**FINAL~~DRAFT~~**

# INITIAL STUDY AND NEGATIVE DECLARATION

## Construction and Maintenance Division Renovation Project

## 801 South Fries Avenue

## Port of Los Angeles

***APP No. 170912-124***

***SCH No. 2018071049~~[TBD]~~***

September~~July~~ 2018

THE PORT OF LOS ANGELES

# Construction and Maintenance Division Renovation Project

## 801 South Fries Avenue, Wilmington

Final~~Draft~~ Initial Study and Negative Declaration

APP No. 170912-124

SCH No.
2018071049 ~~[TBD]~~

Los Angeles City Harbor Department
Environmental Management Division
425 S. Palos Verdes St.
San Pedro, California 90731

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# FINAL INITIAL STUDY/NEGATIVE DECLARATION

**Pursuant to the California Environmental Quality Act (Division 13, Public Resources Code)**

## PROPOSED PROJECT

The Los Angeles Harbor Department (LAHD) has prepared this Initial Study/ Negative Declaration (IS/ND) to address the environmental effects of the proposed Project consisting of (1) renovation of a concrete masonry building; (2) demolition of two wooden buildings; (3) abatement and encapsulation of lead and asbestos; (4) trenching and installation of utilities; (5) installation of fencing and access gates; (6) repaving of a one-acre parcel of existing impervious surfaces for parking; and (7) as needed maintenance and repair of the site. (hereafter "proposed Project"). LAHD is the Lead Agency under the California Environmental Quality Act (CEQA).

## DETERMINATION

Based on the analysis provided in this Final IS/ND, LAHD finds that the proposed Project would not have a significant effect on the environment.

## FINAL IS/ND ORGANIZATION

This Final IS/ND has been prepared in accordance with the requirements of CEQA (California Public Resources Code [PRC] 21000 et seq.) and the CEQA Guidelines (California Code of Regulations [CCR] 15000 et seq. The Final IS/ND includes the following discussion including responses to comments on the Draft IS/ND as well as clarifications and modifications provided in strikeout and underline format.

**Response to Comments:** This section describes the distribution of the Draft IS/ND for public review, comments received on the Draft IS/ND by LAHD and LAHD's responses to these comments. Table RTC-1 lists the commenters. As shown in the table, two comment letters were received. Following the table is the comment letters and LAHD's responses.

**Clarifications and Modifications:** The Final IS/ND is provided in strikeout and underline format to identify changes made since the release of Draft IS/ND. Only minor revisions have been made. There were no modifications to the document that constitute a significant change or significant new information. Therefore, no recirculation is required.

The following sections were included in the Draft IS/ND and are included in this final document:

**Section 1. Introduction.** This section provides an overview of the proposed Project and the CEQA environmental documentation process.

**Section 2. Project Description**. This section provides a detailed description of the proposed Project objectives and components.

**Section 3. Initial Study Checklist.** This section presents the CEQA IS checklist for all impact areas and mandatory findings of significance.

**Section 4. Potential Impacts and Mitigation Measures.** This section presents the environmental analysis for each issue area identified on the environmental checklist. If the proposed Project does not have the potential to significantly impact a given resource area, the relevant section provides a brief discussion of the reasons why no impacts are expected. If the proposed Project could have a potentially significant impact on a resource, the issue area discussion provides a description of

potential impacts and appropriate mitigation measures and/or permit requirements that would reduce those impacts to a less than significant level. This document is an IS/ND because there are no impacts associated with the proposed Project that exceed significance thresholds and no mitigation is required.

**Section 5. Proposed Finding.** This section presents the proposed finding regarding environmental impacts.

**Section 6. References.** This section provides a list of reference materials used during the presentation of the IS/ND.

**Section 7. Preparers and Contributors.** This section provides a list of key personnel involved in the preparation of the IS/ND.

**Section 8. Acronyms and Abbreviations**. The section provides a list of acronyms and abbreviations used throughout the IS/ND.

# RESPONSE TO COMMENTS

## DISTRIBUTION OF THE DRAFT IS/ND

In accordance with the CEQA statutes and Guidelines, the Draft IS/ND was circulated for a period of 30 days for public review and comment. The public review period for the Draft IS/ND began on July 23, 2018 and closed on August 21, 2018.

The Draft IS/ND was specifically distributed to interested and/or involved public agencies, organizations, neighbors, and private individuals for review. The Draft IS/ND was also made available for public review at the following locations:

- LAHD Environmental Management Division at 222 West 6th Street, Suite 900, San Pedro, California;
- Los Angeles City Library, San Pedro Branch at 931 South Gaffey Street, San Pedro, California; and
- Los Angeles City Library, Wilmington Branch at 130 North Avalon, Wilmington, California.

In addition, the Draft IS/ND was filed with the Los Angeles County Clerk, City of Los Angeles Clerk, the State Clearinghouse and made available online at http://www.portoflosangeles.org.

## COMMENTS ON THE DRAFT IS/ND

During the 30-day public review period, Responsible Agencies and the public had an opportunity to provide written comments on the information contained within the Draft IS/ND. These comments and responses are included in the record and shall be considered by the LAHD during deliberation as to whether or not necessary approvals should be granted for the proposed Project. As stated in Section 21064.5 of the CEQA Guidelines, a project would only be approved when LAHD "finds that there is no substantial evidence that the Project will have a significant effect on the environment and that the IS/MND reflects the Lead Agency's independent judgement and analysis." The LAHD received five written comment letters during the review period as presented in Table RTC-1Table RTC-1.

**Table RTC-1**
**Received Comment Letters**

| Letter Number | Date | Organization/ Entity |
|---|---|---|
| 1 | July 26, 2018 | Ali Poosti - Los Angeles Bureau of Sanitation (LASAN) |
| 2 | August 7, 2018 | Miya Edmonson – California Department of Transportation (Caltrans) |

FORM GEN. 160 (Rev. 8-12)

**CITY OF LOS ANGELES**
INTER-DEPARTMENTAL CORRESPONDENCE


**DATE:** July 26, 2018

**TO:** Christopher Cannon, Director of Environmental Management
Los Angeles Harbor Department

**FROM:** Ali Poosti, Division Manager
Wastewater Engineering Services Division
LA Sanitation and Environment

**SUBJECT:** **CONSTRUCTION AND MAINTENANCE DIVISION BUILDING RENOVATION PROJECT - NOTICE OF INTENT TO ADOPT AN INITIAL STUDY/ NEGATIVE DECLARATION**

This is in response to your July 23, 2018 Notice of Intent to Adopt an Initial Study/Negative Declaration for the Construction and Maintenance Division Building Renovation Project at 801 South Fries Avenue, Port of Los Angeles. LA Sanitation, Wastewater Engineering Services Division has received and logged the notification. Upon review it has been determined that the project is unrelated to sewers and does not require any hydraulic analysis. Please notify our office in the instance that additional environmental review is necessary for this project. LASAN - 1

If you have any questions, please call Christopher DeMonbrun at (323) 342-1567 or email at chris.demonbrun@lacity.org

CD/AP:sa

c: Kosta Kaporis, LASAN
Christopher DeMonbrun, LASAN

File Location: CEQA Review\FINAL CEQA Response LTRs\FINAL DRAFT\Construction and Maintenance Division Building Renovation Project - NOI to Adopt an IS-ND.doc

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY EDMUND G. BROWN, JR., Governor

**DEPARTMENT OF TRANSPORTATION**
DISTRICT 7, OFFICE OF REGIONAL PLANNING
IGR/CEQA BRANCH
100 MAIN STREET, MS # 16
LOS ANGELES, CA 90012-3606
PHONE: (213) 897-6536
FAX: (213) 897-1337

*Making Conservation a California Way of Life!*



August 7, 2018

Mr. Christopher Cannon
Port of Los Angeles
425 South Palos Verdes Street
San Pedro, CA 90731

Re: **Construction and Maintenance Division Building Renovation Project**
GTS# 07-LA-2018-01766TD-DIS/ND

Dear Mr. Cannon:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed Project includes the following components: (1) renovation of a concrete masonry building; (2) demolition of two wooden buildings; (3) abatement and encapsulation of lead and asbestos; (4) trenching and installation of utilities; (5) installation of fencing and access gates; (6) repaving of a one-acre parcel of existing impervious surfaces for parking; and (7) as needed maintenance and repair of the site. CALTRANS - 1

Caltrans has reviewed the Draft Initial Study and Negative Declaration and does not expect project approval to result in a direct adverse impact to the existing State transportation facilities. CALTRANS - 2

However, any project work proposed near the Caltrans Right of Way, would require an encroachment permit and all environmental concerns must be adequately addressed. CALTRANS - 3

In the spirit of cooperation, Caltrans staff is available to work with your planners and traffic engineers for this project, if needed. If you have any questions regarding these comments, please contact project coordinator Mr. Todd Davis, at (213) 897-0067 and refer to GTS# 07-LA-2018-01766TD. CALTRANS - 4

Sincerely,

MIYA EDMONSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

*"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"*

Comment Letter #1: Ali Poosti – Los Angeles Bureau of Sanitation

LASAN – 1 Thank you for your comment. The comment is noted and appreciated and will be before the decision-makers for their consideration prior to taking any action on the project. The comment indicates that the proposed Project is unrelated to wastewater conveyance and does not require any hydraulic analysis.

Comment Letter #2: Miya Edmonson – California Department of Transportation

CALTRANS – 1 Thank you for your comment. The comment is noted and appreciated and will be before the decision-makers for their consideration prior to taking any action on the project. The comment indicates that the proposed Project is not anticipated to have a direct adverse impact to the existing State transportation facilities.

CALTRANS – 2 Thank you for your comment. The comment is noted and appreciated and will be before the decision-makers for their consideration prior to taking any action on the project. The comment indicates that the proposed Project is not anticipated to have a direct adverse impact to the existing State transportation facilities.

CALTRANS – 3 Thank you for your comment. We do not believe an encroachment permit is required for this project.

CALTRANS – 4 Thank you for your comment. The comment is noted and appreciated.

.

# 1. INTRODUCTION

The City of Los Angeles Harbor Department (LAHD) has prepared this Draft Initial Study/Negative Declaration (IS/ND) to address potential environmental effects associated with the LAHD's Construction and Maintenance (C&M) Division project located at 801 South Fries Avenue in Wilmington, California. The proposed Project includes the following components: (1) renovation of a concrete masonry building; (2) demolition of two wooden buildings; (3) abatement and encapsulation of lead and asbestos; (4) trenching and installation of utilities; (5) installation of fencing and access gates; (6) repaving of a one-acre parcel of existing impervious surfaces for parking; and (7) as needed maintenance and repair of the site.

## 1.1 CEQA PROCESS

This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 *et seq*. and the State CEQA Guidelines, California Code of Regulations (CCR) Section 15000 *et seq*. Under CEQA, the lead agency is the public agency with primary responsibility over approval of a proposed Project. Pursuant to Section 15367, the CEQA lead agency for the proposed Project is the LAHD. The LAHD will consider the information in this document when determining whether to approve and issue appropriate permits for the proposed Project.

One of the main objectives of CEQA is to disclose to the public and decision-makers potential environmental effects of proposed activities. CEQA requires that the potential environmental effects of a project be evaluated prior to implementation. Preparation of an IS is guided by Section 15063 of the CEQA Guidelines, whereas Sections 15070–15075 guide the process for the preparation of an ND or Mitigated Negative Declaration (MND). Where appropriate and supportive to an understanding of the issues, reference will be made to the statute, the CEQA Guidelines, or appropriate case law. This IS/ND includes a discussion of the proposed Project's potential impact on the existing environment. The LAHD has determined that an IS/ND is the appropriate level of CEQA documentation for the proposed Project because potential environmental impacts resulting from Project implementation would be below significance thresholds, resulting in no requirement for mitigation.

In accordance with the CEQA statutes and Guidelines, this IS/ND will be circulated for a period of 30 days for public review and comment. The public review period is scheduled to begin on July 23, 2018, and end on August 21, 2018. This Draft IS/ND will be distributed to responsible public agencies, other interested or involved agencies, organizations, and private individuals for review and will be made available for general public review online at the Port of Los Angeles website at http://www.portoflosangeles.org and in hardcopy at the LAHD Environmental Management Division at 222 W 6th Street, Suite 900, San Pedro; the Los Angeles City Library San Pedro Branch at 931 Gaffey Street, San Pedro; and at the Los Angeles City Library Wilmington Branch at 1300 North Avalon, Wilmington.

In reviewing the IS/ND, affected public agencies and interested members of the public should focus on the sufficiency of the document in identifying and analyzing potential project impacts on the environment. Comments on the IS/ND should be submitted in writing either through mail or email prior to the end of the 30-day public review period on August 21, 2018. All correspondence, through mail or email, should include the project title "Construction and Maintenance Division Renovation Project" in the subject line. For additional information, please contact the LAHD Environmental Management Division at (310) 732-3675.

Written comments submitted by mail must be postmarked on or before August 21, 2018 and addressed to:

Christopher Cannon, Director
City of Los Angeles Harbor Department
Environmental Management Division
425 S. Palos Verdes St.
San Pedro, California 90731

Written comments sent via email on or before August 21, 2018 should be addressed to cegacomments@portla.org.

Responses to all public comments on the Draft IS/ND will be included in the Final IS/ND and considered by the LAHD prior to making a decision as to whether necessary approvals should be granted for the proposed Project. The project IS/ND will only be approved when the LAHD "finds that there is no substantial evidence that the project will have a significant effect on the environment and that the IS/ND reflects the lead agency's independent judgment and analysis."

## 1.2 DOCUMENT FORMAT

This IS/ND contains eight sections.

**Section 1**. **Introduction.** This section provides an overview of the proposed Project and the CEQA environmental documentation process.

**Section 2. Project Description**. This section provides a detailed description of the proposed Project objectives and components.

**Section 3. Initial Study Checklist.** This section presents the CEQA checklist for all impact areas and mandatory findings of significance.

**Section 4. Potential Impacts and Mitigation Measures.** This section presents the environmental analysis for each issue area identified on the environmental checklist form. If the proposed Project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected.

**Section 5. Proposed Finding.** This section presents the proposed finding regarding environmental impacts.

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**Section 7. Preparers and Contributors.** This section provides a list of key personnel involved in the preparation of the IS/ND.

**Section 8. Acronyms and Abbreviations.** This section provides a list of acronyms and abbreviations used throughout the IS/ND.

The environmental analyses included in Section 4 are consistent with the CEQA IS/ND format presented in Section 3. Impacts are separated into the following categories:

***Potentially Significant Impact.*** This category is only applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce impacts to a less than significant level. Upon completion of the IS, no impacts were identified that fall into this category.

***Less than Significant After Mitigation Incorporated*.** This category applies where the incorporation of mitigation measures would reduce an effect from a "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measure(s), and briefly explain how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

***Less than Significant Impact*.** This category is identified when the proposed Project would result in impacts below the threshold of significance, and no mitigation measures are required.

***No Impact*.** This category applies when a proposed project would not create an impact in the specific environmental issue area. "No Impact" answers do not require a detailed explanation if they are adequately supported by the information sources cited by the lead agency.

# 2. PROJECT DESCRIPTION

This Draft IS/ND has been prepared to evaluate the potential environmental impacts associated with the (1) renovation of a concrete masonry building; (2) demolition of two wooden buildings; (3) abatement and encapsulation of lead and asbestos; (4) trenching and installation of utilities; (5) installation of fencing and access gates; (6) repaving of a one-acre parcel of existing impervious surfaces for parking; and (7) as needed maintenance and repair of the site.

## 2.1 PROJECT LOCATION

Regional Location

The Port of Los Angeles (POLA) is located at the southernmost portion of the City of Los Angeles and encompasses approximately 7,500 acres of land and water along 43 miles of waterfront, with approximately 270 commercial berths and 27 passenger and cargo terminals. It is located approximately 23 miles south of Downtown Los Angeles and is surrounded by the community of San Pedro to the west, the community of Wilmington to the north, the Port of Long Beach (POLB) to the east, and the Pacific Ocean to the south (Figure 1).

POLA operations are predominately centered on shipping activities, cruise ships, and commercial fishing; however, the POLA is an area of mixed uses, supporting various maritime-based activities. The POLA has retail shops and restaurants, primarily located along the west side of the Main Channel. The POLA also includes recreation, community, and educational facilities, such as a public swimming beach, Cabrillo Beach Youth Waterfront Sports Center, the Cabrillo Marine Aquarium, the Los Angeles Maritime Museum, 22nd Street Park, and the Wilmington Waterfront Park.

Project Setting

The Construction and Maintenance Division is located at 501 Pier A Street in Wilmington. C&M provides 24-hour, seven-day-a-week support for the maintenance, repair, alteration and reconstruction of Port-owned facilities and infrastructure. Staff assigned to this Division possess skills in traditional crafts such as electrical services, plumbing, carpentry, vehicle and equipment maintenance, facility maintenance, roofing, painting, custodial services, event support, and gardening, as well as in more specialized fields such as the maintenance and repair of marine vessels, vessel operation, pile driving and heavy equipment operation. Tenants and operations in this area include maritime support, manufacturing of aerospace vessels, and marine oil terminals. C&M currently operates on an approximately 16-acre site at Berth 161 (Figure 2). The C&M yard will now also encompass the project site at 801 South Fries Avenue.

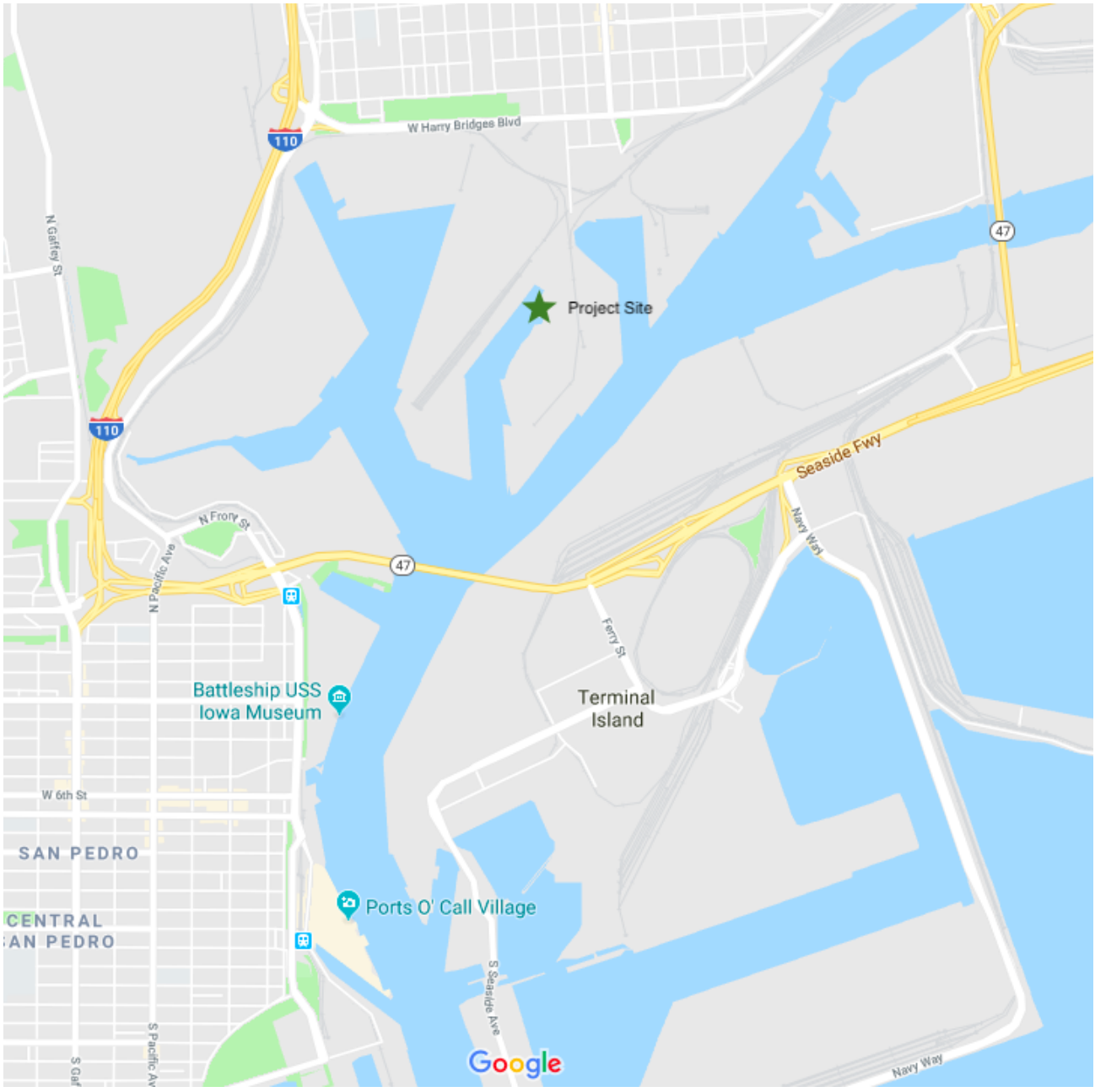



*Figure 1 Project Site in Relation to Port Complex*

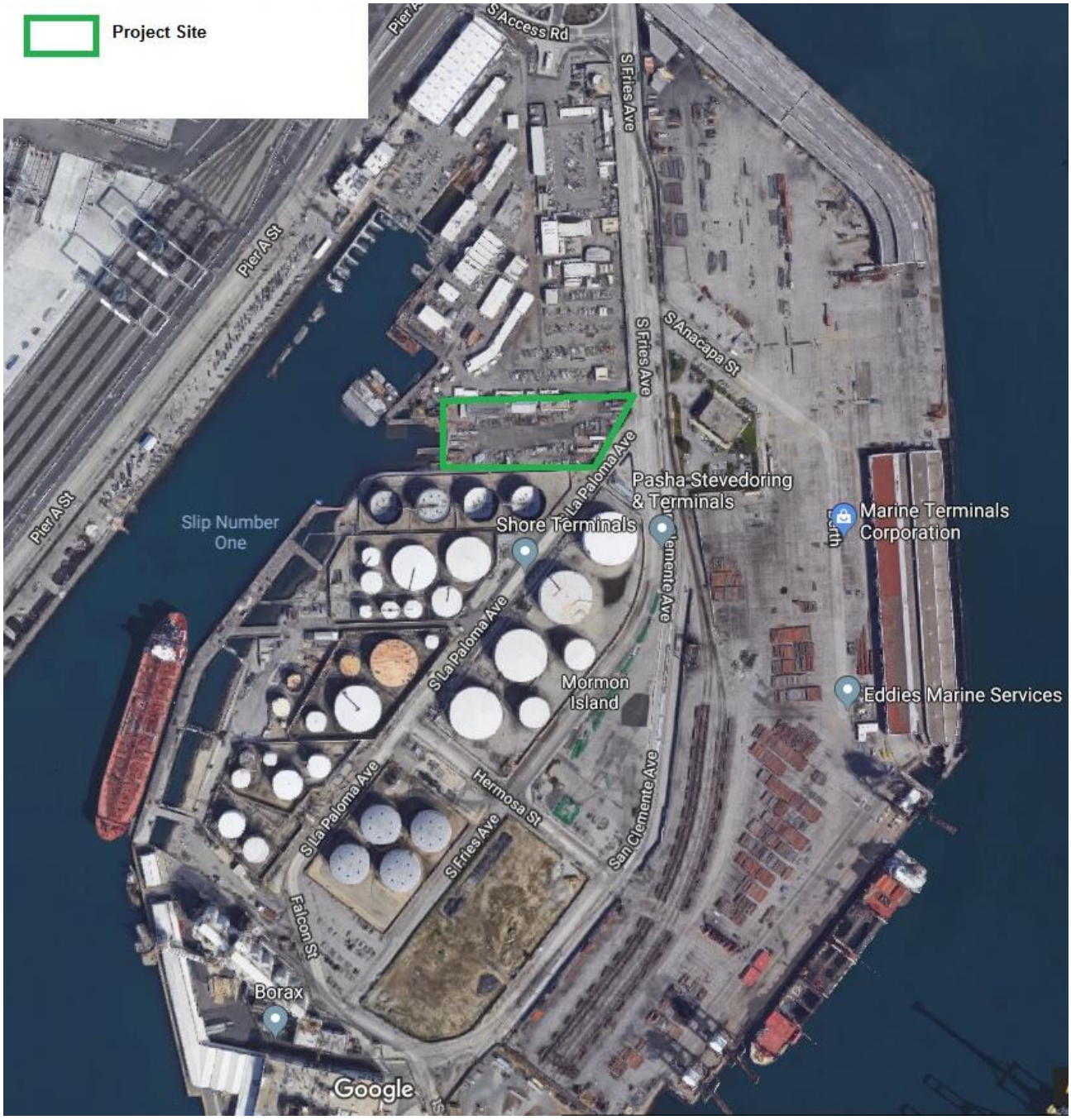



*Figure 2 Project Site*

Land Use and Zoning

The project site is located within Planning Area 2 of the POLA Master Plan (Figure 3), which includes West Basin and Wilmington areas and focuses on a variety of uses ranging from container terminals in the West Basin, liquid bulk at Berths 148-150, and liquid and dry bulk uses on Mormon Island, to recreational boating and open space along Anchorage Road (LAHD 2014). Specifically, the project site consists within the Maritime Support designation of the Port Master Plan and is adjacent to the Institutional uses designation (LAHD 2014). Under section 5.1 of the Port Master Plan, POLA staff, at their own discretion, can approve minor boundary adjustments (LAHD 2014). As there would only be an 8.9% increase in the Institutional uses boundary, this minor adjustment to the Port Master Plan boundaries would fall under staff judgment; therefore the proposed Project is consistent with the Port Master Plan. The project site is identified as Assessor's Parcel Number (APN) 7440014904 and is designated as General/Bulk Cargo (Non-Hazardous Industrial and Commercial) under the City of Los Angeles General Plan and is zoned qualified heavy industrial ([Q]M3-1) under the City of Los Angeles Zoning Ordinance (City of Los Angeles 2018).

