
Building Construction	Commercial	North	80	76.7	85	No
	Recreational	Southeast	670	60.1	85	No
Paving	Commercial	North	80	72.6	85	No
	Recreational	Southeast	670	54.1	85	No

Notes:
1. Per the methodology described in the FTA Noise and Vibration Manual (September 2018), distances are measured from the nearest receptors to the center of the Project construction site.
2. Assumes a 5 dBA reduction from intervening perimeter walls along the northern and eastern property boundary.
3. The City does not have a quantitative noise threshold for construction noise for commercial uses (they have construction noise standards for residential uses only). Therefore, the construction noise thresholds from the FTA Noise and Vibration Manual (September 2018) are used for this analysis.

Source: Federal Highway Administration, *Roadway Construction Noise Model,* 2006. Refer to Appendix A: Noise Data for noise modeling results.

As shown in Table 5, the highest anticipated construction noise level of 79.7 dBA (during the demolition phase) would not exceed the FTA noise threshold of 85 dBA for commercial uses. In addition, compliance with ESMC Section 7-2-10(D) would further minimize impacts from construction noise, as construction would be limited to the hours of 7:00 a.m. to 6:00 p.m. Monday through Saturday, and is prohibited at any time on Sunday or a Federal holiday. Therefore, because Project construction noise levels would not exceed FTA noise standards and construction activities would be required to comply with ESMC provisions, noise impacts would be less than significant noise impact in this regard. Further, although construction noise levels may exceed the existing ambient levels in the area, construction would be temporary and would not result in a permanent increase in ambient noise levels in the area.

Operational Noise

Implementation of the proposed Project would create new sources of noise in the Project vicinity. The primary noise sources associated with the project that could potentially impact nearby sensitive uses include emergency generator equipment.

Stationary Noise from Generators

The primary noise sources associated with the Project would consist of the periodic testing of seven new generators, of which five generators (3516C, 2,500 kW) would be located on the north side of the building and two generators (C-32, 1,250 kW) would be positioned on the east side of the building adjacent to eight existing generators on the property. The seven proposed generators would include housing for mechanical equipment that would reduce noise and protect the equipment from outdoor conditions. The generators shall normally be operated only during staff training and equipment maintenance/testing (between the hours of 7:00 a.m. and 10:00 p.m.) and would not operate on a constant basis. In addition, it is noted that during periodic generator maintenance/testing would occur sequentially (one at a time), so that no more than one generator is tested at a time; see Project Design Feature 1 (PDF-1).

Based on the reference noise levels obtained by Kimley-Horn on December 17, 2021, one generator would produce noise levels up to 63.9 dBA L_{eq} at 35 feet (see Table 3) with attenuation from the perimeter wall. The nearest off-site property is a United States Post Service (USPS) facility located approximately 50 feet to the north of the proposed generators at the Project site. Noise has a decay rate due to distance attenuation, which is calculated based on the Inverse Square Law of sound propagation. Based upon the Inverse Square Law, sound levels decrease by 6 dBA for each doubling of distance from the source. As a result, generator noise would attenuate to approximately 60.8 dBA L_{eq} at the nearest property to the north, which is below the existing measured ambient noise level of 61.2 dBA L_{eq} for off-site uses (see Table 3). Per ESMC Section 7-2-4(B), the noise standard for commercial and industrial properties is eight (8) dBA over the ambient noise level. Therefore, since Project-generated noise levels from periodic generator maintenance/testing (60.8 dBA L_{eq}) would not exceed the threshold of 69.2 dBA (i.e., the measured ambient noise level [61.2 dBA L_{eq}] plus 8 dBA) at the nearest off-site uses, generator noise levels from the Project would comply with the provisions of the ESMC and a less than significant impact would occur in this regard.

Project Design Features

PDF-1 As is standard operating procedures for the Applicant/operator, maintenance/testing for each individual generator will occur sequentially (one at a time) and during normal daytime hours (i.e., between 7:00 a.m. and 10:00 p.m.). Simultaneous generator maintenance/testing of two or more generators will be prohibited.

Vibration Impacts

Construction Vibration

Increases in ground-borne vibration levels attributable to the proposed project would be primarily associated with short-term construction-related activities. Construction on the Project site would

have the potential to result in varying degrees of temporary ground-borne vibration, depending on the specific construction equipment used and the operations involved.

The FTA has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.2 in/sec) appears to be conservative. The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. For example, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.20 in/sec is considered safe and would not result in any construction vibration damage. This analysis uses the FTA architectural damage criterion for continuous vibrations at non-engineered timber and masonry buildings of 0.2 inch-per-second peak particle velocity (PPV) and human annoyance criterion of 0.4 inch-per-second PPV in accordance with Caltrans guidance[3] to evaluate potential construction vibration impacts.

Table 6: Typical Construction Equipment Vibration Levels, lists vibration levels at 25 feet for typical construction equipment. The nearest off-site building/structure is the industrial building located approximately 150 feet to the east of the Project construction area. Groundborne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. As indicated in Table 6, based on FTA data, vibration velocities from typical heavy construction equipment operations that would be used during project construction range from 0.003 to 0.089 in/sec PPV at 25 feet from the source of activity.

Table 6: Typical Construction Equipment Vibration Levels

Equipment	Peak Particle Velocity at 25 Feet (in/sec)	Peak Particle Velocity at 150 Feet (in/sec)
Large Bulldozer	0.089	0.0061
Loaded Trucks	0.076	0.0052
Jackhammer	0.035	0.0024
Small Bulldozer/Tractors	0.003	0.0002

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018.

[3] California Department of Transportation, *Transportation and Construction Vibration Guidance Manual, Table 20*, September 2013.

As shown in Table 6, at 150 feet the vibration velocities from construction equipment would not exceed 0.12 in/sec PPV, which is below the FTA's 0.20 in/sec PPV threshold for building damage and Caltrans' 0.4 in/sec PPV threshold for human annoyance. It is also acknowledged that construction activities would occur throughout the Project site and would not be concentrated at the point closest to the nearest off-site structures. Therefore, construction vibration impacts associated with the proposed Project would be less than significant.

Operational Vibration

Once operational, the proposed Project would include minimal vibration-generating uses or operations. The nearest off-site structures are located 105 feet from the proposed generator location(s) and would not be exposed to high vibration levels. Therefore, operational vibration impacts from the proposed Project would be less than significant.

Conclusion

Project implementation would result in less than significant short- and long-term noise and vibration impacts. No mitigation measures would be required.

References

California Department of Transportation, *Transportation and Construction Vibration Guidance Manual, Table 20*, September 2013.

City of El Segundo, *El Segundo, California Municipal Code,* current through Ordinance 1628, passed August 17, 2021.

City of El Segundo, *The City of El Segundo General Plan 1992*, adopted December 1, 1992.

City of Los Angeles, Los Angeles World Airports, *Los Angeles International Airport Noise Exposure Map Report Update*, August 2015.

Federal Highway Administration, *Roadway Construction Noise Model, 2006.*

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

Appendix A

Noise Data

Noise Measurement Field Data

Project:	Project Ollie	**Job Number:**	197492001
Site No.:	1	**Date:**	12/17/2021
Analyst:	Alex Howard and Heidi Rous	**Time:**	7:28 - 7:38 AM
Location:	The northwest corner of the El Segundo Aquatics Center at 2240 E Grand Ave		
Noise Sources:	Airplanes/LAX airport, parking lot/talking at aquatic center, traffic on Duley Rd		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
65.1	58.6	74.5	93.7

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	49°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.11
Humidity:	79%

Photo:

Kimley»Horn

Measurement Report

Report Summary

Meter's File Name	OLLIE.001	Computer's File Name	SLM_0005586_OLLIE_001.00.ldbin
Meter	LxT SE		
Firmware	2.404		
User	Alex Howard	Location	
Description	Project Ollie Data Center		
Note			
Start Time	2021-12-17 07:28:27	Duration	0:10:00.0
End Time	2021-12-17 07:38:27	Run Time	0:10:00.0
Pause Time	0:00:00.0		

Results

Overall Metrics

LA_{eq}	65.1 dB		
LAE	92.9 dB	SEA	--- dB
EA	216.7 µPa²h		
LA_{peak}	93.7 dB	2021-12-17 07:31:10	
LAS_{max}	74.5 dB	2021-12-17 07:31:10	
LAS_{min}	58.6 dB	2021-12-17 07:37:39	
LA_{eq}	65.1 dB		
LC_{eq}	76.3 dB	LC_{eq} - LA_{eq}	11.2 dB
LAI_{eq}	67.1 dB	LAI_{eq} - LA_{eq}	1.9 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
65.1 dB	65.1 dB	0.0 dB

LDEN	LDay	LEve	LNight
65.1 dB	65.1 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	65.1 dB		76.3 dB		--- dB	
$LS_{(max)}$	74.5 dB	2021-12-17 07:31:10	--- dB		--- dB	
$LS_{(min)}$	58.6 dB	2021-12-17 07:37:39	--- dB		--- dB	
$L_{Peak(max)}$	93.7 dB	2021-12-17 07:31:10	--- dB		--- dB	

