La Palma Marlin Circle Digital Billboard Project
Initial Study
Mitigated Negative Declaration

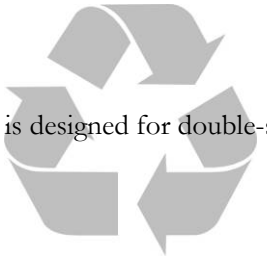
Prepared for:

City of La Palma
7822 Walker Street
La Palma, California 90623

Prepared by:

MIG
1500 Iowa Avenue, Suite 110
Riverside, California 92507

August 2016



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1 Introduction

The City of La Palma (Lead Agency) is proposing the construction of a digital billboard located adjacent to State Route 91 (SR-91) and within the recently adopted Freeway Overlay District. The billboard will be located on the north side of SR-91 at 6907 Marlin Circle. The approval of the billboard construction constitutes a *project* that is subject to review under the California Environmental Quality Act (CEQA) 1970 (Public Resources Code, Section 21000 et seq.), and the State CEQA Guidelines (California Code of Regulations, Section 15000 et. seq.).

This Initial Study has been prepared to assess the short-term, long-term, and cumulative environmental impacts that could result from the adoption of the propose project. This report has been prepared to comply with Section 15063 of the State CEQA Guidelines, which sets forth the required contents of an Initial Study. These include:

- A description of the project, including the location of the project (See Section 2);
- Identification of the environmental setting (See Section 2.10);
- Identification of environmental effects by use of a checklist, matrix, or other methods, provided that entries on the checklist or other form are briefly explained to indicate that there is some evidence to support the entries (See Section 4);
- Discussion of ways to mitigate significant effects identified, if any (See Section 4);
- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls (See Section 4.10); and
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study (See Section 5).

1.1 – Purpose of CEQA

The body of state law known as *CEQA* was originally enacted in 1970 and has been amended a number of times since then. The legislative intent of these regulations is established in Section 21000 of the California Public Resources Code, as follows:

The Legislature finds and declares as follows:

a) The maintenance of a quality environment for the people of this state now and in the future is a matter of statewide concern.
b) It is necessary to provide a high-quality environment that at all times is healthful and pleasing to the senses and intellect of man.
c) There is a need to understand the relationship between the maintenance of high-quality ecological systems and the general welfare of the people of the state, including their enjoyment of the natural resources of the state.
d) The capacity of the environment is limited, and it is the intent of the Legislature that the government of the state takes immediate steps to identify any critical thresholds for the health and safety of the people of the state and take all coordinated actions necessary to prevent such thresholds being reached.
e) Every citizen has a responsibility to contribute to the preservation and enhancement of the environment.
f) The interrelationship of policies and practices in the management of natural resources and waste disposal requires systematic and concerted efforts by public and private interests to enhance environmental quality and to control environmental pollution.
g) It is the intent of the Legislature that all agencies of the state government which regulate activities of private individuals, corporations, and public agencies which are found to affect the quality of the environment, shall regulate such activities so that major consideration is given to preventing environmental damage, while providing a decent home and satisfying living environment for every Californian.

The Legislature further finds and declares that it is the policy of the State to:

h) Develop and maintain a high-quality environment now and in the future, and take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state.
i) Take all action necessary to provide the people of this state with clean air and water, enjoyment of aesthetic, natural, scenic, and historic environmental qualities, and freedom from excessive noise.
j) Prevent the elimination of fish or wildlife species due to man's activities, insure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities and examples of the major periods of California history.
k) Ensure that the long-term protection of the environment, consistent with the provision of a decent home and suitable living environment for every Californian, shall be the guiding criterion in public decisions.
l) Create and maintain conditions under which man and nature can exist in productive harmony to fulfill the social and economic requirements of present and future generations.
m) Require governmental agencies at all levels to develop standards and procedures necessary to protect environmental quality.
n) Require governmental agencies at all levels to consider qualitative factors as well as economic and technical factors and long-term benefits and costs, in addition to short-term benefits and costs and to consider alternatives to proposed actions affecting the environment.

A concise statement of legislative policy, with respect to public agency consideration of projects for some form of approval, is found in Section 21002 of the Public Resources Code, quoted below:

> The Legislature finds and declares that it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects. The Legislature further finds and declares that in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.

1.2 – Public Comments

Comments from all agencies and individuals are invited regarding the information contained in this Initial Study. Such comments should explain any perceived deficiencies in the assessment of impacts, identify the information that is purportedly lacking in the Initial Study or indicate where the information may be found. All comments on the Initial Study are to be submitted to:

Douglas Dumhart, Community Development Director
City of La Palma
Community Development Department
7822 Walker Street, La Palma, CA 90623
Phone: (714) 690-3322
Email: douglasd@cityoflapalma.org.com

Following a 30-day period of circulation and review of the Initial Study, all comments will be considered by the City of La Palma prior to adoption.

1.3 – Availability of Materials

All materials related to the preparation of this Initial Study are available for public review. To request an appointment to review these materials, please contact:

Douglas Dumhart, Community Development Director
City of La Palma
Community Development Department
7822 Walker Street, La Palma, CA 90623
Phone: (714) 690-3322

2 Project Description

2.1 – Project Title

La Palma Marlin Circle Digital Billboard Project

2.2 – Lead Agency Name and Address

City of La Palma
Community Development Department
7822 Walker Street
La Palma, California 90623

2.3 – Contact Person and Phone Number

Douglas Dumhart, Community Development Director
Phone: (714) 690-3322

2.4 – Project Location

The digital billboard will be located on the south side of SR-91 at 6907 Marlin Circle (APN #276-081-66). This parcel is currently occupied by a 25,116 square foot commercial/industrial building built in 1974 that is occupied by Pamarco Global Graphics. The property is also host to a 60 foot tall mono-pole cellular telecommunications facility.

2.5 – Project Sponsor's Name and Address

Foster Interstate Media, Inc.
1111 Broadway, Suite 1515
Oakland, California 94607
Attn: Lars Skugstad

2.6 – General Plan Land Use Designation

Mixed Use Business/ Freeway Overlay

2.7 – Zoning District(s)

Mixed Use Business (B-1)/ Freeway Overlay District

2.8 – Project Description

The City of La Palma is proposing the construction of a digital billboard on land adjacent to and abutting SR-91 right-of-way within city boundaries (See Exhibit 1, Regional and Vicinity Map). The proposed billboard will be located on a parcel on the north side of SR-91 (See Exhibit 2, Site Plan), which is currently occupied by a commercial/ industrial building. The sign will be approximately 94-feet tall and the digital display will be approximately 50-feet wide by 16-feet tall (See Exhibit 3, Sign Elevation A and B) There are no adjacent residential areas and no changes to the existing parcel other than construction of the billboard is proposed.

The project also proposes the replacement of thirty three (33) existing Eucalyptus trees with 99 Pepper trees within the California Department of Transportation (Caltrans) freeway right-of-way (See Exhibit 4, Tree Removal Plan). Utility connections (electrical) for the billboard will also be provided as part of the proposed projects. No other structures or buildings besides the sign-pole and billboard facing are proposed. Construction of the sign will not require demolition, paving, or grading activities. Construction will include drilling of a hole for the sign-pole, pouring of anchors, erection of the sign-pole, and installation of the digital LED display atop the sign-pole.

2.9 – Surrounding Land Uses

The City of La Palma adopted a Freeway Overlay District along SR-91 in September 2014 that allows for development of pole signs and digital billboards (See Exhibit 5, Freeway Overlay District). The proposed digital billboard will be located within the recently adopted Freeway Overlay District. The billboard will be located on a parcel that currently houses a commercial/ industrial building. The District traverses both the north and south side of SR-91. To the north of the Freeway Overlay District are commercial and industrial uses. To the east of the Freeway Overlay District are commercial and residential uses. To the south of the Freeway Overlay District are some commercial uses and mostly residential uses. To the west of the Freeway Overlay District are Flood Control Facility (channelized river) and open-space uses (parks). Land Uses surrounding the Freeway Overlay District include Mixed-Use Business, Neighborhood Commercial, Multi-Family, Village Single-Family, Flood Control Utility and Open Space/Recreational.

2.10 – Environmental Setting

The proposed digital billboard will be located along the SR-91 Freeway Corridor within the recently adopted Freeway Overlay District. La Palma is located in northwest Orange County adjacent to the Los Angeles/Orange County boundary, approximately 18 miles southeast of downtown Los Angeles. The City is bounded by the City of Cerritos to the north and west, the City of Cypress to the south and the City of Buena Park to the east. Urban features comprising the City boundaries are 183rd Street on the north, Valley View Street to the east, the former Union Pacific Railroad right-of-way to the south, and Coyote Creek Channel to the west. SR- 91 traverses the City and provides access to the regional freeway network. Land uses surrounding La Palma are primarily residential. Commercial uses are located along major arterial routes and industrial uses are located in the northern portion of the City. La Palma is fully urbanized, with limited vacant land available for development. The project vicinity is completely urbanized and built-out.

2.11 – Other Public Agency Whose Approval is Required

Appropriate clearance through Caltrans will be required for highway-oriented signs.

2.12 – Regulatory Provisions

Federal: The Federal Highway Beautification Act of 1965 (23 U.S.C.131) provides for control of outdoor advertising, including removal of certain types of signs, along the interstate highway system. The Act is enforced by the Federal Highway Administration (FHWA). As part of its enforcement effort, the FHWA has entered into agreements regarding the Act with state departments of transportation. The agreements with California are described under the State provisions, below.

In addition, the FHWA has responded to the development of signs that present changing messages, either mechanically or digitally, with an interpretation of its agreements with the states pursuant to the Highway Beautification Act. The FHWA discussed changeable message signs in a Memorandum dated July 17, 1996, concluding that a state could reasonably interpret the provisions of its agreement with the FHWA "…to allow changeable message signs."

The FHWA issued a subsequent memorandum on September 25, 2007 on the subject of off-premises changeable electronic variable message signs (CEVMS). The memorandum stated that proposed laws, regulations, and procedures that allowed changeable message signs subject to acceptable criteria would not violate the prohibition on "intermittent, flashing, or moving" signs as used in the state agreements. The 2007 memorandum identified ranges of acceptability relating to key location and operational characteristics, which have resulted in consistent basic guidelines throughout the country:

- Brightness: The sign brightness should be adjusted to respond to changes in light levels.
- Duration of Message: Duration of display is generally between 4 and 10 seconds; 8 seconds is recommended.
- Transition Time: Transition between messages is generally between 1 and 4 seconds; 1 to 2 seconds is recommended.
- Spacing: Spacing between signs should not be less than the minimum specified for other billboards, or greater if deemed required for safety.
- Locations: Location criteria are the same as for other signs unless it is determined that specific locations are inappropriate.

The memorandum also refers to other standards that have been found helpful to ensure driver safety, including a default designed to freeze the display in one still position if a malfunction occurs; a process for modifying displays and lighting levels where directed by the state departments of transportation to assure safety of the motoring public; and requirements that a display contain static messages without movement such as animation, flashing, scrolling, or intermittent or full-motion video.

State: The California Department of Transportation (Caltrans) is involved in the control of "off-site" displays along state highways. Such displays advertise products or services of businesses located on properties other than that which the display is located. Caltrans does not regulate on-site displays. The Outdoor Advertising act contains a number of provisions relating to the construction and operation of billboards:

- The sign must be constructed to withstand a wind pressure of 20 pounds per square feet of exposed surface (§5401);
- No sign shall display any statements or words of an obscene, indecent, or immoral character (§5402);
- No sign shall display flashing, intermittent or moving light or lights (§5403(h));
- Signs are restricted from areas within 300 feet of an intersection of highways or of highway and railroad right-of-ways, but a sign may be located at the point of interception, as long as a clear view is allowed for 300 feet, and no sign shall be installed that would prevent a traveler from obtaining a clear view of approaching vehicles for a distance of 500 feet along the highway (§5404); and
- Message center signs may not include any illumination or message change that is in motion or appears to be in motion or that change or exposes a message for less than four seconds. No message center sign may be located within 500 feet of an existing billboard, or 1,000 feet of another message center display, on the same side of the highway (§5405);
- No advertising display may be placed or maintained on property adjacent to a section of a freeway that has been landscaped if the advertising display is designed to be viewed primarily by persons traveling on the main–traveled way of the landscaped freeway (§ 5440).

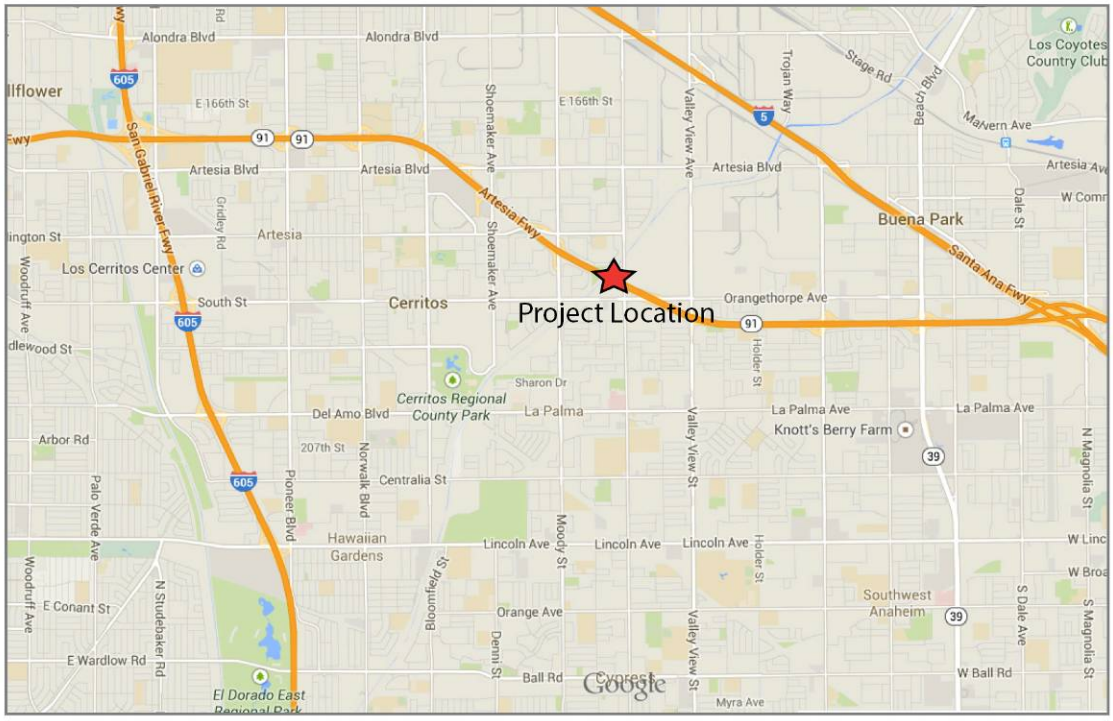
Some freeways are classified as "landscaped freeways." A landscaped freeway is defined as one that is now, or may in the future be, improved by the planting of lawns, trees, shrubs, flowers, or other ornamental vegetation requiring reasonable maintenance on one or both sides of the freeway (§5216). Off-premise displays are not allowed along landscaped freeways except when approved as part of relocation agreements. However, Caltrans has interpreted these provisions as allowing new billboards along such freeway segments if a relocation agreement has been approved pursuant to §5412 of the Outdoor Advertising Act.