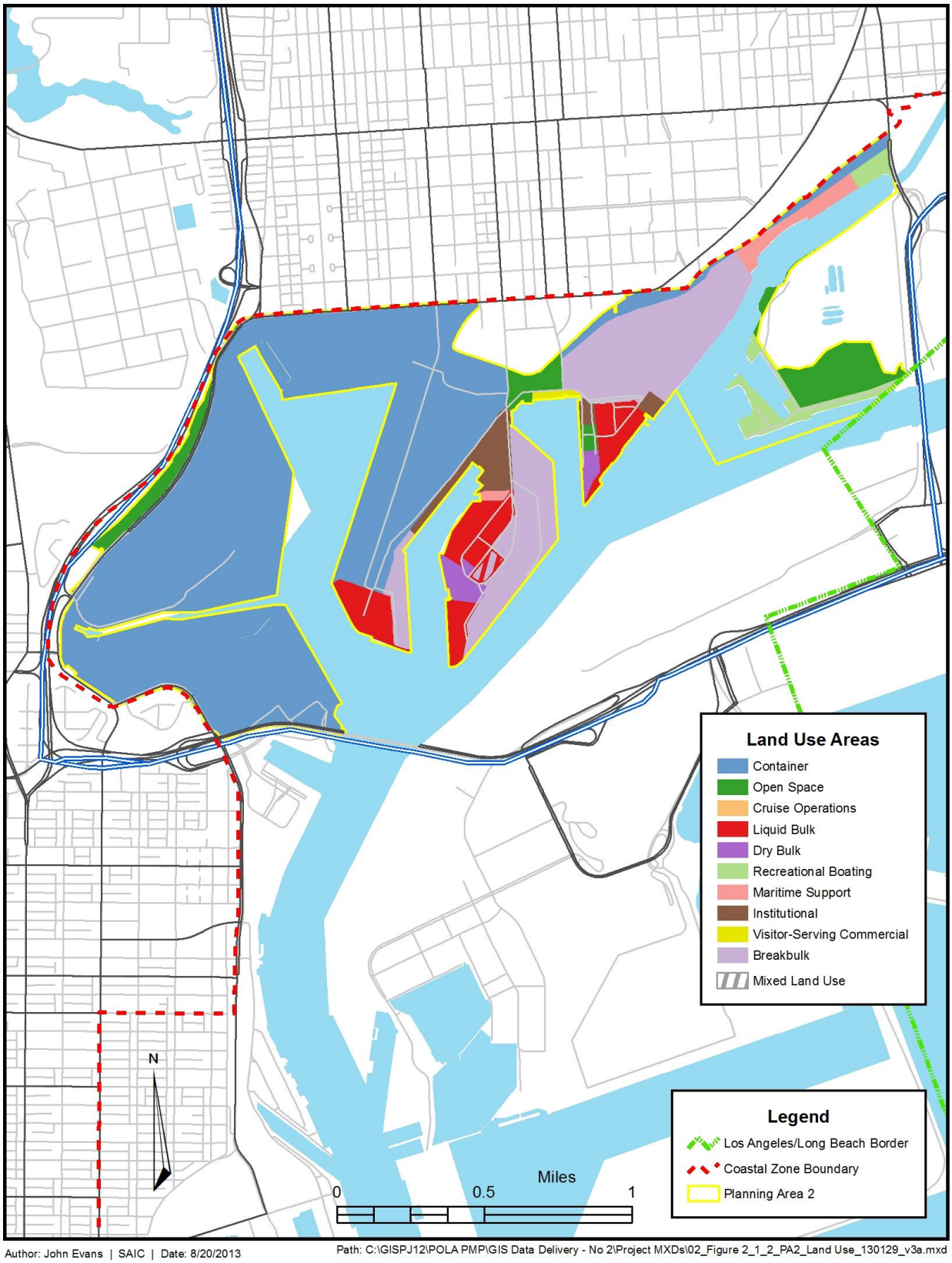



*Figure 3 Port Master Plan - Planning Area 2*

## 2.2 PROJECT BACKGROUND AND OBJECTIVES

Project Background

Prior to utilization by the C&M Division, this area was Wilmington Marine Services. Wilmington Marine Services served as a boat repair yard from 1928 to 2012. Several subsurface investigations have been completed to determine if historical boat yard activities contaminated soil and/or groundwater beneath the site. Based on these investigations, contaminants of concern in soil beneath the site include polychlorinated biphenyls (PCBs), metals, and petroleum hydrocarbons. The United States Environmental Protection Agency (USEPA) is currently the oversight agency for PCB contamination. Once the previous tenant vacated the premises in 2014, C&M began using the area at 801 South Fries Avenue for additional storage of large equipment. The Grade Separation Project caused C&M to lose a large portion of their current footprint. Additionally, C&M's waterside facility and access to Berth 194 will be lost in the near future. These two factors have caused the need for expansion into the adjacent parcel. ~~In 2012, the C&M Division began using the area at 801 South Fries Avenue as it out grew its current footprint~~. The proposed Project includes the following components: (1) renovation of a concrete masonry building; (2) demolition of two wooden buildings; (3) abatement and encapsulation of lead and asbestos; (4) trenching and installation of utilities; (5) installation of fencing and access gates; (6) repaving of a one-acre parcel of existing impervious surfaces for parking; and (7) as needed maintenance and repair of the site. To date, the demolition of the two wooden buildings and abatement of asbestos and lead materials have occurred. The foundation of both buildings still exists and will be removed as part of this project. Additionally, repaving of this site will not be done until soil remediation in the area is complete.

Project Objective

The proposed Project will allow the C&M Division to operate their yard more efficiently through the use of the proposed area for tool storage, check out, and check in. Currently, tools are housed throughout the C&M yard and a single area for controlled tool exchange is not available. By utilizing the new site as a tool check out area, staff throughout the yard will be able to have a designated area to retrieve and return tools. The use of inventory oversight will benefit the C&M Division and the Port Complex as a whole, as increased efficiency will be gained.

## 2.3 PROPOSED PROJECT CONSTRUCTION ACTIVITIES

Construction Activities

Upgrades proposed for the site include the following:

- Renovation of one concrete masonry building
- Demolition of two wooden buildings, including the demolition of the foundation[1]
    - Abatement and encapsulation of lead and asbestos
- Trenching for installation of utilities Installation of security fencing along the property line
- Repaving over a one-acre parcel of existing impervious surfaces for parking and large tool storage
- Installation of security lighting

Ongoing maintenance occurring on the site during the duration of the lease may include:

- Installation and repair to fencing
- Repair of cracks and potholes in asphalt
- Installation of lighting fixtures
- Other maintenance and repair to site as required.

## 2.4 PROJECT PERMITS AND APPROVALS

Under CEQA, the lead agency is the public agency with primary responsibility over approval of a proposed Project. Pursuant to Section 15367, the CEQA lead agency for the Project is the LAHD. Anticipated permits and approvals issued by the lead agency that would be required to implement the proposed Project are listed below. Other permits and approvals required to implement the proposed Project that are issued by other responsible agencies are listed in Section 3, Paragraph 9.

- LAHD Coastal Development Permit (Level I)
- United States Environmental Protection Agency

[1] Demolition of the two wooden building, except for the removal of the foundations, was completed over a one-week period prior to document completion.

# 3. INITIAL STUDY CHECKLIST

This IS is prepared in accordance with CEQA Guidelines Section 15063 and CEQA Guidelines Appendix G.

| | | |
|---|---|---|
| **1.** | **Project Title:** | Construction and Maintenance Renovation Project, 801 South Fries Avenue, Wilmington, Port of Los Angeles |
| **2.** | **Lead Agency:** | City of Los Angeles Harbor Department<br>Environmental Management Division<br>425 S. Palos Verdes Street<br>San Pedro, CA 90731 |
| **3.** | **Contact Person:** | Nicole Enciso<br>Project Manager, Environmental Management Division |
| **4.** | **Project Location:** | The Project site is located at 801 South Fries Avenue, Wilmington within the POLA. This area is designated as Planning Area 2 in the *Port Master Plan* (LAHD 2014), which consist of a variety of uses ranging from container terminals in West Basin, liquid bulk at Berths 148-150, and liquid and dry bulk uses on Mormon Island, to recreational boating and open space along Anchorage Road. |
| **5.** | **General Plan Designation:** | Port of Los Angeles – General/Bulk Cargo (Non Hazardous Industrial and Commercial) |
| **6.** | **Zoning:** | (Q)M3-1 – Qualified Heavy Industrial; APN #7440014904 |
| **7.** | **Description of Project:** | The proposed Project will allow the C&M Division to operate their yard more efficiently through the use of the proposed area for tool storage, check out, and check in. The proposed Project includes the following components: (1) renovation of a concrete masonry building; (2) demolition of two wooden buildings; (3) abatement and encapsulation of lead and asbestos; (4) trenching and installation of utilities; (5) installation of fencing and access gates; (6) repaving of a one-acre parcel of existing impervious surfaces for parking; and (7) as needed maintenance and repair of the site. |
| **8.** | **Surrounding Land Uses/Setting:** | The Project site is surrounded by the West Basin and TraPac's Container Terminal to the west, Banning's Landing Community Center to the north, Pasha Stevedoring and Terminals to the east, and Shore Terminal, LLC to the south. Landside access to and |

from the proposed Project site is provided by a network of freeways and arterial routes. The freeway network consists of the Harbor Freeway (I-110), the Long Beach Freeway (I-710), the San Diego Freeway (I-405), and the Seaside Freeway (SR-47).

| | | |
|---|---|---|
| **9.** | **Other Public Agencies Whose Approval is Required:** | • City of Los Angeles, Department of Building and Safety Permits |

## 3.1 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" as indicated by the checklist on the following pages.

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

## 3.2 DETERMINATION

Based on this initial evaluation:

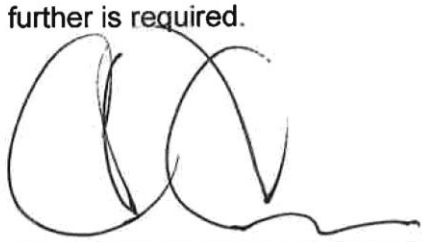
I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☒

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. ☐

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 impact" or "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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. ☐



07-16-18

Signature
Christopher Cannon, Director
Environmental Management Division
City of Los Angeles Harbor Department

Date

| | *Potentially Significant Impact* | *Less than Significant Impact After Mitigation* | *Less than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| **1. AESTHETICS. 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. Substantially degrade the existing visual character or quality of the site and its surroundings? | | | | x |
| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | | | | x |
| e. Create a new source of substantial shade or shadow that would adversely affect daytime views in the area? | | | | x |
| **2. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:** | | | | |
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | | | | x |
| b. Conflict with existing zoning for agricultural use, or a Williamson act contract? | | | | x |
| c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | | | | x |

| | *Potentially Significant Impact* | *Less than Significant Impact After Mitigation* | *Less than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| 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 |
| **3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management 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 or clean air programs? | | | x | |
| b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | | | x | |
| c. 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 (including releasing emissions, which exceed quantitative thresholds for ozone precursors)? | | | x | |
| d. Expose sensitive receptors to substantial pollutant concentrations? | | | x | |
| e. Create objectionable odors affecting a substantial number of people? | | | x | |
| **4. BIOLOGICAL RESOURCES. Would the project:** | | | | |
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, 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, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | | | | x |

| | *Potentially Significant Impact* | *Less than Significant Impact After Mitigation* | *Less than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (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 |
| **5. CULTURAL RESOURCES. Would the project:** | | | | |
| a. Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5? | | | x | |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? | | | x | |
| c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | | | x | |
| d. Disturb any human remains, including those interred outside of dedicated cemeteries? | | | x | |
| **6. ENERGY. Would the project:** | | | | |
| a. Conflict with adopted energy conservation plans? | | | x | |
| b. Use non-renewable resources in a wasteful and inefficient manner? | | | x | |
| c. Result in a need for new systems, or substantial alterations to power or natural gas? | | | | x |

| | *Potentially Significant Impact* | *Less than Significant Impact After Mitigation* | *Less than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| **7. GEOLOGY AND SOILS. Would the project:** | | | | |
| a. Expose people or structures to 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 geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | | | x | |
| d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial 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 |
| **8. GREENHOUSE GAS EMISSIONS: Would the project:** | | | | |
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | | | x | |
| **9. HAZARDS AND HAZARDOUS MATERIALS: Would the project:** | | | | |
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | | | x | |

| | *Potentially Significant Impact* | *Less than Significant Impact After Mitigation* | *Less than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| 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 Section 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 for people residing or working in the project area? | | | | x |
| f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | | | | x |
| g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | | | | x |
| h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | | | | x |
| **10. HYDROLOGY AND WATER QUALITY. Would the project:** | | | | |
| a. Violate any water quality standards or waste discharge requirements? | | | x | |

| | *Potentially Significant Impact* | *Less than Significant Impact After Mitigation* | *Less than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | | | | x |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | | | | x |
| d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | | | | x |
| e. 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? | | | | x |
| f. Otherwise substantially degrade water quality? | | | | x |
| g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | | | | x |
| h. Place within a 100-year flood hazard area structures that would impede or redirect flood flows? | | | | x |
| i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | | | | x |
| j. Inundation by seiche, tsunami, or mudflow? | | | | x |
| k. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of Sea Level Rise? | | | x | |

| | *Potentially Significant Impact* | *Less than Significant Impact After Mitigation* | *Less than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| **11. LAND USE AND PLANNING. Would the project:** | | | | |
| a. Physically divide an established community? | | | | x |
| b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | | | x | |
| c. Conflict with any applicable habitat conservation plan or natural community conservation plan? | | | | x |
| **12. MINERAL RESOURCES. Would the project:** | | | | |
| a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | | | | 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 |
| **13. NOISE. Would the project result in:** | | | | |
| a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | | | x | |
| b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | | | x | |
| c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | | | | x |
| d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | | | x | |

| | *Potentially Significant Impact* | *Less than Significant Impact After Mitigation* | *Less than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | | | | x |
| f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | | | | x |
| **14. POPULATION AND HOUSING. Would the project:** | | | | |
| a. Induce substantial 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 housing, necessitating the construction of replacement housing elsewhere? | | | | x |
| c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | | | | x |
| **15. PUBLIC SERVICES.** | | | | |
| a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | | | | |
| i) Fire protection? | | | | x |
| ii) Police protection? | | | | x |
| iii) Schools? | | | | x |
| iv) Parks? | | | | x |
| v) Other public facilities? | | | | x |

| | *Potentially Significant Impact* | *Less than Significant Impact After Mitigation* | *Less than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| **16. RECREATION.** | | | | |
| a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | | | | 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 |
| **17. TRANSPORTATION AND TRAFFIC. Would the project:** | | | | |
| a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | | | x | |
| b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | | | x | |
| c. Result in a change in marine traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | | | | x |
| d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | | | | x |
| e. Result in inadequate emergency access? | | | x | |
| f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | | | x | |

| | *Potentially Significant Impact* | *Less than Significant Impact After Mitigation* | *Less than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| **18. TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:** | | | | |
| a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or | | | | x |
| b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | | | | x |
| **19. UTILITIES AND SERVICE SYSTEMS. Would the project:** | | | | |
| a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | | | | x |
| b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | | | | x |
| c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | | | | x |
| d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | | | x | |
| e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | | | | x |

| | *Potentially Significant Impact* | *Less than Significant Impact After Mitigation* | *Less than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | | | x | |
| g. Comply with federal, state, and local statutes and regulations related to solid waste? | | | x | |
| **20. MANDATORY FINDINGS OF SIGNIFICANCE.** | | | | |
| a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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. 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 past projects, the effects of other current projects, and the effects of probable future projects. | | | x | |
| c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | | | x | |

# 4. IMPACTS AND MITIGATION MEASURES

## 4.1 AESTHETICS

Would the Project:

a) Have a substantial adverse effect on a scenic vista?

**No Impact.** There are no protected or designated scenic vistas in the Project vicinity. Construction and demolition activities associated with the proposed Project would be short-term and temporary. No long-term effects on the appearance of the Project site or the overall character of the area would occur.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

**No Impact.** The Project site is not visible from any eligible or designated state scenic highway. The nearest designated state scenic highway is located approximately 35 miles north of the proposed Project (Route 2, from La Cañada-Flintridge to the San Bernardino County Line). The nearest eligible state scenic highway (i.e., State Highway 1, from State Highway 19 near Long Beach to I-5 south of San Juan Capistrano) is approximately 9 miles northeast of the proposed Project site (California Department of Transportation [Caltrans] 2011). In addition to Caltrans state scenic highways, the City of Los Angeles has city-designated scenic highways. However, the proposed Project site is not visible from any city-designated scenic highways. As such, there are no scenic resources, such as trees, rock outcroppings, or historic buildings, within a scenic highway that could be affected by the proposed Project. No impacts related to scenic resources within a state scenic highway would occur with the implementation of the proposed Project.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

**No Impact.** Implementation of the proposed Project would not degrade the existing visual character of the site or its surroundings. The project involves demolition and renovation, but no new buildings will be constructed as part of this project.

d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

**No Impact.** Installation of lighting and security measures at the Project site would not cause substantial light or glare, nor affect day or nighttime views in the area as lighting and fencing is already present at surrounding facilities. Consequently, there would be no impacts associated with light and glare as a result of the proposed Project.

e) Create a new source of substantial shade or shadow that would adversely affect daytime views in the area?

**No Impact.** Project improvements would not include the installation of any above ground structures that could create a new source of shade or shadows. As such, the proposed Project would have no impacts related to the creation of shade or shadows.

## 4.2 AGRICULTURE AND FORESTRY RESOURCES

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?

**No Impact.** The proposed Project would not involve the conversion of farmland to non-agricultural use. The California Department of Conservation's Farmland Mapping and Monitoring Program identifies categories of agricultural resources that are significant and require special consideration (Department of Conservation 2016a). According to the Farmland Map, the Project site is not located in an area designated as Prime Farmland, Unique Farmland or Farmland of Statewide Importance. Therefore, there would be no impact to farmland associated with the implementation of the proposed Project.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

**No Impact.** The Project site is neither zoned for agricultural uses nor under a Williamson Act contract (Department of Conservation 2016b). No lands zoned for agriculture are present in the Project vicinity. Therefore, the proposed Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract.

c) Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned timberland production?

**No Impact.** The Project site is located on a fully developed industrial area and no agricultural land, forest land, or timberland zoning is present in the Project vicinity. Further, the proposed Project would not result in a change in use of the existing site or surrounding area. Therefore, the proposed Project would not conflict with existing zoning or cause rezoning of forest or timberland.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

**No Impact.** The Project site is not designated as forest land and no loss or conversion of forest land would result from implementation of the proposed Project.

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?

**No Impact.** No farmlands exist near the Project site and as a result the proposed Project would have no effect on farmlands.

## 4.3 AIR QUALITY

Would the Project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

**Less than Significant Impact.**

***Air Quality Management Plan***

The federal Clean Air Act (CAA) of 1969 and its significant amendments (1990) form the basis for the nation's federal air pollution regulatory controls. The USEPA is responsible for implementing most aspects of the CAA. A key element of the CAA is the national ambient air quality standards (NAAQS) for major air pollutants. The CAA delegates enforcement of the NAAQS in California to the California Air Resources Board (CARB). CARB, in turn, delegates to local air agencies the responsibility of regulating stationary emission sources.

The South Coast Air Quality Management District (SCAQMD) is responsible for attainment of the clean air standards within the South Coast Air Basin (Basin) which includes Orange County and portions of Los Angeles, Riverside, and San Bernardino Counties. All POLA projects are located within the Basin. Areas not in attainment with the ambient air quality standards must prepare Air Quality Management Plans (AQMPs), which include proposed measures designed to bring the region into compliance. The 2016 AQMP (adopted March 2017) proposes emission-reduction measures that are designed to bring the Basin into attainment of the national and state air quality standards. AQMP attainment strategies include mobile source control measures and clean fuel programs that are enforced at the state and federal levels on engine manufacturers and petroleum refiners and retailers.

As a result, the proposed Project construction activities would be required to comply with any and all applicable regulations currently in existence or promulgated as a result of this most current AQMP. Compliance with AQMP requirements would further ensure that the proposed Project's activities would not obstruct with the plan's implementation. Therefore, the proposed Project would not conflict with or obstruct implementation of the AQMP, the State Implementation Plan, and/or the CAA. Impacts would be less than significant and no mitigation is required.

***Clean Air Action Plan***

The most recent version of the Clean Air Action Plan (CAAP) for the San Pedro Bay Complex was approved by the Boards of Harbor Commissioners for both POLB and POLA on November 2, 2017 (POLA and POLB 2017). The CAAP is a plan designed to reduce the health risks posed by air pollution from all port-related emission sources, including ships, trains, trucks, terminal equipment, and harbor craft.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

**Less than Significant Impact.** Table 4.3- 1 presents SCAQMD's CEQA significance thresholds for assessing potential air quality impacts.

## Table 4.3- 1
## SCAQMD Significance Thresholds
## for Daily Emissions and Ambient Pollutant Concentrations

| **Daily Emission Thresholds** | | |
|---|---|---|
| **Air Pollutant** | **Construction Threshold (lbs/day)** | **Operation Threshold (lbs/day)** |
| Nitrogen Oxides ($NO_X$) | 100 | 55 |
| Volatile Organic Compounds (VOC) | 75 | 55 |
| $PM_{10}$ | 150 | 150 |
| $PM_{2.5}$ | 55 | 55 |
| Sulfur Oxides ($SO_X$) | 150 | 150 |
| CO | 550 | 550 |
| **Ambient Pollutant Concentration Thresholds** | | |
| **Air Pollutant** | **Ambient Concentration Thresholds** | |
| Nitrogen dioxide ($NO_2$)[a]<br>1-hour average<br>1-hour average<br>Annual average | <br>0.18 ppm (339 µg/m$^3$) (State)<br>0.100 ppm (188 µg/m$^3$)[b] (Federal)<br>0.03 ppm (57 µg/m$^3$) (State) | |
| Particulate Matter ($PM_{10}$)[b]<br>24-hour average<br>24-hour average<br>Annual average | <br>10.4 µg/m$^3$ (construction)<br>2.5 µg/m$^3$ (operation)<br>1.0 µg/m$^3$ | |
| Particulate Matter ($PM_{2.5}$)[b]<br>24-hour average<br>24-hour average | <br>10.4 µg/m$^3$ (construction)<br>2.5 µg/m$^3$ (operation) | |
| Sulfur Oxide ($SO_2$)<br>1-hour average<br>24-hour average | <br>0.25 ppm (State) & 0.075 ppm (Federal – 99th percentile)<br>0.04 ppm (State) | |
| Carbon Monoxide (CO)[a]<br>1-hour average<br>8-hour average | <br>20 ppm (23,000 µg/m$^3$) (State)<br>9.0 ppm (10,000 µg/m$^3$) (State/Federal) | |
| **Toxic Air Contaminant and Odor Thresholds** | | |
| Toxic Air Contaminants (including carcinogens and non-carcinogens) | Maximum Incremental Risk ≥ 10 in 1 million<br>Hazard Index ≥ 1.0 (project increment) | |
| Odor | Project creates an odor nuisance pursuant to SCAQMD Rule 402 | |

Source: SCAQMD 2015.

[a] The $NO_2$ and CO thresholds are absolute concentration thresholds, meaning that the maximum predicted Project incremental concentration relative to baseline is added to the background concentration for the Project vicinity, and the total concentration is compared to the threshold.

[b] The $PM_{10}$ and $PM_{2.5}$ thresholds are incremental concentration thresholds, meaning that the maximum predicted Project incremental concentration relative to baseline is directly compared to the threshold without adding the background concentration.