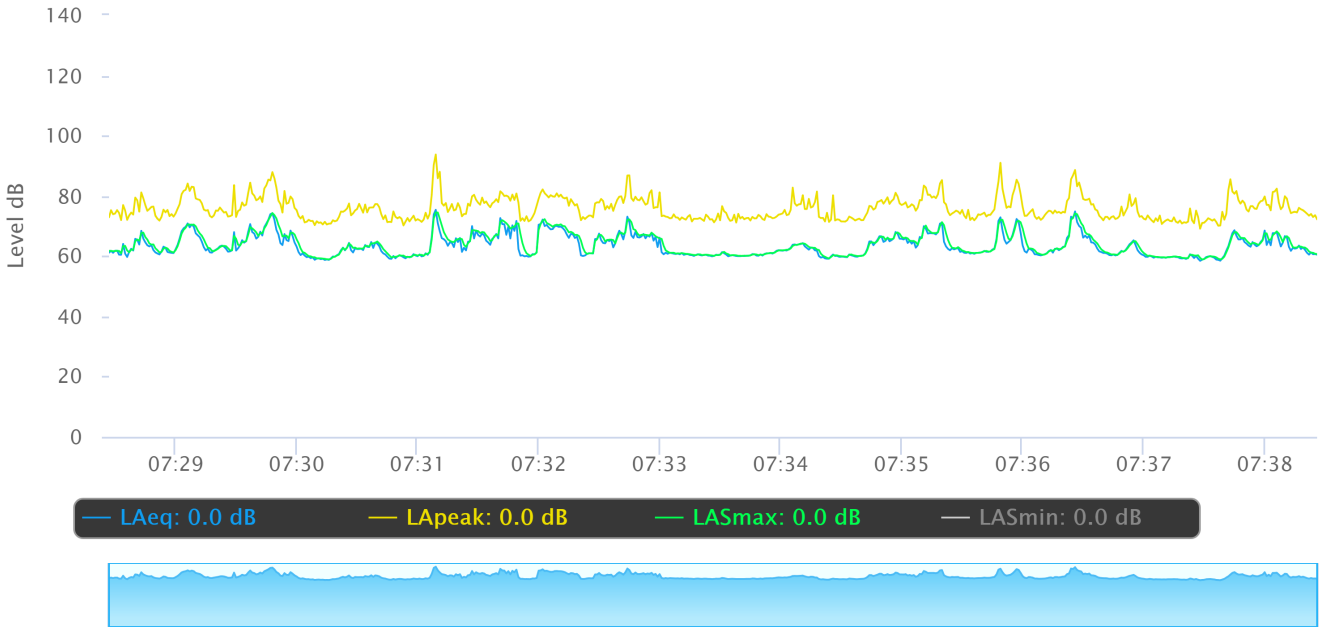
Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	70.1 dB
LAS 10.0	68.5 dB
LAS 33.3	64.9 dB
LAS 50.0	62.7 dB
LAS 66.6	61.1 dB
LAS 90.0	59.8 dB

Time History



Noise Measurement Field Data

Project:	Project Ollie	**Job Number:**	197492001
Site No.:	2	**Date:**	12/17/2021
Analyst:	Alex Howard and Heidi Rous	**Time:**	8:09 - 8:14 AM
Location:	Onsite at 444 Nash St 15 feet from Generator 1,		
Noise Sources:	Construction adajcent to site, traffic on Duley Rd		
Comments:	Baseline (5 Minute Measurements)		

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
60.9	54.8	71.7	88.3

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	52°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.13
Humidity:	71%

Photo:

Kimley»Horn

Measurement Report

Report Summary

Meter's File Name	OLLIE.002	Computer's File Name	SLM_0005586_OLLIE_002.00.ldbin
Meter	LxT SE		
Firmware	2.404		
User	Alex Howard	Location	
Description	Project Ollie Data Center		
Note			
Start Time	2021-12-17 08:09:06	Duration	0:05:08.2
End Time	2021-12-17 08:14:14	Run Time	0:05:08.2
Pause Time	0:00:00.0		

Results

Overall Metrics

LA_{eq}	60.9 dB		
LAE	85.8 dB	SEA	--- dB
EA	42.4 µPa²h		
LA_{peak}	88.3 dB	2021-12-17 08:14:10	
LAS_{max}	71.7 dB	2021-12-17 08:09:30	
LAS_{min}	54.8 dB	2021-12-17 08:10:21	
LA_{eq}	60.9 dB		
LC_{eq}	71.9 dB	LC_{eq} - LA_{eq}	10.9 dB
LAI_{eq}	63.5 dB	LAI_{eq} - LA_{eq}	2.5 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
60.9 dB	60.9 dB	0.0 dB

LDEN	LDay	LEve	LNight
60.9 dB	60.9 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	60.9 dB		71.9 dB		--- dB	
$LS_{(max)}$	71.7 dB	2021-12-17 08:09:30	--- dB		--- dB	
$LS_{(min)}$	54.8 dB	2021-12-17 08:10:21	--- dB		--- dB	
$L_{Peak(max)}$	88.3 dB	2021-12-17 08:14:10	--- dB		--- dB	

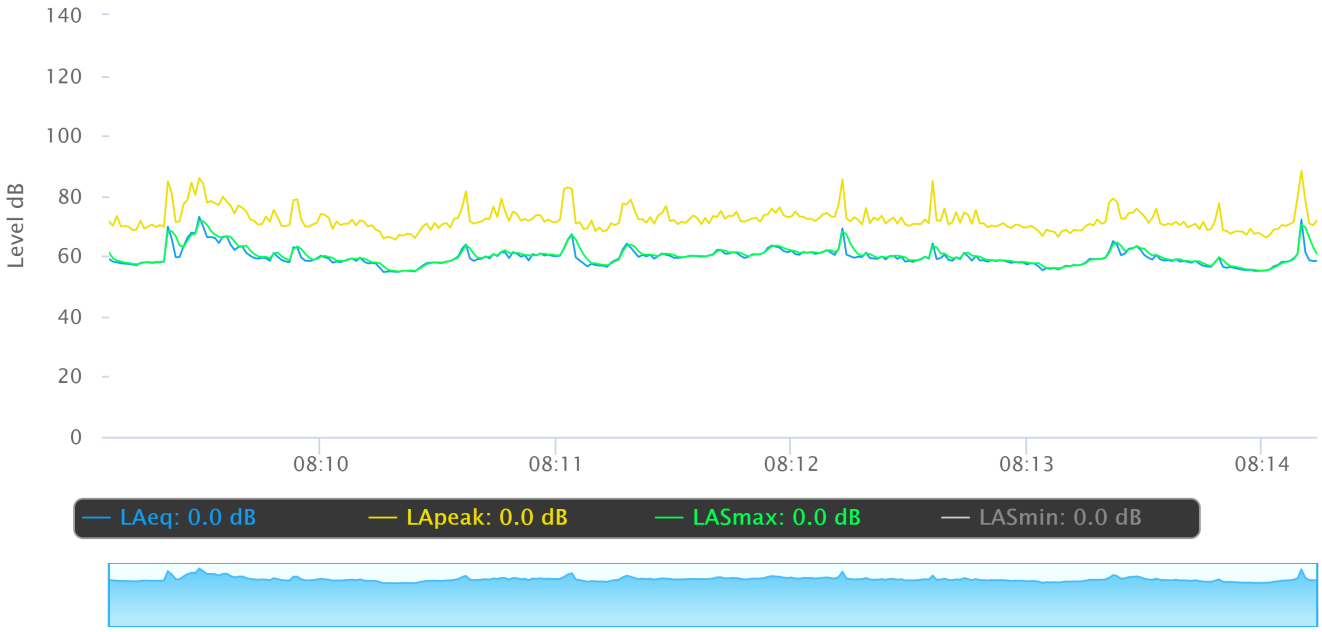
Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	65.6 dB
LAS 10.0	63.1 dB
LAS 33.3	60.3 dB
LAS 50.0	59.5 dB
LAS 66.6	58.5 dB
LAS 90.0	56.5 dB

Time History



Noise Measurement Field Data

Project:	Project Ollie	**Job Number:**	197492001
Site No.:	3	**Date:**	12/17/2021
Analyst:	Alex Howard and Heidi Rous	**Time:**	8:16- 8:24 AM
Location:	Onsite at 444 Nash St 15 feet from Generator 1,		
Noise Sources:	Generator 1, Airplanes, Construction, Trucks		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
71.8	60.4	74.2	91.7

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	53°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.13
Humidity:	71%

Photo:

Kimley»Horn

Measurement Report

Report Summary

Meter's File Name	OLLIE.003	Computer's File Name	SLM_0005586_OLLIE_003.00.ldbin
Meter	LxT SE		
Firmware	2.404		
User	Alex Howard	Location	
Description	Project Ollie Data Center		
Note			
Start Time	2021-12-17 08:16:35	Duration	0:07:46.6
End Time	2021-12-17 08:24:21	Run Time	0:07:46.6
Pause Time	0:00:00.0		