Additional restrictions on outdoor signage are found in the California Vehicle Code. Vehicle Code §21466.5 prohibits the placing of any light source "…of any color of such brilliance as to impair the vision of drivers upon the highway." Specific standards for measuring light sources are provided. The restrictions may be enforced by Caltrans, the California Highway Patrol, or local authorities.

The FHWA has entered into written agreements with various states as part of implementation of the Highway Beautification Act, including written agreements dated May 1965 and February 1968. The agreements generally provide that the State will control the construction of all outdoor advertising signs, displays, and devices within 660 feet of the interstate highway right-of-way. The agreements provide that such signs shall be erected only in commercial or industrial zones, and are subject to the following restrictions:

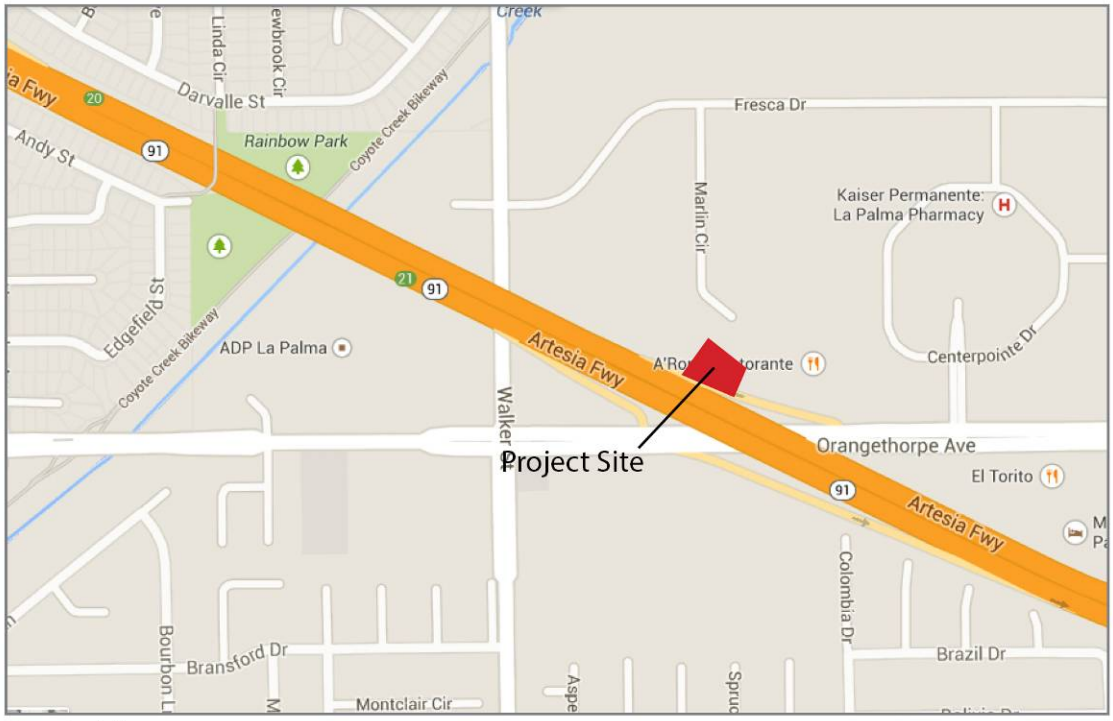
- No signs shall imitate or resemble any official traffic sign, signal, or device, nor shall signs obstruct or interfere with official signs;
- No signs shall be erected on rocks or other natural features;
- Signs shall be no larger than 25 feet in height and 60 feet in width, excluding border, trim, and supports;
- Signs on the same side of the freeway must be separated by at least 500 feet; and
- Signs shall not include any flashing, intermittent or moving lights, and shall not emit light that could obstruct or impair the vision of any driver.

California regulates outdoor advertising in the Outdoor Advertising Act (Business and Professions Code §5240 et seq.). Caltrans enforces the law and regulations. Caltrans requires applicants for new outdoor lighting to demonstrate that the owner of the parcel consents to the placement sign, that the parcel on which the sign would be located is zoned commercial or industrial, and that local building permits are obtained and complied with. A digital billboard is identified as a "message center" in the statute, which is an advertising display where the message is changed more than once every two minutes, but no more than once every four seconds (Business and Professions Code §5216.4).



Source: Google Maps

Regional



Source: Google Maps

Vicinity

Not to Scale

Exhibit 1 Regional and Vicinity Map

La Palma Marlin Circle Digital Billboard Project

La Palma, California

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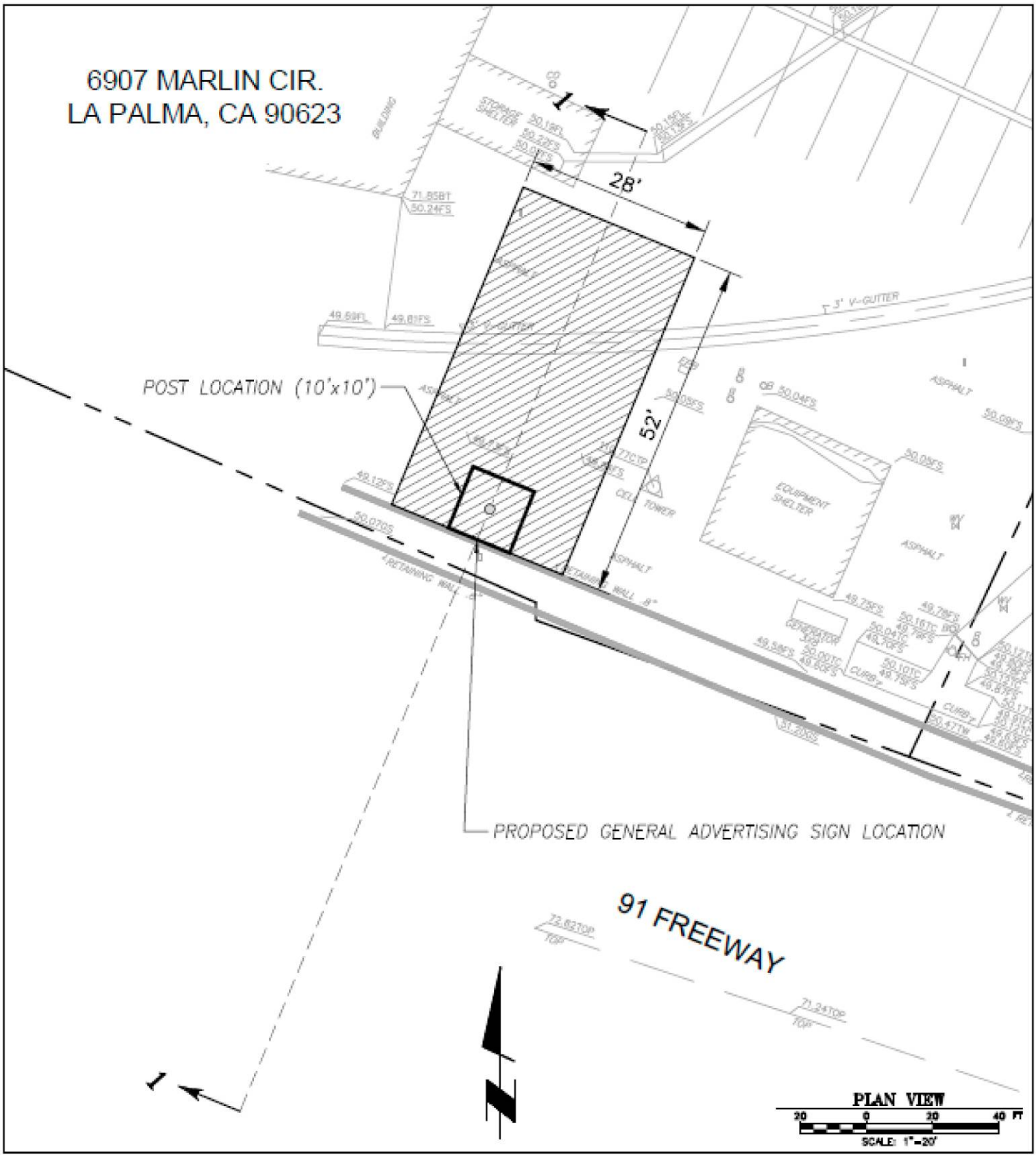
6907 MARLIN CIR.
LA PALMA, CA 90623
28'
52'
POST LOCATION (10'x10')
PROPOSED GENERAL ADVERTISING SIGN LOCATION
91 FREEWAY
PLAN VIEW
SCALE: 1"=20'

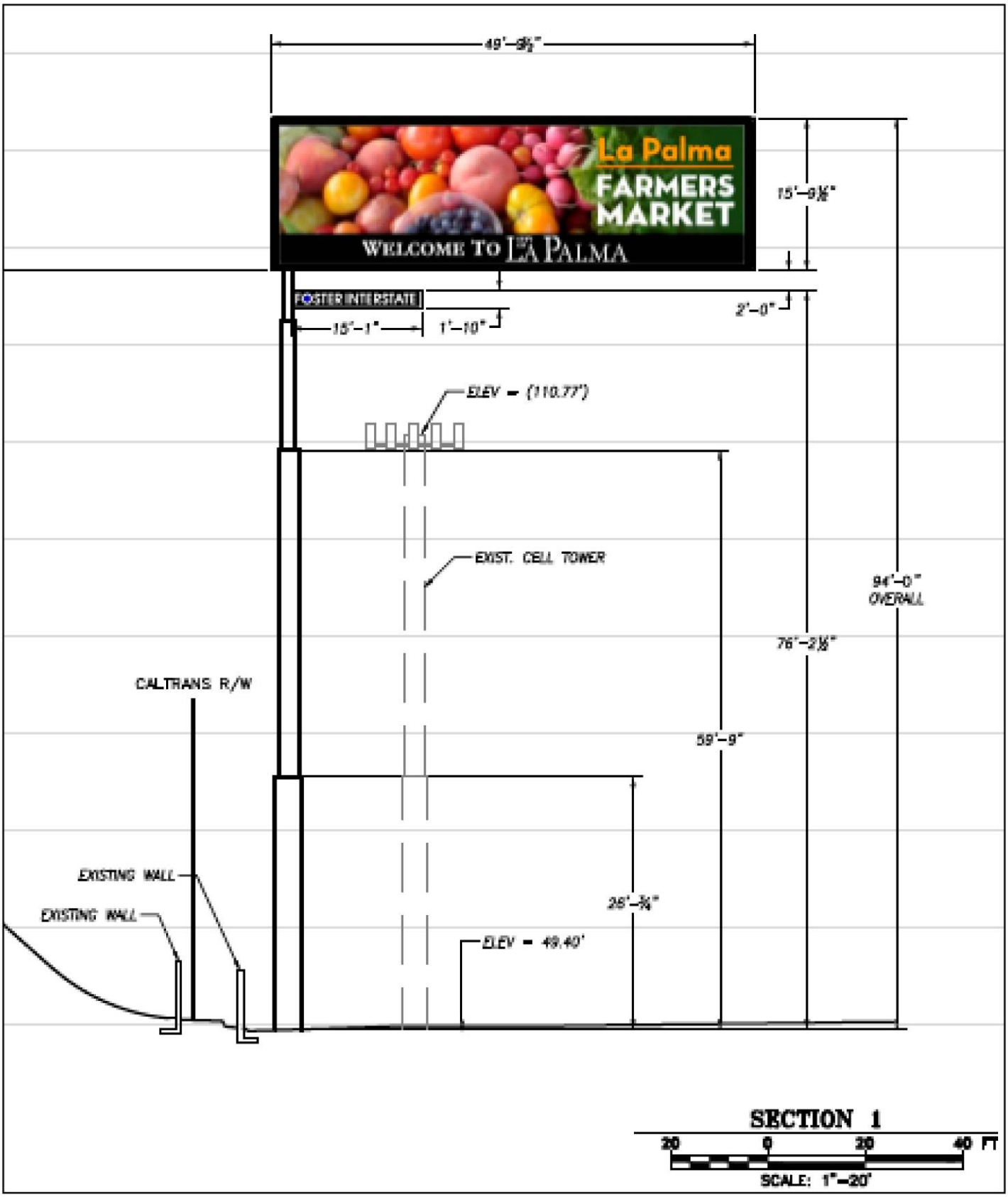
49'-8½"
La Palma
FARMERS MARKET
WELCOME TO LA PALMA
15'-9½"
FOSTER INTERSTATE
15'-1"
1'-10"
2'-0"
ELEV = (110.77')
EXIST. CELL TOWER
94'-0"
OVERALL
76'-2½"
CALTRANS R/W
59'-9"
EXISTING WALL
EXISTING WALL
26'-¾"
ELEV = 49.40'
SECTION 1
20 0 20 40 FT
SCALE: 1"=20'

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Exhibit 4 Tree Removal Plan

La Palma Marlin Circle Digital Billboard Project

La Palma, California

Not to Scale

Exhibit 5 Freeway Overlay District

La Palma Marlin Circle Digital Billboard Project

La Palma, California

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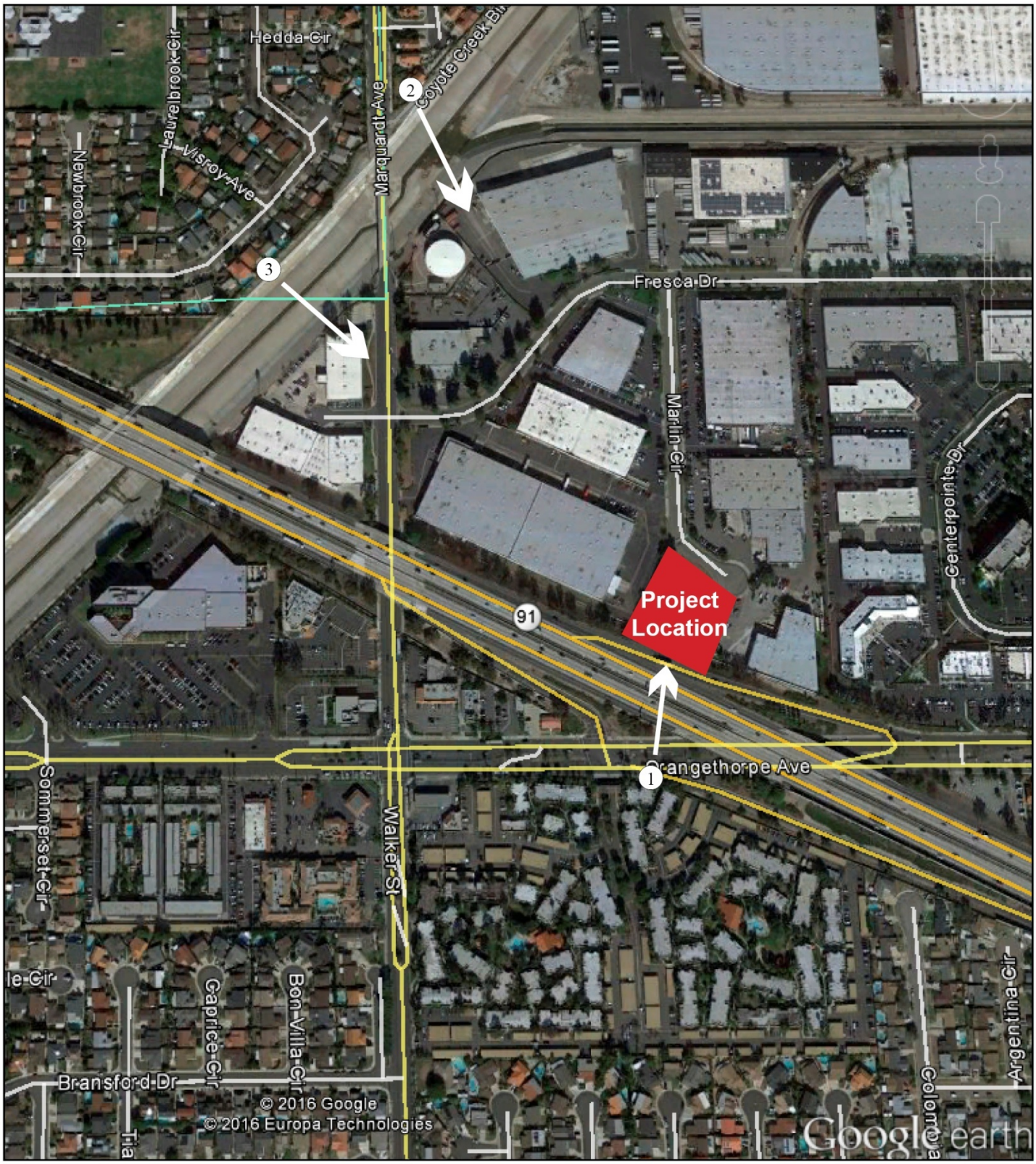