**Construction Impacts**

Proposed project construction activities at the C&M yard include:

- Renovation of one concrete masonry building
- Demolition of two wooden buildings, including the demolition of the foundation[2]
    - Abatement and encapsulation of lead and asbestos
- Trenching for installation of utilities Installation of security fencing along the property line
- Repaving over a one-acre parcel of existing impervious surfaces for parking and large tool storage
- Installation of security lighting

Project construction is estimated to occur over a three month period beginning in late 2018. Emission estimates were completed for all criteria pollutant emissions associated with the use of construction equipment, parking lot paving, truck deliveries, and construction worker commute vehicles. Detailed air quality calculations are included as Appendix A. The California Emissions Estimator Model (CalEEMod) was used to estimate potential emissions resulting from the proposed Project's construction-related activities.

SCAQMD's CEQA Air Quality Handbook requires that the maximum day of construction emissions be compared to their published CEQA thresholds (SCAQMD 1993). If emissions are greater than the thresholds outlined in the table above, the project is deemed to have significant air quality impacts.

Table 4.3-2 summarizes construction emissions results. The table shows that all pollutant emissions would be below the significance thresholds.

**Table 4.3-2**
**Peak Daily Construction Emissions (pounds per day)**

| | $NO_x$ | VOC | $SO_X$ | CO | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| Peak Total Day | 35.5 | 6.8 | 0.05 | 19.6 | 3.2 | 1.6 |
| SCAQMD Max. Daily CEQA Significant Threshold[1] | 100 | 75 | 150 | 550 | 150 | 55 |
| **Above CEQA Threshold?** | **No** | **No** | **No** | **No** | **No** | **No** |

Prepared by: Environmental Compliance Solutions, Inc.
[1] SCAQMD 2015

In addition to regional emission standards as presented above, SCAQMD has also developed a voluntary program to determine whether or not projects trigger the need for air dispersion modeling. SCAQMD's Localized Significance Thresholds (LST) methodology is based on maximum daily allowable emissions, the area of the emission source, and the distance to the nearest off-site receptors. The LST is set up as a series of look-up tables for emissions of $NO_x$, CO, $PM_{10}$, and $PM_{2.5}$. If anticipated emissions are below the LST look-up table thresholds, then the proposed activity is considered not to violate or substantially contribute to an existing or projected air quality standard.

[2] Demolition of the two wooden building, except for the removal of the foundations, was completed over a one-week period prior to document completion.

For this project, it is unknown whether or not anyone lives on a vessel in the Newmarks Yacht Center Marina. However, to be conservative, this location was considered to be the closest potential location for a residential receptor, approximately 0.7 miles away from the nearest boundary of the Project Site. The nearest residential neighborhood is approximately 0.8 miles away.

Table 4.3-3 summarizes the onsite peak daily emissions associated with construction of the proposed Project. The table shows that all pollutant emissions would be below the LSTs without mitigation.

**Table 4.3-3**
**Peak Daily Construction Emissions – Localized Significance Thresholds**
**(pounds per day)**

| | $NO_X$ | VOC | $SO_X$ | CO | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| Peak Daily Construction | 30.5 | 6.7 | 0.04 | 17.9 | 2.4 | 1.4 |
| SCAQMD Localized Significance Threshold[1] | 179 | NA | NA | 10,198 | 191 | 120 |
| **Exceeds Threshold?** | No | No | No | No | No | No |

Prepared by: Environmental Compliance Solutions, Inc.
[1] SCAQMD Localized Significance Thresholds Guidance, July 2008 – Final Localized Significance Threshold Methodology, Tables C-1, C-2, C-4, and C-6 based on Source Receptor Area 4 (South Coastal Los Angeles County). Assumes 5-acre site area. Nearest sensitive receptor <500 meters

**Operational Impacts**

Future operations are expected to match current operations at the site. C&M Division operations that will take place on the project site have occurred within the C&M yard for over 50 years. No new employees are anticipated to be hired and existing services are not expected to change. Because proposed Project peak daily construction emissions are below both the SCAQMD's mass daily CEQA thresholds and the Localized Significance Thresholds, air quality impacts would not violate any air quality standards. Therefore, impacts would be less than significant and no mitigation is required.

c) 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 (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

**Less than Significant Impact.** The Basin is designated as a federal nonattainment area for ozone and $PM_{2.5}$ and a state nonattainment area for ozone, $PM_{10}$, and $PM_{2.5}$. As mentioned above, project emissions are below all criteria pollutant standards established by SCAQMD.

Cumulative impacts may result from individually minor but collectively significant projects. CEQA Guidelines Section 15355 define cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." CEQA Guidelines Section 15064(h)(4) also state that "the mere existence of cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed Project's incremental effects are cumulatively considerable."

The proposed Project was evaluated against SCAQMD's cumulative impacts policy (SCAQMD 2003) and no significant cumulative air quality impacts were identified for either construction activities or operational activities. No mitigation is required.

d) Expose sensitive receptors to substantial pollutant concentrations?

**Less than Significant Impact.** This project's construction emissions are below all CEQA significance standards as established by SCAQMD, including the LST standards which are used as surrogates for pollutant concentration modeling. Also, project emissions are anticipated to be short-term, occurring over an approximately three-month period.

The nearest sensitive receptors to this site would be potential live-aboard located in the Newmarks Yacht Centre Marina. That location is approximately 0.7 miles away. The nearest residential neighborhood is approximately 0.8 miles away. The nearest school is Hawaiian Avenue Science, Technology, Engineering, Arts and Math (STEAM) Magnet Elementary School over a mile away.

For these reasons, proposed Project construction activities would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant and no mitigation is required.

e) Create objectionable odors affecting a substantial number of people?

**Less than Significant Impact.** Short-term odors from the use of diesel-powered, heavy-duty equipment, pile driving, and paving activities could result during construction. As mentioned above, construction is short-term and only expected to occur for approximately three months. To be conservative, it is assumed that the nearest potential residents are approximately 0.7 miles away, in the Newmarks Yacht Centre Marina. However, the nearest residential neighborhood is approximately 0.8 miles away.

These distances between the construction activities and potential receptors are far enough to allow for adequate dispersion of the negligible levels of short-term emissions expected to occur. Impacts would be less than significant and no mitigation is required.

## 4.4 BIOLOGICAL RESOURCES

Would the Project:

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

**Less than Significant Impact.** No candidate, sensitive, or special-status species are known to occur on the Project site, and there is no federally designated critical habitat in the harbor.

Three state and federally listed threatened or endangered species have historically been observed, or have the potential to occur in the Port Complex (Table 3.3-3). One federally listed endangered bird species, the California Least Tern (*Sternula antillarum browni*), uses the Port Complex seasonally. The California Least Tern is present in the harbor area during its breeding season (April to September). The federally threatened Western Snowy Plover (*Charadrius alexandrinus nivosus*) is a transient migratory visitor, and a few individuals have been observed on Pier 400 in the last decade (Keane Biological Consulting 2005a & 2005b). Western Snowy Plover forages on sandy beaches, has occasionally been observed on Pier 400 at the California Least Tern nesting site (SAIC 2010; Keane Biological Consulting, 2012), and has also been observed outside the Port Complex at Point Fermin and outer Cabrillo Beach (Ryan et al. 2009). It was not observed during the year-long bird surveys of 2007–2008 and 2013–2014 (SAIC 2010; MBC 2016). The state-listed endangered Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*) inhabits pickleweed marshes exclusively United States Army Corps of Engineers (USACE) and LAHD 1992). No suitable habitat for this species is present in the area of the proposed Project, and there have been no known sightings of this species in Los Angeles Harbor. A single Scripps's Murrelet (*Synthliboramphus scrippsi*) was observed in April 2014 in the open-water habitat at Fish Harbor (MBC 2016). Scripps's Murrelet is listed as endangered by the state, and is a candidate for federal protection. There are 14 other bird species with state and/or federal protection or designation.

The Project site consists of a paved surface lot within a heavily industrialized area. Given the developed nature of the Project area and considering that the Project site has already been disturbed and has been in use for over 50 years, the likelihood of any sensitive or special status species being present is very low. No riparian habitat or other sensitive natural communities occur at the Project site and no trees or other vegetation would be removed as part of the proposed Project. Project-related construction activities on land under the proposed Project would be temporary and minor and would not result in a loss of individuals or habitat for rare, threatened, endangered, protected or species of special concern.

Marine mammals, including dolphins, seals, and sea lions, are protected by the Marine Mammal Protection Act of 1972. California sea lions have been observed in the harbor, including near the Project site, while harbor seals (Phoca vitulina) are limited to Outer Harbor waters (MBC 2016). Neither of these pinniped species is endangered, and there are no designated Significant Ecological Areas (SEAs) for either species within the Port Complex. In addition, no in-water or over-water work would occur as a result of this project. Impacts would be less than significant and no mitigation is required.

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

**No Impact.** As discussed in Section 4.4(a) above, the proposed Project site is completely paved and does not contain riparian habitat or other sensitive communities. As such, no impacts would occur as a result of the proposed Project.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

**No Impact.** The proposed Project site does not contain any federally jurisdictional wetlands. The closest recognized saltwater wetland is located approximately 3 miles southwest of the Project and is associated with the Cabrillo Marina. The proposed Project would have no impact on federally jurisdictional wetlands as defined by Section 404 of the Clean Water Act (CWA).

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?

**No Impact.** While many areas of the POLA provides valuable habitat for foraging, resting, and breeding by numerous bird species, the proposed Project site is completely paved and located within a highly industrialized area. No wildlife corridors are present at the POLA. Additionally, there are no waterside improvements associated with the proposed Project that could potentially impact marine wildlife. As such, there are no impacts to the movement of wildlife species or the use of wildlife nursery sites as a result of the proposed Project.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

**No Impact.** The proposed Project site is located within a heavily developed and industrialized area of the POLA. The Project site requires no vegetation or tree removal. As such, the proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

**No Impact.** As previously mentioned, no habitat for any special status or sensitive biological species exists at the project site or in the vicinity. There are no Habitat Conservation Plans (HCPs) currently in place at the POLA. This proposed Project does not trigger an HCP, Natural Community Conservation Plan (NCCP), or any other approved HCP. The proposed Project is not located in a SEA. The nearest SEA is the California least tern nesting area at the southern tip of Pier 400, approximately 3 miles southeast of the Project site. Therefore, no impact would occur as a result of the implementation of the proposed Project.

## 4.5 CULTURAL RESOURCES

Would the Project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

**Less than Significant Impact.** A historical resource is defined in Section 15064.5(a)(3) of the CEQA Guidelines as any object, building, structure, site, area, place, record, or manuscript determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Historic resources are further defined as being associated with significant events, important persons, or distinctive characteristics of a type, period or method of construction; representing the work of an important creative individual; or possessing high artistic values. Resources listed in or determined eligible for inclusion in the California Register, included in a local register, or identified as significant in a historic resource survey are also considered historical resources under CEQA. The buildings proposed for demolition are greater than 50 years old; however, were not deemed to be eligible for listing (Applied EarthWorks, Inc. 2012). Therefore, the proposed Project would have a less than significant impact on historical resources and no mitigation is required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

**Less than Significant Impact.** The potential to discover an unknown archaeological resource within the Project site is highly unlikely. Nevertheless, the proposed Project would adhere to CEQA Guidelines (CCR Title 14, Section 15064.5), which states that construction activities would cease in the affected area in the highly unlikely event an archaeological discovery is made. Once the discovery has been evaluated by a qualified archaeologist, (see 36 Code of Federal Regulations [CFR] 800.11.1 and CCR, Title 14, Section 15064.5 [f]) and if the resource is found to not be significant, the work can resume. If the resource is found to be significant, they shall be avoided or shall be treated consistent with Section 106 or State Historic Resource Preservation Officer Guidelines. As such, the proposed Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to state CEQA Guidelines Section 15064.5. Therefore, the proposed Project would have a less than significant impact to archaeological resources with adherence to applicable regulatory requirements. No mitigation is required.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

**Less than Significant Impact.** No unique geologic features or paleontological resources are known to exist in or around the Project site. The site is already paved and has experienced considerable previous disturbance. Therefore, there is very little potential to encounter paleontological resources during construction. However, because there is a remote chance of discovering previously unknown paleontological resources, the proposed Project would have a less than significant impact on paleontological resources. No mitigation is required.

d) Disturb any human remains, including those interred outside of formal cemeteries?

**Less than Significant Impact.** As the Project site is already paved and experienced considerable previous disturbance, there is a very low potential to encounter or disturb any human remains. Nevertheless, California Health and Safety Code Section 7050.5, CEQA Section 15064.5, and Public Resources Code Section 5097.98 mandate that in the event of an inadvertent or unanticipated discovery of any human remains in a location other than a dedicated cemetery, work shall stop immediately. If the coroner determines the remains are Native American, the coroner shall contact the Native American Heritage Council (NAHC). The NAHC shall identify the most likely descended from the deceased Native American and make recommendations for means of treating or disposing of the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98. Compliance with existing regulations prescribed in California Health and Safety Code Section 7050.5, CEQA Section 15064.5, and Public Resources Code Section 5097.98, would result in less than significant impacts to human remains. No mitigation is required.

## 4.6 ENERGY

a) Would the project conflict with adopted energy conservation plans?

**Less than Significant Impact.** As seen under 4.6 (b) below, the proposed Project requires minimal energy (in terms of fuel consumption) associated with construction activities. Total fuel consumption during construction total fuel consumption is expected to be less than 3,500 gallons (< 3,000 gallons of diesel and approximately 500 gallons of gasoline). Operations are expected to be the same in the future as in the baseline conditions so no new operational energy impacts are expected. However, the site will be required to comply with current state energy efficiency standards and regulations pursuant to the California Building Code, California Green Building Standards and City of Los Angeles Green Building Code that would reduce long-term energy demand. These requirements would reduce wasteful, inefficient and unnecessary consumption of energy over the long-term.

The proposed Project does not conflict with any of the abovementioned plans or policies as it requires negligible use of energy as shown below. Impacts to energy conservation plans will be less than significant and no mitigation is necessary.

b) Would the project use non-renewable resources in a wasteful and inefficient manner?

**Less than Significant Impact.** Energy (primarily as diesel fuel, but including minor amounts of gasoline) would be used during construction of the proposed Project. Energy expenditures during construction would be temporary, lasting for approximately three months and are necessary to achieve the overall project objective of preparing the site for continuation of maritime support. Construction would not result in substantial waste or inefficient use of energy. No significant change in current operations is expected at the site. As such, future operational energy consumption at the site is expected to remain the same as in the past. Wasteful and inefficient use of non-renewable resources is anticipated to create a less than significant impact and no mitigation is required.

c) Would the project result in a need for new systems, or substantial alterations to power or natural gas?

**No Impact.** Current operations at the facility are expected to be maintained in the future. No significant increase in power or natural gas is expected to be required. Therefore, the project would not result in the need for new power systems or substantial upgrades and/or alternations of existing systems and no mitigation is required.

## 4.7 GEOLOGY AND SOILS

Would the Project:

a) Expose people or structures to 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.

**No Impact.** The proposed Project site is located within the seismically active Southern California region and has the potential to be subject to earthquakes. The proposed Project site is located approximately 0.25 miles north of the Palos Verdes fault zone and is not located within an Alquist-Priolo Earthquake Fault Zone (California Geological Survey 1999; California Institute of Technology 2012). In addition, the project site is located within a landslide and liquefaction zone as defined by the California Department of Conservation (California Department of Conservation 1998; California Department of Conservation 2015). No habitable structures are proposed and as such the proposed Project site would have limited potential for damage from seismic activity. Further, any potential damage to the Project site as a result of seismic activities (e.g., pavement cracking) would not create impacts to public health or safety. Finally, the project would not increase overall visitation to the area, and thus would not increase public exposure to seismic hazards. The proposed Project, therefore, would result in no impact to earthquake faults or seismic shaking.

ii) Strong seismic ground shaking?

**No Impact.** Please see the response to 4.7 (a)(i) above.

iii) Seismic-related ground failure, including liquefaction?

**No Impact.** Please see the response to 4.7 (a)(i) above.

iv) Landslides?

**No Impact.** The proposed Project site is flat with no significant natural or graded slopes. No habitable structures are proposed and, as such, the proposed Project site would have limited potential for damage from seismic activity or landslides. Therefore, no impacts to the potential for landslides would occur.

b) Result in substantial soil erosion or the loss of topsoil?

**Less than Significant Impact.** Minor construction activities would be undertaken as part of this proposed Project. As such, impacts to soil erosion or the loss of topsoil will be less than significant and no mitigation is required.

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

**Less than Significant Impact.** The proposed Project site is located within an area susceptible to landslides and liquefaction (California Department of Conservation 1998; California Department of Conservation 2015). However, implementation of the proposed Project would have little potential to create a landslide, lateral spreading, subsidence, liquefaction or collapse. Therefore, impacts would be less than significant and no mitigation is required.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

**No Impact.** No habitable buildings would be constructed as a part of the proposed Project. No impact to life or property due to expansive soils would occur as a result of implementing the proposed Project.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

**No Impact.** The proposed Project presents no need for additional capacity or any alternative wastewater disposal system, as there is no additional land use or operation. Therefore, there would be no impacts associated with the use of septic tanks or wastewater disposal systems.

## 4.8 GREENHOUSE GASES

This section summarizes potential greenhouse gas (GHG) emissions associated with construction of the proposed Project. As mentioned above, operational activities are expected to remain the same as those currently occurring so no increase in emissions is expected from continuing operations. Construction-related GHG emissions from on-road vehicles and off-road diesel construction equipment were calculated and are included as Appendix A – Air Quality Emission Calculations.

*CEQA Significance Thresholds*

State CEQA Guidelines Section 15064.4(b) sets forth the factors that should be considered by a lead agency when assessing the significance of impacts from GHG emissions on the environment. These factors include:

- The extent to which a project may increase or reduce GHG emissions compared with the existing environmental setting;
- Whether project emissions exceed a threshold of significance that the lead agency determines applicable to a project; and
- The extent to which a project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of GHG emissions.

The guidelines do not specify significance thresholds and allow the lead agencies discretion in how to address and evaluate significance based on these criteria. The SCAQMD has adopted an interim CEQA significance threshold of 10,000 metric tons per year (MT/yr) of Carbon Dioxide Equivalent ($CO_2e$) (MT/yr $CO_2e$) for industrial projects where SCAQMD is the lead agency (SCAQMD 2008a). For the purpose of this IS/ND, this analysis used this threshold to evaluate the proposed Project's GHG emissions under CEQA. If estimated GHG emissions remain below this threshold, they would be expected to produce less than significant impacts to GHG levels.

LAHD has determined the SCAQMD-adopted interim industrial threshold of 10,000 MT/yr $CO_2e$ to be suitable for the proposed Project following reasons:

- The SCAQMD interim threshold used as the basis for its development, Governor Schwarzenegger's June 1, 2005 Executive Order S-3-05 which set emission reduction targets of reducing GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050 (SCAQMD 2008a). The 2020 target is the core of the California Global Warming Solutions Act of 2006, widely known as Assembly Bill (AB) 32 (Personal Communication: Lora Granovsky, iLanko Environmental and Mike Krause, SCAQMD July 29, 2016).
- The proposed Project's primary GHG source is construction equipment. The SCAQMD industrial source threshold is appropriate for projects with mobile emission sources. California Air Pollution Control Officers Association (CAPCOA) guidance considers industrial projects to include substantial GHG emissions associated with mobile sources (CAPCOA 2008). SCAQMD, on industrial projects for which it is the lead agency, uses the 10,000 MT/yr threshold to determine CEQA significance by combining a project's stationary source and mobile source emissions. Although the threshold was originally developed for stationary sources, SCAQMD staff views the threshold as conservative for projects with both stationary and mobiles source because it is applied to a larger set of emissions and therefore captures a greater percentage of projects than would be captured if the threshold was only used for

stationary sources (Personal Communication: Lora Granovsky, iLanko Environmental and Mike Krause, SCAQMD July 29, 2016).

- The SCAQMD industrial source threshold is appropriate for projects with sources that use primarily diesel fuel. Although most of the sources that were considered by the SCAQMD in the development of the 10,000 MT/yr threshold are natural gas-fueled, both natural gas and diesel combustion produce Carbon Dioxide ($CO_2$) as the dominant GHG (The Climate Registry 2016). Furthermore, the conversion of all GHG species into a $CO_2e$ ensures that the GHG emissions from any source, regardless of fuel type, can be evaluated equitably.

After considering these guidelines, LAHD has set the following threshold for use in this IS/ND to determine the significance of proposed Project-related GHG impacts. The proposed Project would create a significant GHG impact if it:

a) Generates GHG emissions that, either directly or indirectly, that may have a significant impact on the environment?

Table 4.8- 1 below shows the proposed Project's annual GHG emissions.

**Table 4.8- 1**
**Annual GHG Emissions – Project Construction (metric tons)**

| | **$CO_2e$ (MT/yr)** |
|---|---|
| Construction Emissions | 34.5 |
| Amortized Emissions[1] | 1.15 |
| Significance Threshold[2] | 10,000 |
| **Exceeds Threshold?** | **No** |

Prepared by: Environmental Compliance Solutions, Inc.
Notes:

a) One metric ton equals 1,000 kilograms, 2,205 lbs, or 1.1 U.S. (short) tons.

b) CO2e = the carbon dioxide equivalent of all GHGs combined. The carbon dioxide equivalent for each GHG represents the emission rate multiplied by its global warming potential (GWP). The GWPs are 1 for $CO_2$; 28 for methane ($CH_4$); and 265 for nitrous oxide ($N_2O$). (IPCC Fifth Assessment Report, 2014)

[1] SCAQMD protocol requires amortizing construction emissions over 30 years

[2] SCAQMD 2015

**Less than Significant Impact.** Based on criteria set by the SCAQMD, a proposed project would have the potential to violate an air quality standard or contribute substantially to an existing violation if construction emissions would exceed thresholds of significance in Table 4.3- 1. The proposed Project would primarily generate increased GHG emissions over the short-term related to operation of construction equipment. Total estimated GHG emissions from construction activities would be approximately 34.5 MT/yr $CO_2e$, which is well below the SCAQMD significance threshold of 10,000 MT/yr $CO_2e$. Increases in emissions of GHGs associated with the implementation of the proposed Project would be short-term and less than significant. No mitigation is required.

**Informational assessment:** Consider whether the Project is consistent with certain statewide, regional and local plans and policies.

As noted above, CEQA Guideline Section 15064.4(b) provides that one factor to be considered in assessing the significance of GHG emissions on the environment is "the extent to which a project complies with regulations or requirements adopted to implement a statewide, regional or local plan for the reduction or mitigation of GHG emissions."

Several state, regional and local plans have been developed that set goals for the reduction of GHG emissions over the next few years and decades. Some of these plans and policies (notably, Executive Order S-3-05 and AB 32) were taken into account by the SCAQMD in developing the 10,000 MT/yr $CO_2e$ threshold. However, no regulations or requirements have been adopted by relevant public agencies to implement those plans for specific projects, within the meaning of CEQA Guidelines Section 15064.4(b) (3). (See Center for Biological Diversity v. Cal. Dept. of Fish and Wildlife [Newhall Ranch] [2015] 62 Cal.4$^{th}$ 204, 223.) Consequently, no CEQA significance assessment based upon compliance with such regulations or requirements can be made for the proposed Project. Nevertheless, for the purpose of disclosure, LAHD has considered for informational purposes only, whether the proposed Project activities and features are consistent with federal, state or local plans, policies or regulations for the reduction of GHG emissions, as set forth below:

The State of California is leading the way in the United States with respect to GHG reductions. Several legislative and municipal targets for reducing GHG emissions, below 1990 levels have been established. Key examples include:

- Senate Bill (SB) 32
    - 1990 levels by 2020
    - 40 percent below 1990 levels by 2030
- AB 32
    - 80 percent below 1990 levels by 2050
- City of Los Angeles Sustainable City Plan
    - 45 percent below 1990 levels by 2025
    - 60 percent below 1990 levels by 2035
    - 80 percent below 1990 levels by 2050

LAHD has been tracking GHG emissions, in terms of $CO_2e$, since 2005 through the LAHD municipal GHG inventory and the annual inventory of air emissions. POLA-related GHG emissions started making significant reductions since 2006, reaching a maximum reduction in $CO_2e$ of 15 percent from 1990 levels in 2013 (Figure 4). Subsequently, 2014 and 2015 saw GHG levels rise due to a period of port congestion that arose from circumstances outside of the control of either the LAHD or its tenants (Figure 5). This event illustrates a major challenge related to managing GHG-related emissions, as events outside the control of LAHD or its individual tenants will continue to have a varying degree of impact on the progress of reduction efforts.