Results

Overall Metrics

LA_{eq}	71.8 dB		
LAE	98.5 dB	SEA	--- dB
EA	781.3 µPa²h		
LA_{peak}	91.7 dB	2021-12-17 08:16:36	
LAS_{max}	74.2 dB	2021-12-17 08:16:36	
LAS_{min}	60.4 dB	2021-12-17 08:24:21	
LA_{eq}	71.8 dB		
LC_{eq}	85.2 dB	LC_{eq} - LA_{eq}	13.4 dB
LAI_{eq}	72.4 dB	LAI_{eq} - LA_{eq}	0.6 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
71.8 dB	71.8 dB	0.0 dB

LDEN	LDay	LEve	LNight
71.8 dB	71.8 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	71.8 dB		85.2 dB		--- dB	
$LS_{(max)}$	74.2 dB	2021-12-17 08:16:36	--- dB		--- dB	
$LS_{(min)}$	60.4 dB	2021-12-17 08:24:21	--- dB		--- dB	
$L_{Peak(max)}$	91.7 dB	2021-12-17 08:16:36	--- dB		--- dB	

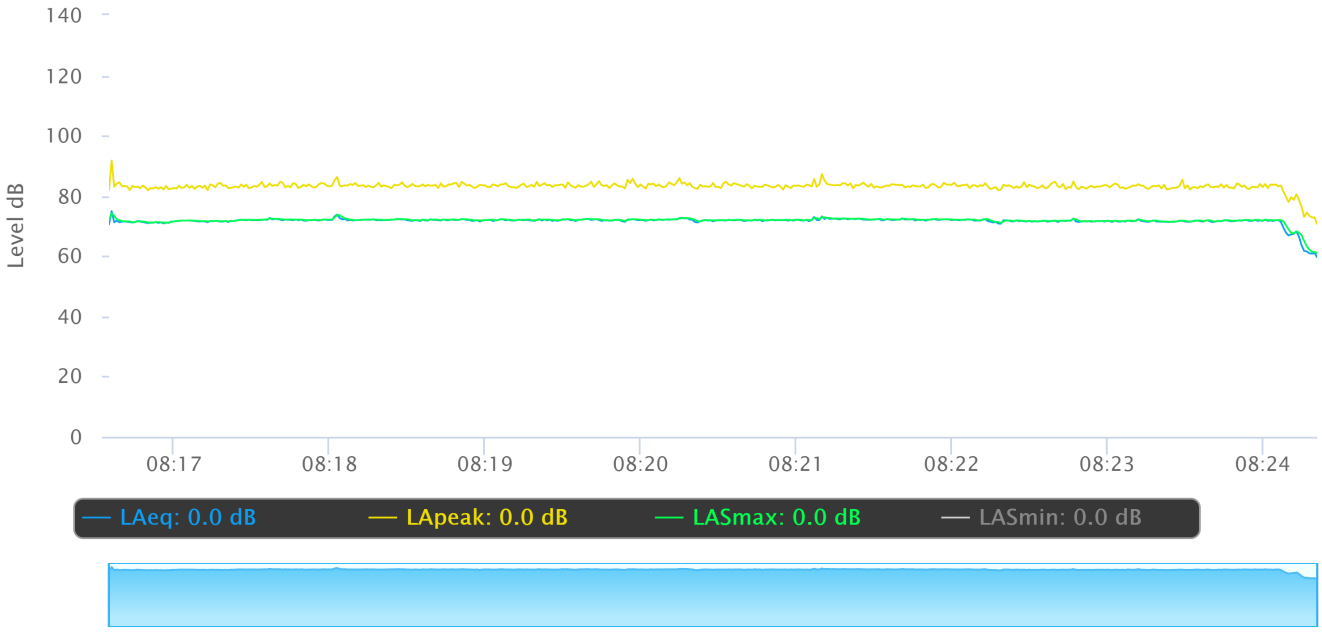
Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	72.3 dB
LAS 10.0	72.2 dB
LAS 33.3	72.0 dB
LAS 50.0	71.9 dB
LAS 66.6	71.7 dB
LAS 90.0	71.4 dB

Time History



Noise Measurement Field Data

Project:	Project Ollie	**Job Number:**	197492001
Site No.:	4	**Date:**	12/17/2021
Analyst:	Alex Howard and Heidi Rous	**Time:**	8:35- 8:43 AM
Location:	Offsite behind Generator R1 on Duley Road.		
Noise Sources:	Generator R1, Airplanes, Construction, Trucks		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
63.9	57.5	74.5	91.1

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	54°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.13
Humidity:	71%

Photo:

Kimley»Horn

Measurement Report

Report Summary

Meter's File Name	OLLIE.004	Computer's File Name	SLM_0005586_OLLIE_004.00.ldbin
Meter	LxT SE		
Firmware	2.404		
User	Alex Howard	Location	
Description	Project Ollie Data Center		
Note			
Start Time	2021-12-17 08:35:17	Duration	0:07:56.6
End Time	2021-12-17 08:43:14	Run Time	0:07:56.6
Pause Time	0:00:00.0		

Results

Overall Metrics

LA_{eq}	63.9 dB		
LAE	90.7 dB	SEA	--- dB
EA	129.2 µPa²h		
LA_{peak}	91.1 dB	2021-12-17 08:36:27	
LAS_{max}	74.5 dB	2021-12-17 08:41:23	
LAS_{min}	57.5 dB	2021-12-17 08:43:11	
LA_{eq}	63.9 dB		
LC_{eq}	77.5 dB	LC_{eq} - LA_{eq}	13.6 dB
LAI_{eq}	64.9 dB	LAI_{eq} - LA_{eq}	1.0 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
63.9 dB	63.9 dB	0.0 dB

LDEN	LDay	LEve	LNight
63.9 dB	63.9 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	63.9 dB		77.5 dB		--- dB	
$LS_{(max)}$	74.5 dB	2021-12-17 08:41:23	--- dB		--- dB	
$LS_{(min)}$	57.5 dB	2021-12-17 08:43:11	--- dB		--- dB	
$L_{Peak(max)}$	91.1 dB	2021-12-17 08:36:27	--- dB		--- dB	

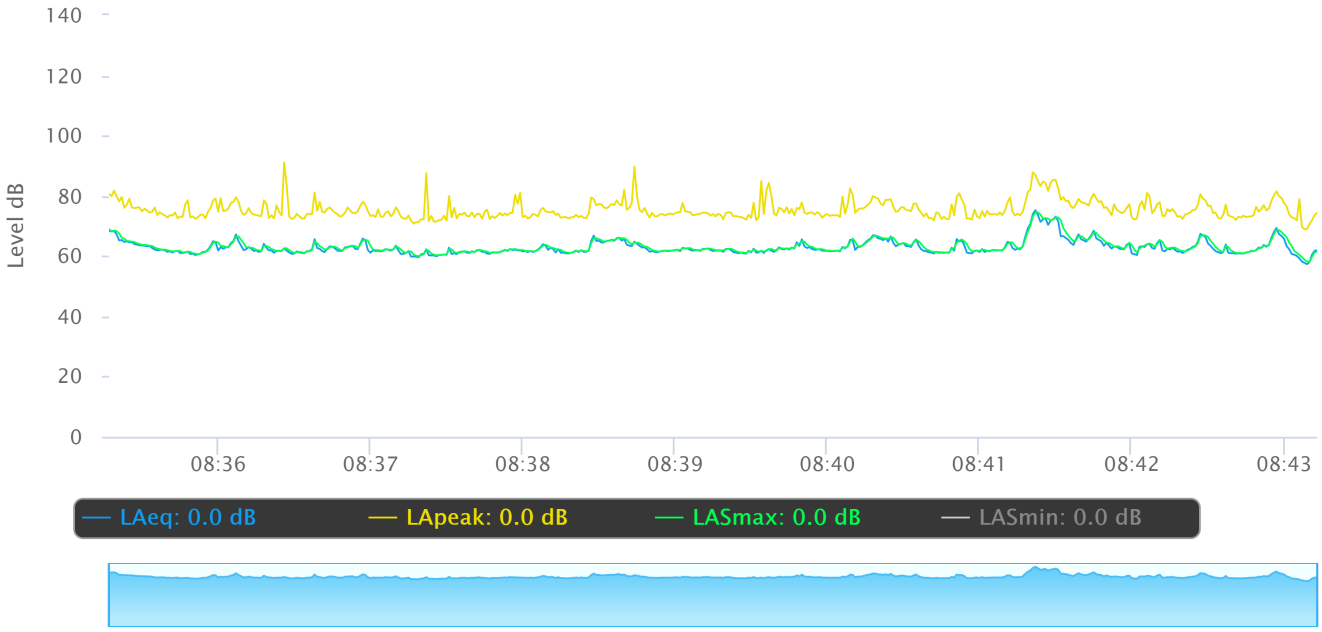
Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	67.2 dB
LAS 10.0	65.7 dB
LAS 33.3	63.1 dB
LAS 50.0	62.2 dB
LAS 66.6	61.7 dB
LAS 90.0	61.1 dB