Exhibit 6a Visual Impact Simulation Location Map

La Palma Marlin Circle Digital Billboard Project
La Palma, California

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Existing Conditions

Proposed Sign

Exhibit 6b Visual Impact Simulation (Location 1)

La Palma Marlin Circle Digital BIllboard Project
La Palma, California

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Existing Conditions

Proposed Sign

Exhibit 6c Visual Impact Simulation (Location 2)

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Existing Conditions

Proposed Sign

Exhibit 6d Visual Impact Simulation (Location 3)

La Palma Marlin Circle Digital Billboard Project
La Palma, California

3 Determination

3.1 – Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a 'Potentially Significant Impact' as indicated by the checklist on the following pages.

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

3.2 – Determination

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

Name: Douglas Dumhart, Community Development Director Date

4.1 – Aesthetics

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☑	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within view from a state scenic highway?	☐	☐	☐	☑
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☑	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☑	☐	☐

a) **Less Than Significant Impact.** Scenic vistas can be impacted by development in two ways. First, a structure may be constructed that blocks the view of a vista. Second, the vista itself may be altered (i.e., development on a scenic hillside). The La Palma 2014 General Plan does not identify any scenic vistas within the City.[1] Therefore, the Freeway Overlay District within which the proposed sign will be constructed is not considered to be within or to comprise a portion of a scenic vista. The primary scenic view from the proposed project site is of the San Gabriel Mountains to the north and the Santa Ana Mountains to the east. The proposed project is located on a previously developed site, next to SR-91 freeway, within a fully urbanized area visually dominated by commercial land uses and surface-street features. Views of the San Gabriel Mountains and Santa Ana Mountains are already partially and intermittently obscured by existing development and landscaping. Development of the proposed project would be generally consistent in type and scale with the existing surrounding development, as there are multiple large commercial and industrial buildings that are currently restricting views of the mountains and therefore would not substantially block any scenic views. Typical analysis of impacts to scenic vistas includes visual assessment through visual simulations. The nearest locations that would be impacted by the proposed billboard sign are the apartment complexes located 400 feet to the south of the project site on Orangethorpe Avenue. These apartments are located on the opposite side of SR-91 from the proposed project site. Moreover, a similar digital billboard sign was recently approved by the City to be constructed directly across the street from these apartments in the Burger King fast-food restaurant parking. There is also a large commercial development to the east of the proposed site that includes a hotel, and medical building, and several chain restaurants. However, neither of these locations is situated such that they have views of the mountains. As shown in the Visual Impact Simulation (Exhibit 6a through d), the proposed

[1] La Palma General Plan, 2014 - Appendix A, Initial Study (p. 17).

billboard sign will not have a substantial adverse effect on views of a scenic vista. The location of the proposed sign will be only slightly visible from the apartments to the south (Exhibit 6b). Moreover, only partial views of the sign will be visible from single-family residences located to the west within the City of La Palma (Exhibit 6c) and in the adjacent City of Cerritos (Exhibit 6d). As such, the proposed sign will not block views of any scenic vistas from these residential locations. Moreover, adherence to the height restrictions and City Code Standards of the Freeway Overlay District will ensure that impacts to scenic vistas will be less than significant.

b) **No Impact.** The proposed digital billboard will not be located adjacent to a designated state scenic highway or eligible state scenic highway as identified on the California Scenic Highway Mapping System.[2] The proposed project will include the replacement of 45 existing Eucalyptus trees with 45 Crape Myrtle trees within the California Department of Transportation (Caltrans) freeway right-of-way immediately to the south. However, the La Palma 2014 General Plan does not identify any scenic resources within the City.[3] The proposed digital billboard will be located in a previously developed, urbanized area that contains no scenic resources. Therefore, no impact to scenic resources visible from a state scenic highway will occur.

c) **Less Than Significant Impact.** Development of the proposed billboard sign could result in a significant impact if it resulted in substantial degradation of the existing visual character or quality of the site and its surroundings. Degradation of visual character or quality is defined by substantial changes to the existing site appearance through construction of structures such that they are poorly designed or conflict with the site's existing surroundings.

Operation of the proposed billboard would not substantially alter the existing visual character of the site or area, as the proposed billboard will be located on or adjacent to commercial land uses and these types of signs are common in urban areas adjacent to freeways and other high traffic volume roadways. The project site is currently occupied by a light industrial/ commercial building. Development of the proposed sign on this site would not substantially alter the existing visual character of the area. All existing building features on the site would be retained with development of the proposed project. The bottom of the proposed billboard sign will not exceed 55 feet above the adjacent finished-grade of SR-91, as regulated in the Freeway Overlay District code standards. No single family zones or residences or other light-sensitive uses, with the exception of roadway traffic drivers and passengers, are located within the immediate vicinity of the proposed sign. There are multi-family apartments located 400 feet to the south of the proposed project location on Orangethorpe Avenue. The proposed sign will be reviewed by city staff as part of the approval process, and design parameters will be imposed by the City based on Section 44-391 of the Zoning Code (Signs).[4] Highway oriented signs, such as the proposed digital billboard, are not demonstrably negative in character such that they could be seen to degrade existing visual character in an area with existing highway-oriented commercial uses. Additionally, as discussed above, the signs would not conflict with any protected views and are consistent with surrounding uses. Impacts will be less than significant.

d) **Less Than Significant Impact with Mitigation Incorporated.** Excessive or inappropriately directed lighting can adversely impact night-time views by reducing the ability to see the night sky and stars. Glare can be caused from unshielded or misdirected lighting sources. Reflective surfaces (i.e., polished metal) can also cause glare. Impacts associated with glare range from simple nuisance to potentially dangerous situations (i.e., if glare is directed into the eyes of motorists). Digital billboards rely on LED (light-emitting diode) technology to display messages on a display screen. The lighting of any proposed digital billboard sign would be designed to make the message display visible to passing motorists. LED billboard technology allows sign brightness to be adjusted

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2 California Department of Transportation. California Scenic Highway Mapping System: Orange County. [Accessed August, 2016].

3 Ibid.

4 City of La Palma. The Code of the City of La Palma, 2013.

automatically depending on ambient lighting and weather conditions. The display, for example, is brighter in the daytime than at night time, and responds to changes in the ambient light conditions.

The proposed digital billboard will be required to obtain a Department of Transportation Outdoor Advertising Permit from Caltrans. As a condition of that permit, digital billboard signs are required to comply with the brightness requirements outlined in the Outdoor Advertising Act in that the illumination shall not be of such brilliance or so positioned as to cause a hazardous condition on adjacent highways. The standard used by Caltrans for enforcing sign brightness is as follows:

> "The brightness reading of an objectionable light source shall be measured with a 1½ degree photoelectric brightness meter placed at the driver's point of view. The maximum measured brightness of the light source within 10 degrees from the driver's normal line of sight shall not be more than 1,000 times the minimum measured brightness in the driver's field of view, except that when the minimum measured brightness in the field of view is 10 foot-lamberts or less, the measured brightness of the light source in foot-lamberts shall not exceed 500 plus 100 times the angle, in degrees, between the driver's line of sight and the light source."[5]

Although these restrictions have been imposed for traffic safety reasons, the resulting controls effectively regulate the operation of digital billboard signs to ensure that individual signs do not create a substantial new source of light or glare.

Development of the proposed digital billboard sign would comply with guidelines of the Outdoor Advertising Association of America (OAAA). These guidelines specify that lighting levels from a digital billboard will not exceed 0.3 foot-candles over ambient levels, as measured using a foot-candle meter at a pre-set distance based on the size of the sign. The OAAA guidelines draw from recommendations in the OAAA-commissioned report, Digital Billboard Recommendations and Comparisons to Conventional Billboards.[6] This report developed a method for specification of brightness limits for LED signs based on accepted practice by the Illuminating Engineering Society of North America (IESNA). The report established criteria for brightness limits based on billboard-to-viewer measurements for standardized billboard categories. The recommended brightness level is 0.3 foot-candles above ambient light conditions. Illuminance can be measured simply by using a foot-candle meter held at a height of approximately five feet and aimed towards a sign consistent with the sign-to-viewer distance. A reading of no more than 0.3 foot-candles above ambient light conditions would indicate compliance.

Furthermore, while the City does not have a zoning ordinance specifically regulating light from advertising signs, Section 44-263 (Glare) of the La Palma Zoning Code states that all lighting shall be shielded to avoid lighting adjacent properties. Furthermore, City Code Section 44-402(b)(7) establishes brightness criteria for Billboard Digital Displays, and City Code Section 44-278 establishes exterior lighting standards to meet recommended illumination levels published in the Illuminating Engineer Society (IES) Handbook. To comply with these standards and guidelines, **Mitigation Measure AE-1** and **AE-2** are included. With mitigation incorporated, impacts will be less than significant.

Mitigation Measures

AE-1: The applicant shall demonstrate compliance with a maximum 0.3 foot-candle increase over ambient light at 250 feet from the sign face during nighttime conditions upon initial start-up through field testing. If subsequent complaints consisting of direct personal impacts are received by the City of La Palma, the City shall require the applicant to fund follow-up field testing by an independent contractor or City staff trained in the use of a handheld

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5 California Business and Professions Code Section 5403 and California Vehicle Code Section 214466.5. [Accessed August, 2016].

6 Lewin, Ian. Lighting Sciences, Inc. Digital Billboard Recommendations and Comparisons to Conventional Billboards. 2007.

photometer to demonstrate continued compliance. If increases in ambient light are found to be above the 0.3 foot-candle level, the dimming level shall be adjusted until this level can be demonstrated.

AE-2: Signs shall be installed with sensors, which automatically lower light output in accordance with atmospheric conditions (i.e. cloudy or overcast weather). Throughout sign operation, the dimness setting of the LED sign shall be adjusted in real time so it does not exceed the level of illumination identified under Mitigation Measure AE-1.

4.2 – Agriculture and Forest Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☑
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?	☐	☐	☐	☑
d) Result in loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☑
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☑

a) **No Impact.** The proposed digital billboard will be located in a fully developed, commercial, urbanized area that does not contain agriculture or forest uses. The map of Important Farmland in California (2010) prepared by the Department of Conservation does not identify the project site as being Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.[7] In addition, the La Palma General Plan does not identify any areas for agriculture use. Therefore, there will be no conversion of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance to a non-agricultural use as a result of this project. No impact will occur.

b) **No Impact.** There is no existing agriculture zoning on or near the proposed project site. The Freeway Overlay District with which the billboards will be located do not permit agricultural uses. Neighboring parcels to the west are

[7] California Department of Conservation. Farmland Mapping and Monitoring Program, 2008. The City of La Palma, including the project sites, is indicated within "Area Not Mapped" in 2010 maps of Orange County. ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/los10.pdf [Accessed August 2016].

zoned open space/recreation to reflect the parks they contain (Betten Court Park and Rainbow Park). No Williamson Act contracts are active for the project sites.[8] Therefore, there will be no conflict with existing zoning for agricultural use or a Williamson Act contract. No impact will occur.

c) **No Impact.** Public Resources Code Section 12220(g) identifies forest land as *land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.* The proposed project site and surrounding properties are not currently being managed or used for forest land as identified in Public Resources Code Section 12220(g). The USDA Forest Service vegetation maps for the proposed site identify them as *urban* type, indicating that it is not capable of growing industrial wood tree species.[9] The proposed site and surrounding areas are fully urbanized. The project site and surrounding properties are not zoned for forest land or timberland production. No impact will occur.

d) **No Impact.** The proposed digital billboard will be located on a completely developed parcel in a fully urbanized area containing limited ornamental landscaping; thus, there will be no loss of forest land or conversion of forest land to non-forest use as a result of this project. No impact will occur.

e) **No Impact.** The proposed digital billboard will be located on a completely developed parcel within an urban environment. There are no agriculture or forest land uses in this area. Therefore, no conversion of farmland or forest land to non-agricultural or non-forest uses will occur.

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[8] California Department of Conservation. Williamson Act Program, 2007. ftp://ftp.consrv.ca.gov/pub/dlrp/wa/LA_12_13_WA.pdf [Accessed August, 2016].

[9] USDA Forest Service. Pacific Southwest Region. EvegTile51A__02_03_v2. 2007. http://frap.fire.ca.gov/data/frapgismaps/pdfs/fvegwhr13b_map.pdf [Accessed August, 2016].

4.3 – 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:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☑	☐
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)?	☐	☐	☑	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☑	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☑

a) **No Impact.** A significant impact could occur if construction of the proposed billboard signs conflicts with or obstructs implementation of the South Coast Air Basin 2012 Air Quality Management Plan. Conflicts and obstructions that hinder implementation of the AQMP can delay efforts to meet attainment deadlines for criteria pollutants and maintaining existing compliance with applicable air quality standards. Pursuant to the methodology provided in Chapter 12 of the 1993 SCAQMD CEQA Air Quality Handbook, consistency with the South Coast Air Basin 2012 Air Quality Management Plan (AQMP) is affirmed when a project (1) does not increase the frequency or severity of an air quality standards violation or cause a new violation and (2) is consistent with the growth assumptions in the AQMP.[10] Consistency review is presented below:

Due to the small scale nature of constructing pole signs and/or billboard signs, short-term construction and long-term pollutant emissions will generally be less than the CEQA significance emissions thresholds established by the SCAQMD; therefore, the project would not result in an increase in the frequency or severity of any air quality standards violation and would not cause a new air quality standard violation.