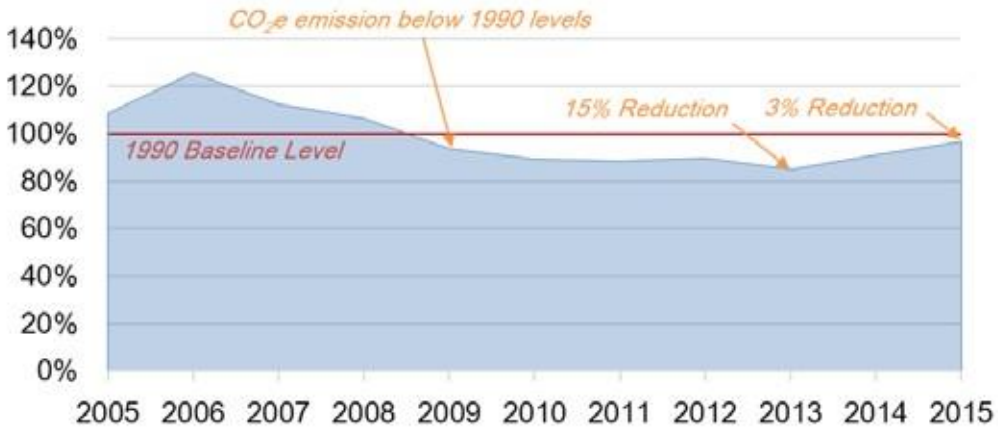



*Figure 4 GHG Emissions 2005-2015*

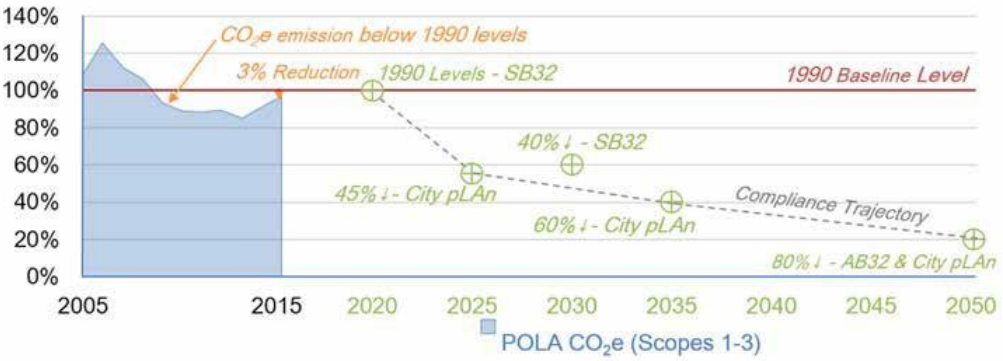



*Figure 5 Actual GHG Emissions 2005-2015 & 2015-2015 GHG Compliance Trajectory*

LAHD and its tenants have initiated a number of wide-ranging strategies to reduce all port-related GHGs, which includes the benefits associated with the CAAP, Zero Emission Roadmap, Energy Management Action Plan (EMAP), operational efficiency improvements, and land use and planning initiatives. Looking toward 2050, there are several unknowns that will affect future GHG emission levels. These unknowns include grid power portfolios; maritime industry preferences of power sources and fuel types for ships, harbor craft, terminal equipment, locomotives, and trucks; advances in cargo movement efficiencies; the locations of manufacturing centers for products and commodities moved; and increasing consumer demand for goods. The key relationships that have led to operational efficiency improvements to date are the cost of energy, current and upcoming regulatory programs, and the competitive nature of the goods movement industry. We anticipate these relationships will continue to produce benefits with regards to GHG emissions for the foreseeable future.

Figure 5 above, it is not possible at this time to determine whether POLA-wide emissions or any particular Project applicant will be able to meet the compliance trajectory shown. Compliance will depend upon future regulations or requirements that may be adopted, future technologies that have not been identified or fully developed at this time, or any other POLA-wide GHG reduction strategies that may be established. As a result, while LAHD will continue to work with its tenants to implement aggressive GHG reduction measures to meet the compliance trajectory that is shown, LAHD cannot with certainty confirm compliance with these future plans and policies at this time.

## 4.9 HAZARDS AND HAZARDOUS MATERIALS

Would the Project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

**Less than Significant Impact.** Demolition activities would be temporary in nature and the proposed Project would not result in the routine transport, use or disposal of any hazardous materials. The short-term handling and transport of hazardous materials associated with the demolition itself are
discussed in Question 4.8(b). Impacts would be less than significant with adherence to required regulations and standards, and no mitigation is required.

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?

**Less than Significant Impact.** The presence of potentially hazardous materials, including lead-based paints, was identified within the transit shed. Prior to commencement of demolition, proper abatement procedures as described below will be implemented to prevent release into the environment. Trenching, fence footing installation, and repaving activities could potentially encounter soils contaminated with TPH. metals and PCBs, which would be tested and disposed of in accordance with all applicable laws and regulations. LAHD will work in conjunction with regulatory agencies, including the USEPA, to acquire appropriate approvals related to these construction activities.

The most likely cause of spills or releases of hazardous materials during construction would involve petroleum products, such as diesel fuel, oils, and lubricants related to temporary construction vehicles on site. All storage, handling, and disposal of these materials are regulated by the Department of Toxic Substances Control (DTSC), USEPA, Occupational Safety and Health Administration (OSHA), and the Los Angeles City and County Fire Departments. As such, impacts related to the release of hazardous materials into the environment during construction would be less than significant with adherence to required regulations and standards. No mitigation is required.

*Lead-Based Paint (LBP)*

LAHD Engineering staff contracted with ENV America Incorporated to prepare a Lead Survey Report for the buildings at Berth 162. The lead survey was conducted on February 22 and 25, 2013 (ENV America 2013). The purpose of the survey was to identify LBP and to document the location, paint type (i.e., color), substrate, total lead content, condition and estimated total quantity for each LBP identified.

The survey was conducted in accordance with the County of Los Angeles lead-based paint standard, which considers any paint containing greater than or equal to 0.7 mg/cm$^2$ of lead to be a LBP. ENV America obtained approximately 157 samples from the structures and identified lead in quantities greater than 0.7 mg/cm2 in 26 of the tests across all buildings at the old Wilmington Marine Services site (ENV America 2013). Both of the buildings to be demolished contained small portions of LBP. Figure 6 shows the buildings in question and Table 4.9-1 shows the results of the survey.


*Figure 6 Buildings for Demolition and Lead-based Paint Results*

**Table 4.9-1**
**Lead-based Paint Results**

| Location | Component | Color | Substrate | XRF Reading (mg/cm$^2$) | Quantity |
|---|---|---|---|---|---|
| *Building 1* | | | | | |
| South Exterior | Fire Hose | Orange | Wood | 2.12 | 1 Each |
| | Fire Hose Door | Red | Wood | 1.62 | 1 Each |
| *Building 2* | | | | | |
| North Exterior | Column | White | Metal | 3.88-4.1 | 11 Each |

Source: ENV America 2013

LAHD has complied with all regulations regarding the proper removal and disposal of LBP. Prior to demolition, all damaged LBP was removed and stabilized to prevent environmental contamination. The extent of paint film stabilization or intacting required was evaluated prior to demolition and was included in the contractor's specifications. The contractor was also informed of all locations of LBP, regardless of condition, prior to the commencement of demolition. LAHD and its contractors are accustomed and trained in the safe and appropriate removal of LBP from construction/demolition sites. With safety procedures in place and the survey report indicating where the LBP exists in the structure, impacts from LBP are less than significant with no mitigation necessary.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

**No Impact.** The Project site is not within one-quarter mile of an existing or proposed school. The nearest school is the Hawaiian Avenue STEAM Magnet Elementary School, which is located over a mile north of the proposed Project. Further, no increase in handling of hazardous materials is expected as a result of this project. As such there would be no impact to schools.

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

**Less than Significant Impact.** A review of all Cortese List data resources was conducted to determine if the proposed Project was located on a hazardous materials site (California Environmental Protection Agency [CalEPA] 2018a; CalEPA 2018b; CalEPA 2018c; DTSC 2018; SWRCB 2018). The proposed Project site is not included on any list of hazardous materials sites compiled pursuant to California Government Code, Section 65962.5. Therefore, implementation of the proposed Project would not create a significant hazard to the public or the environment, and no mitigation is required.

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 for people residing or working in the project area?

**No Impact.** The Project site is not located near an existing public airport. The nearest airports are Torrance Airport – Zamperini Field, approximately 5.5 miles northwest, and Long Beach Airport, approximately 8 miles northeast of the site. Therefore, no impact would occur associated with airport-related hazards.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

**No Impact.** A helicopter-landing pad for Island Express is located at Berth 95 approximately 0.5 mile to the southeast of the Project site. Only small helicopters operate from this location and transit primarily via the Main Channel. The proximity of the heliport would not result in a safety hazard for people working in the Project area. The proposed Project would have no

effect related to private airstrips. Accordingly, there would be no impact.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

**No Impact.** The proposed Project involves temporary construction activities associated with minor site modification. Following the completion of construction activities, the proposed Project will not impair or physically interfere with an adopted emergency response plan.

h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

**No Impact.** Per the Safety Element of the City of Los Angeles General Plan, the Project site is not located in an area designated as Very High Fire Hazard Severity Zone and there are no wildlands within the vicinity of the Project site (City of Los Angeles 1996). Therefore, no impact related to wildland fires would occur with the implementation of the proposed Project.

## 4.10 HYDROLOGY AND WATER QUALITY

Would the Project:

a) Violate any water quality standards or waste discharge requirements?

**Less than Significant Impact.** No new operational activities are expected to occur as a result of this project. This location has been a C&M staging yard since 2014~~2012~~ and will continue to serve as the Port's yard. These minor construction-related improvements are to improve site efficiency. No increase in employees or increase in water usage is expected. No additional wastewater generation is anticipated. Potential construction impacts would also be regulated under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, which requires a site-specific Stormwater Pollution Prevention Plan (SWPPP) that would define actions and best management practices to implement in order to minimize potentials for spills, as well as manage runoff, and prevent impacts to water quality. As a consequence, accidents that result in spills of contaminants during Project construction are not expected to adversely affect beneficial uses of harbor waters or result in violations of water quality standards. Therefore, impacts related to water quality standards and waste discharge requirements would be less than significant, and no mitigation is required.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

**No Impact.** The proposed Project site is not currently an area that allows for groundwater recharge because it is entirely paved and would remain as such following the proposed paving and pavement repair activities. Groundwater in the harbor area is south of the

Dominquez Gap Barrier and impacted by saltwater intrusion (salinity) and is, therefore, unsuitable for use as drinking water. Implementation of the proposed Project would not affect the location or rate of groundwater recharge, and the proposed Project does not involve use of groundwater for any reason. Therefore, the proposed Project would have no impact with respect to groundwater.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

**No Impact.** The proposed Project site is fully paved and is not within the course of a stream or a river. As such, implementation of the proposed Project would not alter the course of a stream or river. Construction would not result in substantial erosion or siltation. Currently, the entire site is paved and the proposed Project will not leave any areas of exposed soil or change drainage on the site. Upon Project completion, the site will remain paved and will maintain the same grade and alignment. Thus, the proposed Project would have no impact with respect to drainage patterns or alteration of the course of a stream or river, which would result in erosion or siltation on or off site.

d) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

**No Impact.** The Project site is fully paved and is not within the course of a stream or a river. The proposed Project would demolish two wooden buildings and foundation, followed by matching the grade and asphalt with the surrounding conditions. The proposed Project would not result in the addition of any impervious surfaces and upon Project completion the site will maintain the same alignment. No impacts to flooding would occur and no mitigation is required.

e) 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?

**No Impact.** The Project site is already paved and fully developed. No new areas of impervious surface would be created; repair and replacement of existing impervious surface will maintain the grade and alignment. There are no storm drains on the Project site and stormwater drains directly into the harbor by sheet flow. Runoff on the site would continue in a similar manner to existing conditions. Therefore, the proposed Project would not create or contribute new runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff. The proposed Project would comply with the City of Los Angeles Municipal Code and all other applicable, federal, state, and local regulations. No impacts would occur and no mitigation is required.

f) Otherwise substantially degrade water quality?

**No Impact.** The implementation of the proposed Project would not violate any water quality standards or waste discharge requirements. The Project site is already developed and paved. Construction BMPs would be implemented to minimize potentials for spills, as well as manage runoff, and prevent impacts to water quality. The proposed Project would comply with the City of Los Angeles Municipal Code and all other applicable federal, state, and local regulations prior to project approval. No impacts would occur and no mitigation is required.

g) Place housing within a 100-year flood hazard area as mapped on a federal flood hazard boundary or Flood Insurance Rate Map or other flood hazard delineation map?

**No Impact.** No housing or other habitat structures are proposed with implementation of the proposed Project. Therefore, no impact would occur.

h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?

**No Impact.** The proposed Project is located within Zone X, a Flood Hazard Area of moderate flood hazard with a 0.2% Annual Chance Flood Hazard of 1% (100-year) annual chance flood (Federal Emergency Management Agency [FEMA] 2008). No impacts to the direction of flood flows are expected and no impacts are anticipated.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

**No Impact.** There are no dams or levees near the proposed Project. The proposed Project involves only minor modifications to an existing business. It does not have the potential to create or contribute to a risk of a levee or dam failure or flooding risk. Therefore, no impacts to flooding from the failure of a levee or dam would occur as a result of the Project.

j) Inundation by seiche, tsunami, or mudflow?

**No Impact.** According the Tsunami Inundation Map for Emergency Plan (California Department of Conservation 2009), the Project site is located within a tsunami inundation area. However, the proposed Project would be confined to existing paved and adjacent areas. Therefore, no increased exposure to tsunami inundation areas would be expected to occur.

k) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of Sea Level Rise?

**Less than Significant Impact.** Due to its location at sea level, the infrastructure and operations of the POLA would be vulnerable to Sea Level Rise (SLR). It is not anticipated that people or structures would be exposed to significant risk due to SLR as a result of the proposed Project. Impacts associated with risks from SLR would be less than significant.

## 4.11 LAND USE AND PLANNING

Would the Project:

a) Physically divide an established community?

**No Impact.** The proposed Project would involve only short-term construction activities. No long-term separation of land uses or disruption of access between land use types would occur as a result of the Project. Therefore, no impact would occur.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

**Less than Significant Impact.** The proposed Project would not conflict with a specific plan, general plan, or zoning ordinance. The Project site is zoned [Q]M3-1 under the City of Los Angeles Zoning Ordinance and would continue to have the same land uses as under existing conditions. Specifically, the project site consists within the Maritime Support designation of the Port Master Plan and is adjacent to the Institutional uses (LAHD 2014). Under section 5.1 of the Port Master Plan, POLA staff, at their own discretion, can approve minor boundary adjustments (LAHD 2014). As there would only be an 8.9% increase in the institutional boundary, this minor adjustment to the Port Master Plan boundaries would fall under staff judgment; therefore the proposed Project is consistent with the Port Master Plan. Therefore, a less than significant impact would occur with the implementation of the proposed Project. No mitigation is required.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

**No Impact.** As discussed above, the site is not part located within an adopted HCP or NCCP. Therefore, construction of the project would not conflict with any applicable HCP or NCCP. No impact would occur with the implementation of the proposed Project and no mitigation is required.

## 4.12 MINERAL RESOURCES

Would the Project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

**No Impact.** The project site is already developed and is located in a highly industrialized area surrounded by industrial land uses. According to the California Department of Conservation (Division of Oil, Gas and Geothermal Resources (DOGGR)), the Project site is located within the Wilmington Oil Field, which is the third largest oil field in the U.S. (California Department of Conservation 2018). However, the proposed Project would not

create any obstacles to oil extraction operations associated with the Wilmington Oil Field. No impacts on known mineral resources would occur.

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?

**No Impact**. As described under Section 4.12(a), there are no active oil wells on site. The proposed Project would not result in the loss of availability of a mineral resource recovery site as described under Section 4.12(a). Therefore, no impact to the availability of a mineral resource would result from construction and operation of the proposed Project. No impact would occur, and no mitigation is required.

### 4.13 NOISE

Would the Project Result In:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

**Less than Significant Impact.** The City of Los Angeles adopted a Noise Element as part of their General Plan in November 1998 (City of Los Angeles 1998). The noise element provides an overview of various noise sources (current and anticipated) along with standards and policies. The standards for construction-related noise were codified in Los Angeles City Noise Ordinance (Los Angeles Municipal Code Section 41.40).

The municipal code limits construction activities to the hours of 7:00 AM to 9:00 PM Monday through Friday. On Saturday, the hours are 8:00 AM to 5:00 PM. No work is to be conducted on Sundays. Construction activities at the C&M yard will comply with this ordinance.

The Los Angeles Municipal Code Section 112.05, *Maximum Noise Level of Powered Equipment or Powered Hand Tools*, details that the maximum noise level powered equipment may produce within a distance of 500 feet from a City residential zone is 75 A-weighted decibels (dBA) at a distance of 50 feet, unless compliance is technically infeasible. Technically infeasible means that the noise limitations cannot be attained during use of the equipment even with the use of mufflers, shields, sound barriers and/or other noise reduction techniques.

Construction activities could result in temporary increases in ambient noise levels in the project area on a short-term basis. Construction-related noise and groundborne vibration would be generated primarily during building demolition activities. Additional sources of noise could occur from off-road diesel construction equipment. To be conservative, we have considered the nearest potential residential receptors to be liveaboards at the Newmarks Yacht Center Marina, approximately 0.7 miles away. Due to the distance from potential residential receptors, and the short-term nature of the construction Project, noise impacts are anticipated to be less than significant. No mitigation is required.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

**Less than Significant Impact**. Minimal trenching necessary to install utility lines as part of this project is not expected to cause groundborne vibrations. Given the nearest sensitive receptors include liveaboards that are situated in the harbor waters, by their very nature groundbourne vibrations would not be perceptible from boats. Any potential impacts related to groundborne noise levels would be short-term from construction activities that would be limited to the three-month construction period. Groundborne vibrations would be less than significant and no mitigation is required.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

**No Impact.** The noise that is anticipated to occur from construction of the proposed Project would be short-term and would not result in a permanent increase in noise levels. Following the completion of construction activities, the proposed Project would have no impact on ambient noise in the Project vicinity. No mitigation is required.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

**Less than Significant Impact**. Construction activities would be in compliance with Municipal Code Sections 41.40 and 112.05 and impacts would be less than significant. No mitigation is required.

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 pubic use airport, would the project expose people residing or working in the project area to excessive noise levels?

**No Impact.** The nearest airports are Torrance Airport (Zamperini Field), approximately 5.5 miles northwest, and Long Beach Airport, approximately 8 miles northeast of the site. The proposed Project is not located within an airport land use plan. Therefore, no impacts are anticipated to occur.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

**No Impact.** A helicopter-landing pad for Island Express is located at Berth 95 approximately 0.5 miles to the north of the Project site. Only small helicopters operate from this location and transit primarily via the Main Channel. The proposed construction activities would be located too far from the helicopter-landing pad to effect or be affected by helicopter noise. Therefore, construction workers would not be exposed to excessive noise levels. Therefore, no impact would occur with the implementation of the proposed Project.

## 4.14 POPULATION AND HOUSING

Would the Project:

a) Induce substantial 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 proposed Project would not require any new housing or extension of roads. The proposed Project would not affect population or housing located within the project area, nor in the vicinity; therefore, there would be no population growth impacts as a result of the proposed Project.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

**No Impact.** Please see the response to 4.14(a) above.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

**No Impact.** Please see the response to 4.14(a) above.

## 4.15 PUBLIC SERVICES

Would the Project:

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services

i) Fire Protection?

**No Impact.** The Los Angeles Fire Department (LAFD) provides fire protection services as well as emergency medical (paramedic) services within the City of Los Angeles. LAFD Station No. 49, located at 400 Yacht Street, is the closest station to the Project site (LAFD 2018). During construction, emergency access to the Project vicinity would be maintained for emergency service vehicles. Following the completion of construction activities, the proposed Project would not result in a long-term increase in demand for fire protection services. Therefore, no impact to fire protection services would occur.

ii) Police protection?

**No Impact.** The Los Angeles Port Police (Port Police) is the primary law enforcement agency within the POLA. The Port Police are responsible for patrol and surveillance of POLA

property including 12 square miles of landside property and 43 miles of waterfront. The Los Angeles Police Department (LAPD) provides police protection to the entire City of Los Angeles, including San Pedro. The proposed Project site is located within the LAPD Harbor Division Area, which includes a 27.5-square-mile area including Harbor City, Harbor Gateway, San Pedro, Wilmington, and Terminal Island. The proposed Project construction would not increase demand for law enforcement and no new facilities would be required. Therefore, implementation of the proposed Project would have no impact on police protection.

iii) Schools?

**No Impact.** No new residential units would be constructed as a part of the proposed Project, and the proposed Project would not result in that the need for new schools.

iv) Parks?

**No Impact.** The proposed Project does not include development of any residential uses and would not generate any new permanent residents that would increase the demand on local parks. Therefore, no impact related to parks would occur with the implementation of the proposed Project.

v) Other public facilities?

**No Impact.** The proposed Project does not include development of residential uses and would not generate any new permanent residents that would increase the demand on other public facilities. As such, no impacts to other public facilities would occur from the implementation of the proposed Project.

## 4.16 RECREATION

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?

**No Impact.** The proposed Project is a short-term construction project that would not increase demand on existing regional parks or other recreational facilities; therefore, no impact would occur.

b) 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 proposed Project would not include the development of, or require the construction of, recreational facilities that would physically affect the environment. Therefore, no impact would occur.

## 4.17 TRANSPORTATION AND TRAFFIC

Would the Project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

**Less than Significant Impact.** According to the Los Angeles County Congestion Management Program (CMP), a Traffic Impact Analysis (TIA) should be conducted at all CMP arterial monitoring intersections, including monitored freeway on-ramps or off-ramps, where a proposed project would add 50 or more trips during either the AM weekday peak hour (7:00 AM – 9:00 AM) or the PM weekday peak hour (4:00 PM to 6:00 PM) and at all mainline freeway monitoring locations where the project will add 150 or more trips, in either direction, during the AM or PM weekday peak hours (Los Angeles County Metropolitan Transportation Authority 2010). The City of Los Angeles states that a Technical Memorandum is required when the project is likely to add 25 to 42 AM or PM peak hour trips, and the adjacent intersection(s) are presently operating at Level of Service (LOS) E or F (City of Los Angeles 2016). Additionally, the guidelines state that a Traffic Study is required when the project is likely to add 43 or more AM or PM peak hour trips. Construction-related activities associated with the proposed Project would require approximately ten construction workers. As such, the effect of construction worker commutes on surrounding roadway segments and intersections would be negligible during the AM and PM peak hours. However, these trips would be spaced out throughout the day and would not approach the thresholds Los Angeles County CMP thresholds triggering a TIA or the City of Los Angeles thresholds triggering a Technical Memorandum or Traffic Study.

The proposed Project construction activities would not result in significant traffic trip generation and would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. In addition, the Project would not encourage or promote non-motorized transit and would not result in the deterioration of transportation service standards, transportation infrastructure, or transit. Impacts from the construction associated with the proposed Project would be short-term and less than significant. No mitigation is required.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

**Less than Significant Impact.** Implementation of the proposed Project would not increase visitation to the port and therefore would not increase overall levels of traffic or congestion on any CMP roads or intersections. Although the proposed Project would result in additional trips to the site during construction, these impacts would be limited and short-term. Therefore, impacts to CMP standards would be less than significant. No mitigation is

required.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?

**No Impact.** The nearest airports are Torrance Airport (Zamperini Field), approximately 5.5 miles northwest, and Long Beach Airport, approximately 8 miles northeast of the site. Therefore, the project has no potential to increase traffic levels or shift a location of air traffic levels or patterns.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

**No Impact.** The proposed Project does not include any alterations to ingress, egress or circulation patterns within the site and vicinity and would not interfere with any existing access. Notices would be posted consistent with POLA policy to notify businesses and members of the public of temporary construction activities and associated hazards. Therefore, no impacts would occur under implementation of the proposed Project.

e) Result in inadequate emergency access?

**Less than Significant Impact.** The proposed Project would result in minimal traffic increases during construction. All access routes for emergency services in the vicinity of the Project site would be maintained. No aspect of the proposed Project would impair or degrade emergency access. Therefore, the proposed Project would not result in inadequate emergency access, and impacts are anticipated to be less than significant. No mitigation is required.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

**Less than Significant.** The proposed Project would modify the land use boundary of the Port Master plan to extend the existing Institutional use to encapsulate the area designated for maritime support, which has not operated as such since 2012. Therefore, the proposed Project would not conflict with policies, plans, or programs supporting alternative transportation, (e.g., bicycles, buses, carpools, vanpools, ridesharing, walking). There are no impacts to public transit, bicycle or pedestrian facilities.

## 4.18 TRIBAL CULTURAL RESOURCES

This section evaluates impacts related to tribal cultural resources associated with the implementation of the proposed Project.