Time History



Noise Measurement Field Data

Project:	Project Ollie	**Job Number:**	197492001
Site No.:	5	**Date:**	12/17/2021
Analyst:	Alex Howard and Heidi Rous	**Time:**	8:43- 8:53 AM
Location:	Offsite behind Generator R1 on Duley Road.		
Noise Sources:	Airplanes, Construction, Trucks on Duley Road		
Comments:	Baseline		

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
61.2	54.1	72.9	100.5

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	54°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.13
Humidity:	71%

Photo:

Kimley»Horn

Measurement Report

Report Summary

Meter's File Name	OLLIE.005	Computer's File Name	SLM_0005586_OLLIE_005.00.ldbin
Meter	LxT SE		
Firmware	2.404		
User	Alex Howard	Location	
Description	Project Ollie Data Center		
Note			
Start Time	2021-12-17 08:43:41	Duration	0:10:00.0
End Time	2021-12-17 08:53:41	Run Time	0:10:00.0
Pause Time	0:00:00.0		

Results

Overall Metrics

LA_{eq}	61.2 dB		
LAE	89.0 dB	SEA	--- dB
EA	87.5 µPa²h		
LA_{peak}	100.5 dB	2021-12-17 08:47:24	
LAS_{max}	72.9 dB	2021-12-17 08:48:10	
LAS_{min}	54.1 dB	2021-12-17 08:51:51	
LA_{eq}	61.2 dB		
LC_{eq}	72.3 dB	LC_{eq} - LA_{eq}	11.1 dB
LAI_{eq}	64.0 dB	LAI_{eq} - LA_{eq}	2.9 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
61.2 dB	61.2 dB	0.0 dB

LDEN	LDay	LEve	LNight
61.2 dB	61.2 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	61.2 dB		72.3 dB		--- dB	
$LS_{(max)}$	72.9 dB	2021-12-17 08:48:10	--- dB		--- dB	
$LS_{(min)}$	54.1 dB	2021-12-17 08:51:51	--- dB		--- dB	
$L_{Peak(max)}$	100.5 dB	2021-12-17 08:47:24	--- dB		--- dB	

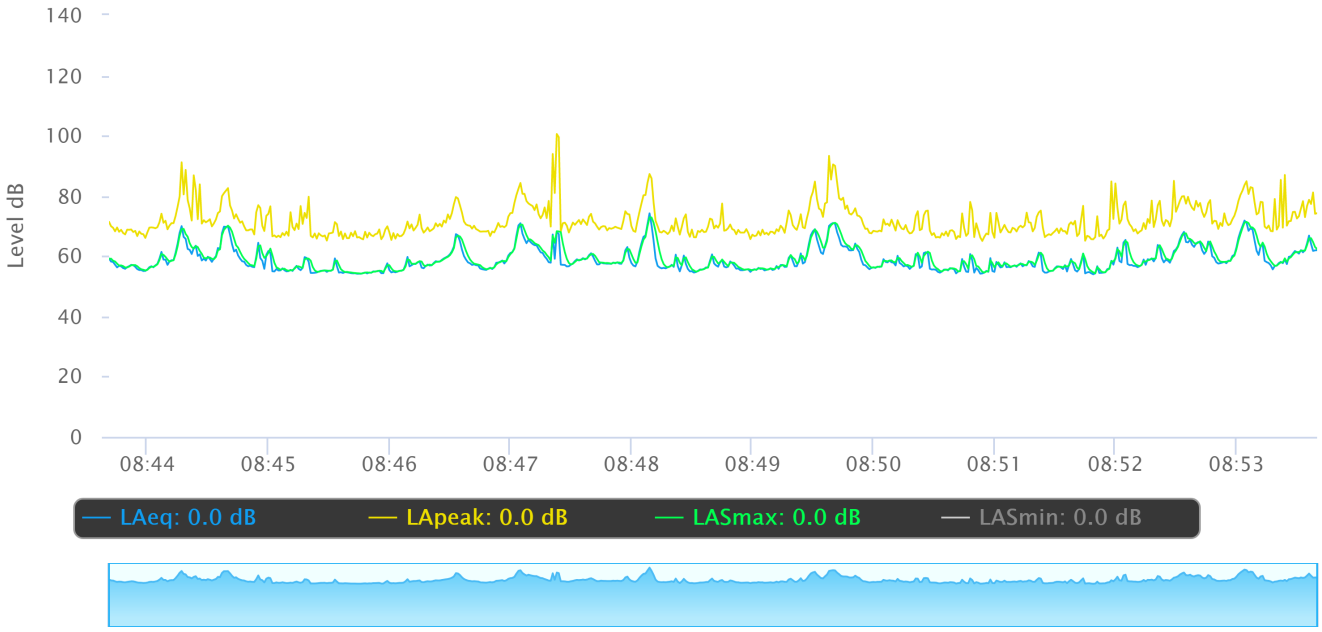
Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	67.1 dB
LAS 10.0	64.7 dB
LAS 33.3	59.1 dB
LAS 50.0	57.8 dB
LAS 66.6	56.7 dB
LAS 90.0	55.1 dB

Time History



Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/27/2022
Case Description: Demolition

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Commercial - N	Commercial	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	80.0	0.0
Dozer	No	40		81.7	80.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Night	Day	Calculated (dBA) Evening	Night	Day Evening	Night
Equipment		Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq
Concrete Saw		85.5 78.5	N/A N/A	N/A N/A	N/A N/A
Dozer		77.6 73.6	N/A N/A	N/A N/A	N/A N/A
	Total	85.5 79.7	N/A N/A	N/A N/A	N/A N/A

**** Receptor #2 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Hotel - NW	Commercial	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	640.0	0.0
Dozer	No	40		81.7	640.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Calculated (dBA)	Day		Evening		Night	
Night	Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	67.4	60.4	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	59.5	55.5	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	67.4	61.7	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Recreational - SE	Commercial	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	670.0	0.0
Dozer	No	40		81.7	670.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Concrete Saw	67.0	60.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	59.1	55.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	67.0	61.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/27/2022
Case Description: Grading

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Commercial - N	Commercial	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85.0		80.0	0.0
Dozer	No	40		81.7	80.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Night	Day	Calculated (dBA) Evening	Night	Day Evening	Night
Equipment		Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq
Grader		80.9 76.9	N/A N/A	N/A N/A	N/A N/A
Dozer		77.6 73.6	N/A N/A	N/A N/A	N/A N/A
	Total	80.9 78.6	N/A N/A	N/A N/A	N/A N/A

**** Receptor #2 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Hotel - NW	Commercial	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85.0		640.0	0.0
Dozer	No	40		81.7	640.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Grader	62.9	58.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	59.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	62.9	60.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Recreational - SE	Commercial	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85.0		670.0	0.0
Dozer	No	40		81.7	670.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Grader	62.5	58.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	59.1	55.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	62.5	60.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/27/2022
Case Description: Grading

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Commercial - N	Commercial	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85.0		80.0	0.0
Dozer	No	40		81.7	80.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Night	Day	Calculated (dBA) Evening	Night	Day Evening	Night
Equipment		Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq
Grader		80.9 76.9	N/A N/A	N/A N/A	N/A N/A
Dozer		77.6 73.6	N/A N/A	N/A N/A	N/A N/A
	Total	80.9 78.6	N/A N/A	N/A N/A	N/A N/A

**** Receptor #2 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Hotel - NW	Commercial	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85.0		640.0	0.0
Dozer	No	40		81.7	640.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Grader	62.9	58.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	59.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	62.9	60.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Recreational - SE	Commercial	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85.0		670.0	0.0
Dozer	No	40		81.7	670.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Grader	62.5	58.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	59.1	55.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	62.5	60.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/27/2022
Case Description: Paving

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Commercial - N	Commercial	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	80.0	0.0
Roller	No	20		80.0	80.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Paver	73.1	70.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	75.9	68.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	75.9	72.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Hotel - NW	Commercial	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	640.0	0.0
Roller	No	20		80.0	640.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Calculated (dBA)

Equipment	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Paver	55.1	52.1	N/A	N/A	N/A	N/A
Roller	57.9	50.9	N/A	N/A	N/A	N/A
Total	57.9	54.5	N/A	N/A	N/A	N/A

Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Recreational - SE	Commercial	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	670.0	0.0
Roller	No	20		80.0	670.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Calculated (dBA)				Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	54.7	51.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	57.5	50.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	57.5	54.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