[10] South Coast Air Quality Management District. CEQA Air Quality Handbook. 1993.

The CEQA Air Quality Handbook indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and 'significant projects.' Significant projects include airports, electrical generating facilities, petroleum and gas refineries, designation of oil drilling districts, water ports, solid waste disposal sites, and off-shore drilling facilities. The proposed project does not involve a General Plan Amendment, Specific Plan, and is not considered a 'significant project'. Furthermore, the project would not involve any new housing or employment uses which would affect population or employment growth.

Based on the preceding analysis, the proposed project will not conflict with the AQMP and no impact will occur.

b) **Less Than Significant Impact.** A project may have a significant impact if project related emissions would exceed federal, state, or regional standards or thresholds, or if project-related emissions would substantially contribute to existing or project air quality violations. The proposed project is located within the South Coast Air Basin, where efforts to attain state and federal air quality standards are governed by the South Coast Air Quality Management District (SCAQMD). Both the State of California (State) and the Federal government have established health-based ambient air quality standards (AAQS) for seven air pollutants (known as 'criteria pollutants'). These pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), inhalable particulate matter with a diameter of 10 microns or less (PM_{10}), fine particulate matter with a diameter of 2.5 microns or less ($PM_{2.5}$), and lead (Pb). The State has also established AAQS for additional pollutants. The AAQS are designed to protect the health and welfare of the populace within a reasonable margin of safety. Where the state and federal standards differ, California AAQS are more stringent than the national AAQS.

Air pollution levels are measured at monitoring stations located throughout the air basin. Areas that are in nonattainment with respect to federal or state AAQS are required to prepare plans and implement measures that will bring the region into attainment. Table 1 (South Coast Air Basin Attainment Status – North Orange County) summarizes the attainment status in the project area for the criteria pollutants. Discussion of potential impacts related to short-term construction impacts and long-term operational impacts are presented below.

Table 1
South Coast Air Basin Attainment Status – North Orange County

Pollutant	Federal	State
O_3 (1-hr)	N/A	Nonattainment
O_3 (8-hr)	Nonattainment	Nonattainment
PM^{10}	Nonattainment	Nonattainment
$PM^{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO_2	Attainment	Nonattainment
SO_2	Attainment	Attainment
Pb	Nonattainment	Nonattainment
Sources: CARB 2011, U.S. EPA 2012		

Construction Emissions

Short-term criteria pollutant emissions will occur during site preparation and construction of the pole sign. Construction of the proposed digital billboards will not require demolition of any existing buildings or structures nor will it require any site grading or other earth moving activities. Architectural coatings will also not be required, as the prefabricated signs will come factory-coated. As such, user-defined CalEEMod inputs were used to simulate trenching and erecting of a single digital billboard. Emissions will occur from use of equipment, worker, vendor, and hauling trips, and disturbance of onsite soils (fugitive dust). To determine if construction of the proposed project could result in a significant air quality impact, the California Emissions Estimator Model (CalEEMod) has been utilized. CalEEMod defaults have generally been used as construction inputs into the model (see Appendix A for

input values). The methodology for calculating emissions is included in the CalEEMod User Guide, freely available at http://www.caleemod.com. Construction of the digital billboards is anticipated to be completed in early-2017, with an opening year of 2018. The results of the CalEEMod outputs with mitigation incorporated are summarized in Table 2 (Maximum Daily Construction Emissions). Based on the results of the model, maximum daily emissions from the construction of the digital billboard would not exceed the daily thresholds established by SCAQMD.

Table 2
Maximum Daily Construction Emissions (lbs/day)

Year	ROG*	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Summer						
2017	**3.41**	**39.07**	**27.61**	**0.04**	**2.38**	**1.84**
Winter						
2017	**3.41**	**39.07**	**27.57**	**0.04**	**2.38**	**1.84**
SCAQMD Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Significant Impact?	**No**	**No**	**No**	**No**	**No**	**No**

Source: MIG, 2016.
*Volatile organic compounds (VOC) are measured as reactive organic compounds (ROG)

Operational Emissions

Due to its small-scale nature, the proposed project will not have any operational impacts like customer, vendor, and employee vehicle trips that will directly affect air quality. It is assumed that due to the multitude of LED lights inherent to digital billboard signs, the electricity consumption from digital billboards will be greater than the electricity consumption of static signs. However, these impacts are expected to be minimal given the highly efficient nature of LED bulb technology. Operation of the digital billboard, will not require employee or customer trips, and will only require periodic maintenance visits. Finally, it is assumed that over time the portion of the sign column without aluminum cladding will require repainting, resulting in emissions from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of maintenance. However, these impacts will be minimal given the scale and periodic nature of the maintenance activities. The proposed project would not impact traffic levels on SR-91, and as such no other mobile-source emissions impacts would occur, including carbon monoxide impacts. As there would be no mobile sources or direct emissions associated with operation of the proposed digital billboard, the proposed project's operational emissions are anticipated to be nominal and concluded to be less than significant.

c) **Less Than Significant Impact.** The SCAQMD has prepared an Air Quality Management Plan (AQMP) to set forth a comprehensive and integrated program that will lead the Basin into compliance with the federal 24-hour $PM_{2.5}$ air quality standard, and to provide an update to the SCAQMD's commitments toward meeting the federal 8-hour ozone standards. The Basin is currently in non-attainment for State and federal criteria pollutants ozone, nitrogen dioxide, and fine particulate matter ($PM_{2.5}$ and PM_{10}).[11]

Cumulative short-term, construction-related emissions and long-term, operational emissions from the proposed digital billboard will not contribute considerably to any potential cumulative air quality impact because short-term project and operational emissions will not exceed any SCAQMD daily threshold. The project will contribute very minimal amounts of criteria pollutants to the area during short-term project construction and periodic maintenance during operation. In addition, new electronic display billboards are required to comply with SCAQMD rules and regulations aimed at reducing construction-related pollutant emissions, including fugitive dust and other particulates, as well as organic compounds and other ozone precursors found in paints and other coatings. The proposed project

[11] United States Environmental Protection Agency. The Green Book Nonattainment Areas for Criteria Pollutants. www.epa.gov/oar/oaqps/greenbk/index.html [Accessed August, 2016].

does not change or otherwise interfere with the regional pollutant control strategies of the AQMP. Impacts will be less than significant.

d) **Less Than Significant Impact.** The proposed project would not be classified as a sensitive land use because it would not cater specifically or generally to sensitive receptors such as children or the elderly; therefore the project will not result in siting of new sensitive receptors that could be impacted by any existing pollutant concentrations. There are no existing sensitive uses in the immediate vicinity of the projects. In the surrounding area, sensitive uses include Cerritos Elementary School to the northwest, Kaiser Permanente Hospital and La Quinta Inn and Suites to the east, and residential uses to the south and west. Air quality impacts due to Toxic Air Contaminants (TACs), carbon monoxide and localized emissions as they relate to sensitive receptors are expected to be low to nil as construction and operation of the proposed digital billboard would not directly create any significant air quality impacts.

Toxic Air Contaminants

Construction of the proposed digital billboard would result in short-term emissions from the use of on-site equipment drill the foundation hole, pour anchors, and install the pole sign structure atop which the digital display will be placed. The expected period of construction for a billboard sign is generally considered to be around 19 days and emission levels would therefore be low, as indicated in Section 4.3b above. Nearby homes, hospitals, hotels, and Cerritos Elementary School, therefore, would not be exposed to significant concentrations of TACs during the short-term construction period. No impact will occur.

Carbon Monoxide

A CO hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. The potential for violation of State and federal CO standards at study area intersections and exposure to sensitive receptors at those intersections is addressed using the methodology outlined in the Transportation Project-Level Carbon Monoxide Protocol (Caltrans CO Protocol). According to the CO Protocol, projects may worsen air quality if they significantly increase the percentage of vehicles in cold start modes by two percent or more; significantly increase traffic volumes (by five percent or more) over existing volumes; or worsen traffic flow by increasing average delay at intersections operating at Level of Service (LOS) E or F. The installation and operation of the proposed digital billboard will not directly increase the volume of vehicles in cold start mode over what is already occurring, nor will it have any impact on traffic volumes as no vehicle trips are associated with operation of signs other than routine maintenance. Therefore, there would not be any potential for increasing CO hotspots. Impacts will be less than significant.

Localized Significance Thresholds

In addition to the mass daily emission thresholds established by the SCAQMD, short-term on-site emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ are examined for local impacts to nearby sensitive receptors. The closest receptor would be Cerritos Elementary School to the northwest of the project site, across the Coyote Creek. Additional nearby receptors are the single-family homes to the south and west of the Freeway Overlay District and a medical center and hotel to the east.

The SCAQMD methodology is called localized significance thresholds (LST). To assess local air quality impacts for development projects of five acres or less without complex dispersion modeling, the SCAQMD developed screening "lookup" tables to assist lead agencies in evaluating impacts. Construction of the proposed digital billboard would result in very short-term emissions from the use of on-site equipment to drill the foundation, pour concrete anchors, and install the pole sign and digital display. No earth-moving, site, preparation, or grading activities are anticipated during construction and no architectural coating activities will occur. The expected period of construction is generally around 19 days, and emissions would not be in excess of any significance thresholds identified in the LST

tables.[12] Nearby homes and other sensitive receptors, therefore, would not be exposed to significant concentrations of on-site emissions during the short-term construction period. Impacts will be less than significant.

e) **No Impact.** According to the CEQA Air Quality Handbook, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes, as well as sewage treatment facilities and landfills. Signs do not include any of the above noted uses or processes; no impact will occur.

[12] South Coast Air Quality Management District. Localized Significance Thresholds. http://www.aqmd.gov/ceqa/handbook/lst/appC.pdf [Accessed August, 2016].

4.4 – Biological Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☑
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?	☐	☐	☐	☑
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☑	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

a) **No Impact.** The proposed digital billboard project would occur on a parcel that is currently developed with light industrial/ commercial uses as well as surface parking. Landscaping currently exists on this parcel as

well; however, this ornamental vegetation is not habitat for any species identified as a candidate, sensitive, or special status species. The proposed project area is not identified as critical habitat for Threatened and Endangered Species.[13] Considering the highly developed nature of the proposed project site and surrounding areas, the probability of existence of designated species under the federal Endangered Species Act or California Special Concern Species is low. Development of the pole sign and digital billboard would, therefore, not have a substantial adverse effect on any species identified as a candidate, sensitive, or special-status species in local or regional plans or by the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS). Considering the lack of habitat on the property, no impacts to wildlife species of concern will occur.

b) **No Impact.** The proposed project would be located on fully developed land. The parcel proposed for the billboard has been previously graded, developed with light industrial/ commercial uses, and has landscaping consisting of non-native, ornamental shrubs and trees. There is no riparian habitat located on or in the vicinity of the sites. As such, no impact to riparian habitat or other sensitive natural habitat would occur.

c) **No Impact.** According to the federal National Wetlands Inventory, the proposed project site does not contain any wetlands. While there are identified riverine areas near the adopted Freeway Overlay District (Coyote Creek), these riverine areas are channelized with cement and there is no vegetation or on-site water features indicative of potential wetlands.[14] No impact will occur.

d) **Less than Significant Impact with Mitigation Incorporation.** The project site is not located within a known wildlife nursery site. Southern California forms a portion of the Pacific Flyway, a generic term used to categorize the numerous and complex migratory routes utilized by bird species migrating from Alaska to Mexico. Essentially, any waterbody or open space within the Pacific Flyway can serve as a travel node on a migratory path. Migration behavior is the regularly occurring, seasonally oriented movement of a species. Migration may consist of short- or long-distance dispersal and one-and two-way migratory trips over time cycles consisting of hours to years. A migratory route is the geographic path a species takes as it acts on its migratory behavior. Aquatic species typically migrate along streams and rivers. Avian species utilize wetlands and other open space areas as resting and feeding nodes as they migrate. Groundborne species generally require wildlife corridors to migrate.

The Migratory Bird Treaty Act (MBTA) (16 USC 703) implements various treaties and conventions between the US, Canada, Japan, Mexico and Russia for the protection of migratory birds. Under the MBTA, the taking, killing or possessing of migratory birds is unlawful, unless expressly permitted by other federal regulations. The MBTA provides that it is unlawful to pursue, hunt, take, capture, or kill any migratory bird, part, nest, egg or product. The MBTA requires that project-related disturbance at active nesting territories be reduced or eliminated during critical phases of the nesting cycle (1 February to 31 August, annually). Migratory bird species protected by this act are defined in Title 50, CFR Section 10.13.

The proposed project includes the removal and replacement of 45 trees within the Caltrans right-of-way immediately adjacent to the project site. As such, **Mitigation Measure BIO-1** has been incorporated to ensure that a pre-construction survey for nesting birds is conducted prior to any removal of trees in accordance with the Migratory Bird Treaty Act and California Department of Fish and Wildlife Code. Less than significant impacts to migratory birds will occur with mitigation incorporated.

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13 U.S. Fish and Wildlife Service. FWS Critical Habitat for Threatened & Endangered Species. http://criticalhabitat.fws.gov/ [Accessed August, 2016].

14 U.S. Fish and Wildlife Service. National Wetlands Inventory. http://107.20.228.18/Wetlands/WetlandsMapper.html# [Accessed August, 2016].

Mitigation Measure

BIO-1 In the event that vegetation removal, ground disturbance activities, or any other construction related activity is scheduled to take place during the nesting bird season (February 1st through September 15th), a qualified biologist shall conduct a pre-construction nesting bird survey at the project site no more than seven days prior to these activities taking place. If ground disturbance does not begin within seven days of the survey date a second survey must be conducted. If nesting activity is observed by the biologist conducting the survey, a buffer shall be erected around the nest/tree during construction activities. The buffer distance depends on the bird species and the biologist is allowed to use their discretion to adjust the buffer based on the bird's tolerance for disturbance, location of the project, etc. If vegetation removal, ground disturbance activities, or any other construction related activity are not scheduled to take place during the nesting bird season, a nesting bird survey is not required prior to these activities taking place.

e) **No Impact.** The City of La Palma Municipal code does not contain any ordinances aimed at protecting biological resources such as a tree preservation ordinance. As such, the proposed project will not conflict with any local ordinances or policies. No impacts will occur.

f) **No Impact.** The proposed digital billboard will not be located within the planning area of any Habitat Conservation Plan[15] or a Natural Community Conservation Plan area,[16] or other approved local, regional or state habitat conservation plan. No impact will occur.

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15 US Fish & Wildlife Services. Habitat Conservation Plans: Summary Report. http://ecos.fws.gov/conserv_plans/PlanReportSelect?region=8&type=HCP [Accessed August, 2016].

16 California Department of Fish and Game. Natural Community Conservation Planning: Status of NCCP Planning Efforts. www.dfg.ca.gov/habcon/nccp/status/ [Accessed August, 2016].