AB 52, which went into effect on July 1, 2015, established a consultation process with all California Native American Tribes on the NAHC List and required consideration of Tribal Cultural Values in the determination of project impacts and mitigation. AB 52 established a new class of resources, tribal cultural resources, defined as a site feature, place, cultural

landscape, sacred place or object, which is of cultural value to a Tribe that is either: (1) on or eligible for the California Historic Register or a local historic register; or (2) treated by the lead agency, at its discretion, as a traditional cultural resource per Public Resources Code 21074 (a)(1)(A)-(B). Public Resources Code Section 21083.09, added by AB 52, required the California Natural Resources Agency to update Appendix G of the CEQA Guidelines to address tribal cultural resources. Pursuant to Government Code Section 11346.6, on August 8, 2016 the California Natural Resources Agency adopted and amended the CEQA Guidelines to include consideration of impacts to tribal cultural resources. These amendments separated the consideration of paleontological resources from tribal cultural resources and updated the relevant sample questions to add specific consideration of tribal cultural resources.

AB 52 Consultation: Pursuant to Public Resources Code Section 21080.3.1(d) Anthony Morales, Chief of San Gabriel Band of Mission Indians was informed of the proposed Project. Pursuant to Public Resources Code Section 21080.3.1(b), LAHD requested respond in writing within 30 days if consultation was desired. The informational package was delivered by certified mail on April 25, 2018. As of May 25, 2018, LAHD had not received a request for consultation. The 30-day response period has closed and AB 52 has been complied with.

Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).

**No Impact.** As discussed in Section 4.5, *Cultural Resources*, the proposed Project is not located within a Historic District nor does it include any historic listings. Therefore, the proposed Project would have a less than significant impact on historical resources.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

**No Impact.** As discussed in Section 4.5, *Cultural Resources*, the potential to discover an unknown tribal cultural resource within the Project site is highly unlikely as the site is fully paved and was previously disturbed. No evidence of tribal cultural resources has been identified within or adjacent to the project site and no “unexpected resources” are anticipated. Therefore, the proposed Project would not result in any impacts to known tribal cultural resources.

## 4.19 UTILITIES AND SERVICE SYSTEMS

Would the Project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

**No Impact.** No alterations would be made to the existing water drainage systems that would affect wastewater or stormwater facilities. There would be no new employees or operational changes under the proposed Project that would generate wastewater. Therefore, no impacts to wastewater treatment requirements would occur as a result of Project implementation.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

**No Impact.** Please see the response to 4.19(a) above. No impact would occur with the implementation of the proposed Project.

c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

**No Impact.** Please see the response to 4.19(a) above. No impact would occur with the implementation of the proposed Project.

d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?

**Less than Significant Impact.** After completion of the Project, minimal demands to water supplies would occur. Therefore, impacts would be less than significant. No mitigation is required.

e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

**No Impact.** Please see the response to Section 4.19(a) above. No impact would occur with the implementation of the proposed Project.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

**Less than Significant Impact.** Minimal solid waste would be generated during construction activities and minimal material would need to be disposed of as a result of the proposed Project. Therefore, impacts to landfills and solid waste are expected to be short-term and less than significant. No mitigation is required.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

**Less than Significant Impact.** The proposed Project would be required to conform to the policies and programs of the City of Los Angeles' Solid Waste Integrated Resource Plan (City of Los Angeles 2013). Compliance with the Solid Waste Integrated Resource Plan would ensure sufficient permitted capacity to serve the proposed Project. As such, impacts would be less than significant. No mitigation is required.

## 4.20 MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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.** The project has been determined to have no impacts or less than significant impacts. As discussed in Section 4.4, *Biological Resources,* because the project site is located in a developed area, there are no rare or endangered habitats or protected plant or wildlife species. In addition, because the proposed Project has no waterside improvements, it would not cause a fish or wildlife population to drop below self-sustaining levels or threaten to eliminate a plant or wildlife community.

As discussed in Section 4.5, *Cultural Resources,* impacts to cultural resources would be less than significant because the entire Project site is zoned for industrial purposes. As a result, no known examples of major periods of California history or prehistory would be eliminated with implementation of the Project. Additionally, demolition activities are not occurring on any historic building because of the proposed Project. Therefore, the proposed Project would not degrade the quality of the environment and impacts would be less than significant.

b) 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 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 no impacts or less than significant impacts to all resource areas. Because of the small scale and localized effects of the proposed Project, the potential incremental contribution would not be cumulatively considerable. Implementation of the Project will not result in a change of operations at the POLA. Impacts from construction will be short-term and less than significant, which would not contribute substantially to a cumulatively considerable impact.

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

**Less than Significant Impact.** As discussed in the analysis above, implementation of the proposed construction project would not result in any significant environmental impacts. Therefore, no environmental effect which could cause substantial adverse effects on human beings, either directly or indirectly, is associated with this project.

# 5. PROPOSED FINDING

LAHD has prepared this IS/ND to address the environmental effects of the proposed Project. Based on the analysis provided in this IS/ND, LAHD finds that the proposed Project would not have a significant effect on the environment.

# 6. PREPARERS AND CONTRIBUTORS

This IS/ND was prepared by City of Los Angeles Harbor Department. Members of the professional staff are listed below:

- Christopher Cannon, Director of Environmental Management
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- Bryan Low, Architect

# 7. ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| (Q)M3-1 | Quasi Heavy Industrial |
| AB | Assembly Bill |
| APN | Assessor's Parcel Number |
| AQMP | Air Quality Management Plan |
| APP | Application for Port Permit |
| Basin | Southern California Air Basin |
| C&M | Construction and Maintenance |
| CAA | Clean Air Act |
| CAAP | Clean Air Action Plan |
| CalEEMod | California Emissions Estimator Model |
| CalEPA | California Environmental Protection Agency |
| Caltrans | California Department of Transportation |
| CAPCOA | California Air Pollution Control Officers Association |
| CARB | California Air Resources Board |
| CCR | California Code of Regulations |
| CEQA | California Environmental Quality Act |
| CFR | Code of Federal Regulations |
| $CH_4$ | Methane |
| CMP | Congestion Management Program |
| CO | Carbon monoxide |
| $CO_2$ | Carbon dioxide |
| $CO_2e$ | Carbon dioxide equivalent |
| CWA | Clean Water Act |
| dBA | A-weighted decibel |
| DOGGR | Division of Oil, Gas and Geothermal Resources |
| DTSC | Department of Toxic Substances |
| EMAP | Energy Management Action Plan |
| FEMA | Federal Emergency Management Agency |
| GHG | Greenhouse Gas |
| GWP | Global Warming Potential |
| HCP | Habitat Conservation Plan |
| IS | Initial Study |
| LAFD | Los Angeles Fire Department |
| LAHD | Los Angeles Harbor Department |
| LAPD | Los Angeles Police Department |
| LBP | Lead-Based Paint |
| lbs/day | pounds per day |
| LASAN | Los Angeles Bureau of Sanitation |

| | |
|---|---|
| LOS | Level of Service |
| LST | Localized Significance Threshold |
| MND | Mitigated Negative Declaration |
| MT/yr | Metric Tons per year |
| $N_2O$ | Nitrous oxide |
| NAAQS | National Ambient Air Quality Standards |
| NAHC | Native American Heritage Council |
| NCCP | Natural Community Conservation Plan |
| ND | Negative Declaration |
| $NO_2$ | Nitrogen dioxide |
| $NO_X$ | nitrogen oxides |
| NPDES | National Pollutant Discharge Elimination System |
| OSHA | Occupational Safety and Health Administration |
| PCB | Polychlorinated Biphenyl |
| $PM_{10}$ | particulate matter less than 10 microns in diameter |
| $PM_{2.5}$ | particulate matter less than 2.5 microns in diameter |
| POLA | Port of Los Angeles |
| POLB | Port of Long Beach |
| Port Police | Los Angeles Port Police |
| SB | Senate Bill |
| SCAQMD | South Coast Air Quality Management District |
| SEA | Significant Ecological Area |
| SLR | Sea Level Rise |
| $SO_x$ | Sulfur oxides |
| STEAM | Science, Technology, Engineering, Arts and Math |
| SWPPP | Stormwater Pollution Prevention Plan |
| TIA | Traffic Impact Analysis |
| USACE | United States Army Corps of Engineers |
| USEPA | United States Environmental Protection Agency |
| VOC | Volatile Organic Compounds |

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# Appendix A:

# Air Quality Results

# CM Demo

**Los Angeles-South Coast County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Office Building | 2.10 | 1000sqft | 0.05 | 2,100.00 | 4 |
| Other Asphalt Surfaces | 1.04 | Acre | 1.04 | 45,302.40 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 33 |
| **Climate Zone** | 11 | | | **Operational Year** | 2019 |
| **Utility Company** | Los Angeles Department of Water & Power | | | | |
| **CO2 Intensity (lb/MWhr)** | 1227.89 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Tool check-out operations will relocate to this existing building after refurbishment.

Construction Phase - Construction Schedule Estimate.

Off-road Equipment -

Off-road Equipment - Interior/Exterior renovations to existing concrete building (30 x 70 ft).

Off-road Equipment - Demo 2 small buildings (30 x 40 ft, 30 x 80 ft)

Off-road Equipment -

Off-road Equipment - Trenching for utilities routing.

Off-road Equipment - Repave lot

Off-road Equipment - Install perimeter fencing.

Trips and VMT - Demolition Debris Default Estimate for 30' x 40' and 30' x 80' Buildings. Soil hauling for 1,800 cu ft trenching. Building Supplies (fencing) Hauling.

Demolition -

Architectural Coating -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating -

Landscape Equipment -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Fleet Mix -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 20.00 | 2.00 |
| tblConstructionPhase | NumDays | 10.00 | 5.00 |
| tblConstructionPhase | NumDays | 200.00 | 20.00 |

CM Demo - Los Angeles-South Coast County, Annual

| | | | |
|---|---|---|---|
| tblConstructionPhase | NumDays | 200.00 | 30.00 |
| tblConstructionPhase | NumDays | 10.00 | 5.00 |
| tblLandUse | Population | 0.00 | 4.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | PhaseName | | Excavation |
| tblOffRoadEquipment | PhaseName | | Buildings Demo |
| tblOffRoadEquipment | PhaseName | | Excavation |
| tblOffRoadEquipment | PhaseName | | Buildings Demo |
| tblOffRoadEquipment | PhaseName | | Excavation |
| tblOffRoadEquipment | PhaseName | | Excavation |
| tblOffRoadEquipment | PhaseName | | Excavation |
| tblOffRoadEquipment | UsageHours | 8.00 | 2.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 2.00 |
| tblTripsAndVMT | HaulingTripNumber | 16.00 | 68.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 75.00 |
| tblTripsAndVMT | VendorTripNumber | 8.00 | 2.00 |
| tblTripsAndVMT | VendorTripNumber | 8.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 8.00 | 13.00 |

| | | | |
|---|---|---|---|
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 8.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 13.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 13.00 |
| tblTripsAndVMT | WorkerTripNumber | 4.00 | 8.00 |

## 2.0 Emissions Summary

## 2.1 Overall Construction

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2018 | 0.0439 | 0.2429 | 0.1875 | 3.8000e-004 | 7.8100e-003 | 0.0131 | 0.0209 | 1.8900e-003 | 0.0122 | 0.0141 | 0.0000 | 34.3365 | 34.3365 | 7.1900e-003 | 0.0000 | 34.5163 |
| **Maximum** | **0.0439** | **0.2429** | **0.1875** | **3.8000e-004** | **7.8100e-003** | **0.0131** | **0.0209** | **1.8900e-003** | **0.0122** | **0.0141** | **0.0000** | **34.3365** | **34.3365** | **7.1900e-003** | **0.0000** | **34.5163** |

### 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 | | | | | |
| 2018 | 0.0439 | 0.2429 | 0.1875 | 3.8000e-004 | 7.8100e-003 | 0.0131 | 0.0209 | 1.8900e-003 | 0.0122 | 0.0141 | 0.0000 | 34.3365 | 34.3365 | 7.1900e-003 | 0.0000 | 34.5163 |
| **Maximum** | **0.0439** | **0.2429** | **0.1875** | **3.8000e-004** | **7.8100e-003** | **0.0131** | **0.0209** | **1.8900e-003** | **0.0122** | **0.0141** | **0.0000** | **34.3365** | **34.3365** | **7.1900e-003** | **0.0000** | **34.5163** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| 1 | 9-1-2018 | 9-30-2018 | 0.1793 | 0.1793 |
| | | Highest | 0.1793 | 0.1793 |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.0121 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 8.0000e-005 | 8.0000e-005 | 0.0000 | 0.0000 | 8.0000e-005 |
| Energy | 1.2000e-004 | 1.0700e-003 | 9.0000e-004 | 1.0000e-005 | | 8.0000e-005 | 8.0000e-005 | | 8.0000e-005 | 8.0000e-005 | 0.0000 | 16.3599 | 16.3599 | 3.8000e-004 | 1.0000e-004 | 16.3980 |
| Mobile | 6.8100e-003 | 0.0345 | 0.0930 | 2.8000e-004 | 0.0215 | 3.3000e-004 | 0.0219 | 5.7700e-003 | 3.1000e-004 | 6.0800e-003 | 0.0000 | 25.9471 | 25.9471 | 1.5300e-003 | 0.0000 | 25.9854 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.3958 | 0.0000 | 0.3958 | 0.0234 | 0.0000 | 0.9807 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.1184 | 4.1224 | 4.2408 | 0.0123 | 3.1000e-004 | 4.6388 |
| **Total** | **0.0191** | **0.0356** | **0.0940** | **2.9000e-004** | **0.0215** | **4.1000e-004** | **0.0219** | **5.7700e-003** | **3.9000e-004** | **6.1600e-003** | **0.5142** | **46.4295** | **46.9437** | **0.0376** | **4.1000e-004** | **48.0030** |

## 2.2 Overall Operational

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.0121 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 8.0000e-005 | 8.0000e-005 | 0.0000 | 0.0000 | 8.0000e-005 |
| Energy | 1.2000e-004 | 1.0700e-003 | 9.0000e-004 | 1.0000e-005 | | 8.0000e-005 | 8.0000e-005 | | 8.0000e-005 | 8.0000e-005 | 0.0000 | 16.3599 | 16.3599 | 3.8000e-004 | 1.0000e-004 | 16.3980 |
| Mobile | 6.8100e-003 | 0.0345 | 0.0930 | 2.8000e-004 | 0.0215 | 3.3000e-004 | 0.0219 | 5.7700e-003 | 3.1000e-004 | 6.0800e-003 | 0.0000 | 25.9471 | 25.9471 | 1.5300e-003 | 0.0000 | 25.9854 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.3958 | 0.0000 | 0.3958 | 0.0234 | 0.0000 | 0.9807 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.1184 | 4.1224 | 4.2408 | 0.0123 | 3.1000e-004 | 4.6388 |
| **Total** | **0.0191** | **0.0356** | **0.0940** | **2.9000e-004** | **0.0215** | **4.1000e-004** | **0.0219** | **5.7700e-003** | **3.9000e-004** | **6.1600e-003** | **0.5142** | **46.4295** | **46.9437** | **0.0376** | **4.1000e-004** | **48.0030** |

| | ROG | NOx | 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**

CM Demo - Los Angeles-South Coast County, Annual

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Buildings Demo | Demolition | 9/1/2018 | 9/4/2018 | 5 | 2 | |
| 2 | Excavation | Trenching | 9/8/2018 | 9/14/2018 | 5 | 5 | |
| 3 | Paving | Paving | 9/15/2018 | 9/21/2018 | 5 | 5 | |
| 4 | Site Improvements | Building Construction | 9/22/2018 | 10/19/2018 | 5 | 20 | |
| 5 | Building Renovation | Building Construction | 10/20/2018 | 11/30/2018 | 5 | 30 | |
| 6 | Architectural Coating | Architectural Coating | 12/1/2018 | 12/7/2018 | 5 | 5 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 1.04**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 3,150; Non-Residential Outdoor: 1,050; Striped Parking Area: 2,718 (Architectural Coating – sqft)**

**OffRoad Equipment**

CM Demo - Los Angeles-South Coast County, Annual

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Buildings Demo | Excavators | 1 | 8.00 | 158 | 0.38 |
| Buildings Demo | Off-Highway Trucks | 1 | 8.00 | 402 | 0.38 |
| Buildings Demo | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Excavation | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Excavation | Excavators | 1 | 8.00 | 158 | 0.38 |
| Excavation | Off-Highway Trucks | 1 | 8.00 | 402 | 0.38 |
| Excavation | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Excavation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 1 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 6.00 | 130 | 0.42 |
| Paving | Paving Equipment | 1 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Site Improvements | Forklifts | 1 | 6.00 | 89 | 0.20 |
| Site Improvements | Tractors/Loaders/Backhoes | 1 | 6.00 | 97 | 0.37 |
| Site Improvements | Welders | 1 | 2.00 | 46 | 0.45 |
| Building Renovation | Forklifts | 1 | 6.00 | 89 | 0.20 |
| Building Renovation | Tractors/Loaders/Backhoes | 1 | 6.00 | 97 | 0.37 |
| Building Renovation | Welders | 1 | 2.00 | 46 | 0.45 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Buildings Demo | 3 | 13.00 | 0.00 | 68.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Excavation | 5 | 13.00 | 0.00 | 75.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 5 | 8.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Improvements | 3 | 13.00 | 2.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Renovation | 3 | 13.00 | 2.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 8.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Buildings Demo - 2018

**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 | | | | | 1.7700e-003 | 0.0000 | 1.7700e-003 | 2.7000e-004 | 0.0000 | 2.7000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 1.3300e-003 | 0.0141 | 9.8100e-003 | 2.0000e-005 | | 6.4000e-004 | 6.4000e-004 | | 5.9000e-004 | 5.9000e-004 | 0.0000 | 1.9613 | 1.9613 | 6.1000e-004 | 0.0000 | 1.9766 |
| **Total** | **1.3300e-003** | **0.0141** | **9.8100e-003** | **2.0000e-005** | **1.7700e-003** | **6.4000e-004** | **2.4100e-003** | **2.7000e-004** | **5.9000e-004** | **8.6000e-004** | **0.0000** | **1.9613** | **1.9613** | **6.1000e-004** | **0.0000** | **1.9766** |

## 3.2 Buildings Demo - 2018

### 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 | 3.4000e-004 | 0.0114 | 2.3400e-003 | 3.0000e-005 | 5.8000e-004 | 4.0000e-005 | 6.3000e-004 | 1.6000e-004 | 4.0000e-005 | 2.0000e-004 | 0.0000 | 2.6818 | 2.6818 | 1.9000e-004 | 0.0000 | 2.6865 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.0000e-005 | 6.0000e-005 | 6.6000e-004 | 0.0000 | 1.4000e-004 | 0.0000 | 1.4000e-004 | 4.0000e-005 | 0.0000 | 4.0000e-005 | 0.0000 | 0.1415 | 0.1415 | 1.0000e-005 | 0.0000 | 0.1417 |
| **Total** | **4.1000e-004** | **0.0114** | **3.0000e-003** | **3.0000e-005** | **7.2000e-004** | **4.0000e-005** | **7.7000e-004** | **2.0000e-004** | **4.0000e-005** | **2.4000e-004** | **0.0000** | **2.8233** | **2.8233** | **2.0000e-004** | **0.0000** | **2.8282** |

### 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 | | | | | 1.7700e-003 | 0.0000 | 1.7700e-003 | 2.7000e-004 | 0.0000 | 2.7000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 1.3300e-003 | 0.0141 | 9.8100e-003 | 2.0000e-005 | | 6.4000e-004 | 6.4000e-004 | | 5.9000e-004 | 5.9000e-004 | 0.0000 | 1.9613 | 1.9613 | 6.1000e-004 | 0.0000 | 1.9766 |
| **Total** | **1.3300e-003** | **0.0141** | **9.8100e-003** | **2.0000e-005** | **1.7700e-003** | **6.4000e-004** | **2.4100e-003** | **2.7000e-004** | **5.9000e-004** | **8.6000e-004** | **0.0000** | **1.9613** | **1.9613** | **6.1000e-004** | **0.0000** | **1.9766** |

## 3.2 Buildings Demo - 2018

**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 | 3.4000e-004 | 0.0114 | 2.3400e-003 | 3.0000e-005 | 5.8000e-004 | 4.0000e-005 | 6.3000e-004 | 1.6000e-004 | 4.0000e-005 | 2.0000e-004 | 0.0000 | 2.6818 | 2.6818 | 1.9000e-004 | 0.0000 | 2.6865 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.0000e-005 | 6.0000e-005 | 6.6000e-004 | 0.0000 | 1.4000e-004 | 0.0000 | 1.4000e-004 | 4.0000e-005 | 0.0000 | 4.0000e-005 | 0.0000 | 0.1415 | 0.1415 | 1.0000e-005 | 0.0000 | 0.1417 |
| **Total** | **4.1000e-004** | **0.0114** | **3.0000e-003** | **3.0000e-005** | **7.2000e-004** | **4.0000e-005** | **7.7000e-004** | **2.0000e-004** | **4.0000e-005** | **2.4000e-004** | **0.0000** | **2.8233** | **2.8233** | **2.0000e-004** | **0.0000** | **2.8282** |

## 3.3 Excavation - 2018

**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 | 7.5400e-003 | 0.0763 | 0.0448 | 9.0000e-005 | | 3.7900e-003 | 3.7900e-003 | | 3.5400e-003 | 3.5400e-003 | 0.0000 | 8.1983 | 8.1983 | 2.2400e-003 | 0.0000 | 8.2542 |
| **Total** | **7.5400e-003** | **0.0763** | **0.0448** | **9.0000e-005** | | **3.7900e-003** | **3.7900e-003** | | **3.5400e-003** | **3.5400e-003** | **0.0000** | **8.1983** | **8.1983** | **2.2400e-003** | **0.0000** | **8.2542** |

## 3.3 Excavation - 2018

### 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 | 3.8000e-004 | 0.0125 | 2.5800e-003 | 3.0000e-005 | 6.4000e-004 | 5.0000e-005 | 6.9000e-004 | 1.8000e-004 | 4.0000e-005 | 2.2000e-004 | 0.0000 | 2.9579 | 2.9579 | 2.1000e-004 | 0.0000 | 2.9631 |
| 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 | 1.8000e-004 | 1.5000e-004 | 1.6600e-003 | 0.0000 | 3.6000e-004 | 0.0000 | 3.6000e-004 | 9.0000e-005 | 0.0000 | 1.0000e-004 | 0.0000 | 0.3539 | 0.3539 | 1.0000e-005 | 0.0000 | 0.3542 |
| **Total** | **5.6000e-004** | **0.0127** | **4.2400e-003** | **3.0000e-005** | **1.0000e-003** | **5.0000e-005** | **1.0500e-003** | **2.7000e-004** | **4.0000e-005** | **3.2000e-004** | **0.0000** | **3.3117** | **3.3117** | **2.2000e-004** | **0.0000** | **3.3173** |

### 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 | 7.5400e-003 | 0.0763 | 0.0448 | 9.0000e-005 | | 3.7900e-003 | 3.7900e-003 | | 3.5400e-003 | 3.5400e-003 | 0.0000 | 8.1983 | 8.1983 | 2.2400e-003 | 0.0000 | 8.2542 |
| **Total** | **7.5400e-003** | **0.0763** | **0.0448** | **9.0000e-005** | | **3.7900e-003** | **3.7900e-003** | | **3.5400e-003** | **3.5400e-003** | **0.0000** | **8.1983** | **8.1983** | **2.2400e-003** | **0.0000** | **8.2542** |

## 3.3 Excavation - 2018

**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 | 3.8000e-004 | 0.0125 | 2.5800e-003 | 3.0000e-005 | 6.4000e-004 | 5.0000e-005 | 6.9000e-004 | 1.8000e-004 | 4.0000e-005 | 2.2000e-004 | 0.0000 | 2.9579 | 2.9579 | 2.1000e-004 | 0.0000 | 2.9631 |
| 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 | 1.8000e-004 | 1.5000e-004 | 1.6600e-003 | 0.0000 | 3.6000e-004 | 0.0000 | 3.6000e-004 | 9.0000e-005 | 0.0000 | 1.0000e-004 | 0.0000 | 0.3539 | 0.3539 | 1.0000e-005 | 0.0000 | 0.3542 |
| **Total** | **5.6000e-004** | **0.0127** | **4.2400e-003** | **3.0000e-005** | **1.0000e-003** | **5.0000e-005** | **1.0500e-003** | **2.7000e-004** | **4.0000e-005** | **3.2000e-004** | **0.0000** | **3.3117** | **3.3117** | **2.2000e-004** | **0.0000** | **3.3173** |