APPENDIX G

POLICY AND PLAN CONSISTENCY TABLES

Table 1: Project Consistency with the Regional Transportation Plan/Sustainable Communities Strategy			
RTP/SCS Goals		**Proposed Project Consistency**	
GOAL 1:	Encourage regional economic prosperity and global competitiveness.	Consistent	The Project is responsive to economic prosperity and global competitiveness with the installation of seven additional backup generators and a drywell.
GOAL 2:	Improve mobility, accessibility, reliability, and travel safety for people and goods.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
GOAL 3:	Enhance the preservation, security, and resilience of the regional transportation system.	N/A	The Project is not a transportation improvement project. Therefore, this goal is not applicable.
GOAL 4:	Increase person and goods movement and travel choices within the transportation system.	N/A	The Project is not a transportation improvement project. Therefore, this goal is not applicable.
GOAL 5:	Reduce greenhouse gas emissions and improve air quality.	Consistent	The reduction of energy use, improvement of air quality, and promotion of more environmentally sustainable development are encouraged through the development of alternative transportation methods, green design techniques for buildings, and other energy-reducing techniques. The Project is required to comply with the provisions of the California Building Energy Efficiency Standards and the Green Building Standards Code (CALGreen). Further, the Project is located within an urban area near existing truck routes and freeways. The Project's location within a developed area would reduce trip lengths, which would reduce GHG and air quality emissions.
GOAL 6:	Support healthy and equitable communities.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
GOAL 7:	Adapt to a changing climate and support an integrated regional development pattern and transportation network.	Not Applicable	The Project is not a transportation improvement project. Therefore, this goal is not applicable.
GOAL 8:	Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	Not Applicable	The Project is not a transportation improvement project. Therefore, this goal is not applicable.
GOAL 9:	Encourage development of diverse housing types in areas that are supported by multiple transportation options.	Not Applicable	The Project is not a housing Project. Therefore, this goal is not applicable.
GOAL 10:	Promote conservation of natural and agricultural lands and restoration of habitats.	Consistent	The Project is located in a highly urbanized area. There are no natural/ agricultural lands or habitat on or near the Project site. Given the Project would expand an existing facility and would not encroach upon natural/agricultural lands or natural habitat, the Project is consistent with this goal.
Source: Southern California Association of Governments, *Regional Transportation Plan/Sustainable Communities Strategy*, 2020.			

Table 2: Project Consistency with City of El Segundo Climate Action Plan		
Climate Action Plan Goals	**Proposed Project Consistency**	
Measure LUT A1: EV Parking Policies	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Measure LUT A2: EV Charging Policies	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Measure LUT A3: Administrative Readiness	Not Applicable	City Initiative
Measure LUT A4: Public Information Programs	Not Applicable	City Initiative
Measure LUT A5: Multi-Modal Streets Complete Streets	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Measure LUT B1: Facilitate Private and Public Mobility Services (Ride-Hailing, Ride-Sharing, Car-Sharing, Bike-Sharing)	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Measure LUT C1: Provide a Bus Rapid Transit (BRT) System	Not Applicable	City Initiative
Measure LUT C2: Expand Transit Network	Not Applicable	City Initiative
Measure LUT C3: Increase Transit Service Frequency and Speed	Not Applicable	City Initiative
Measure LUT D1: Provide Traffic Calming Measures	Not Applicable	City Initiative
Measure LUT D2: Provide Pedestrian/Bicycle Network Improvements	Not Applicable	City Initiative
Measure LUT D3: Improve Design of Development	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Measure LUT E1: Limit Parking Supply	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Measure LUT E2: Unbundle Parking Costs from Property Costs	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Measure LUT E3: Implement On-Street Market Pricing	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Measure LUT E4: Residential Area Parking Permits	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Measure LUT F1: Encourage Telecommuting and Alternative Work Schedules	Not Applicable	City Initiative
Measure LUT F2: Implement a Commute Trip Reduction Program	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Measure LUT F3: Provide Car-Sharing Programs	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Measure LUT G1: Increase Density	Not Applicable	City Initiative
Measure LUT G2: Increase Diversity	Not Applicable	City Initiative
Measure LUT G3: Increase Destination Accessibility	Not Applicable	City Initiative
Measure LUT G4: Increase Transit Accessibility	Not Applicable	City Initiative

Measure LUT G5: Integrate Affordable and Below-Market-Rate Housing	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Measure LUT G6: Develop a Neighborhood Oriented Development Plan	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Measure LUT H1: Collaborate On and Implement The South Bay Digital Master Plan	Not Applicable	City Initiative
Measure EE (A1 through D1)	Not Applicable	City Initiative
Measure EE E1 Promote or Require Water Efficiency Through SB X7-7	Not Applicable	City Initiative
Measure EE E2 Promote Water Efficiency Standards Exceeding SB X7-7	Not Applicable	City Initiative
Measure EE F1 Promote Tree Planting for Shading	Not Applicable	City Initiative
Measure EE F2 Incentivize or Require Light Reflecting Surfaces	Not Applicable	City Initiative
Measure EE (H1 through I3)	Not Applicable	City Initiative
Measure SW (A1 through D1)	Not Applicable	City Initiative
Source: City of El Segundo, *Climate Action Plan*, 2017.		

Table 3: Project Consistency with CARB 2017 Scoping Plan Greenhouse Gas Emission Reduction Strategies			
Scoping Plan Measure	**Measure Number**	**Proposed Project Consistency**	
Transportation Sector			
Advanced Clean Cars	T-1	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Low Carbon Fuel Standard	T-2	Consistent	This is a statewide measure that cannot be implemented by a project applicant or lead agency. Nonetheless, this standard would be applicable to the fuel used by vehicles that would access the Project site (i.e., motor vehicles driven by Project employees and patrons would use compliant fuels).
Regional Transportation-Related GHG Targets	T-3	Not Applicable	The Project is not related to developing GHG emission reduction targets. To meet SB 375 goals, Connect SoCal applies to the Project. The Project would not preclude implementation of this strategy.
Advanced Clean Transit	N/A	Not Applicable	The Project would not prevent CARB from accelerating the use of advanced technologies in heavy-duty vehicles to meet air quality, climate, and public health goals.
Last-Mile Delivery	N/A	Not Applicable	The Project would not prevent CARB from increasing the deployment of zero-emission trucks primarily in California.
Reduction in VMT	N/A	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Vehicle Efficiency Measures 1. Tire Measure 2. Fuel Efficiency Tire Program 3. Low-Friction Oil 4. Solar-Reflective Automotive Paint and Window Glazing	T-4	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Ship Electrification at Ports (Shore Power)	T-5	Not Applicable	The Project would not prevent CARB from implementing this measure.
Goods Movement Efficiency Measures 1. Port Drayage Trucks 2. Transport Refrigeration Units Cold Storage Prohibition 3. Cargo Handling Equipment, Anti-Idling, Hybrid, Electrification 4. Good Movement Systemwide Efficiency Improvements	T-6	Not Applicable	The Project would not prevent CARB from implementing this measure.

Table 3: Project Consistency with CARB 2017 Scoping Plan Greenhouse Gas Emission Reduction Strategies			
Scoping Plan Measure	**Measure Number**	**Proposed Project Consistency**	
5. Commercial Harbor Craft Maintenance and Design Efficiency 6. Clean Ships 7. Vessel Speed Reduction			
Heavy-Duty Vehicle GHG emissions Reduction • Tractor-Trailer GHG Regulation • Heavy-Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase 1)	T-7	Not Applicable	The Project is not a transportation improvement project. Therefore, this measure is not applicable.
Medium- and Heavy-Duty Vehicle Hybridization Voucher Incentive Proposed Project	T-8	Not Applicable	The Project is not a transportation improvement project. Therefore, this measure is not applicable.
Medium and Heavy-Duty GHG Phase 2	N/A	Not Applicable	The Project is not a transportation improvement project. Therefore, this measure is not applicable.
High-Speed Rail	T-9	Not Applicable	The Project is not a transportation improvement project. Therefore, this measure is not applicable.
Electricity and Natural Gas Sector			
Energy Efficiency Measures (Electricity)	E-1	Consistent	The Project would comply with the current Title 24 Building Energy Efficiency Standards. In addition, the Project would not prevent CARB from implementing this measure.
Energy Efficiency (Natural Gas)	CR-1	Consistent	The Project would comply with the current Title 24 Building Energy Efficiency Standards. In addition, the Project would not prevent CARB from implementing this measure.
Solar Water Heating (California Solar Initiative Thermal Program)	CR-2	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Combined Heat and Power	E-2	Not Applicable	The Project would not prevent CARB from implementing this measure.
Renewables Portfolio Standard (33% by 2020)	E-3	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Renewables Portfolio Standard (50% by 2050)	N/A	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
SB 1 Million Solar Roofs (California Solar Initiative, New Solar Home Partnership, Public Utility Programs) and Earlier Solar Programs	E-4	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Water Sector			
Water Use Efficiency	W-1	Not Applicable	The Project would not prevent CARB from implementing this measure.