4.5 – Cultural Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?	☐	☐	☐	☑
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?	☐	☑	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☑	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☑	☐

a) **No Impact.** The proposed project site does not satisfy any of the criteria for a historic resource defined in Section 15064.5 of the State CEQA Guidelines. No known historically or culturally significant resources, structures, buildings, or objects are located on the proposed site. The City contains no federal or state designated historic resources. Furthermore, the development of the pole sign and digital display would not involve any changes to existing buildings or structures; the only change would be the actual physical construction of the digital billboard. As such, development of the proposed project would not cause an adverse change in the significance of a historical resource, and impacts to historic resources are not anticipated. No impact will occur.

b) **Less Than Significant with Mitigation Incorporated.** The proposed digital billboard will be located in an urbanized area that has been previously disturbed and heavily affected by past activities, specifically construction of existing on-site structures and associated paving and landscaping. Given that the proposed site has been substantially disturbed by previous construction, any cultural resources that may have existed at one time likely have been previously unearthed, disturbed, or left in place. The area has also been disturbed from previous construction of SR-91 and adjacent industrial/commercial developments. Significant earth moving and excavation would not be part of the development of the proposed billboard sign. Construction of the billboard could require excavation up to 32 feet deep at a five-foot width. The City of La Palma does not contain any known archaeological or paleontological resources.[17] However, in the unlikely event that archeological materials are uncovered, **Mitigation Measure C-1** is incorporated to ensure that uncovered resources are evaluated, left in place if possible, or curated as recommended by a qualified anthropologist. Impacts will be less than significant with mitigation incorporation.

Mitigation Measure

C-1 If potential archaeological materials are uncovered during grading or other earth moving activities, the contractor shall be required to halt work in the immediate area of the find and to retain a professional

[17] La Palma General Plan, 2014 - Appendix A, Housing Element Initial Study (p. 19).

archaeologist to examine the materials to determine whether it is a *unique archaeological resource* as defined in Section 21083.2(g) of the state CEQA Statutes. If this determination is positive, the resource shall be left in place, if determined feasible by the project archaeologist. Otherwise, the scientifically consequential information shall be fully recovered by the archaeologist. Work may continue outside of the area of the find; however, no further work shall occur in the immediate location of the find until all information recovery has been completed and a report concerning it filed with the Community Development Director. The applicant shall bear the cost of implementing this mitigation.

c) **Less Than Significant with Mitigation Incorporated.** The proposed project site is a previously developed parcel in a fully urbanized area and therefore has no unique geological resources on or near it. Development of the proposed digital billboard would require drilling for structure foundations up to approximately 32 feet in depth and five feet in width. Given that the proposed project site has been previously disturbed, and given that development of the pole sign and digital display will have limited excavation requirements, it is considered unlikely that paleontological resources (fossil evidence of life from past geologic time frames) will be found. However, in the event that paleontological materials are uncovered, **Mitigation Measure C-2** is incorporated to ensure that uncovered resources are evaluated, left in place if possible, or curated as recommended by a qualified anthropologist. Impacts to paleontological resources will be less than significant with mitigation incorporation.

Mitigation Measure

C-2 If paleontological materials are uncovered during grading or other earth moving activities, the contractor shall be required to halt work in the immediate area of the find, and to retain a professional paleontologist to examine the materials to determine whether it is a significant paleontological resource. If this determination is positive, resource shall be left in place, if determined feasible by the project paleontologist. Otherwise, the scientifically consequential information shall be fully recovered by the paleontologist. Work may continue outside of the area of the find; however, no further work shall occur in the immediate location of the find until all information recovery has been completed and a report concerning it filed with the Community Development Director. The applicant shall bear the cost of implementing this mitigation.

d) **Less Than Significant Impact.** It is unlikely that human remains could be uncovered during construction of the proposed project, considering that the proposed project site was previously disturbed during development of the exiting light industrial/ commercial building on-site, as well as construction and maintenance of the adjacent SR-91 Freeway. Nonetheless, if human remains are encountered during construction, all work shall cease and the orange County Coroner's Office shall be contacted pursuant to procedures set forth in Section 7050.5 of the Health and Safety Code. If the remains are identified as prehistoric, a Native American representative shall be consulted to participate in the recovery and disposition of the remains. Through adherence to existing regulatory procedure, impacts to human remains would be avoided. Impact will be less than significant with application of existing regulations.

4.6 – Geology and Soils

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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.	☐	☐	☐	☑
ii) Strong seismic ground shaking?	☐	☐	☑	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☑	☐
iv) Landslides?	☐	☐	☐	☑
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☑	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☑	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property?	☐	☐	☑	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☑

a.i) **No Impact.** Although the proposed project site is located in seismically active Southern California, it is not located within an Alquist-Priolo Earthquake Fault Zone.[18] The closest earthquake fault zones under the auspices of the Alquist-Priolo Earthquake Fault Zoning Act are the Los Alamitos fault approximately 5 miles to the southwest and the Whittier section of the Elsinore fault approximately 8 miles to the northeast. Development of the proposed digital billboard would be subject to all applicable City, State, and local building regulations, including the California Building Code (CBC) seismic standards as approved by the La Palma Building & Safety Division. No impact will occur.

a. ii)**Less Than Significant Impact.** The proposed digital billboard would be subject to strong seismic ground shaking, as are all projects located within Southern California. Construction of the sign will be subject to the seismic design criteria of the 2013 California Building Code (CBC). In particular, a project architect or engineer shall provide the City's Building Official with structural stability calculations that verify proposed signs will not collapse under either regional seismic loads or high wind conditions (up to 100 mph), and show that the project is compliant with the wind and seismic design criteria of the 2013 CBC. The sign foundation and pylons shall be designed to meet these design engineering requirements. Compliance with the CBC and the City's regulatory standards will ensure impacts due to strong seismic ground shaking will be less than significant.

a.iii)**Less Than Significant Impact.** Liquefaction is a phenomenon that occurs when soil undergoes transformation from a solid state to a liquefied condition due to the effects of increased pore-water pressure. This typically occurs where susceptible soils (particularly the medium sand to silt range) are located over a high groundwater table. Affected soils lose all strength during liquefaction and foundation failure can occur.

According to the Seismic Hazard Evaluation of the Los Alamitos 7.5 minute quadrangle, the proposed project site, much like the rest of the City, is located in a Zone of Required Investigation for liquefaction.[19] This indicates that the area has been subject to historic occurrence of liquefaction, or local geological, geotechnical, and groundwater conditions indicate a potential for permanent ground displacement such that mitigation as defined in Public Resources Code Section 2693(c) would be required. Data provided by water service providers in La Palma indicate that the depth of groundwater is approximately 5 to 13 feet below grade and therefore the potential for liquefaction is high.[20] The State Seismic Hazards Mapping Act requires preparation of a geotechnical report prior to the approval of most new development projects where such conditions are present. However, the Seismic Hazards Mapping Act and the Alquist-Priolo Earthquake Fault Zoning Act define projects that are exempt from any investigation requirements. This exemption includes structures of Group U occupancy, which includes buildings and structures of an accessory character and miscellaneous structures not classified in any specific occupancy.[21] Billboards are not specifically mentioned in this exception; however, utility and/or cell towers are included in this classification. As such, for the purposes of this project, billboards would be considered exempt from requiring a geotechnical report as a Group U occupancy. Moreover, because the proposed digital billboard is not habitable, impacts to human health will be minimal. Furthermore, the proposed billboard will be subject to building permit approval to ensure that footings are sufficient to prevent collapse of the sign. Impacts will be less than significant with implementation of existing regulations.

a.iv)**No Impact.** Structures built below or on slopes subject to failure or landslides may expose people and structures to harm. The proposed site is level and no obvious sloping is apparent. According to the Seismic Hazard

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18 California State Department of Conservation. California Geological Survey, Alquist-Priolo Earthquake Fault Zone Maps. http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm [Accessed August, 2016].

19 California State Department of Conservation. California Geological Survey, Seismic Hazard Zones. Los Alamitos Quadrangle, March 25, 1999.

20 City of La Palma, City of La Palma 2014 General Plan Update. Public Health and Safety Element, March, 2014.

21 California Building Standards Commission. California Residential Code 2013. California Code of Regulations Title 24, Part 2.5, January 1, 2014.

Evaluation of the Los Alamitos 7.5 minute quadrangle, the proposed project site is not located in an Earthquake-Induced Landslide Zone.[22] There are no slopes in the vicinity of the proposed project. No impact could occur.

b) **Less Than Significant Impact.** Topsoil is used to cover surface areas for the establishment and maintenance of vegetation due to its high concentrations of organic matter and microorganisms. Little, if any, native topsoil is likely to occur since the proposed project site is covered with a commercial use as well as associated parking and landscaping. The proposed project site is currently paved and developed. The parcel is underlain by fill material due to previous development and therefore development of the proposed digital billboard will not affect native top soil. No grading would be included as part of development of the sign. Sign foundations will have to be dug and filled. As such, the project has the potential to expose surficial soils to wind and water erosion during construction activities. Wind erosion as a result of construction activities will be minimized through soil stabilization measures required by South Coast Air Quality Management District (SCAQMD) Rule 403 (Fugitive Dust), such as daily watering. Water erosion will be prevented through the City's standard erosion control practices required pursuant to the California Building Code and the National Pollution Discharge Elimination System (NPDES), such as silt fencing or sandbags. Following construction of the digital billboard, the parcel would remain completely covered by paving, structures, the proposed sign, and landscaping. Impacts related to soil erosion would be less than significant with implementation of existing regulations.

c-d) **Less Than Significant Impact.** Impacts related to liquefaction and landslides are discussed above in Section 4.6.a. Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. This downslope movement is due to gravity and earthquake shaking combined. Such movement can occur on slope gradients of as little as one degree. Lateral spreading typically damages pipelines, utilities, bridges, and structures. Lateral spreading of the ground surface during a seismic activity usually occurs along the weak shear zones within a liquefiable soil layer and has been observed to generally take place toward a free face (i.e. retaining wall, slope, or channel) and to lesser extent on ground surfaces with a very gentle slope. Expansive soils are those that expand when exposed to water and contract when water is not present. Due to the absence of any natural channel within or near the proposed project site, the potential for lateral spread occurring is considered to be negligible.

Development of the proposed digital billboard will be required to comply with the California Building Code (CBC) with regard to construction; the sign requires building permits and would be constructed to current building code standards. These standards include consideration of geological and seismic conditions. Soil conditions at the billboard site would be identified and considered as part of the design process. Compliance with existing CBC regulations would limit hazard impacts arising from liquefaction, landslides, lateral spreading, and unstable soils to less than significant.

e) **No Impact.** Development and operation of the proposed digital billboard would not require use septic tanks as signs will not create any waste. No impact will occur.

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[22] California State Department of Conservation. California Geological Survey, Seismic Hazard Zones. Los Alamitos Quadrangle, March 25, 1999.

4.7 – Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☑	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☑

a) **Less Than Significant Impact.** Climate change is the distinct change in measures of climate for a long period of time.[23] Climate change is the result of numerous, cumulative sources of greenhouse gas emissions all over the world. Natural changes in climate can be caused by indirect processes such as changes in the Earth's orbit around the Sun or direct changes within the climate system itself (i.e. changes in ocean circulation). Human activities can affect the atmosphere through emissions of greenhouse gases (GHG) and changes to the planet's surface. Human activities that produce GHGs are the burning of fossil fuels (coal, oil and natural gas for heating and electricity, gasoline and diesel for transportation); methane from landfill wastes and raising livestock, deforestation activities; and some agricultural practices.

Greenhouse gases differ from other emissions in that they contribute to the "greenhouse effect." The greenhouse effect is a natural occurrence that helps regulate the temperature of the planet. The majority of radiation from the Sun hits the Earth's surface and warms it. The surface in turn radiates heat back towards the atmosphere, known as infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping back into space and re-radiate it in all directions. This process is essential to supporting life on Earth because it warms the planet by approximately 60° Fahrenheit. Emissions from human activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural greenhouse effect by increasing the gases in the atmosphere that trap heat, thereby contributing to an average increase in the Earth's temperature. Greenhouse gases occur naturally and from human activities. Greenhouse gases produced by human activities include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Since 1750, it is estimated that the concentrations of carbon dioxide, methane, and nitrous oxide in the atmosphere have increased over 36 percent, 148 percent, and 18 percent, respectively, primarily due to human activity. Emissions of greenhouse gases affect the atmosphere directly by changing its chemical composition while changes to the land surface indirectly affect the atmosphere by changing the way the Earth absorbs gases from the atmosphere.

Construction and operation of the proposed digital billboard will create short-term construction-related greenhouse gas emissions. A numerical threshold for determining the significance of greenhouse gas emissions in the South Coast Air Basin (Basin) has not officially been adopted by the SCAQMD. As an interim threshold based on guidance provided in the CAPCOA *CEQA and Climate Change* white paper, a non-zero threshold based on Approach

[23] United States Environmental Protection Agency. Frequently Asked Questions About Global Warming and Climate Change. Back to Basics. April 2009.

2 of the handbook will be used.[24] Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this method is 3,000 metric tons carbon dioxide equivalent ($MTCO_2E$) per year for all land use projects.[25] This threshold is based on the review of 711 CEQA projects.

The CEQA Guidelines require a lead agency to make a good-faith effort based, to the extent possible, on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions resulting from a project. Operational emissions associated with the proposed digital billboard will not include GHG emissions from mobile sources (transportation), water use and treatment, or waste disposal. Electricity use of each of the digital sign faces is considered to be nominal given the highly efficient nature of LED bulb technology. It is therefore assumed that, given the limited scope of construction and minimal operational electricity demand of the digital billboard, Greenhouse gas emissions associated with the proposed project will not exceed the 3,000 $MTCO_2E$ threshold; therefore, impacts would be less than significant.

b) **No Impact.** The City has adopted the 2013 edition of the California Building Code (CBC), including the California Green Building Standards Code. Construction of the proposed digital billboard would be subject to the California Green Building Standards Code. The City of La Palma does not have any additional adopted plans, policies, standards, or regulations related to climate change and GHG emissions. No impact will occur.

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[24] California Air Pollution Control Officers Association. *CEQA and Climate Change*. January 2008.

[25] South Coast Air Quality Management District. CEQA Significance Thresholds Working Group. Meeting # 15, Main Presentation. September 28, 2010.

4.8 – Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☑	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☑	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☑	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☑
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 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?	☐	☐	☐	☑
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?	☐	☐	☐	☑
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑

a) **Less than Significant Impact.** The project will not transport, use, or dispose of significant amounts of hazardous materials requiring special control measures. The small amount of paints and other substances used for maintenance of equipment will not be substantially hazardous and will be used in accordance with their labeling, thus the project will have no impact on the public or the environment through the routine transport, use, or disposal of hazardous materials.

During construction and installation of the digital billboard, a hole will be drilled and the excavated soil will be transported off site. Additionally, development of the digital billboard may include minor trenching to connect to the electrical supply. Prior to construction activities, the sign location will be assessed for the presence of hazardous materials, which, if present, would be handled according to existing federal, State, and local regulations regarding hazardous materials handling and disposal. Based on the foregoing, impacts relating to hazardous materials are less-than-significant.

b) **Less than Significant Impact.** The proposed digital billboard will not utilize hazardous materials and does not produce hazardous wastes. No demolition of existing structures would be necessary that would expose persons to asbestos or other hazardous materials. Development of the digital billboard will also be required to comply with the City's ordinances for construction materials, which requires diversion of at least 50 percent of the project's demolition waste, as well as completion of a Construction Waste Management Plan, to be reviewed and approved by the City.