## 3.4 Paving - 2018

**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 | 2.5500e-003 | 0.0261 | 0.0225 | 3.0000e-005 | | 1.5200e-003 | 1.5200e-003 | | 1.4000e-003 | 1.4000e-003 | 0.0000 | 3.0537 | 3.0537 | 9.3000e-004 | 0.0000 | 3.0770 |
| Paving | 1.3600e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **3.9100e-003** | **0.0261** | **0.0225** | **3.0000e-005** | | **1.5200e-003** | **1.5200e-003** | | **1.4000e-003** | **1.4000e-003** | **0.0000** | **3.0537** | **3.0537** | **9.3000e-004** | **0.0000** | **3.0770** |

## 3.4 Paving - 2018

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.1000e-004 | 9.0000e-005 | 1.0200e-003 | 0.0000 | 2.2000e-004 | 0.0000 | 2.2000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.2178 | 0.2178 | 1.0000e-005 | 0.0000 | 0.2180 |
| **Total** | **1.1000e-004** | **9.0000e-005** | **1.0200e-003** | **0.0000** | **2.2000e-004** | **0.0000** | **2.2000e-004** | **6.0000e-005** | **0.0000** | **6.0000e-005** | **0.0000** | **0.2178** | **0.2178** | **1.0000e-005** | **0.0000** | **0.2180** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 2.5500e-003 | 0.0261 | 0.0225 | 3.0000e-005 | | 1.5200e-003 | 1.5200e-003 | | 1.4000e-003 | 1.4000e-003 | 0.0000 | 3.0537 | 3.0537 | 9.3000e-004 | 0.0000 | 3.0770 |
| Paving | 1.3600e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **3.9100e-003** | **0.0261** | **0.0225** | **3.0000e-005** | | **1.5200e-003** | **1.5200e-003** | | **1.4000e-003** | **1.4000e-003** | **0.0000** | **3.0537** | **3.0537** | **9.3000e-004** | **0.0000** | **3.0770** |

## 3.4 Paving - 2018

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.1000e-004 | 9.0000e-005 | 1.0200e-003 | 0.0000 | 2.2000e-004 | 0.0000 | 2.2000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.2178 | 0.2178 | 1.0000e-005 | 0.0000 | 0.2180 |
| **Total** | **1.1000e-004** | **9.0000e-005** | **1.0200e-003** | **0.0000** | **2.2000e-004** | **0.0000** | **2.2000e-004** | **6.0000e-005** | **0.0000** | **6.0000e-005** | **0.0000** | **0.2178** | **0.2178** | **1.0000e-005** | **0.0000** | **0.2180** |

## 3.5 Site Improvements - 2018

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 4.4400e-003 | 0.0357 | 0.0313 | 4.0000e-005 | | 2.6200e-003 | 2.6200e-003 | | 2.4400e-003 | 2.4400e-003 | 0.0000 | 3.6450 | 3.6450 | 1.0800e-003 | 0.0000 | 3.6720 |
| **Total** | **4.4400e-003** | **0.0357** | **0.0313** | **4.0000e-005** | | **2.6200e-003** | **2.6200e-003** | | **2.4400e-003** | **2.4400e-003** | **0.0000** | **3.6450** | **3.6450** | **1.0800e-003** | **0.0000** | **3.6720** |

## 3.5 Site Improvements - 2018

### 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 | 9.0000e-005 | 2.5000e-003 | 7.0000e-004 | 1.0000e-005 | 1.3000e-004 | 2.0000e-005 | 1.4000e-004 | 4.0000e-005 | 2.0000e-005 | 5.0000e-005 | 0.0000 | 0.5053 | 0.5053 | 3.0000e-005 | 0.0000 | 0.5062 |
| Worker | 7.2000e-004 | 6.2000e-004 | 6.6300e-003 | 2.0000e-005 | 1.4200e-003 | 1.0000e-005 | 1.4400e-003 | 3.8000e-004 | 1.0000e-005 | 3.9000e-004 | 0.0000 | 1.4154 | 1.4154 | 5.0000e-005 | 0.0000 | 1.4168 |
| **Total** | **8.1000e-004** | **3.1200e-003** | **7.3300e-003** | **3.0000e-005** | **1.5500e-003** | **3.0000e-005** | **1.5800e-003** | **4.2000e-004** | **3.0000e-005** | **4.4000e-004** | **0.0000** | **1.9208** | **1.9208** | **8.0000e-005** | **0.0000** | **1.9230** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 4.4400e-003 | 0.0357 | 0.0313 | 4.0000e-005 | | 2.6200e-003 | 2.6200e-003 | | 2.4400e-003 | 2.4400e-003 | 0.0000 | 3.6450 | 3.6450 | 1.0800e-003 | 0.0000 | 3.6720 |
| **Total** | **4.4400e-003** | **0.0357** | **0.0313** | **4.0000e-005** | | **2.6200e-003** | **2.6200e-003** | | **2.4400e-003** | **2.4400e-003** | **0.0000** | **3.6450** | **3.6450** | **1.0800e-003** | **0.0000** | **3.6720** |

## 3.5 Site Improvements - 2018

**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 | 9.0000e-005 | 2.5000e-003 | 7.0000e-004 | 1.0000e-005 | 1.3000e-004 | 2.0000e-005 | 1.4000e-004 | 4.0000e-005 | 2.0000e-005 | 5.0000e-005 | 0.0000 | 0.5053 | 0.5053 | 3.0000e-005 | 0.0000 | 0.5062 |
| Worker | 7.2000e-004 | 6.2000e-004 | 6.6300e-003 | 2.0000e-005 | 1.4200e-003 | 1.0000e-005 | 1.4400e-003 | 3.8000e-004 | 1.0000e-005 | 3.9000e-004 | 0.0000 | 1.4154 | 1.4154 | 5.0000e-005 | 0.0000 | 1.4168 |
| **Total** | **8.1000e-004** | **3.1200e-003** | **7.3300e-003** | **3.0000e-005** | **1.5500e-003** | **3.0000e-005** | **1.5800e-003** | **4.2000e-004** | **3.0000e-005** | **4.4000e-004** | **0.0000** | **1.9208** | **1.9208** | **8.0000e-005** | **0.0000** | **1.9230** |

## 3.6 Building Renovation - 2018

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 6.6500e-003 | 0.0536 | 0.0469 | 6.0000e-005 | | 3.9400e-003 | 3.9400e-003 | | 3.6500e-003 | 3.6500e-003 | 0.0000 | 5.4675 | 5.4675 | 1.6200e-003 | 0.0000 | 5.5079 |
| **Total** | **6.6500e-003** | **0.0536** | **0.0469** | **6.0000e-005** | | **3.9400e-003** | **3.9400e-003** | | **3.6500e-003** | **3.6500e-003** | **0.0000** | **5.4675** | **5.4675** | **1.6200e-003** | **0.0000** | **5.5079** |

## 3.6 Building Renovation - 2018

### 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 | 1.4000e-004 | 3.7600e-003 | 1.0600e-003 | 1.0000e-005 | 1.9000e-004 | 3.0000e-005 | 2.2000e-004 | 5.0000e-005 | 2.0000e-005 | 8.0000e-005 | 0.0000 | 0.7580 | 0.7580 | 5.0000e-005 | 0.0000 | 0.7593 |
| Worker | 1.0800e-003 | 9.2000e-004 | 9.9400e-003 | 2.0000e-005 | 2.1400e-003 | 2.0000e-005 | 2.1600e-003 | 5.7000e-004 | 2.0000e-005 | 5.9000e-004 | 0.0000 | 2.1232 | 2.1232 | 8.0000e-005 | 0.0000 | 2.1252 |
| **Total** | **1.2200e-003** | **4.6800e-003** | **0.0110** | **3.0000e-005** | **2.3300e-003** | **5.0000e-005** | **2.3800e-003** | **6.2000e-004** | **4.0000e-005** | **6.7000e-004** | **0.0000** | **2.8812** | **2.8812** | **1.3000e-004** | **0.0000** | **2.8845** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 6.6500e-003 | 0.0536 | 0.0469 | 6.0000e-005 | | 3.9400e-003 | 3.9400e-003 | | 3.6500e-003 | 3.6500e-003 | 0.0000 | 5.4675 | 5.4675 | 1.6200e-003 | 0.0000 | 5.5079 |
| **Total** | **6.6500e-003** | **0.0536** | **0.0469** | **6.0000e-005** | | **3.9400e-003** | **3.9400e-003** | | **3.6500e-003** | **3.6500e-003** | **0.0000** | **5.4675** | **5.4675** | **1.6200e-003** | **0.0000** | **5.5079** |

## 3.6 Building Renovation - 2018

**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 | 1.4000e-004 | 3.7600e-003 | 1.0600e-003 | 1.0000e-005 | 1.9000e-004 | 3.0000e-005 | 2.2000e-004 | 5.0000e-005 | 2.0000e-005 | 8.0000e-005 | 0.0000 | 0.7580 | 0.7580 | 5.0000e-005 | 0.0000 | 0.7593 |
| Worker | 1.0800e-003 | 9.2000e-004 | 9.9400e-003 | 2.0000e-005 | 2.1400e-003 | 2.0000e-005 | 2.1600e-003 | 5.7000e-004 | 2.0000e-005 | 5.9000e-004 | 0.0000 | 2.1232 | 2.1232 | 8.0000e-005 | 0.0000 | 2.1252 |
| **Total** | **1.2200e-003** | **4.6800e-003** | **0.0110** | **3.0000e-005** | **2.3300e-003** | **5.0000e-005** | **2.3800e-003** | **6.2000e-004** | **4.0000e-005** | **6.7000e-004** | **0.0000** | **2.8812** | **2.8812** | **1.3000e-004** | **0.0000** | **2.8845** |

## 3.7 Architectural Coating - 2018

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 0.0160 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 7.5000e-004 | 5.0100e-003 | 4.6400e-003 | 1.0000e-005 | | 3.8000e-004 | 3.8000e-004 | | 3.8000e-004 | 3.8000e-004 | 0.0000 | 0.6383 | 0.6383 | 6.0000e-005 | 0.0000 | 0.6398 |
| **Total** | **0.0168** | **5.0100e-003** | **4.6400e-003** | **1.0000e-005** | | **3.8000e-004** | **3.8000e-004** | | **3.8000e-004** | **3.8000e-004** | **0.0000** | **0.6383** | **0.6383** | **6.0000e-005** | **0.0000** | **0.6398** |

## 3.7 Architectural Coating - 2018

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.1000e-004 | 9.0000e-005 | 1.0200e-003 | 0.0000 | 2.2000e-004 | 0.0000 | 2.2000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.2178 | 0.2178 | 1.0000e-005 | 0.0000 | 0.2180 |
| **Total** | **1.1000e-004** | **9.0000e-005** | **1.0200e-003** | **0.0000** | **2.2000e-004** | **0.0000** | **2.2000e-004** | **6.0000e-005** | **0.0000** | **6.0000e-005** | **0.0000** | **0.2178** | **0.2178** | **1.0000e-005** | **0.0000** | **0.2180** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 0.0160 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 7.5000e-004 | 5.0100e-003 | 4.6400e-003 | 1.0000e-005 | | 3.8000e-004 | 3.8000e-004 | | 3.8000e-004 | 3.8000e-004 | 0.0000 | 0.6383 | 0.6383 | 6.0000e-005 | 0.0000 | 0.6398 |
| **Total** | **0.0168** | **5.0100e-003** | **4.6400e-003** | **1.0000e-005** | | **3.8000e-004** | **3.8000e-004** | | **3.8000e-004** | **3.8000e-004** | **0.0000** | **0.6383** | **0.6383** | **6.0000e-005** | **0.0000** | **0.6398** |

### 3.7 Architectural Coating - 2018

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.1000e-004 | 9.0000e-005 | 1.0200e-003 | 0.0000 | 2.2000e-004 | 0.0000 | 2.2000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.2178 | 0.2178 | 1.0000e-005 | 0.0000 | 0.2180 |
| **Total** | **1.1000e-004** | **9.0000e-005** | **1.0200e-003** | **0.0000** | **2.2000e-004** | **0.0000** | **2.2000e-004** | **6.0000e-005** | **0.0000** | **6.0000e-005** | **0.0000** | **0.2178** | **0.2178** | **1.0000e-005** | **0.0000** | **0.2180** |

## 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 | 6.8100e-003 | 0.0345 | 0.0930 | 2.8000e-004 | 0.0215 | 3.3000e-004 | 0.0219 | 5.7700e-003 | 3.1000e-004 | 6.0800e-003 | 0.0000 | 25.9471 | 25.9471 | 1.5300e-003 | 0.0000 | 25.9854 |
| Unmitigated | 6.8100e-003 | 0.0345 | 0.0930 | 2.8000e-004 | 0.0215 | 3.3000e-004 | 0.0219 | 5.7700e-003 | 3.1000e-004 | 6.0800e-003 | 0.0000 | 25.9471 | 25.9471 | 1.5300e-003 | 0.0000 | 25.9854 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Office Building | 23.16 | 5.17 | 2.21 | 56,691 | 56,691 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Total | 23.16 | 5.17 | 2.21 | 56,691 | 56,691 |

## 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 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| Other Asphalt Surfaces | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General Office Building | 0.548007 | 0.045751 | 0.200309 | 0.124119 | 0.017133 | 0.006025 | 0.018861 | 0.028423 | 0.002391 | 0.002469 | 0.004915 | 0.000672 | 0.000925 |
| Other Asphalt Surfaces | 0.548007 | 0.045751 | 0.200309 | 0.124119 | 0.017133 | 0.006025 | 0.018861 | 0.028423 | 0.002391 | 0.002469 | 0.004915 | 0.000672 | 0.000925 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 15.1934 | 15.1934 | 3.6000e-004 | 7.0000e-005 | 15.2245 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 15.1934 | 15.1934 | 3.6000e-004 | 7.0000e-005 | 15.2245 |
| NaturalGas Mitigated | 1.2000e-004 | 1.0700e-003 | 9.0000e-004 | 1.0000e-005 | | 8.0000e-005 | 8.0000e-005 | | 8.0000e-005 | 8.0000e-005 | 0.0000 | 1.1666 | 1.1666 | 2.0000e-005 | 2.0000e-005 | 1.1735 |
| NaturalGas Unmitigated | 1.2000e-004 | 1.0700e-003 | 9.0000e-004 | 1.0000e-005 | | 8.0000e-005 | 8.0000e-005 | | 8.0000e-005 | 8.0000e-005 | 0.0000 | 1.1666 | 1.1666 | 2.0000e-005 | 2.0000e-005 | 1.1735 |

## 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 | | | | | |
| General Office Building | 21861 | 1.2000e-004 | 1.0700e-003 | 9.0000e-004 | 1.0000e-005 | | 8.0000e-005 | 8.0000e-005 | | 8.0000e-005 | 8.0000e-005 | 0.0000 | 1.1666 | 1.1666 | 2.0000e-005 | 2.0000e-005 | 1.1735 |
| 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** | | **1.2000e-004** | **1.0700e-003** | **9.0000e-004** | **1.0000e-005** | | **8.0000e-005** | **8.0000e-005** | | **8.0000e-005** | **8.0000e-005** | **0.0000** | **1.1666** | **1.1666** | **2.0000e-005** | **2.0000e-005** | **1.1735** |

### 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 | | | | | |
| General Office Building | 21861 | 1.2000e-004 | 1.0700e-003 | 9.0000e-004 | 1.0000e-005 | | 8.0000e-005 | 8.0000e-005 | | 8.0000e-005 | 8.0000e-005 | 0.0000 | 1.1666 | 1.1666 | 2.0000e-005 | 2.0000e-005 | 1.1735 |
| 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** | | **1.2000e-004** | **1.0700e-003** | **9.0000e-004** | **1.0000e-005** | | **8.0000e-005** | **8.0000e-005** | | **8.0000e-005** | **8.0000e-005** | **0.0000** | **1.1666** | **1.1666** | **2.0000e-005** | **2.0000e-005** | **1.1735** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| General Office Building | 27279 | 15.1934 | 3.6000e-004 | 7.0000e-005 | 15.2245 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **15.1934** | **3.6000e-004** | **7.0000e-005** | **15.2245** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| General Office Building | 27279 | 15.1934 | 3.6000e-004 | 7.0000e-005 | 15.2245 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **15.1934** | **3.6000e-004** | **7.0000e-005** | **15.2245** |

# 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 | 0.0121 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 8.0000e-005 | 8.0000e-005 | 0.0000 | 0.0000 | 8.0000e-005 |
| Unmitigated | 0.0121 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 8.0000e-005 | 8.0000e-005 | 0.0000 | 0.0000 | 8.0000e-005 |

## 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 | 1.6000e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0105 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 8.0000e-005 | 8.0000e-005 | 0.0000 | 0.0000 | 8.0000e-005 |
| **Total** | **0.0121** | **0.0000** | **4.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **8.0000e-005** | **8.0000e-005** | **0.0000** | **0.0000** | **8.0000e-005** |

### 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 1.6000e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0105 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 4.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 8.0000e-005 | 8.0000e-005 | 0.0000 | 0.0000 | 8.0000e-005 |
| **Total** | **0.0121** | **0.0000** | **4.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **8.0000e-005** | **8.0000e-005** | **0.0000** | **0.0000** | **8.0000e-005** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 4.2408 | 0.0123 | 3.1000e-004 | 4.6388 |
| Unmitigated | 4.2408 | 0.0123 | 3.1000e-004 | 4.6388 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| General Office Building | 0.373241 / 0.228761 | 4.2408 | 0.0123 | 3.1000e-004 | 4.6388 |
| Other Asphalt Surfaces | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **4.2408** | **0.0123** | **3.1000e-004** | **4.6388** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| General Office Building | 0.373241 / 0.228761 | 4.2408 | 0.0123 | 3.1000e-004 | 4.6388 |
| Other Asphalt Surfaces | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **4.2408** | **0.0123** | **3.1000e-004** | **4.6388** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 0.3958 | 0.0234 | 0.0000 | 0.9807 |
| Unmitigated | 0.3958 | 0.0234 | 0.0000 | 0.9807 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| General Office Building | 1.95 | 0.3958 | 0.0234 | 0.0000 | 0.9807 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.3958** | **0.0234** | **0.0000** | **0.9807** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| General Office Building | 1.95 | 0.3958 | 0.0234 | 0.0000 | 0.9807 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.3958** | **0.0234** | **0.0000** | **0.9807** |

## 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

# CM Demo

**Los Angeles-South Coast County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Office Building | 2.10 | 1000sqft | 0.05 | 2,100.00 | 4 |
| Other Asphalt Surfaces | 1.04 | Acre | 1.04 | 45,302.40 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 33 |
| **Climate Zone** | 11 | | | **Operational Year** | 2019 |
| **Utility Company** | Los Angeles Department of Water & Power | | | | |
| **CO2 Intensity (lb/MWhr)** | 1227.89 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Tool check-out operations will relocate to this existing building after refurbishment.

Construction Phase - Construction Schedule Estimate.

Off-road Equipment -

Off-road Equipment - Interior/Exterior renovations to existing concrete building (30 x 70 ft).

Off-road Equipment - Demo 2 small buildings (30 x 40 ft, 30 x 80 ft)

Off-road Equipment -

Off-road Equipment - Trenching for utilities routing.

Off-road Equipment - Repave lot

Off-road Equipment - Install perimeter fencing.

Trips and VMT - Demolition Debris Default Estimate for 30' x 40' and 30' x 80' Buildings. Soil hauling for 1,800 cu ft trenching. Building Supplies (fencing) Hauling.

Demolition -

Architectural Coating -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating -

Landscape Equipment -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Fleet Mix -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 20.00 | 2.00 |
| tblConstructionPhase | NumDays | 10.00 | 5.00 |
| tblConstructionPhase | NumDays | 200.00 | 20.00 |

| | | | |
|---|---|---|---|
| tblConstructionPhase | NumDays | 200.00 | 30.00 |
| tblConstructionPhase | NumDays | 10.00 | 5.00 |
| tblLandUse | Population | 0.00 | 4.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | PhaseName | | Excavation |
| tblOffRoadEquipment | PhaseName | | Buildings Demo |
| tblOffRoadEquipment | PhaseName | | Excavation |
| tblOffRoadEquipment | PhaseName | | Buildings Demo |
| tblOffRoadEquipment | PhaseName | | Excavation |
| tblOffRoadEquipment | PhaseName | | Excavation |
| tblOffRoadEquipment | PhaseName | | Excavation |
| tblOffRoadEquipment | UsageHours | 8.00 | 2.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 2.00 |
| tblTripsAndVMT | HaulingTripNumber | 16.00 | 68.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 75.00 |
| tblTripsAndVMT | VendorTripNumber | 8.00 | 2.00 |
| tblTripsAndVMT | VendorTripNumber | 8.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 8.00 | 13.00 |

| | | | |
|---|---|---|---|
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 8.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 13.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 13.00 |
| tblTripsAndVMT | WorkerTripNumber | 4.00 | 8.00 |

## 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 | | | | | |
| 2018 | 6.7558 | 35.4257 | 19.6194 | 0.0507 | 2.5116 | 1.5376 | 3.1950 | 0.4698 | 1.4366 | 1.5470 | 0.0000 | 5,302.0463 | 5,302.0463 | 1.0833 | 0.0000 | 5,324.1491 |
| **Maximum** | **6.7558** | **35.4257** | **19.6194** | **0.0507** | **2.5116** | **1.5376** | **3.1950** | **0.4698** | **1.4366** | **1.5470** | **0.0000** | **5,302.0463** | **5,302.0463** | **1.0833** | **0.0000** | **5,324.1491** |

### 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 | | | | | |
| 2018 | 6.7558 | 35.4257 | 19.6194 | 0.0507 | 2.5116 | 1.5376 | 3.1950 | 0.4698 | 1.4366 | 1.5470 | 0.0000 | 5,302.0463 | 5,302.0463 | 1.0833 | 0.0000 | 5,324.1491 |
| **Maximum** | **6.7558** | **35.4257** | **19.6194** | **0.0507** | **2.5116** | **1.5376** | **3.1950** | **0.4698** | **1.4366** | **1.5470** | **0.0000** | **5,302.0463** | **5,302.0463** | **1.0833** | **0.0000** | **5,324.1491** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0664 | 0.0000 | 3.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 6.9000e-004 | 6.9000e-004 | 0.0000 | | 7.3000e-004 |
| Energy | 6.5000e-004 | 5.8700e-003 | 4.9300e-003 | 4.0000e-005 | | 4.5000e-004 | 4.5000e-004 | | 4.5000e-004 | 4.5000e-004 | | 7.0463 | 7.0463 | 1.4000e-004 | 1.3000e-004 | 7.0881 |
| Mobile | 0.0518 | 0.2379 | 0.6964 | 2.1100e-003 | 0.1587 | 2.3800e-003 | 0.1611 | 0.0425 | 2.2400e-003 | 0.0447 | | 214.4726 | 214.4726 | 0.0123 | | 214.7805 |
| **Total** | **0.1189** | **0.2438** | **0.7016** | **2.1500e-003** | **0.1587** | **2.8300e-003** | **0.1615** | **0.0425** | **2.6900e-003** | **0.0452** | | **221.5195** | **221.5195** | **0.0125** | **1.3000e-004** | **221.8693** |

### 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 | 0.0664 | 0.0000 | 3.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 6.9000e-004 | 6.9000e-004 | 0.0000 | | 7.3000e-004 |
| Energy | 6.5000e-004 | 5.8700e-003 | 4.9300e-003 | 4.0000e-005 | | 4.5000e-004 | 4.5000e-004 | | 4.5000e-004 | 4.5000e-004 | | 7.0463 | 7.0463 | 1.4000e-004 | 1.3000e-004 | 7.0881 |
| Mobile | 0.0518 | 0.2379 | 0.6964 | 2.1100e-003 | 0.1587 | 2.3800e-003 | 0.1611 | 0.0425 | 2.2400e-003 | 0.0447 | | 214.4726 | 214.4726 | 0.0123 | | 214.7805 |
| **Total** | **0.1189** | **0.2438** | **0.7016** | **2.1500e-003** | **0.1587** | **2.8300e-003** | **0.1615** | **0.0425** | **2.6900e-003** | **0.0452** | | **221.5195** | **221.5195** | **0.0125** | **1.3000e-004** | **221.8693** |

| | ROG | NOx | 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 | Buildings Demo | Demolition | 9/1/2018 | 9/4/2018 | 5 | 2 | |
| 2 | Excavation | Trenching | 9/8/2018 | 9/14/2018 | 5 | 5 | |
| 3 | Paving | Paving | 9/15/2018 | 9/21/2018 | 5 | 5 | |
| 4 | Site Improvements | Building Construction | 9/22/2018 | 10/19/2018 | 5 | 20 | |
| 5 | Building Renovation | Building Construction | 10/20/2018 | 11/30/2018 | 5 | 30 | |
| 6 | Architectural Coating | Architectural Coating | 12/1/2018 | 12/7/2018 | 5 | 5 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 1.04**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 3,150; Non-Residential Outdoor: 1,050; Striped Parking Area: 2,718 (Architectural Coating – sqft)**