Table 3: Project Consistency with CARB 2017 Scoping Plan Greenhouse Gas Emission Reduction Strategies			
Scoping Plan Measure	**Measure Number**	**Proposed Project Consistency**	
Water Recycling	W-2	Not Applicable	The Project would not prevent CARB from implementing this measure.
Water System Energy Efficiency	W-3	Not Applicable	The Project would not prevent CARB from implementing this measure.
Reuse Urban Runoff	W-4	Not Applicable	The Project would not prevent CARB from implementing this measure.
Renewable Energy Production	W-5	Not Applicable	The Project would not prevent CARB from implementing this measure.
Green Buildings			
State Green Building Initiative: Leading the Way with State Buildings (Greening New and Existing State Buildings)	GB-1	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Beyond Code: Voluntary Programs at the Local Level (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Greening Existing Buildings (Greening Existing Homes and Commercial Buildings)	GB-1	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Industry Sector			
Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	I-1	Not Applicable	The Project is not a large industrial source and would not prevent CARB from implementing this measure.
Oil and Gas Extraction GHG Emission Reduction	I-2	Not Applicable	The Project is not an oil and gas extraction use would not prevent CARB from implementing this measure.
Reduce GHG Emissions by 20% in Oil Refinery Sector	N/A	Not Applicable	The Project would not prevent CARB from implementing this measure.
GHG Emissions Reduction from Natural Gas Transmission and Distribution	I-3	Not Applicable	The Project does not involve natural gas transmission and distribution and would not prevent CARB from implementing this measure.
Refinery Flare Recovery Process Improvements	I-4	Not Applicable	The Project does not involve a refinery and would not prevent CARB from implementing this measure.
Work with the Local Air Districts to Evaluate Amendments to Their Existing Leak Detection and Repair Rules for Industrial Facilities to Include Methane Leaks	I-5	Not Applicable	The Project would not prevent CARB from implementing this measure.
Recycling and Waste Management Sector			
Landfill Methane Control Measure	RW-1	Not Applicable	The Project would not prevent CARB from implementing this measure.
Increasing the Efficiency of Landfill Methane Capture	RW-2	Not Applicable	The Project would not prevent CARB from implementing this measure.
Mandatory Commercial Recycling	RW-3	Not Applicable	The Project is limited in scope to the installation of seven additional backup

Table 3: Project Consistency with CARB 2017 Scoping Plan Greenhouse Gas Emission Reduction Strategies			
Scoping Plan Measure	**Measure Number**	**Proposed Project Consistency**	
			generators and a drywell at an existing facility.
Increase Production and Markets for Compost and Other Organics	RW-3	Not Applicable	The Project would not prevent CARB from implementing this measure.
Anaerobic/Aerobic Digestion	RW-3	Not Applicable	The Project would not prevent CARB from implementing this measure.
Extended Producer Responsibility	RW-3	Not Applicable	The Project would not prevent CARB from implementing this measure.
Environmentally Preferable Purchasing	RW-3	Not Applicable	The Project would not prevent CARB from implementing this measure.
Forests Sector			
Sustainable Forest Target	F-1	Not Applicable	The Project would not prevent CARB from implementing this measure.
High GWP Gases Sector			
Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing	H-1	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
SF_6 Limits in Non-Utility and Non-Semiconductor Applications	H-2	Not Applicable	The Project would not prevent CARB from implementing this measure and does not include semiconductor manufacturing.
Reduction of Perfluorocarbons (PFCs) in Semiconductor Manufacturing	H-3		The Project would not prevent CARB from implementing this measure and does not include semiconductor manufacturing.
Limit High GWP Use in Consumer Products	H-4	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. The Project does not involve the production of consumer products.
Air Conditioning Refrigerant Leak Test During Vehicle Smog Check	H-5	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. The Project does not propose air conditioning units.
Stationary Equipment Refrigerant Management Program – Refrigerant Tracking/Reporting/Repair Program	H-6	Not Applicable	The Project would not prevent CARB from implementing this measure and does not include use of refrigerants.
Stationary Equipment Refrigerant Management Program – Specifications for Commercial and Industrial Refrigeration	H-6	Not Applicable	The Project would not prevent CARB from implementing this measure and does not include use of refrigerants.
SF_6 Leak Reduction Gas Insulated Switchgear	H-6	Not Applicable	The Project would not prevent CARB from implementing this measure and does not include development of a switchgear.
40% Reduction in Methane and Hydrofluorocarbon (HFC) Emissions	N/A	Not Applicable	The Project would not prevent CARB from implementing this measure and does not include use of HFC.
50% Reduction in Black Carbon Emissions	N/A	Consistent	The Project would be subject to applicable SCAQMD permitting restrictions, including limitations on hours per day of testing; therefore, would not prevent CARB from implementing this measure.

Table 3: Project Consistency with CARB 2017 Scoping Plan Greenhouse Gas Emission Reduction Strategies			
Scoping Plan Measure	**Measure Number**	**Proposed Project Consistency**	
Agriculture Sector			
Methane Capture at Large Dairies	A-1	Not Applicable	The Project would not prevent CARB from implementing this measure and does not include large dairies.

Table 4: Project Consistency City of El Segundo General Plan			
General Plan Goals		**Proposed Project Consistency**	
Land Use Element			
GOAL LU1	Maintain El Segundo's "small town" atmosphere, and provide an attractive place to live and work.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy LU1-1	Preserve and maintain the City's low-medium density residential nature, with low building height profile and character, and minimum development standards.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. The Project is not near a residential area and would not affect the profile and character of residential areas.
Policy LU4-2.1	Revitalize and upgrade commercial areas, making them a part of a viable, attractive, and people-oriented commercial district. Consideration should be given to aesthetic architectural improvements, zoning, and shopper amenities.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Objective LU1-5	Recognize the City as a comprehensive whole and create policies, design standards, and monumentation that will help create a sense of place for the entire City.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy 1-5.8	Innovative land development and design techniques as well as new materials and construction methods should be encouraged.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
GOAL LU3	Promote the health, safety, and well-being of the people of El Segundo by adopting standards for the proper balance, relationship, and distribution of the residential land uses.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Objective LU3.1	Preserve, protect, and extend, if possible, existing Single-Family Residential uses.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Objective LU3-2.1	Promote construction of high quality Multi-Family Residential development with ample open space, leisure and recreational facilities.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy LU3-2.2	Multi-family development will be located only in appropriate places and evaluated carefully to ensure that these developments are not detrimental to the existing single-family character.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.

Objective LU3-3.1	Adopt and enforce recreational area requirements for large multiple unit developments.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
GOAL LU4	Provide a stable tax base for the City through development of new commercial uses, primarily within a mixed-use environment, without adversely affecting the viability of Downtown.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Objective LU4-1	Promote the development of high quality retail facilities in proximity to major employment centers.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy LU4-1.1	Require landscaping, its maintenance, and permanent upkeep on all new commercial developments.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy LU4-1.2	All commercial facilities shall be built and maintained in accordance with Health and Safety Code requirements and shall meet seismic safety regulations and environmental regulations.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy LU4-1.4	New commercial developments shall meet seismic safety standards and regulations, as well as comply with all noise, air quality, water and environmental regulations.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Objective LU4-4	Provide areas where development has the flexibility to mix uses, in an effort to provide synergistic relationships which have the potential to maximize economic benefit, reduce traffic impacts, and encourage pedestrian environments.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy LU4-4.6	Promote mixed-use development near transit nodes and encourage modes of transportation that do not require an automobile.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
GOAL LU7	Provide the highest quality public facilities, services, and public infrastructure possible to the community.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy LU7-1.2	No new development shall be allowed unless adequate public facilities are in place or provided for.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy LU7-2.3	All new development shall place utilities underground.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.

Circulation Element			
GOAL C1	Provide a safe, convenient, and cost-effective circulation system to serve the present and future circulation needs of the El Segundo community.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy C1-1.1	Maintain and update the citywide traffic model as needed for purposes of evaluating project-related and external traffic impacts on the City's circulation system.	Not Applicable	The Project would not prevent the City from maintaining and updating the citywide traffic for model.
Policy C1-1.2	Pursue implementation of all Circulation Element policies such that all Master Plan roadways are upgraded and maintained at acceptable levels of service.	Not Applicable	The Project is not a roadway improvement Project. Therefore, this policy is not applicable.
Policy C1-1.8	Provide all residential, commercial, and industrial areas with efficient and safe access to the major regional transportation facilities.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy C1-1.9	Provide all residential, commercial, and industrial areas with efficient and safe access for emergency vehicles.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy C1-1.14	Require a full evaluation of potential traffic impacts associated with proposed new developments prior to project approval. Further require the implementation of appropriate mitigation measures prior to, or in conjunction with project development. Mitigation measures may include new roadway links on segments that would connect the new development to the existing roadway system, intersection improvements, and other measures. Mitigation measures shall be provided by or paid for by the project developer.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. The Project is not a new development project, thus, this policy is not applicable.
Objective C1-3	Ensure that the City's Master Plan Truck Route System efficiently serves the shipping needs of the commercial and industrial land uses in El Segundo while balancing potential conflicts with residential and recreation land uses throughout the City.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.

Policy C1-3.2	Ensure that the development review process incorporates consideration of off-street commercial loading requirements for all new projects.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Objective C2-1	Provide a pedestrian circulation system to support and encourage walking as a safe and convenient travel mode within the City's circulation system.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy C2-1.6	Encourage shopping areas to design their facilities for ease of pedestrian access.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy C2-1.7	Closely monitor design practices to ensure a clear pedestrian walking area by minimizing obstructions, especially in the vicinity of intersections.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Objective C2-2	Provide a bikeway system throughout the City to support and encourage the use of the bicycle as a safe and convenient travel mode within the City's circulation system.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy C2-2.1	Implement the recommendations on the Bicycle Master Plan contained in the Circulation Element, as the availability arises; i.e., through development, private grants, signing of shared routes.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy C2-2.2	Encourage new development to provide facilities for bicyclists to park and store their bicycles and provide shower and clothes changing facilities at or close to the bicyclist's work destination.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy C2-5.1	Ensure that Transportation Demand Management (TDM) measures are considered during the evaluation of new developments within the City, including but not limited to ridesharing, carpooling and vanpooling, flexible work schedules, telecommuting and car/vanpool preferential parking.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. The Project is not a new development within the City. Additionally, the City's TDM requirements do not apply to the Project since it does not propose to increase floor space; see ESMC 15-16-2(C).
Policy C3-1.8	Require the provision of adequate pedestrian and bicycle access for new development projects through the development review process.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. The Project is not a new development project.