Electronic components of the digital billboard may contain materials considered "e-waste" when disposed of due to potential hazardous metals, flame-retardants, and other chemicals. The operator of the proposed digital billboard will be required to follow applicable regulations regarding proper disposal and/or recycling, as appropriate, as components are replaced or removed over time; therefore, there is little potential for a hazardous release that could significantly impact the public. Impacts will be less than significant with implementation of existing regulations.

c) **Less than Significant Impact.** There are no schools located within close proximity (less than 0.25-miles) to the proposed site. Operation of the proposed digital billboard would not generate any hazardous emissions, and storage, handling, production or disposal of acutely hazardous materials is not required or proposed for any aspect of this project. As discussed in Section 4.8.b, existing regulations address potential off-site construction-related hazards associated with removal and replacement of e-waste. Impact would be less than significant with implementation of existing regulations.

d) **No Impact.** The proposed project site is not listed on the State *Cortese List*, a compilation of various sites throughout the state that have been compromised due to soil or groundwater contamination from past uses.[26]

[26] California Environmental Protection Agency. Cortese List. www.calepa.ca.gov/SiteCleanup/CorteseList/ [Accessed August, 2016].

Based upon review of the *Cortese List*, the parcel proposed for the digital billboard is not:

- listed as a hazardous waste and substance site by the Department of Toxic Substances Control (DTSC),[27]
- listed as a leaking underground storage tank (LUST) site by the State Water Resources Control Board (SWRCB),[28]
- listed as a hazardous solid waste disposal site by the SWRCB,[29]
- currently subject to a Cease and Desist Order (CDO) or a Cleanup and Abatement Order (CAO) as issued by the SWRCB,[30] or
- developed within a hazardous waste facility subject to corrective action by the DTSC. [31]

e-f) **No Impact.** There are no public airports or private airstrips within two miles of the proposed project site. The closest airport is Fullerton Municipal Airport, located approximately 3.5 miles northeast of La Palma. No impact will occur.

g) **No Impact.** Development of the proposed digital billboard would not substantially change existing conditions with regard to transportation routes or evacuation plans. As there are no residential uses associated with development of digital billboards, the proposed project would not increase the population of the area. There are also no proposed new commercial buildings associated with the proposed digital billboard that could potentially increase employment in the area. The Environmental Health Division of the County of Orange is designated as the Certified Unified Program Agency, the local administrative agency that coordinates the regulation of hazardous materials and hazardous wastes in Orange County, including La Palma, through the following programs: Hazardous Material Disclosure, Business Emergency Plan, California Accidental Release Prevention, Hazardous Waste Inspection Program, Underground Storage Tank Inspection Program, and the Aboveground Petroleum Storage Tank program.[32] No public or private streets will be closed during or following construction of the digital billboard; and development of the project will have no effect upon existing opportunities for emergency access/evacuation on the site or to any surrounding land uses. The proposed project will not impair implementation of or physically interfere with an adopted emergency response plan or evacuation plan. No impact will occur.

h) **No Impact.** There are no wildland conditions within the urbanized area that the project will be located. No impact would occur.

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27 California Department of Toxic Substances Control. EnviroStor. www.envirostor.dtsc.ca.gov/public/search.asp [Accessed August, 2016].

28 California State Water Resources Control Board. GeoTracker. www.geotracker.waterboards.ca.gov [Accessed August, 2016].

29 California State Water Resources Control Board. Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit. www.calepa.ca.gov/SiteCleanup/CorteseList/CurrentList.pdf [Accessed August, 2016].

30 California State Water Resources Control Board. List of Active CDO and CAO. www.calepa.ca.gov/SiteCleanup/CorteseList/CDOCAOList.xls [Accessed August, 2016].

31 California Department of Toxic Substances Control. Hazardous Facilities Subject to Corrective Action. www.calepa.ca.gov/SiteCleanup/CorteseList/SectionA.htm#Facilities [Accessed August, 2016].

32 La Palma General Plan 2014, Community Safety Element (p. 3.1–3.25).

4.9 – Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☑	☐
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)?	☐	☐	☑	☐
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?	☐	☐	☑	☐
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?	☐	☐	☑	☐
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?	☐	☐	☑	☐
f) Otherwise substantially degrade water quality?	☐	☐	☐	☑
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?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☑
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?	☐	☐	☑	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑

a) **Less Than Significant Impact.** Operation of the proposed digital billboard will not involve the use of water or generation of wastewater. Short-term surface water quality impacts could potentially occur during construction of the sign due to construction related activities such as drilling the hole for the foundation and pouring concrete. Runoff of loose soils and/or construction wastes and fuels during a rainstorm could flow into local storm drains. Such contaminated runoff could potentially threaten downstream water resources that receive runoff from the local drainage network. Compliance with the City's standard stormwater runoff provisions for construction activities will ensure that the projects do not violate any water quality standards or any waste discharge requirements during construction. Due to the lack of significant grading, earth-moving activities, and paving as part of the project, impacts will be less than significant.

b) **Less Than Significant Impact.** The proposed digital billboard will not require water to operate. The proposed project site is paved and provides for little infiltration of water into underground aquifers. The site does not support any groundwater production systems and construction and operation of the digital billboard will not interfere with the operation of any production system. Development of the proposed digital billboard would not substantially change impervious surface area and would not have a substantial impact on groundwater recharge.

Development of the proposed digital billboard will not involve substantial excavation or trenching that would impact groundwater. Development of the signs would include drilling a hole approximately five feet in diameter with a depth of approximately 21-32 feet, depending on the location. In the event that groundwater is encountered and dewatering activities are required, it would be short-term as construction of the billboard would be expected to take only a few weeks to complete and the foundation hole would be filled with concrete, resulting in minimal effects to groundwater. Impacts would be less than significant.

c-e) **Less Than Significant Impact.** There are no streams on the proposed project site and development of the digital billboard will not result in the alteration of any stream course. The proposed project site is fully developed and paved as a commercial complex with directing drainage gutters discharging drainage flows into the existing stormwater system. Development of the proposed digital billboard will not impact or alter existing drainage flows or watercourses. At the completion of construction of the digital billboard, the site would continue to consist of impervious surfaces and landscaped areas, and would therefore not be prone to substantial erosion. The proposed project would not be considered an industrial use that produces pollutants and therefore will not result in substantial pollutant loading such that treatment control BMPs would be required to protect downstream water quality. Impacts will be less than significant.

During construction of the digital billboard, pollutants may be created that could impact runoff water quality. However it is expected that minimal pollutants would be created due to the limited extent and scope of sign construction. Compliance with the City's standard stormwater runoff provisions for construction activities will

ensure that the development of the digital billboard does not violate any water quality standards or any waste discharge requirements during construction. Impacts will be less than significant.

f) **No Impact.** The proposed digital billboard will not have the potential to otherwise degrade water quality beyond those issues discussed in Section 4.9 herein.

g) **No Impact.** The proposed project would not include the development of any housing, therefore no impact will occur.

h) **No Impact.** The proposed project site is not located within a 100-year floodplain, as mapped by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps. The proposed project site is identified as Zone X, defined by FEMA as areas outside the 0.2 percent annual chance floodplain.[33] Therefore, no impediment of flood flows will occur.

i) **Less than Significant Impact.** The proposed project site is located in Zone X on the Federal Emergency Management Agency's latest Flood Insurance Rate Map (FIRM), indicating that the parcel is not subject to flooding. Therefore, development of the proposed digital billboard will not expose structures or the public to flooding hazards, either directly or due to the failure of a dam or levee. Dam inundation is not considered to be a significant risk to development within the Freeway Overlay District and construction of the digital billboard would not be subject to any special design standards related to protection from a dam failure. Impacts will be less than significant.

j) **No Impact.** The proposed digital billboard is not subject to tsunami due to its elevation and distance (nearly 10 miles) from the ocean. All of La Palma, including the project vicinity, is not located near any body of water or water storage facility that would be considered susceptible to seiche.[34] There are no significant hills, mountains, or washes in the immediate vicinity that could result in mudflows onto or from the project site. No impact will occur.

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[33] Federal Emergency Management Agency. Flood Insurance Rate Map. Map Number 06037C2000F and 06059C0106J (06059C0107J not printed as there are no special flood hazard areas on that panel). December 3, 2009. https://msc.fema.gov/portal/search?AddressQuery=la%20palma%2C%20ca [Accessed August, 2016].

[34] La Palma General Plan Update 2014. Community Safety Element (p. 3.1-3.25), 2014.

4.10 – Land Use and Planning

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☑
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?	☐	☐	☑	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☑

a) **No Impact.** The proposed project site currently contains a light industrial/ commercial building. Construction of the proposed digital billboard would not physically divide the surrounding community. The proposed project will have no impact on land use or circulation patterns within the community. Therefore, no impact will occur.

b) **Less than Significant Impact.** The proposed project parcel is located within the adopted Freeway Overlay District. The proposed project is not requesting any General Plan Amendment that could conflict with policies designed to protect the environment. The proposed digital billboard is consistent with the intent of the Freeway Overlay District as well as surrounding land use designations, which are designed to provide for a range of commercial and industrial uses.[35]

The proposed digital billboard is required to comply with the Freeway Overlay District Zoning Ordinance requirements as adopted by the City Council. The project does not propose any signs located outside the zoning overlay. The proposed digital billboard would be located in a completely commercial/industrial area, away from residential dwellings, as required in the zoning ordinance. There will be no noise impacts associated with operation of the proposed sign. The digital billboard will be subject to certain conditions of approval, including long-term review of potential light-related impacts, to minimize visual impacts on surrounding uses and ensure continued safety surrounding the sites. Other potential impacts, including aesthetics, are discussed in other sections of this Initial Study. The project will not conflict with any policy designed to mitigate environmental impacts. Impacts will be less than significant.

c) **No Impact.** As discussed in Checklist Response 4.4.f above, the proposed parcel is fully developed and surrounding areas are not part of any habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. As such, no impact will occur.

[35] City of La Palma. General Plan Update. 2014.

4.11 – Mineral Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
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?	☐	☐	☐	☑

a-b) **No Impact.** The proposed project is located in a completely urbanized area. There are no mineral extractions or processing facilities on or adjacent to the proposed site. No known mineral resources exist within the City of La Palma.[36] The project would not result in the loss of availability of an important mineral resource recovery site; no impact would occur.

[36] City of La Palma. General Plan Update. 2014.

4.12 – Noise

Would the project result in:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☑	☐
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☑	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑
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?	☐	☐	☐	☑

Noise can be defined as unwanted sound. Sound (and therefore noise) consists of energy waves that people receive and interpret. Sound pressure levels are described in logarithmic units of ratios of sound pressures to a reference pressure, squared. These units are called *bels*. In order to provide a finer description of sound, a *bel* is subdivided into ten *decibels*, abbreviated dB. To account for the range of sound that human hearing perceives, a modified scale is utilized known as the A-weighted decibel (dBA). Since decibels are logarithmic units, sound pressure levels cannot be added or subtracted by ordinary arithmetic means. For example, if one automobile produces a sound pressure level of 70 dBA when it passes an observer, two 2 cars passing simultaneously would not produce 140 dBA. In fact, they would combine to produce 73 dBA. This same principle can be applied to other traffic quantities as well. In other words, doubling the traffic volume on a street or the speed of the traffic will increase the traffic noise level by

3 dBA. Conversely, halving the traffic volume or speed will reduce the traffic noise level by 3 dBA. A 3 dBA change in sound is the beginning at which humans generally notice a *barely perceptible* change in sound and a 5 dBA change is generally *readily perceptible*.[37]

The proposed digital billboard is located in a fully urbanized area, in close proximity to the SR-91 freeway, and is surrounded by commercial and industrial uses. Existing noise conditions are representative of this environment. Traffic noise from SR-91 is the greatest contributor to ambient noise levels near the project site. There are no discernible stationary noise sources within the Freeway Overlay site. The nearest sensitive receptors are the multi-family apartments located 400 feet to the south on Orangethorpe Avenue.

a) **Less Than Significant Impact.** The City's Zoning Code (Section 44-267 "Noise") codifies noise level standards in the City. Additional noise requirements are included in Municipal Code Sections 44-948 ("Community Event Permit") and 26-137 ("Disturbance of Sleep"). Construction of the proposed digital billboard will result in minimal, short-term construction-related noise, anticipated to last for a few weeks. Project-related construction would result in short-term increases in noise levels and ground borne vibration on and immediately surrounding the site. However, given the small-scale nature of the proposed digital billboard, the short-term noise increase is not expected to exceed State recommended noise compatibility standards or local noise ordinances; therefore, impacts will be less than significant.

b) **Less Than Significant Impact.** Vibration is the movement of mass over time. It is described in terms of frequency and amplitude and unlike sound; there is no standard way of measuring and reporting amplitude. Vibration can be described in units of velocity (inches per second) or discussed in decibel (dB) units in order to compress the range of numbers required to describe vibration. Vibration impacts to buildings are generally discussed in terms of peak particle velocity (PPV) that describes particle movement over time (in terms of physical displacement of mass). For purposes of this analysis, PPV will be used to describe all vibration for ease of reading and comparison. Vibration can impact people, structures, and sensitive equipment.[38] The primary concern related to vibration and people is the potential to annoy those working and residing in the area. Vibration with high enough amplitudes can damage structures (such as crack plaster or destroy windows). Ground borne vibration can also disrupt the use of sensitive medical and scientific instruments such as electron microscopes. Common sources of vibration within communities include construction activities and railroads. Operation of the proposed digital billboard will not include uses that cause vibration.

Ground borne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities. Next to pile driving, grading activities have the greatest potential for vibration impacts if large bulldozers, large trucks, or other heavy equipment are used. Construction of the proposed digital billboard will not include demolition, site clearing, grading, or other earth-moving activities that require any of the previously listed equipment. Therefore the proposed project is not anticipated to result in vibration impacts. With regard to short- and long-term operational impacts, activities associated with construction and operation of the digital billboard will not result in any vibration-related impacts to adjacent properties. Impacts will be less than significant.

c) **No Impact.** The proposed project will not increase ambient noise levels due to increased traffic generation in the project vicinity. The proposed digital billboard does not generate any operation-related trips and does not create any noise during operation. Therefore, the proposed project will not create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; no impact will occur.

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37 California Department of Transportation. Basics of Highway Noise: Technical Noise Supplement. November 2009.

38 California Department of Transportation. Transportation- and Construction-Induced Vibration Guidance Manual. June 2004.

d) **Less Than Significant Impact.** The project will result in temporary construction-related noise increases. However these increases will be temporary as construction of the billboard is anticipated to take around 19 days. Moreover, construction of the proposed digital billboard does not require any demolition, grading, or other earth-moving activities that cause substantial increases in noise. Short-term maximum noise levels generated by heavy construction equipment can range from approximately 68 dBA to noise levels in excess of 100 dBA when measured at 50 feet. These noise levels would diminish with distance from the construction site at a rate of approximately 6 dBA per each doubling of distance. Heavy construction equipment utilized for construction of the billboard would include a drilling rig, skip loader, dump truck, crane truck, and flatbed truck for transporting sign structures. The City's Municipal Code limits hours of construction to 7:00 A.M. to 5:00 P.M.[39] Adherence to these hours will ensure that the project is in compliance with all local construction noise standards. Based on the location of nearest sensitive receptors, the type of equipment used in the construction process, and the relatively short time period of construction that is required for signs, noise impacts created by the proposed project would have a less than significant impact.