**OffRoad Equipment**

CM Demo - Los Angeles-South Coast County, Summer

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Buildings Demo | Excavators | 1 | 8.00 | 158 | 0.38 |
| Buildings Demo | Off-Highway Trucks | 1 | 8.00 | 402 | 0.38 |
| Buildings Demo | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Excavation | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Excavation | Excavators | 1 | 8.00 | 158 | 0.38 |
| Excavation | Off-Highway Trucks | 1 | 8.00 | 402 | 0.38 |
| Excavation | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Excavation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 1 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 6.00 | 130 | 0.42 |
| Paving | Paving Equipment | 1 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Site Improvements | Forklifts | 1 | 6.00 | 89 | 0.20 |
| Site Improvements | Tractors/Loaders/Backhoes | 1 | 6.00 | 97 | 0.37 |
| Site Improvements | Welders | 1 | 2.00 | 46 | 0.45 |
| Building Renovation | Forklifts | 1 | 6.00 | 89 | 0.20 |
| Building Renovation | Tractors/Loaders/Backhoes | 1 | 6.00 | 97 | 0.37 |
| Building Renovation | Welders | 1 | 2.00 | 46 | 0.45 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Buildings Demo | 3 | 13.00 | 0.00 | 68.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Excavation | 5 | 13.00 | 0.00 | 75.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 5 | 8.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Improvements | 3 | 13.00 | 2.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Renovation | 3 | 13.00 | 2.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 8.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Buildings Demo - 2018

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 1.7718 | 0.0000 | 1.7718 | 0.2683 | 0.0000 | 0.2683 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.3286 | 14.0506 | 9.8140 | 0.0215 | | 0.6403 | 0.6403 | | 0.5891 | 0.5891 | | 2,161.9771 | 2,161.9771 | 0.6731 | | 2,178.8034 |
| **Total** | **1.3286** | **14.0506** | **9.8140** | **0.0215** | **1.7718** | **0.6403** | **2.4122** | **0.2683** | **0.5891** | **0.8574** | | **2,161.9771** | **2,161.9771** | **0.6731** | | **2,178.8034** |

## 3.2 Buildings Demo - 2018

### 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 | 0.3375 | 10.9842 | 2.2728 | 0.0276 | 0.5944 | 0.0418 | 0.6362 | 0.1629 | 0.0400 | 0.2029 | | 2,977.0895 | 2,977.0895 | 0.2050 | | 2,982.2132 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0718 | 0.0542 | 0.7021 | 1.6400e-003 | 0.1453 | 1.3000e-003 | 0.1466 | 0.0385 | 1.1900e-003 | 0.0397 | | 162.9797 | 162.9797 | 6.1100e-003 | | 163.1325 |
| **Total** | **0.4093** | **11.0384** | **2.9749** | **0.0292** | **0.7397** | **0.0431** | **0.7828** | **0.2015** | **0.0412** | **0.2426** | | **3,140.0692** | **3,140.0692** | **0.2111** | | **3,145.3457** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 1.7718 | 0.0000 | 1.7718 | 0.2683 | 0.0000 | 0.2683 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.3286 | 14.0506 | 9.8140 | 0.0215 | | 0.6403 | 0.6403 | | 0.5891 | 0.5891 | 0.0000 | 2,161.9771 | 2,161.9771 | 0.6731 | | 2,178.8034 |
| **Total** | **1.3286** | **14.0506** | **9.8140** | **0.0215** | **1.7718** | **0.6403** | **2.4122** | **0.2683** | **0.5891** | **0.8574** | **0.0000** | **2,161.9771** | **2,161.9771** | **0.6731** | | **2,178.8034** |

## 3.2 Buildings Demo - 2018

**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 | 0.3375 | 10.9842 | 2.2728 | 0.0276 | 0.5944 | 0.0418 | 0.6362 | 0.1629 | 0.0400 | 0.2029 | | 2,977.0895 | 2,977.0895 | 0.2050 | | 2,982.2132 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0718 | 0.0542 | 0.7021 | 1.6400e-003 | 0.1453 | 1.3000e-003 | 0.1466 | 0.0385 | 1.1900e-003 | 0.0397 | | 162.9797 | 162.9797 | 6.1100e-003 | | 163.1325 |
| **Total** | **0.4093** | **11.0384** | **2.9749** | **0.0292** | **0.7397** | **0.0431** | **0.7828** | **0.2015** | **0.0412** | **0.2426** | | **3,140.0692** | **3,140.0692** | **0.2111** | | **3,145.3457** |

## 3.3 Excavation - 2018

**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 | 3.0140 | 30.5255 | 17.9146 | 0.0363 | | 1.5179 | 1.5179 | | 1.4178 | 1.4178 | | 3,614.8151 | 3,614.8151 | 0.9867 | | 3,639.4832 |
| **Total** | **3.0140** | **30.5255** | **17.9146** | **0.0363** | | **1.5179** | **1.5179** | | **1.4178** | **1.4178** | | **3,614.8151** | **3,614.8151** | **0.9867** | | **3,639.4832** |

## 3.3 Excavation - 2018

### 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 | 0.1489 | 4.8460 | 1.0027 | 0.0122 | 0.2623 | 0.0184 | 0.2807 | 0.0719 | 0.0176 | 0.0895 | | 1,313.4219 | 1,313.4219 | 0.0904 | | 1,315.6823 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0718 | 0.0542 | 0.7021 | 1.6400e-003 | 0.1453 | 1.3000e-003 | 0.1466 | 0.0385 | 1.1900e-003 | 0.0397 | | 162.9797 | 162.9797 | 6.1100e-003 | | 163.1325 |
| **Total** | **0.2207** | **4.9002** | **1.7048** | **0.0138** | **0.4076** | **0.0197** | **0.4273** | **0.1104** | **0.0188** | **0.1293** | | **1,476.4015** | **1,476.4015** | **0.0965** | | **1,478.8148** |

### 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 | 3.0140 | 30.5255 | 17.9146 | 0.0363 | | 1.5179 | 1.5179 | | 1.4178 | 1.4178 | 0.0000 | 3,614.8151 | 3,614.8151 | 0.9867 | | 3,639.4832 |
| **Total** | **3.0140** | **30.5255** | **17.9146** | **0.0363** | | **1.5179** | **1.5179** | | **1.4178** | **1.4178** | **0.0000** | **3,614.8151** | **3,614.8151** | **0.9867** | | **3,639.4832** |

## 3.3 Excavation - 2018

**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 | 0.1489 | 4.8460 | 1.0027 | 0.0122 | 0.2623 | 0.0184 | 0.2807 | 0.0719 | 0.0176 | 0.0895 | | 1,313.4219 | 1,313.4219 | 0.0904 | | 1,315.6823 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0718 | 0.0542 | 0.7021 | 1.6400e-003 | 0.1453 | 1.3000e-003 | 0.1466 | 0.0385 | 1.1900e-003 | 0.0397 | | 162.9797 | 162.9797 | 6.1100e-003 | | 163.1325 |
| **Total** | **0.2207** | **4.9002** | **1.7048** | **0.0138** | **0.4076** | **0.0197** | **0.4273** | **0.1104** | **0.0188** | **0.1293** | | **1,476.4015** | **1,476.4015** | **0.0965** | | **1,478.8148** |

## 3.4 Paving - 2018

**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 | 1.0182 | 10.4525 | 8.9926 | 0.0135 | | 0.6097 | 0.6097 | | 0.5618 | 0.5618 | | 1,346.4360 | 1,346.4360 | 0.4113 | | 1,356.7186 |
| Paving | 0.5450 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.5632** | **10.4525** | **8.9926** | **0.0135** | | **0.6097** | **0.6097** | | **0.5618** | **0.5618** | | **1,346.4360** | **1,346.4360** | **0.4113** | | **1,356.7186** |

## 3.4 Paving - 2018

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0442 | 0.0334 | 0.4321 | 1.0100e-003 | 0.0894 | 8.0000e-004 | 0.0902 | 0.0237 | 7.4000e-004 | 0.0245 | | 100.2952 | 100.2952 | 3.7600e-003 | | 100.3892 |
| **Total** | **0.0442** | **0.0334** | **0.4321** | **1.0100e-003** | **0.0894** | **8.0000e-004** | **0.0902** | **0.0237** | **7.4000e-004** | **0.0245** | | **100.2952** | **100.2952** | **3.7600e-003** | | **100.3892** |

### 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 | 1.0182 | 10.4525 | 8.9926 | 0.0135 | | 0.6097 | 0.6097 | | 0.5618 | 0.5618 | 0.0000 | 1,346.4360 | 1,346.4360 | 0.4113 | | 1,356.7186 |
| Paving | 0.5450 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.5632** | **10.4525** | **8.9926** | **0.0135** | | **0.6097** | **0.6097** | | **0.5618** | **0.5618** | **0.0000** | **1,346.4360** | **1,346.4360** | **0.4113** | | **1,356.7186** |

## 3.4 Paving - 2018

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0442 | 0.0334 | 0.4321 | 1.0100e-003 | 0.0894 | 8.0000e-004 | 0.0902 | 0.0237 | 7.4000e-004 | 0.0245 | | 100.2952 | 100.2952 | 3.7600e-003 | | 100.3892 |
| **Total** | **0.0442** | **0.0334** | **0.4321** | **1.0100e-003** | **0.0894** | **8.0000e-004** | **0.0902** | **0.0237** | **7.4000e-004** | **0.0245** | | **100.2952** | **100.2952** | **3.7600e-003** | | **100.3892** |

## 3.5 Site Improvements - 2018

**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 | 0.4436 | 3.5737 | 3.1257 | 4.1100e-003 | | 0.2624 | 0.2624 | | 0.2436 | 0.2436 | | 401.7921 | 401.7921 | 0.1189 | | 404.7642 |
| **Total** | **0.4436** | **3.5737** | **3.1257** | **4.1100e-003** | | **0.2624** | **0.2624** | | **0.2436** | **0.2436** | | **401.7921** | **401.7921** | **0.1189** | | **404.7642** |

## 3.5 Site Improvements - 2018

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 9.2000e-003 | 0.2451 | 0.0670 | 5.3000e-004 | 0.0128 | 1.7300e-003 | 0.0145 | 3.6900e-003 | 1.6500e-003 | 5.3400e-003 | | 56.3359 | 56.3359 | 3.7100e-003 | | 56.4286 |
| Worker | 0.0718 | 0.0542 | 0.7021 | 1.6400e-003 | 0.1453 | 1.3000e-003 | 0.1466 | 0.0385 | 1.1900e-003 | 0.0397 | | 162.9797 | 162.9797 | 6.1100e-003 | | 163.1325 |
| **Total** | **0.0810** | **0.2993** | **0.7691** | **2.1700e-003** | **0.1581** | **3.0300e-003** | **0.1611** | **0.0422** | **2.8400e-003** | **0.0451** | | **219.3156** | **219.3156** | **9.8200e-003** | | **219.5611** |

### 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 | 0.4436 | 3.5737 | 3.1257 | 4.1100e-003 | | 0.2624 | 0.2624 | | 0.2436 | 0.2436 | 0.0000 | 401.7921 | 401.7921 | 0.1189 | | 404.7642 |
| **Total** | **0.4436** | **3.5737** | **3.1257** | **4.1100e-003** | | **0.2624** | **0.2624** | | **0.2436** | **0.2436** | **0.0000** | **401.7921** | **401.7921** | **0.1189** | | **404.7642** |

## 3.5 Site Improvements - 2018

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 9.2000e-003 | 0.2451 | 0.0670 | 5.3000e-004 | 0.0128 | 1.7300e-003 | 0.0145 | 3.6900e-003 | 1.6500e-003 | 5.3400e-003 | | 56.3359 | 56.3359 | 3.7100e-003 | | 56.4286 |
| Worker | 0.0718 | 0.0542 | 0.7021 | 1.6400e-003 | 0.1453 | 1.3000e-003 | 0.1466 | 0.0385 | 1.1900e-003 | 0.0397 | | 162.9797 | 162.9797 | 6.1100e-003 | | 163.1325 |
| **Total** | **0.0810** | **0.2993** | **0.7691** | **2.1700e-003** | **0.1581** | **3.0300e-003** | **0.1611** | **0.0422** | **2.8400e-003** | **0.0451** | | **219.3156** | **219.3156** | **9.8200e-003** | | **219.5611** |

## 3.6 Building Renovation - 2018

**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 | 0.4436 | 3.5737 | 3.1257 | 4.1100e-003 | | 0.2624 | 0.2624 | | 0.2436 | 0.2436 | | 401.7921 | 401.7921 | 0.1189 | | 404.7642 |
| **Total** | **0.4436** | **3.5737** | **3.1257** | **4.1100e-003** | | **0.2624** | **0.2624** | | **0.2436** | **0.2436** | | **401.7921** | **401.7921** | **0.1189** | | **404.7642** |

## 3.6 Building Renovation - 2018

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 9.2000e-003 | 0.2451 | 0.0670 | 5.3000e-004 | 0.0128 | 1.7300e-003 | 0.0145 | 3.6900e-003 | 1.6500e-003 | 5.3400e-003 | | 56.3359 | 56.3359 | 3.7100e-003 | | 56.4286 |
| Worker | 0.0718 | 0.0542 | 0.7021 | 1.6400e-003 | 0.1453 | 1.3000e-003 | 0.1466 | 0.0385 | 1.1900e-003 | 0.0397 | | 162.9797 | 162.9797 | 6.1100e-003 | | 163.1325 |
| **Total** | **0.0810** | **0.2993** | **0.7691** | **2.1700e-003** | **0.1581** | **3.0300e-003** | **0.1611** | **0.0422** | **2.8400e-003** | **0.0451** | | **219.3156** | **219.3156** | **9.8200e-003** | | **219.5611** |

### 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 | 0.4436 | 3.5737 | 3.1257 | 4.1100e-003 | | 0.2624 | 0.2624 | | 0.2436 | 0.2436 | 0.0000 | 401.7921 | 401.7921 | 0.1189 | | 404.7642 |
| **Total** | **0.4436** | **3.5737** | **3.1257** | **4.1100e-003** | | **0.2624** | **0.2624** | | **0.2436** | **0.2436** | **0.0000** | **401.7921** | **401.7921** | **0.1189** | | **404.7642** |

## 3.6 Building Renovation - 2018

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 9.2000e-003 | 0.2451 | 0.0670 | 5.3000e-004 | 0.0128 | 1.7300e-003 | 0.0145 | 3.6900e-003 | 1.6500e-003 | 5.3400e-003 | | 56.3359 | 56.3359 | 3.7100e-003 | | 56.4286 |
| Worker | 0.0718 | 0.0542 | 0.7021 | 1.6400e-003 | 0.1453 | 1.3000e-003 | 0.1466 | 0.0385 | 1.1900e-003 | 0.0397 | | 162.9797 | 162.9797 | 6.1100e-003 | | 163.1325 |
| **Total** | **0.0810** | **0.2993** | **0.7691** | **2.1700e-003** | **0.1581** | **3.0300e-003** | **0.1611** | **0.0422** | **2.8400e-003** | **0.0451** | | **219.3156** | **219.3156** | **9.8200e-003** | | **219.5611** |

## 3.7 Architectural Coating - 2018

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 6.4130 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2986 | 2.0058 | 1.8542 | 2.9700e-003 | | 0.1506 | 0.1506 | | 0.1506 | 0.1506 | | 281.4485 | 281.4485 | 0.0267 | | 282.1171 |
| **Total** | **6.7116** | **2.0058** | **1.8542** | **2.9700e-003** | | **0.1506** | **0.1506** | | **0.1506** | **0.1506** | | **281.4485** | **281.4485** | **0.0267** | | **282.1171** |

## 3.7 Architectural Coating - 2018

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0442 | 0.0334 | 0.4321 | 1.0100e-003 | 0.0894 | 8.0000e-004 | 0.0902 | 0.0237 | 7.4000e-004 | 0.0245 | | 100.2952 | 100.2952 | 3.7600e-003 | | 100.3892 |
| **Total** | **0.0442** | **0.0334** | **0.4321** | **1.0100e-003** | **0.0894** | **8.0000e-004** | **0.0902** | **0.0237** | **7.4000e-004** | **0.0245** | | **100.2952** | **100.2952** | **3.7600e-003** | | **100.3892** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 6.4130 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2986 | 2.0058 | 1.8542 | 2.9700e-003 | | 0.1506 | 0.1506 | | 0.1506 | 0.1506 | 0.0000 | 281.4485 | 281.4485 | 0.0267 | | 282.1171 |
| **Total** | **6.7116** | **2.0058** | **1.8542** | **2.9700e-003** | | **0.1506** | **0.1506** | | **0.1506** | **0.1506** | **0.0000** | **281.4485** | **281.4485** | **0.0267** | | **282.1171** |

### 3.7 Architectural Coating - 2018

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0442 | 0.0334 | 0.4321 | 1.0100e-003 | 0.0894 | 8.0000e-004 | 0.0902 | 0.0237 | 7.4000e-004 | 0.0245 | | 100.2952 | 100.2952 | 3.7600e-003 | | 100.3892 |
| **Total** | **0.0442** | **0.0334** | **0.4321** | **1.0100e-003** | **0.0894** | **8.0000e-004** | **0.0902** | **0.0237** | **7.4000e-004** | **0.0245** | | **100.2952** | **100.2952** | **3.7600e-003** | | **100.3892** |

## 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 | 0.0518 | 0.2379 | 0.6964 | 2.1100e-003 | 0.1587 | 2.3800e-003 | 0.1611 | 0.0425 | 2.2400e-003 | 0.0447 | | 214.4726 | 214.4726 | 0.0123 | | 214.7805 |
| Unmitigated | 0.0518 | 0.2379 | 0.6964 | 2.1100e-003 | 0.1587 | 2.3800e-003 | 0.1611 | 0.0425 | 2.2400e-003 | 0.0447 | | 214.4726 | 214.4726 | 0.0123 | | 214.7805 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Office Building | 23.16 | 5.17 | 2.21 | 56,691 | 56,691 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Total | 23.16 | 5.17 | 2.21 | 56,691 | 56,691 |

## 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 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| Other Asphalt Surfaces | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General Office Building | 0.548007 | 0.045751 | 0.200309 | 0.124119 | 0.017133 | 0.006025 | 0.018861 | 0.028423 | 0.002391 | 0.002469 | 0.004915 | 0.000672 | 0.000925 |
| Other Asphalt Surfaces | 0.548007 | 0.045751 | 0.200309 | 0.124119 | 0.017133 | 0.006025 | 0.018861 | 0.028423 | 0.002391 | 0.002469 | 0.004915 | 0.000672 | 0.000925 |

## 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 | 6.5000e-004 | 5.8700e-003 | 4.9300e-003 | 4.0000e-005 | | 4.5000e-004 | 4.5000e-004 | | 4.5000e-004 | 4.5000e-004 | | 7.0463 | 7.0463 | 1.4000e-004 | 1.3000e-004 | 7.0881 |
| NaturalGas Unmitigated | 6.5000e-004 | 5.8700e-003 | 4.9300e-003 | 4.0000e-005 | | 4.5000e-004 | 4.5000e-004 | | 4.5000e-004 | 4.5000e-004 | | 7.0463 | 7.0463 | 1.4000e-004 | 1.3000e-004 | 7.0881 |

## 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 | | | | | |
| General Office Building | 59.8932 | 6.5000e-004 | 5.8700e-003 | 4.9300e-003 | 4.0000e-005 | | 4.5000e-004 | 4.5000e-004 | | 4.5000e-004 | 4.5000e-004 | | 7.0463 | 7.0463 | 1.4000e-004 | 1.3000e-004 | 7.0881 |
| 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** | | **6.5000e-004** | **5.8700e-003** | **4.9300e-003** | **4.0000e-005** | | **4.5000e-004** | **4.5000e-004** | | **4.5000e-004** | **4.5000e-004** | | **7.0463** | **7.0463** | **1.4000e-004** | **1.3000e-004** | **7.0881** |

**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 | | | | | |
| General Office Building | 0.0598932 | 6.5000e-004 | 5.8700e-003 | 4.9300e-003 | 4.0000e-005 | | 4.5000e-004 | 4.5000e-004 | | 4.5000e-004 | 4.5000e-004 | | 7.0463 | 7.0463 | 1.4000e-004 | 1.3000e-004 | 7.0881 |
| 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** | | **6.5000e-004** | **5.8700e-003** | **4.9300e-003** | **4.0000e-005** | | **4.5000e-004** | **4.5000e-004** | | **4.5000e-004** | **4.5000e-004** | | **7.0463** | **7.0463** | **1.4000e-004** | **1.3000e-004** | **7.0881** |

# 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 | 0.0664 | 0.0000 | 3.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 6.9000e-004 | 6.9000e-004 | 0.0000 | | 7.3000e-004 |
| Unmitigated | 0.0664 | 0.0000 | 3.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 6.9000e-004 | 6.9000e-004 | 0.0000 | | 7.3000e-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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 8.7800e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0576 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.0000e-005 | 0.0000 | 3.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 6.9000e-004 | 6.9000e-004 | 0.0000 | | 7.3000e-004 |
| **Total** | **0.0664** | **0.0000** | **3.2000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **6.9000e-004** | **6.9000e-004** | **0.0000** | | **7.3000e-004** |

### 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 8.7800e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0576 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.0000e-005 | 0.0000 | 3.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 6.9000e-004 | 6.9000e-004 | 0.0000 | | 7.3000e-004 |
| **Total** | **0.0664** | **0.0000** | **3.2000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **6.9000e-004** | **6.9000e-004** | **0.0000** | | **7.3000e-004** |

## 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

# CM Demo

**Los Angeles-South Coast County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Office Building | 2.10 | 1000sqft | 0.05 | 2,100.00 | 4 |
| Other Asphalt Surfaces | 1.04 | Acre | 1.04 | 45,302.40 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 33 |
| **Climate Zone** | 11 | | | **Operational Year** | 2019 |
| **Utility Company** | Los Angeles Department of Water & Power | | | | |
| **CO2 Intensity (lb/MWhr)** | 1227.89 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Tool check-out operations will relocate to this existing building after refurbishment.

Construction Phase - Construction Schedule Estimate.

Off-road Equipment -

Off-road Equipment - Interior/Exterior renovations to existing concrete building (30 x 70 ft).

Off-road Equipment - Demo 2 small buildings (30 x 40 ft, 30 x 80 ft)

Off-road Equipment -

Off-road Equipment - Trenching for utilities routing.

Off-road Equipment - Repave lot

Off-road Equipment - Install perimeter fencing.

Trips and VMT - Demolition Debris Default Estimate for 30' x 40' and 30' x 80' Buildings. Soil hauling for 1,800 cu ft trenching. Building Supplies (fencing) Hauling.