Policy C3-2.1	Ensure the provision of sufficient on-site parking in all new development.	Consistent	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. The Project is not a new development project. Further, the existing onsite parking supply would be sufficient to meet the demand generated by the Project's nominal employment increase.
Economic Development Element			
Policy ED1	To create in El Segundo a strong, healthy economic community in which all diverse stakeholders may benefit.	Consistent	The Project would benefit the existing facility with new emergency generators and a drywell which would provide increased economic and fiscal benefits for the City.
Objective ED1-1	To build support and cooperation among the City of El Segundo and its business and residential communities for the mutual benefits derived from the maintenance and expansion of El Segundo's economic base.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy ED1-1.1	Maintain economic development as one of the City's and the business and residential communities' top priorities.	Consistent	The Project would introduce new economic development in the City through the installation of seven additional backup generators and a drywell at an existing facility.
Policy ED1-2.1	Seek to expand El Segundo's retail and commercial base so that the diverse needs of the City's business and residential communities are met.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy ED1-2.2	Maintain and promote land uses that improve the City's tax base, balancing economic development and quality of life goals.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Housing Element			
Goal 3	Provide opportunities for new housing construction in a variety of locations and a variety of densities in accordance with the land use designations and policies in the Land Use Element.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy 3.1	Provide for the construction of 69 new housing units during the 2014-2021 planning period in order to meet the goals of the Regional Housing Needs Assessment (RHNA).	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy 3.3	Permit vacant and underdeveloped property designated as residential to develop with a diversity of types, prices and tenure.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.

Policy 4.1	Continue to allow second units, condominium conversions, caretaker units and second floor residential use in commercial zones as specified in the El Segundo Municipal Code.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy 4.4	Facilitate provision of infrastructure to accommodate residential development	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Open Space and Recreation Element			
Goal OS1	Provide and maintain high quality open space and recreational facilities that meet the needs of the existing and future residents and employees within the City of El Segundo.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy OS1-1.1	Adopt a park land standard of 5.0 acres/1,000 population, which is the maximum allowable standard ratio as stated in Chapter 4, Article 4, Section 6647(b) of the Subdivision Map Act.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy OS1-1.2	Encourage a locational service area standard on one-quarter mile for neighborhood parks and one-half mile for community parks	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Objective OS1-2	Preserve existing, and support acquisition of additional, private park and recreation facilities to foster recognition of their value as a community recreation and open space resources.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Conservation Element			
Policy CN2-5	Require new construction and development to install water-conserving fixtures and appliances to reduce the amount of new demand.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. The Project does not involve new development. The nominal water demand generated by the Project's employment would be met through existing supplies and fixtures, which are subject to compliance with the existing water conservation regulatory requirements. Further, the Project would install drainage improvements (i.e. drywell), which would improve groundwater recharge.
Policy CN2-7	Require new construction and development to incorporate the principles and practices of sound landscape design and management, particularly those conserving water and energy.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. The Project does not involve new development. No landscaping is proposed or required.

Policy CN2-8	Encourage the retrofitting of existing landscapes to incorporate the principles and practices of sound landscape design and management, particularly those conserving water and energy.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy CN2-11	Encourage, whenever appropriate and feasible, development techniques which minimize surface run-off and allow replenishment of soil moisture. Such techniques may include, but not be limited to, the on-site use and retention of storm water, the use of pervious paving material (such as walkon-bark, pea gravel, and cobble mulches), the preservation of vegetative covers, and efficiently designed and managed irrigation systems.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. The Project would not change the site's impervious surface areas. Further, the Project proposes drainage improvements (i.e. drywell), which would improve groundwater recharge.
Goal CN5	Urban Landscape Develop programs to protect, enhance, and increase the amount and quality of the urban landscape to maximize aesthetic and environmental benefits.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy CN5-1	Preserve the character and quality of existing neighborhood and civic landscapes.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Air Quality Element			
Goal AQ3	Vehicle work trip reduction for private employees.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Objective AQ 3.1	Increase the proportion of work trips made by transit.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy AQ 8-1.1	It is the policy of the City of El Segundo that the City support legislation for the use and ownership of clean fuel vehicles.	Not Applicable	The Project is would not influence the City's support of legislation for clean vehicles.
Policy AQS 10-1.2	It is the policy of the City of El Segundo to adopt incentives, regulations, and/or procedures to prohibit the use of building materials and methods which generate excessive pollutants.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy AQS 10-1.3	It is the policy of the City of El Segundo that all new development projects meet or exceed requirements of the SCAQMD for reducing PM_{10} standards.	Consistent	As shown in Table 4.3-5 of the ISMND, the Project would not exceed the SCAQMD threshold for PM_{10}. Impacts associated with Project-generated construction and operational criteria air pollutant emissions would be less than significant.

Goal AQ12	Reduction in Residential, Commercial, and Industrial Energy Consumption.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Objective AQ12-1	Enact the recommendations of the AQMP Energy Working Group for commercial and residential buildings and adopt ordinances to mitigate air quality impacts from water and pool heating systems.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy AQ12-1.2	It is the policy of the City of El Segundo that the City encourage the incorporation of energy conservation features in the design of new projects and the installation of conservation devices in existing developments.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy AQ12-1.3	It is the policy of the City of El Segundo to provide incentives and/or regulations to reduce emissions from residential and commercial water heating.	Consistent	The Project would not influence the City's incentives or regulations. However, the proposed Project would be consistent with the regulations set forth in CALGREEN and the City's Municipal Code.
Policy AQ12-1.4	It is the policy of the City of El Segundo that new construction not preclude the use of solar energy systems by uses and buildings on adjacent properties and consider enactment of a comprehensive solar access ordinance.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy AQ13-1.1	It is the policy of the City of El Segundo that the City continue to implement the programs proposed in the City's Solid Waste Management Plan, concurrent with California Assembly Bill 939, to achieve a 25% reduction in residential solid waste requiring (disposal by 1995, and a 50% reduction by the year 2000).	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy AQ14-1.1	It is the policy of the City of El Segundo to protect residents and others from exposure to toxic air pollutants by identifying major sources of toxic contaminants in and around the City and insuring that the sources comply with all federal, state, regional, and local regulations	Consistent	A Health Risk Assessment (HRA) was prepared for the Project to determine the incremental risk to residents and other sensitive receptors in proximity to the Project site. The results of the HRA demonstrate that the Project would not result in exceedances of SCAQMD thresholds for cancer risk, chronic hazard or acute hazard.

Policy AQ15-1.1	It is the policy of the City of El Segundo to protect the residents of the City and others from exposure to unsafe levels of air pollution, including but not limited to, pollutants such as VOCs, particulates, NOx, SOx, lead, O_3, and CO, by taking all appropriate air pollution control measures to reduce unsafe levels of air pollutants impacting the City.	Consistent	As shown in Table 4.3-4 and Table 4.3-5 in the ISMND, the Project would not exceed the SCAQMD threshold for VOCs, particulates, NOx, SOx, and CO. Impacts associated with Project-generated construction and operational criteria air pollutant emissions would be less than significant.
Noise Element			
Goal N1	Encourage a high-quality environment within all parts of the City of El Segundo where the public's health, safety, and welfare are not adversely affected by excessive noise	Consistent	The Project would not exceed the FTA noise threshold of 85 dBA for construction.
Objective N1-1	It is the objective of the City of El Segundo to ensure that City residents are not exposed to mobile noise levels in excess of the interior and exterior noise standards or the single event noise standards specified in the El Segundo Municipal Code.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. The Project's nominal employment (five additional employees) would generate a nominal traffic increase (approximately 18 average daily trips), thus, would not be of sufficient volume to noticeably increase mobile source noise levels.
Objective N1-2	It is the objective of the City of El Segundo to ensure that City residents are not exposed to stationary noise levels in excess of El Segundo's Noise Ordinance standards.	Consistent	The Project would be subject to the policies and standards outlined in the ESMC. The predicted operation of construction equipment and processes do not exceed noise levels of 80 dBa L_{eq}, which the Federal Transit Administration recommends as a daytime threshold for construction noise exposure over an 8-hour period at a residential receptor. Construction activities associated with the Project would take place within the hours of 7:00 a.m. and 6:00 p.m. in accordance with the City's General Plan and ESMC. In summary, typical construction noise during allowable daytime hours would not exceed the aforementioned Federal Transit Administration guidance-based standard. Thus, temporary construction-related noise impacts would be less than significant.
Program N1-1.9A	All new habitable residential construction in areas of the City with an annual CNEL of 60 dBA or higher shall include all mitigation measures necessary to reduce interior noise levels to minimum state standards. Post construction acoustical analysis shall be performed to demonstrate compliance.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.