Operationally, the project will result only in periodic noise associated with maintenance of the billboard sign; however, these impacts are assumed to fall within acceptable noise thresholds. Operation of the billboard will not include other periodic outdoor noise sources such as landscaping activities or solid waste and recycling pick-up. Pole signs and billboard signs do not have any other noise related operational impacts. Pole signs and static billboards do not generate any noise, and noise from digital LED billboards is considered negligible. Long-term operation impacts of the proposed billboard will not expose persons to noise levels that exceed the standards of the Municipal Code, nor will it exceed existing ambient noise level conditions; therefore impacts will be less than significant.

e, f) **No Impact.** No airport land use plans apply to the area, and the proposed project site is not located within two miles of an airport. No impacts to airport land use plans or airports could occur. There are also no private airstrips in the project vicinity; there would be no impacts related to excessive noise near a private airstrip.

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[39] City of La Palma. Municipal Code Section 44-267 "Noise", Permitted Hours of Construction.

4.13 – Population and Housing

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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)?	☐	☐	☐	☑
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

a) **No Impact.** The proposed digital billboard would not entail establishing any housing or creating any job-creating uses and therefore, would not induce substantial population growth in the area. No impact will occur.

b) **No Impact.** The proposed project will not include the removal of any housing; thus no impact will occur.

c) **No Impact.** The proposed project will not include the removal of any housing; thus no people will be displaced and no impact will occur.

4.14 – Public Services

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:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Fire protection?	☐	☐	☐	☑
b) Police protection?	☐	☐	☐	☑
c) Schools?	☐	☐	☐	☑
d) Parks?	☐	☐	☐	☑
e) Other public facilities?	☐	☐	☐	☑

a) **No Impact.** No new fire stations or other capital improvements will need to be built and no new fire personnel will need to be hired in order to maintain existing service ratios and response times, as the project will not increase population or the need to service them. No impact will occur related to fire protection services.

b) **No Impact.** The proposed digital billboard will not increase residential population or employment numbers and will not require law enforcement and public safety services from the La Palma Police Department. No new stations or other capital improvement will be required and no new personnel will need to be hired in order to maintain existing service ratios and response times as the proposed billboard will not increase population or the need to service them. No impact will occur related to police protection services.

c) **No Impact.** The proposed digital billboard will not generate any employees nor house any residents who might attend a local school. No impact will occur.

d) **No Impact.** The proposed digital billboard will not generate any employees nor house any residents who might increase the demand for new or use of existing park or recreation facilities. No impact will occur.

e) **No Impact.** No impact will occur to other public facilities such as libraries because the proposed digital billboard will not expand the residential population.

4.15 – Recreation

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

a) **No Impact.** The proposed project would not create new households that could increase usage of local and regional parks and recreation facilities. No impact will occur.

b) **No Impact.** The proposed project would not include construction of any recreation facilities and would not require construction or improvement of any off-site facilities; thus, no impact will occur.

4.16 – Transportation and Traffic

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☑	☐
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?	☐	☐	☑	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☑	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☑	☐	☐
e) Result in inadequate emergency access?	☐	☐	☐	☑
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?	☐	☐	☑	☐

a, b, c, f) **Less than Significant Impact.** Construction and operation of the proposed digital billboard would not result in any increase in vehicle trips or changes in air traffic patterns or alternative transportation. Traffic generated from construction of sign would be minimal in both level and duration. Therefore, impacts would be less than significant.

d) **Less than Significant Impact with Mitigation Incorporated.** The project proposes the construction of a digital billboard within the recently adopted Freeway Overlay District along the SR-91 freeway within the City. The digital billboard would be visible primarily from SR-91 freeway, to which it is oriented but will also be visible on surrounding streets.

The capability of digital billboards to present changing images has raised concerns regarding the effect of such signage on traffic safety. The primary concern has been effects on driver attention, but concerns have also been raised regarding the potential for such signage to produce light of such intensity or direction that it could interfere with driver vision. This is a topic of ongoing research. The FHWA,[40] the American Association of State Highway and Transportation Officials, the National Cooperative Highway Research Program (NCHRP),[41] the Transportation Research Board, the Illumination Engineering Society of America,[42] the digital billboard industry,[43] and private groups have conducted or participated in numerous research studies. Literature reviews have found that there are no definitive, widely accepted conclusions about the presence or strength of adverse safety impacts from digital billboards, or about specific location, design, and operating standards that would protect public safety.[44] Continued research is being conducted by various government agencies and private organizations.

The existing research points to a number of spatial and operational characteristics that could affect safety. These are mostly related to brightness and message duration. With regard to brightness, the brightness of a digital billboard will attract a driver's gaze earlier and longer than other visual stimuli that appear less bright.[45] Also, the NCHRP report notes that at night, dawn or dusk, or in inclement weather, a bright sign can draw attention away from the road and traffic, and render less brightly lit official traffic signs, markings, and brake lights, less conspicuous and more difficult to discern. With regard to message duration, drivers will be more distracted by a display that changes as they approach it; as such, a longer message duration lowers the number of message changes seen by a driver and is less distracting.[46] The FHWA has recommended a message duration of eight seconds;[47] California requires a minimum of four seconds.[48]

Another issue to consider is transition time between displays on the billboard, as it is a combination of brightness and apparent motion that attracts a viewer's gaze to the sign. A perceptible dark or blank interval between successive displays will increase the sense of apparent motion. The FHWA suggests that transition between messages be limited to one to two seconds.[49] Visual effects, such as fade, dissolve, or animation in the transition between successive messages is widely regarded as a distracting traffic safety hazard. State and federal law also establish minimum spacing distance between digital billboards, of 1,000 feet. Additionally, digital billboards should not be placed near driver decision and action points, such as interchanges and curves, or near official traffic control signs

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40 U.S. Department of Transportation Federal Highway Administration. The Effects of Commercial Electronic Variable Message Signs (CEVMS) on Driver Attention and Distraction: An Update. Publication No. FHWA-HRT-09-018. February 2009.

41 National Cooperative Highway Research Program/Jerry Wachtel, CPE. Safety Impacts of the Emerging Digital Display Technology for Outdoor Advertising Signs, NCRHP Project 20-7 (256). April 2009. This study was completed for the American Association of State Highway and Transportation Officials.

42 Illumination Engineering Society of North America. IESNA Lighting Handbook. 9th Edition.

43 Lighting Sciences/Ian Lewin Ph.D. Digital Billboard Recommendations and Comparisons to Conventional Billboards. 2007.

44 National Cooperative Highway Research Program/Jerry Wachtel, CPE. Safety Impacts of the Emerging Digital Display Technology for Outdoor Advertising Signs, NCRHP Project 20-7 (256). April 2009.

45 Ibid.

46 Ibid.

47 U.S. Department of Transportation, Federal Highway Administration. Information: Guidance on Off-Premise Changeable Message Signs. September 25, 2007.

48 California Outdoor Advertising Act. Section 5405.

49 U.S. Department of Transportation, Federal Highway Administration. Information: Guidance on Off-Premise Changeable Message Signs. September 25, 2007.

that guide drivers to these actions, as this is a potential traffic safety concern.[50] The proposed digital billboard would be required to comply with this spacing requirement.

The proposed digital billboard would also be required to comply with all existing federal and State laws and regulations related to billboards, including the Highway Beautification Act, FHWA agreements with the State pursuant to the Highway Beautification Act, the California's Outdoor Advertising Act, and the California Vehicle Code. These laws and regulations are enforced by Caltrans and the California Highway Patrol. In order to ensure establishment and continued operation of the billboard within acceptable safety ranges, the following mitigation measures are included.

Mitigation Measures

T-1 The operator of digital LED billboards within the Freeway Overlay District shall comply with the following at all times:

- No special visual effects that include moving or flashing lights shall accompany the transition between two successive messages, and no special visual effects shall accompany any message display;
- The minimum display duration time for messages shall be not less than 8 seconds, and the minimum display time between messages shall be not more than 1 second;
- The minimum font size shall be established for the maximum speed on SR-91 freeway. The font size standard shall be in accordance with the sign industry's best practices formula.
- Prior to implementing any of the following, the operator shall submit a request and obtain permission from the City: installing, implementing or using any technology that would allow interaction with drivers, vehicles or any device located in vehicles, including, but not limited to, a radio frequency identification device, geographic positions system, or other device.
- In the event of any failure or combination of failures that affect the digital billboards' luminance, the operator shall impose a default to an output level no higher than 4 percent of the maximum luminance of the billboard. If this cannot be achieved, then the display shall be required to default to an "off" position until the problem can be resolved.

T-2 The operator of any digital LED billboard within the City Freeway Overlay District shall submit, within 30 days following June 30 of each year, a written report regarding operation of each digital billboard during the preceding period of July 1 to June 30. The operator may submit a combined report for all such digital billboards operated by such operator within the Freeway Overlay District. The report shall, when appropriate, identify incidents or facts that relate to specific digital billboards. The report shall be submitted to the Office of the City Manager and the City Attorney, and shall include the following information:

- Status of the operator's license as required by California Business and Professions Code para 5300 et seq.;
- Status of the required permit for individual digital billboards, as required by California Business and Professions Code para. 5350 et seq.;
- Compliance with the California Outdoor Advertising Act, California Business and Professions Code para 5200 and all regulations adopted pursuant to such Act;
- Compliance with California Vehicle Code para 21466.5 and 21467;
- Compliance with provisions of written agreements between the U.S. Department of Transportation and the California Department of Transportation pursuant to the federal Highway Beautification Act (23U.S.C. para.131);

[50] National Cooperative Highway Research Program/Jerry Wachtel, CPE. Safety Impacts of the Emerging Digital Display Technology for Outdoor Advertising Signs, NCRHP Project 20-7 (256). April 2009.

- Compliance with mitigation measures and/or conditions of approval adopted as part of the project approval;
- Each written or oral complaint received by the operator, or conveyed to the operator by any government agency or any other person, regarding operation of digital billboards within the Freeway Overlay District;
- Each malfunction or failure of a digital billboard operated by the operator within the Freeway Overlay District, which shall include only those malfunctions or failures that are visible to the naked eye, including reason for the malfunction, duration and confirmation of repair; and
- Operating status of each digital billboard operated by the operator within the Freeway Overlay District, including estimated date of repair and return to normal operation of any digital billboard identified in the report as not operating in normal mode.

These measures will ensure that operation of the digital billboard will meet short and long-term safety requirements in the future; therefore, with incorporation of mitigation impacts will be less than significant.

e) **No Impact.** The proposed digital billboard would be located within a private parcel, outside of travelled portions of the driveway and parking areas, and would present no obstacles to emergency access. All construction activities would occur within the proposed parcel and would not involve any road closures on SR-91 or any other public street.

The proposed digital billboard sign would also have the capacity to display official messages regarding emergencies, and could perform as part of the emergency response system, thus resulting in beneficial impacts. Therefore, the project would have no impact with regard to inadequate emergency access.

4.17 – Utilities and Service Systems

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☑
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?	☐	☐	☐	☑
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?	☐	☐	☐	☑
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☑
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?	☐	☐	☐	☑
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☑
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☑

a-g) **No Impact.** The proposed digital billboard would require electrical service in order to support digital LED messages. Providing modified electrical services would not result in any significant effects. The digital billboard would use electrical energy, and would be constructed pursuant to current electrical codes, including Title 24 of the State Building Code. These standards would ensure that electrical energy would be used efficiently. Section 4.7 discusses the related greenhouse gas emissions associated with this energy use. Impacts will be less than significant.

The proposed digital billboard would not generate any solid waste, wastewater, or require a supply of potable water. Construction and operation of the digital billboard would not require other utility services, and would not affect

drainage. Installation of the digital billboard will include coordination with various other utility companies via the Underground Service Alert (USA) to prevent conflicts with subterranean utilities. Therefore, there would be no impact on utility services.

4.18 – Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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?	☐	☑	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable?	☐	☑	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☑	☐	☐

a) **Less Than Significant with Mitigation Incorporation.** The proposed digital billboard would not substantially impact any agricultural or forest resources as discussed in Section 4.2. The project site is located within an urbanized area with no natural habitat. The project would not significantly impact any sensitive plants, plant communities, fish, wildlife or habitat for any sensitive species after incorporation of mitigation, as discussed in Section 4.4. The project would not significantly impact any mineral resources as discussed in section 4.11. Adverse impacts to population and housing would not occur, as shown in Section 4.13. The project will not significantly impact the administration of public resources as discussed in Section 4.14. The project will not significantly impact recreation facilities and/or resources as discussed in Section 4.14. Adverse impacts to utilities and service systems would not occur, as discussed in section 4.15. The environmental analysis provided in Section 4.3 concludes that impacts related to emissions of criteria pollutants and other air quality impacts will be less than significant. Section 4.5 concludes that impacts related to cultural resources will be less than significant after incorporation of mitigation. Section 4.7 concludes that impacts related to geology and soils will be less than significant. The project will not significantly impact the environment with concern to the routine transport of hazardous materials as concluded in Section 4.8. Impacts to hydrology and water quality were shown to be less than significant in Section 4.9. No impacts to land use and planning will occur because of the project as discussed in Section 4.10. The environmental analysis provided in Section 4.12 concludes that impacts related to noise will be less than significant. Based on the preceding analysis of potential impacts in the responses to items 4.1 thru 4.17, no evidence is presented that this project would degrade the quality of the environment. The City hereby finds that impacts related to aesthetics, migratory birds, cultural resources, and traffic will be less than significant with mitigation incorporation as discussed in Section 4.1, 4.6, and 4.16 respectively.

b) **Less Than Significant with Mitigation Incorporation.** Cumulative impacts can result from the interactions of environmental changes resulting from one proposed project with changes resulting from other past, present, and future projects that affect the same resources, utilities and infrastructure systems, public services, transportation network elements, air basin, watershed, or other physical conditions. Such impacts could be short-term and temporary, usually consisting of overlapping construction impacts, as well as long term, due to the permanent land use changes involved in the project. Such impacts are expected to be less than significant for this project because the digital billboard will be a generally coherent feature added to the existing urbanized environment.

The proposed digital billboard will generally result in less than significant environmental impacts (with mitigation incorporated), as discussed herein. Short-term impacts related to light and glare, migratory birds, cultural resources, and traffic hazards will be mitigated to less than significant levels. The proposed digital billboard has the potential for long-term cumulative impacts if more billboards are constructed in the area in the future. However, federal and state guidelines will be followed concerning the frequency at which signs can be placed along the freeway. Moreover, the Freeway Overlay District includes regulations concerning the frequency and location at which signs can be placed. Impacts related to noise and air quality were determined to be less than significant, given the limited scale of sign construction, and therefore will not contribute substantially to any other concurrent construction programs that may be occurring in the vicinity. Short-term impacts related to pollutant emissions will be less than significant and will not exceed maximum thresholds.