Demolition -

Architectural Coating -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating -

Landscape Equipment -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Fleet Mix -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 20.00 | 2.00 |
| tblConstructionPhase | NumDays | 10.00 | 5.00 |
| tblConstructionPhase | NumDays | 200.00 | 20.00 |

| | | | |
|---|---|---|---|
| tblConstructionPhase | NumDays | 200.00 | 30.00 |
| tblConstructionPhase | NumDays | 10.00 | 5.00 |
| tblLandUse | Population | 0.00 | 4.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | PhaseName | | Excavation |
| tblOffRoadEquipment | PhaseName | | Buildings Demo |
| tblOffRoadEquipment | PhaseName | | Excavation |
| tblOffRoadEquipment | PhaseName | | Buildings Demo |
| tblOffRoadEquipment | PhaseName | | Excavation |
| tblOffRoadEquipment | PhaseName | | Excavation |
| tblOffRoadEquipment | PhaseName | | Excavation |
| tblOffRoadEquipment | UsageHours | 8.00 | 2.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 2.00 |
| tblTripsAndVMT | HaulingTripNumber | 16.00 | 68.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 75.00 |
| tblTripsAndVMT | VendorTripNumber | 8.00 | 2.00 |
| tblTripsAndVMT | VendorTripNumber | 8.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 8.00 | 13.00 |

| | | | |
|---|---|---|---|
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 8.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 13.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 13.00 |
| tblTripsAndVMT | WorkerTripNumber | 4.00 | 8.00 |

## 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 | | | | | |
| 2018 | 6.7605 | 35.4979 | 19.6337 | 0.0501 | 2.5116 | 1.5379 | 3.1958 | 0.4698 | 1.4370 | 1.5474 | 0.0000 | 5,242.7267 | 5,242.7267 | 1.0865 | 0.0000 | 5,265.0211 |
| **Maximum** | **6.7605** | **35.4979** | **19.6337** | **0.0501** | **2.5116** | **1.5379** | **3.1958** | **0.4698** | **1.4370** | **1.5474** | **0.0000** | **5,242.7267** | **5,242.7267** | **1.0865** | **0.0000** | **5,265.0211** |

### 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 | | | | | |
| 2018 | 6.7605 | 35.4979 | 19.6337 | 0.0501 | 2.5116 | 1.5379 | 3.1958 | 0.4698 | 1.4370 | 1.5474 | 0.0000 | 5,242.7267 | 5,242.7267 | 1.0865 | 0.0000 | 5,265.0211 |
| **Maximum** | **6.7605** | **35.4979** | **19.6337** | **0.0501** | **2.5116** | **1.5379** | **3.1958** | **0.4698** | **1.4370** | **1.5474** | **0.0000** | **5,242.7267** | **5,242.7267** | **1.0865** | **0.0000** | **5,265.0211** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0664 | 0.0000 | 3.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 6.9000e-004 | 6.9000e-004 | 0.0000 | | 7.3000e-004 |
| Energy | 6.5000e-004 | 5.8700e-003 | 4.9300e-003 | 4.0000e-005 | | 4.5000e-004 | 4.5000e-004 | | 4.5000e-004 | 4.5000e-004 | | 7.0463 | 7.0463 | 1.4000e-004 | 1.3000e-004 | 7.0881 |
| Mobile | 0.0505 | 0.2448 | 0.6638 | 2.0100e-003 | 0.1587 | 2.3900e-003 | 0.1611 | 0.0425 | 2.2500e-003 | 0.0447 | | 203.9704 | 203.9704 | 0.0123 | | 204.2767 |
| **Total** | **0.1176** | **0.2507** | **0.6691** | **2.0500e-003** | **0.1587** | **2.8400e-003** | **0.1615** | **0.0425** | **2.7000e-003** | **0.0452** | | **211.0174** | **211.0174** | **0.0124** | **1.3000e-004** | **211.3656** |

### 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 | 0.0664 | 0.0000 | 3.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 6.9000e-004 | 6.9000e-004 | 0.0000 | | 7.3000e-004 |
| Energy | 6.5000e-004 | 5.8700e-003 | 4.9300e-003 | 4.0000e-005 | | 4.5000e-004 | 4.5000e-004 | | 4.5000e-004 | 4.5000e-004 | | 7.0463 | 7.0463 | 1.4000e-004 | 1.3000e-004 | 7.0881 |
| Mobile | 0.0505 | 0.2448 | 0.6638 | 2.0100e-003 | 0.1587 | 2.3900e-003 | 0.1611 | 0.0425 | 2.2500e-003 | 0.0447 | | 203.9704 | 203.9704 | 0.0123 | | 204.2767 |
| **Total** | **0.1176** | **0.2507** | **0.6691** | **2.0500e-003** | **0.1587** | **2.8400e-003** | **0.1615** | **0.0425** | **2.7000e-003** | **0.0452** | | **211.0174** | **211.0174** | **0.0124** | **1.3000e-004** | **211.3656** |

| | ROG | NOx | 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 | Buildings Demo | Demolition | 9/1/2018 | 9/4/2018 | 5 | 2 | |
| 2 | Excavation | Trenching | 9/8/2018 | 9/14/2018 | 5 | 5 | |
| 3 | Paving | Paving | 9/15/2018 | 9/21/2018 | 5 | 5 | |
| 4 | Site Improvements | Building Construction | 9/22/2018 | 10/19/2018 | 5 | 20 | |
| 5 | Building Renovation | Building Construction | 10/20/2018 | 11/30/2018 | 5 | 30 | |
| 6 | Architectural Coating | Architectural Coating | 12/1/2018 | 12/7/2018 | 5 | 5 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 1.04**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 3,150; Non-Residential Outdoor: 1,050; Striped Parking Area: 2,718 (Architectural Coating – sqft)**

**OffRoad Equipment**

CM Demo - Los Angeles-South Coast County, Winter

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Buildings Demo | Excavators | 1 | 8.00 | 158 | 0.38 |
| Buildings Demo | Off-Highway Trucks | 1 | 8.00 | 402 | 0.38 |
| Buildings Demo | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Excavation | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Excavation | Excavators | 1 | 8.00 | 158 | 0.38 |
| Excavation | Off-Highway Trucks | 1 | 8.00 | 402 | 0.38 |
| Excavation | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Excavation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 1 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 6.00 | 130 | 0.42 |
| Paving | Paving Equipment | 1 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Site Improvements | Forklifts | 1 | 6.00 | 89 | 0.20 |
| Site Improvements | Tractors/Loaders/Backhoes | 1 | 6.00 | 97 | 0.37 |
| Site Improvements | Welders | 1 | 2.00 | 46 | 0.45 |
| Building Renovation | Forklifts | 1 | 6.00 | 89 | 0.20 |
| Building Renovation | Tractors/Loaders/Backhoes | 1 | 6.00 | 97 | 0.37 |
| Building Renovation | Welders | 1 | 2.00 | 46 | 0.45 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Buildings Demo | 3 | 13.00 | 0.00 | 68.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Excavation | 5 | 13.00 | 0.00 | 75.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 5 | 8.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Improvements | 3 | 13.00 | 2.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Renovation | 3 | 13.00 | 2.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 8.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Buildings Demo - 2018

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 1.7718 | 0.0000 | 1.7718 | 0.2683 | 0.0000 | 0.2683 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.3286 | 14.0506 | 9.8140 | 0.0215 | | 0.6403 | 0.6403 | | 0.5891 | 0.5891 | | 2,161.9771 | 2,161.9771 | 0.6731 | | 2,178.8034 |
| **Total** | **1.3286** | **14.0506** | **9.8140** | **0.0215** | **1.7718** | **0.6403** | **2.4122** | **0.2683** | **0.5891** | **0.8574** | | **2,161.9771** | **2,161.9771** | **0.6731** | | **2,178.8034** |

## 3.2 Buildings Demo - 2018

### 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 | 0.3460 | 11.1346 | 2.4314 | 0.0271 | 0.5944 | 0.0426 | 0.6370 | 0.1629 | 0.0408 | 0.2037 | | 2,927.2748 | 2,927.2748 | 0.2130 | | 2,932.5984 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0795 | 0.0600 | 0.6465 | 1.5400e-003 | 0.1453 | 1.3000e-003 | 0.1466 | 0.0385 | 1.1900e-003 | 0.0397 | | 153.4749 | 153.4749 | 5.7800e-003 | | 153.6193 |
| **Total** | **0.4255** | **11.1946** | **3.0779** | **0.0286** | **0.7397** | **0.0439** | **0.7836** | **0.2015** | **0.0419** | **0.2434** | | **3,080.7496** | **3,080.7496** | **0.2187** | | **3,086.2176** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 1.7718 | 0.0000 | 1.7718 | 0.2683 | 0.0000 | 0.2683 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.3286 | 14.0506 | 9.8140 | 0.0215 | | 0.6403 | 0.6403 | | 0.5891 | 0.5891 | 0.0000 | 2,161.9771 | 2,161.9771 | 0.6731 | | 2,178.8034 |
| **Total** | **1.3286** | **14.0506** | **9.8140** | **0.0215** | **1.7718** | **0.6403** | **2.4122** | **0.2683** | **0.5891** | **0.8574** | **0.0000** | **2,161.9771** | **2,161.9771** | **0.6731** | | **2,178.8034** |

## 3.2 Buildings Demo - 2018

**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 | 0.3460 | 11.1346 | 2.4314 | 0.0271 | 0.5944 | 0.0426 | 0.6370 | 0.1629 | 0.0408 | 0.2037 | | 2,927.2748 | 2,927.2748 | 0.2130 | | 2,932.5984 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0795 | 0.0600 | 0.6465 | 1.5400e-003 | 0.1453 | 1.3000e-003 | 0.1466 | 0.0385 | 1.1900e-003 | 0.0397 | | 153.4749 | 153.4749 | 5.7800e-003 | | 153.6193 |
| **Total** | **0.4255** | **11.1946** | **3.0779** | **0.0286** | **0.7397** | **0.0439** | **0.7836** | **0.2015** | **0.0419** | **0.2434** | | **3,080.7496** | **3,080.7496** | **0.2187** | | **3,086.2176** |

## 3.3 Excavation - 2018

**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 | 3.0140 | 30.5255 | 17.9146 | 0.0363 | | 1.5179 | 1.5179 | | 1.4178 | 1.4178 | | 3,614.8151 | 3,614.8151 | 0.9867 | | 3,639.4832 |
| **Total** | **3.0140** | **30.5255** | **17.9146** | **0.0363** | | **1.5179** | **1.5179** | | **1.4178** | **1.4178** | | **3,614.8151** | **3,614.8151** | **0.9867** | | **3,639.4832** |

## 3.3 Excavation - 2018

### 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 | 0.1527 | 4.9123 | 1.0727 | 0.0120 | 0.2623 | 0.0188 | 0.2810 | 0.0719 | 0.0180 | 0.0899 | | 1,291.4447 | 1,291.4447 | 0.0940 | | 1,293.7934 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0795 | 0.0600 | 0.6465 | 1.5400e-003 | 0.1453 | 1.3000e-003 | 0.1466 | 0.0385 | 1.1900e-003 | 0.0397 | | 153.4749 | 153.4749 | 5.7800e-003 | | 153.6193 |
| **Total** | **0.2321** | **4.9724** | **1.7191** | **0.0135** | **0.4076** | **0.0201** | **0.4276** | **0.1104** | **0.0192** | **0.1296** | | **1,444.9196** | **1,444.9196** | **0.0997** | | **1,447.4127** |

### 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 | 3.0140 | 30.5255 | 17.9146 | 0.0363 | | 1.5179 | 1.5179 | | 1.4178 | 1.4178 | 0.0000 | 3,614.8151 | 3,614.8151 | 0.9867 | | 3,639.4832 |
| **Total** | **3.0140** | **30.5255** | **17.9146** | **0.0363** | | **1.5179** | **1.5179** | | **1.4178** | **1.4178** | **0.0000** | **3,614.8151** | **3,614.8151** | **0.9867** | | **3,639.4832** |

## 3.3 Excavation - 2018

**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 | 0.1527 | 4.9123 | 1.0727 | 0.0120 | 0.2623 | 0.0188 | 0.2810 | 0.0719 | 0.0180 | 0.0899 | | 1,291.4447 | 1,291.4447 | 0.0940 | | 1,293.7934 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0795 | 0.0600 | 0.6465 | 1.5400e-003 | 0.1453 | 1.3000e-003 | 0.1466 | 0.0385 | 1.1900e-003 | 0.0397 | | 153.4749 | 153.4749 | 5.7800e-003 | | 153.6193 |
| **Total** | **0.2321** | **4.9724** | **1.7191** | **0.0135** | **0.4076** | **0.0201** | **0.4276** | **0.1104** | **0.0192** | **0.1296** | | **1,444.9196** | **1,444.9196** | **0.0997** | | **1,447.4127** |

## 3.4 Paving - 2018

**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 | 1.0182 | 10.4525 | 8.9926 | 0.0135 | | 0.6097 | 0.6097 | | 0.5618 | 0.5618 | | 1,346.4360 | 1,346.4360 | 0.4113 | | 1,356.7186 |
| Paving | 0.5450 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.5632** | **10.4525** | **8.9926** | **0.0135** | | **0.6097** | **0.6097** | | **0.5618** | **0.5618** | | **1,346.4360** | **1,346.4360** | **0.4113** | | **1,356.7186** |

## 3.4 Paving - 2018

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0489 | 0.0369 | 0.3978 | 9.5000e-004 | 0.0894 | 8.0000e-004 | 0.0902 | 0.0237 | 7.4000e-004 | 0.0245 | | 94.4461 | 94.4461 | 3.5500e-003 | | 94.5349 |
| **Total** | **0.0489** | **0.0369** | **0.3978** | **9.5000e-004** | **0.0894** | **8.0000e-004** | **0.0902** | **0.0237** | **7.4000e-004** | **0.0245** | | **94.4461** | **94.4461** | **3.5500e-003** | | **94.5349** |

### 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 | 1.0182 | 10.4525 | 8.9926 | 0.0135 | | 0.6097 | 0.6097 | | 0.5618 | 0.5618 | 0.0000 | 1,346.4360 | 1,346.4360 | 0.4113 | | 1,356.7186 |
| Paving | 0.5450 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.5632** | **10.4525** | **8.9926** | **0.0135** | | **0.6097** | **0.6097** | | **0.5618** | **0.5618** | **0.0000** | **1,346.4360** | **1,346.4360** | **0.4113** | | **1,356.7186** |

## 3.4 Paving - 2018

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0489 | 0.0369 | 0.3978 | 9.5000e-004 | 0.0894 | 8.0000e-004 | 0.0902 | 0.0237 | 7.4000e-004 | 0.0245 | | 94.4461 | 94.4461 | 3.5500e-003 | | 94.5349 |
| **Total** | **0.0489** | **0.0369** | **0.3978** | **9.5000e-004** | **0.0894** | **8.0000e-004** | **0.0902** | **0.0237** | **7.4000e-004** | **0.0245** | | **94.4461** | **94.4461** | **3.5500e-003** | | **94.5349** |

## 3.5 Site Improvements - 2018

**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 | 0.4436 | 3.5737 | 3.1257 | 4.1100e-003 | | 0.2624 | 0.2624 | | 0.2436 | 0.2436 | | 401.7921 | 401.7921 | 0.1189 | | 404.7642 |
| **Total** | **0.4436** | **3.5737** | **3.1257** | **4.1100e-003** | | **0.2624** | **0.2624** | | **0.2436** | **0.2436** | | **401.7921** | **401.7921** | **0.1189** | | **404.7642** |

## 3.5 Site Improvements - 2018

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 9.5900e-003 | 0.2457 | 0.0737 | 5.1000e-004 | 0.0128 | 1.7500e-003 | 0.0146 | 3.6900e-003 | 1.6800e-003 | 5.3700e-003 | | 54.8300 | 54.8300 | 3.9600e-003 | | 54.9289 |
| Worker | 0.0795 | 0.0600 | 0.6465 | 1.5400e-003 | 0.1453 | 1.3000e-003 | 0.1466 | 0.0385 | 1.1900e-003 | 0.0397 | | 153.4749 | 153.4749 | 5.7800e-003 | | 153.6193 |
| **Total** | **0.0891** | **0.3057** | **0.7201** | **2.0500e-003** | **0.1581** | **3.0500e-003** | **0.1612** | **0.0422** | **2.8700e-003** | **0.0451** | | **208.3049** | **208.3049** | **9.7400e-003** | | **208.5481** |

### 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 | 0.4436 | 3.5737 | 3.1257 | 4.1100e-003 | | 0.2624 | 0.2624 | | 0.2436 | 0.2436 | 0.0000 | 401.7921 | 401.7921 | 0.1189 | | 404.7642 |
| **Total** | **0.4436** | **3.5737** | **3.1257** | **4.1100e-003** | | **0.2624** | **0.2624** | | **0.2436** | **0.2436** | **0.0000** | **401.7921** | **401.7921** | **0.1189** | | **404.7642** |

## 3.5 Site Improvements - 2018

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 9.5900e-003 | 0.2457 | 0.0737 | 5.1000e-004 | 0.0128 | 1.7500e-003 | 0.0146 | 3.6900e-003 | 1.6800e-003 | 5.3700e-003 | | 54.8300 | 54.8300 | 3.9600e-003 | | 54.9289 |
| Worker | 0.0795 | 0.0600 | 0.6465 | 1.5400e-003 | 0.1453 | 1.3000e-003 | 0.1466 | 0.0385 | 1.1900e-003 | 0.0397 | | 153.4749 | 153.4749 | 5.7800e-003 | | 153.6193 |
| **Total** | **0.0891** | **0.3057** | **0.7201** | **2.0500e-003** | **0.1581** | **3.0500e-003** | **0.1612** | **0.0422** | **2.8700e-003** | **0.0451** | | **208.3049** | **208.3049** | **9.7400e-003** | | **208.5481** |

## 3.6 Building Renovation - 2018

**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 | 0.4436 | 3.5737 | 3.1257 | 4.1100e-003 | | 0.2624 | 0.2624 | | 0.2436 | 0.2436 | | 401.7921 | 401.7921 | 0.1189 | | 404.7642 |
| **Total** | **0.4436** | **3.5737** | **3.1257** | **4.1100e-003** | | **0.2624** | **0.2624** | | **0.2436** | **0.2436** | | **401.7921** | **401.7921** | **0.1189** | | **404.7642** |

## 3.6 Building Renovation - 2018

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 9.5900e-003 | 0.2457 | 0.0737 | 5.1000e-004 | 0.0128 | 1.7500e-003 | 0.0146 | 3.6900e-003 | 1.6800e-003 | 5.3700e-003 | | 54.8300 | 54.8300 | 3.9600e-003 | | 54.9289 |
| Worker | 0.0795 | 0.0600 | 0.6465 | 1.5400e-003 | 0.1453 | 1.3000e-003 | 0.1466 | 0.0385 | 1.1900e-003 | 0.0397 | | 153.4749 | 153.4749 | 5.7800e-003 | | 153.6193 |
| **Total** | **0.0891** | **0.3057** | **0.7201** | **2.0500e-003** | **0.1581** | **3.0500e-003** | **0.1612** | **0.0422** | **2.8700e-003** | **0.0451** | | **208.3049** | **208.3049** | **9.7400e-003** | | **208.5481** |

### 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 | 0.4436 | 3.5737 | 3.1257 | 4.1100e-003 | | 0.2624 | 0.2624 | | 0.2436 | 0.2436 | 0.0000 | 401.7921 | 401.7921 | 0.1189 | | 404.7642 |
| **Total** | **0.4436** | **3.5737** | **3.1257** | **4.1100e-003** | | **0.2624** | **0.2624** | | **0.2436** | **0.2436** | **0.0000** | **401.7921** | **401.7921** | **0.1189** | | **404.7642** |

## 3.6 Building Renovation - 2018

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 9.5900e-003 | 0.2457 | 0.0737 | 5.1000e-004 | 0.0128 | 1.7500e-003 | 0.0146 | 3.6900e-003 | 1.6800e-003 | 5.3700e-003 | | 54.8300 | 54.8300 | 3.9600e-003 | | 54.9289 |
| Worker | 0.0795 | 0.0600 | 0.6465 | 1.5400e-003 | 0.1453 | 1.3000e-003 | 0.1466 | 0.0385 | 1.1900e-003 | 0.0397 | | 153.4749 | 153.4749 | 5.7800e-003 | | 153.6193 |
| **Total** | **0.0891** | **0.3057** | **0.7201** | **2.0500e-003** | **0.1581** | **3.0500e-003** | **0.1612** | **0.0422** | **2.8700e-003** | **0.0451** | | **208.3049** | **208.3049** | **9.7400e-003** | | **208.5481** |

## 3.7 Architectural Coating - 2018

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 6.4130 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2986 | 2.0058 | 1.8542 | 2.9700e-003 | | 0.1506 | 0.1506 | | 0.1506 | 0.1506 | | 281.4485 | 281.4485 | 0.0267 | | 282.1171 |
| **Total** | **6.7116** | **2.0058** | **1.8542** | **2.9700e-003** | | **0.1506** | **0.1506** | | **0.1506** | **0.1506** | | **281.4485** | **281.4485** | **0.0267** | | **282.1171** |

## 3.7 Architectural Coating - 2018

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0489 | 0.0369 | 0.3978 | 9.5000e-004 | 0.0894 | 8.0000e-004 | 0.0902 | 0.0237 | 7.4000e-004 | 0.0245 | | 94.4461 | 94.4461 | 3.5500e-003 | | 94.5349 |
| **Total** | **0.0489** | **0.0369** | **0.3978** | **9.5000e-004** | **0.0894** | **8.0000e-004** | **0.0902** | **0.0237** | **7.4000e-004** | **0.0245** | | **94.4461** | **94.4461** | **3.5500e-003** | | **94.5349** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 6.4130 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2986 | 2.0058 | 1.8542 | 2.9700e-003 | | 0.1506 | 0.1506 | | 0.1506 | 0.1506 | 0.0000 | 281.4485 | 281.4485 | 0.0267 | | 282.1171 |
| **Total** | **6.7116** | **2.0058** | **1.8542** | **2.9700e-003** | | **0.1506** | **0.1506** | | **0.1506** | **0.1506** | **0.0000** | **281.4485** | **281.4485** | **0.0267** | | **282.1171** |

### 3.7 Architectural Coating - 2018

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0489 | 0.0369 | 0.3978 | 9.5000e-004 | 0.0894 | 8.0000e-004 | 0.0902 | 0.0237 | 7.4000e-004 | 0.0245 | | 94.4461 | 94.4461 | 3.5500e-003 | | 94.5349 |
| **Total** | **0.0489** | **0.0369** | **0.3978** | **9.5000e-004** | **0.0894** | **8.0000e-004** | **0.0902** | **0.0237** | **7.4000e-004** | **0.0245** | | **94.4461** | **94.4461** | **3.5500e-003** | | **94.5349** |

## 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 | 0.0505 | 0.2448 | 0.6638 | 2.0100e-003 | 0.1587 | 2.3900e-003 | 0.1611 | 0.0425 | 2.2500e-003 | 0.0447 | | 203.9704 | 203.9704 | 0.0123 | | 204.2767 |
| Unmitigated | 0.0505 | 0.2448 | 0.6638 | 2.0100e-003 | 0.1587 | 2.3900e-003 | 0.1611 | 0.0425 | 2.2500e-003 | 0.0447 | | 203.9704 | 203.9704 | 0.0123 | | 204.2767 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Office Building | 23.16 | 5.17 | 2.21 | 56,691 | 56,691 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Total | 23.16 | 5.17 | 2.21 | 56,691 | 56,691 |

## 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 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| Other Asphalt Surfaces | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General Office Building | 0.548007 | 0.045751 | 0.200309 | 0.124119 | 0.017133 | 0.006025 | 0.018861 | 0.028423 | 0.002391 | 0.002469 | 0.004915 | 0.000672 | 0.000925 |
| Other Asphalt Surfaces | 0.548007 | 0.045751 | 0.200309 | 0.124119 | 0.017133 | 0.006025 | 0.018861 | 0.028423 | 0.002391 | 0.002469 | 0.004915 | 0.000672 | 0.000925 |

## 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 | 6.5000e-004 | 5.8700e-003 | 4.9300e-003 | 4.0000e-005 | | 4.5000e-004 | 4.5000e-004 | | 4.5000e-004 | 4.5000e-004 | | 7.0463 | 7.0463 | 1.4000e-004 | 1.3000e-004 | 7.0881 |
| NaturalGas Unmitigated | 6.5000e-004 | 5.8700e-003 | 4.9300e-003 | 4.0000e-005 | | 4.5000e-004 | 4.5000e-004 | | 4.5000e-004 | 4.5000e-004 | | 7.0463 | 7.0463 | 1.4000e-004 | 1.3000e-004 | 7.0881 |

## 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 | | | | | |
| General Office Building | 59.8932 | 6.5000e-004 | 5.8700e-003 | 4.9300e-003 | 4.0000e-005 | | 4.5000e-004 | 4.5000e-004 | | 4.5000e-004 | 4.5000e-004 | | 7.0463 | 7.0463 | 1.4000e-004 | 1.3000e-004 | 7.0881 |
| 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** | | **6.5000e-004** | **5.8700e-003** | **4.9300e-003** | **4.0000e-005** | | **4.5000e-004** | **4.5000e-004** | | **4.5000e-004** | **4.5000e-004** | | **7.0463** | **7.0463** | **1.4000e-004** | **1.3000e-004** | **7.0881** |

**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 | | | | | |
| General Office Building | 0.0598932 | 6.5000e-004 | 5.8700e-003 | 4.9300e-003 | 4.0000e-005 | | 4.5000e-004 | 4.5000e-004 | | 4.5000e-004 | 4.5000e-004 | | 7.0463 | 7.0463 | 1.4000e-004 | 1.3000e-004 | 7.0881 |
| 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** | | **6.5000e-004** | **5.8700e-003** | **4.9300e-003** | **4.0000e-005** | | **4.5000e-004** | **4.5000e-004** | | **4.5000e-004** | **4.5000e-004** | | **7.0463** | **7.0463** | **1.4000e-004** | **1.3000e-004** | **7.0881** |

# 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 | 0.0664 | 0.0000 | 3.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 6.9000e-004 | 6.9000e-004 | 0.0000 | | 7.3000e-004 |
| Unmitigated | 0.0664 | 0.0000 | 3.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 6.9000e-004 | 6.9000e-004 | 0.0000 | | 7.3000e-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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 8.7800e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0576 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.0000e-005 | 0.0000 | 3.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 6.9000e-004 | 6.9000e-004 | 0.0000 | | 7.3000e-004 |
| **Total** | **0.0664** | **0.0000** | **3.2000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **6.9000e-004** | **6.9000e-004** | **0.0000** | | **7.3000e-004** |

### 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 8.7800e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0576 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.0000e-005 | 0.0000 | 3.2000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 6.9000e-004 | 6.9000e-004 | 0.0000 | | 7.3000e-004 |
| **Total** | **0.0664** | **0.0000** | **3.2000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **6.9000e-004** | **6.9000e-004** | **0.0000** | | **7.3000e-004** |

## 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