Policy N1-2.1	Require all new projects to meet the City's Noise Ordinance Standards as a condition of building permit approval.	Consistent	The Project would be subject to the policies and standards outlined in the ESMC. The Project would not contribute to cumulative exceedances of noise standards, and its incremental effect is considered a less than significant impact with no mitigation required.
Program N1-2.1A	Address noise impacts in all environmental documents for discretionary approval projects, to ensure that noise sources meet City Noise Ordinance standards. These sources may include mechanical or electrical equipment, truck loading areas, or outdoor speaker systems.	Consistent	The Project would be subject to the policies and standards outlined in the ESMC. As discussed under Policy N1-2.1, implementation of the Project would be subject to the City's Noise Ordinance standards. Noise sources evaluated in Section 4.13 includes construction equipment, including earth movers, material handlers, and portable generators. Operational sources include off-site roadway traffic noise, and on-site noise-producing mechanical equipment, such as residential heating units, ventilation, air conditioning. As further described in Section 4.13, Noise, the Project would not require mitigation measures during construction and the highest anticipated construction noise level during the demolition phase of 79.7 dBA would not exceed the FTA noise threshold of 85 dBA for commercial uses.
Program N1-2.1B	The City shall establish criteria for determining the type and size of projects that should submit a construction-related noise mitigation plan. Noise mitigation plans shall be submitted to the City Engineer for his review and approval prior to issuance of a grading permit. The plan must display the location of construction equipment and how this noise will be mitigated. These mitigation measures may involve noise suppression equipment and/or the use of temporary barriers.	Consistent	The Project would not prevent the City from establishing criteria for determining the type and size of projects that should submit a construction-related noise mitigation plan.
Program N1-2.1C	The City shall strictly enforce the El Segundo Municipal Code's time-dependent noise standards for stationary sources. Two of the major sources which shall be closely monitored are industrial facilities and construction activities.	Consistent	The proposed Project would comply with the City's time-dependent noise standards for stationary sources.

Policy N1-3.1	Encourage site planning to be consistent with the existing and future noise environment and promote development standards in which noise-sensitive projects and residences are mitigated from major noise sources. Short-term and long-term noise control measures should be formulated in a manner compatible with community needs and expectations	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. The Project proposes additional backup generators on an existing data center property zoned Mixed Use North, where the proposed generators and equipment are permitted uses. The Project proposes a sound wall and is approximately 2,200 feet from the nearest noise-sensitive residential receptor. Therefore, the Project would not increase noise levels at the nearest noise-sensitive residential receptor and City noise standards would not be exceeded.
Policy N1-3.3A	The City shall review and, if necessary, revise the City Noise Ordinance to ensure that proper regulations are being enforced to protect City residents from excessive noise levels from stationary noise sources.	Consistent	The Project would not prevent the City from revising the City Noise Ordinance. Further, the proposed Project would not expose residents to excessive noise levels from stationary sources and impacts would be less than significant.
Public Safety Element			
Goal PS1	Protect the public health and safety and minimize the social and economic impacts associated with geologic hazards.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. The Project would be constructed pursuant to California Building Code requirements and subject to City review, which would verify compliance with the Project's Geotechnical Report recommendations regarding geologic hazards.
Objective PS1-1	It is the objective of the City of El Segundo to reduce exposure to potentially hazardous geological conditions through land use planning and project review.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. The Project would be constructed pursuant to California Building Code requirements and subject to City review, which would verify compliance with the Project's Geotechnical Report recommendations regarding geologic hazards..
Policy PS1-1.1	Continue to review proposals for new development and for the expansion of existing development in areas of potential geological hazards.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Program PS1-1.1A	The City shall review projects to ensure that slope design considers the potential effects of high rainfall, private sewage systems, landscaping irrigation, and possible runoff from adjacent future development.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.

Policy PS1-1.2	Enforce, monitor and improve development standards which place the responsibility on the developer, with advice from qualified engineers and geologists, to develop and implement adequate mitigation measures as conditions for project approval.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Program PS1-1.2A	The City shall review projects to ensure that adequate geotechnical investigation has been completed in areas susceptible to landsliding and debris flows and in areas where collapsible or expansive soils occur, and to approve only those which mitigate these hazards to the satisfaction of the City Engineer.	Not Applicable	The Project site is not susceptible to landsliding or debris flows. The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. A Geotechnical Report was prepared for the Project, and Project design conforms to the Project's Geotechnical Report recommendations concerning geological hazards.
Goal PS2	Minimize injury and loss of life~ property damage, and social~ cultural and economic: impacts caused by earthquake hazards.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy PS2-1.1	Continue to cooperate with and support federal, state, and county agencies in the development and enforcement of regional and local health and safety laws and environmental controls, e.g., implementation of SB 54 7 (Alquist).	Not Applicable	The Project is not located within an Alquist-Priolo Earthquake Fault Zone.
Policy PS2-1.2	The City shall assist in the prevention of structural damage in areas with a high potential for liquefaction, landslides, and mudslides by requiring geotechnical studies for new development to mitigate potential impacts.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy PS3-1.1	Review proposed development projects involving the use, storage, and disposal of hazardous materials with the intent of minimizing the probability and magnitude of a hazardous event.	Not Applicable	As discussed in Initial Study Section 4.9, the Project would be subject to compliance with federal and State laws and regulations regarding hazardous materials and wastes. Additionally, the City Fire Department, as Certified Unified Program Agency (CUPA), would regulate and oversee the Project's use and disposal of hazardous materials and wastes.

Policy PS2-1.2	Promote the safe transportation of hazardous materials.	Consistent	Hazards and Hazardous Materials, hazardous wastes that cannot be recycled would be transported by a licensed hazardous waste hauler following manifest procedures disposed of at an appropriately permitted offsite facility. The use and handling of these substances are subject to applicable federal, state, and local health and safety laws and regulations, which would minimize health risk to the public associated with hazardous materials.
Policy PS2-1.3	Improve the plans and capabilities for responding to hazardous material incidents	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy PS4-1	Monitor industries and activities in and around the City to prevent and reduce the contamination of water and soil.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy PS4-1.1	It is the policy of the City of El Segundo to use its best efforts to protect residents, visitors, and the environment of the City from the effects of toxic water and soil contaminants by identifying major sources in and around the City and by promoting compliance with all federal, state, regional, and local regulations	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy PS5-1.1	Continue the construction of flood control facilities to protect areas threatened by potential flooding.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy PS5-1.1B	The City shall, in cooperation with the City of Los Angeles, develop, maintain, and inform the public of evacuation procedures in the event of failure of the primary sewage reservoir or related equipment or facilities of the Hyperion Wastewater Plant.	Not Applicable	The Project would not prevent cooperation with the City of Los Angeles.
Policy PS5-1.2	Continue to monitor and improve the effectiveness of existing flood control systems to ensure that there is adequate capacity to protect existing and proposed development from stormwater runoff	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. The Project would not prevent the City from continued to monitoring and improving existing flood control systems. The Project would install drainage improvements (i.e. drywell), which would improve groundwater recharge.
Policy PS5-1.2A	The City shall ensure the adequacy of flood control system capacity with more frequent monitoring. maintenance, repair, or modification of flood channels, culverts. and storm drainage systems.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.

Goal PS6	A fire safe community.	Consistent	The Project would comply with all existing health and safety standards outlined in the ESMC.
Objective PS6-1	It is the objective of the City of El Segundo that the City minimize threats to public safety and protect property from wildland and urban fires	Consistent	The Project would comply with all existing health and safety standards outlined in the ESMC.
Policy PS6-1.1	Review projects and development proposals, and upgrade fire prevention standards and mitigation measures in areas of high urban fire hazard.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Policy PS6-1.2	Continue efforts to reduce fire hazards associated with older buildings, high-rise buildings, and fireprone industrial facilities, and maintain adequate fire protection in all areas of the City. Review projects and development proposals, and upgrade fire prevention standards and mitigation measures in areas of high urban fire hazard.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility. The Project does not involve older buildings, high-rise buildings, or fireprone industrial facilities. Emergency generators would be enclosed in containers, which would minimize potential for a fire to spread to other portions of the Project site. Further, the Project's plans are subject to review and approval by the City Fire Department to ensure adequate fire protection.
Policy PS6-1.2C	The City shall continue to require that all property be maintained in compliance with the fire code	Consistent	The Project would be subject to the requirements of the fire code standards.
Goal PS7	Protect public health, safety, and welfare, and minimize loss of life, injury, property damage, and disruption of vital services, resulting from earthquakes, hazardous material incidents, and other natural and manmade disasters.	Not Applicable	This is a City policy that is not implemented by applicants.
Hazardous Materials and Waste Management Element			
Policy HM5-1.1	Adopt waste minimization as a first priority in waste management strategies in the City.	Not Applicable	The Project is limited in scope to the installation of seven additional backup generators and a drywell at an existing facility.
Source: City of El Segundo General Plan, 1992.			