No other major projects are currently being planned to occur within the proposed project vicinity. Construction of the proposed digital billboard is generally estimated to take around 19 days. Furthermore, development of the proposed billboard would require minimal on-site construction, which would result in less than significant impacts, as the sign structure is fabricated primarily off-site. Construction that would occur on site would be limited to drilling a hole for the foundation, hauling away dirt and debris, and erecting the sign structure. Construction impacts were determined to be less than significant. The City hereby finds that the contribution of the proposed digital billboard to cumulative impacts will be less than significant with mitigation incorporation, as noted in previous sections of this Initial Study.

c) **Less Than Significant with Mitigation Incorporation.** Based on the analysis of the project's impacts in the responses to items 4.1 thru 4.17, there is no indication that this project could result in substantial adverse effects on human beings. While there would be limited temporary adverse effects during construction related to noise and criteria pollutant emissions, these were determined to be to less than significant. Long-term effects would include minor changes of the visual character of the site and surrounding roadways due to the possible future addition of signs to the area, removal of trees, and associated changes to lighting conditions. However, these changes are anticipated to be consistent with the existing aesthetic character and land uses of the area. Moreover, mitigation is incorporated to reduce the level of significance related to aesthetics, migratory birds, cultural resources, and traffic safety to a less-than-significant level. The analysis herein concludes that direct and indirect environmental effects will at worst require mitigation to reduce to less than significant levels. Generally, environmental effects will result in less than significant impacts. Based on the analysis in this Initial Study, the City finds that direct and indirect impacts to human beings will be less than significant with mitigation incorporation.

5 References

5.1 – List of Preparers

City of La Palma (Lead Agency)
Community Development Department
7822 Walker Street
La Palma, CA 90623

- Douglas Dumhart, Community Development Director

MIG (Environmental Analysis)
1500 Iowa Avenue, Suite 110
Riverside, California 92507
951-787-9222

- Pamela Steele, Principal
- Christopher Brown, Director of Environmental Services
- Cameron Hile, Project Analyst

Mitigation Measure AE-1: The applicant shall demonstrate compliance with a maximum 0.3 foot-candle increase over ambient light at 250 feet from the sign face during nighttime conditions upon initial start-up through field-testing. If subsequent complaints consisting of direct personal impacts are received by the City of La Palma, the City shall require the applicant to fund follow-up field testing by an independent registered illuminating engineer contractor to demonstrate continued compliance. If increases in ambient light are found to be above the 0.3 foot-candle level, the dimming level shall be adjusted until this level can be demonstrated.

Mitigation Measure AE-2: Signs shall be installed with sensors, which automatically lower light output in accordance with atmospheric conditions (i.e. cloudy or overcast weather). Throughout sign operation, the dimness setting of the LED sign shall be adjusted in real time so it does not exceed the level of illumination identified under Mitigation Measure AE-1.

Mitigation Measures BIO-1: A In the event that vegetation removal, ground disturbance activities, or any other construction related activity is scheduled to take place during the nesting bird season (February 1st through September 15th), a qualified biologist shall conduct a pre-construction nesting bird survey at the project site no more than seven days prior to these activities taking place. If ground disturbance does not begin within seven days of the survey date a second survey must be conducted. If nesting activity is observed by the biologist conducting the survey, a buffer shall be erected around the nest/tree during construction activities. The buffer distance depends on the bird species and the biologist is allowed to use their discretion to adjust the buffer based on the bird's tolerance for disturbance, location of the project, etc. If vegetation removal, ground disturbance activities, or any other construction related activity are not scheduled to take place during the nesting bird season, a nesting bird survey is not required prior to these activities taking place.

Mitigation Measure C-1: If potential archaeological materials are uncovered during grading or other earth moving activities, the contractor shall be required to halt work in the immediate area of the find and to retain a professional archaeologist to examine the materials to determine whether it is a *unique archaeological resource* as defined in Section 21083.2(g) of the state CEQA Statutes. If this determination is positive, the resource shall be left in place, if determined feasible by the project archaeologist. Otherwise, the scientifically consequential information shall be fully recovered by the archaeologist. Work may continue outside of the area of the find; however, no further work shall occur in the immediate location of the find until all information recovery has been completed and a report concerning it filed with the Community Development Director. The applicant shall bear the cost of implementing this mitigation.

Mitigation Measure C-2: If paleontological materials are uncovered during grading or other earth moving activities, the contractor shall be required to halt work in the immediate area of the find, and to retain a professional paleontologist to examine the materials to determine whether it is a significant paleontological resource. If this determination is positive, resource shall be left in place, if determined feasible by the project paleontologist. Otherwise, the scientifically consequential information shall be fully recovered by the paleontologist. Work may continue outside of the area of the find; however, no further work shall occur in the immediate location of the find until all information recovery has been completed and a report concerning it filed with the Community Development Director. The applicant shall bear the cost of implementing this mitigation.

Mitigation Measure T-1: The operation of digital LED billboards within the Freeway Overlay District shall comply with the following at all times:

- No special visual effects that include moving or flashing lights shall accompany the transition between two successive messages, and no special visual effects shall accompany any message display;
- The minimum display duration time for messages shall be not less than 8 seconds, and the minimum display time between messages shall be not more than 1 second;

- The minimum font size shall be established for the maximum speed on SR-91 freeway. The font size standard shall be in accordance with the sign industry's best practices formula.
- Prior to implementing any of the following, the operator shall submit a request and obtain permission from the City: installing, implementing or using any technology that would allow interaction with drivers, vehicles or any device located in vehicles, including, but not limited to, a radio frequency identification device, geographic positions system, or other device.
- In the event of any failure or combination of failures that affect the digital billboards' luminance, the operator shall impose a default to an output level no higher than 4 percent of the maximum luminance of the billboard. If this cannot be achieved, then the display shall be required to default to an "off" position until the problem can be resolved.

Mitigation Measure T-2: The operator of any digital LED billboard within the City Freeway Overlay District shall submit, within 30 days following June 30 of each year, a written report regarding operation of each digital billboard during the preceding period of July 1 to June 30. The operator may submit a combined report for all such digital billboards operated by such operator within the Freeway Overlay District. The report shall, when appropriate, identify incidents or facts that relate to specific digital billboards. The report shall be submitted to the Office of the City Manager and the City Attorney, and shall include the following information:

- Status of the operator's license as required by California Business and Professions Code para 5300 et seq.;
- Status of the required permit for individual digital billboards, as required by California Business and Professions Code para. 5350 et seq.;
- Compliance with the California Outdoor Advertising Act, California Business and Professions Code para 5200 and all regulations adopted pursuant to such Act;
- Compliance with California Vehicle Code para 21466.5 and 21467;
- Compliance with provisions of written agreements between the U.S. Department of Transportation and the California Department of Transportation pursuant to the federal Highway Beautification Act (23U.S.C. para.131);
- Compliance with mitigation measures and/or conditions of approval adopted as part of the project approval;
- Each written or oral complaint received by the operator, or conveyed to the operator by any government agency or any other person, regarding operation of digital billboards within the Freeway Overlay District;
- Each malfunction or failure of a digital billboard operated by the operator within the Freeway Overlay District, which shall include only those malfunctions or failures that are visible to the naked eye, including reason for the malfunction, duration and confirmation of repair; and
- Operating status of each digital billboard operated by the operator within the Freeway Overlay District, including estimated date of repair and return to normal operation of any digital billboard identified in the report as not operating in normal mode.

7 Appendix Materials

Appendix A

Air Quality Assessment Data

La Palma Marlin Circle Digital Billboard Project

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - User Defined

Construction Phase - Site Preparation: Saw cut, dig hole, remove dirt (2)
Construction 1: Set Base Pipe, pour concrete base (2)
Construction 2: Install and weld second pipe, install and weld third pipe, install pylon cover. (5)
Construction 3: Install electrical panel and communications (sub-contract) (3)
Construction 4: Install Truss and LED (5)
Construction 5: Final hook-up and touch up. (2)

Off-road Equipment - Per City estimates.

Off-road Equipment - Based on City construction estimates.

Off-road Equipment - Based on City construction estimates.

Off-road Equipment - Based on City construction estimates.

Off-road Equipment - Based on City construction estimates.

Off-road Equipment - According to City estimates.

Off-road Equipment - Per City estimates

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	5.00
tblConstructionPhase	NumDays	0.00	3.00
tblConstructionPhase	NumDays	0.00	5.00
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	2.00
tblLandUse	LandUseSquareFeet	0.00	1,000.00
tblOffRoadEquipment	HorsePower	62.00	97.00
tblOffRoadEquipment	HorsePower	62.00	89.00
tblOffRoadEquipment	HorsePower	62.00	226.00
tblOffRoadEquipment	HorsePower	205.00	174.00
tblOffRoadEquipment	HorsePower	9.00	97.00

tblOffRoadEquipment	HorsePower	64.00	205.00
tblOffRoadEquipment	HorsePower	80.00	226.00
tblOffRoadEquipment	LoadFactor	0.29	1.00
tblOffRoadEquipment	LoadFactor	0.29	1.00
tblOffRoadEquipment	LoadFactor	0.29	1.00
tblOffRoadEquipment	LoadFactor	0.31	1.00
tblOffRoadEquipment	LoadFactor	0.31	1.00
tblOffRoadEquipment	LoadFactor	0.31	1.00
tblOffRoadEquipment	LoadFactor	0.50	1.00
tblOffRoadEquipment	LoadFactor	0.56	1.00
tblOffRoadEquipment	LoadFactor	0.73	1.00
tblOffRoadEquipment	LoadFactor	0.37	1.00
tblOffRoadEquipment	LoadFactor	0.50	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	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName	Building Construction	Building Construction 1
tblOffRoadEquipment	PhaseName	Building Construction	Building Construction 1
tblOffRoadEquipment	PhaseName	Building Construction	Building Construction 1
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Building Construction 3
tblOffRoadEquipment	PhaseName		Building Construction 5
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation

tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Building Construction 4
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOnRoadDust	PhaseName	Building Construction	Building Construction 1
tblTripsAndVMT	PhaseName	Building Construction	Building Construction 1
tblTripsAndVMT	WorkerTripNumber	15.00	10.00

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					
2017	0.0287	0.3202	0.1643	2.8000e-004	6.4000e-004	0.0168	0.0174	9.0000e-005	0.0154	0.0155	0.0000	26.1166	26.1166	7.8200e-003	0.0000	26.2808
Total	**0.0287**	**0.3202**	**0.1643**	**2.8000e-004**	**6.4000e-004**	**0.0168**	**0.0174**	**9.0000e-005**	**0.0154**	**0.0155**	**0.0000**	**26.1166**	**26.1166**	**7.8200e-003**	**0.0000**	**26.2808**

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					
2017	0.0287	0.3202	0.1643	2.8000e-004	6.4000e-004	0.0168	0.0174	9.0000e-005	0.0154	0.0155	0.0000	26.1166	26.1166	7.8200e-003	0.0000	26.2807
Total	**0.0287**	**0.3202**	**0.1643**	**2.8000e-004**	**6.4000e-004**	**0.0168**	**0.0174**	**9.0000e-005**	**0.0154**	**0.0155**	**0.0000**	**26.1166**	**26.1166**	**7.8200e-003**	**0.0000**	**26.2807**

	ROG	NOx	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	tons/yr										MT/yr					
Area	3.6100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.6100e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	3.6100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.6100e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2017	1/3/2017	5	2	
2	Building Construction 1	Building Construction	1/4/2017	1/5/2017	5	2	
3	Building Construction 2	Building Construction	1/6/2017	1/12/2017	5	5	
4	Building Construction 3	Building Construction	1/13/2017	1/17/2017	5	3	
5	Building Construction 4	Building Construction	1/18/2017	1/24/2017	5	5	
6	Building Construction 5	Building Construction	1/25/2017	1/26/2017	5	2	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Aerial Lifts	1	8.00	97	1.00
Site Preparation	Bore/Drill Rigs	1	8.00	174	1.00
Site Preparation	Concrete/Industrial Saws	1	8.00	81	1.00
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Skid Steer Loaders	1	8.00	205	1.00
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction 1	Cranes	1	8.00	226	1.00
Building Construction 1	Forklifts	2	6.00	89	0.20
Building Construction 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction 2	Cement and Mortar Mixers	1	8.00	97	1.00
Building Construction 2	Cranes	1	8.00	226	1.00
Building Construction 2	Forklifts	2	6.00	89	0.20
Building Construction 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction 3	Aerial Lifts	1	8.00	89	1.00
Building Construction 3	Cranes	1	8.00	226	1.00
Building Construction 3	Forklifts	2	6.00	89	0.20
Building Construction 3	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction 4	Cranes	1	4.00	226	0.29
Building Construction 4	Forklifts	2	6.00	89	0.20
Building Construction 4	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction 4	Trenchers	1	8.00	226	1.00
Building Construction 5	Aerial Lifts	1	8.00	226	1.00
Building Construction 5	Cranes	1	4.00	226	0.29
Building Construction 5	Forklifts	2	6.00	89	0.20
Building Construction 5	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	6	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 1	5	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 2	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 3	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 4	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 5	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

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					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0600e-003	0.0317	0.0270	4.0000e-005		1.7400e-003	1.7400e-003		1.6300e-003	1.6300e-003	0.0000	3.7796	3.7796	1.0000e-003	0.0000	3.8005
Total	**3.0600e-003**	**0.0317**	**0.0270**	**4.0000e-005**	**5.3000e-004**	**1.7400e-003**	**2.2700e-003**	**6.0000e-005**	**1.6300e-003**	**1.6900e-003**	**0.0000**	**3.7796**	**3.7796**	**1.0000e-003**	**0.0000**	**3.8005**

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.5000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0988	0.0988	1.0000e-005	0.0000	0.0990
Total	**4.0000e-005**	**5.0000e-005**	**5.5000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0988**	**0.0988**	**1.0000e-005**	**0.0000**	**0.0990**

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					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0600e-003	0.0317	0.0270	4.0000e-005		1.7400e-003	1.7400e-003		1.6300e-003	1.6300e-003	0.0000	3.7796	3.7796	1.0000e-003	0.0000	3.8005
Total	**3.0600e-003**	**0.0317**	**0.0270**	**4.0000e-005**	**5.3000e-004**	**1.7400e-003**	**2.2700e-003**	**6.0000e-005**	**1.6300e-003**	**1.6900e-003**	**0.0000**	**3.7796**	**3.7796**	**1.0000e-003**	**0.0000**	**3.8005**

3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.5000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0988	0.0988	1.0000e-005	0.0000	0.0990
Total	**4.0000e-005**	**5.0000e-005**	**5.5000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0988**	**0.0988**	**1.0000e-005**	**0.0000**	**0.0990**

3.3 Building Construction 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1800e-003	0.0354	0.0162	3.0000e-005		1.8700e-003	1.8700e-003		1.7200e-003	1.7200e-003	0.0000	2.5958	2.5958	8.0000e-004	0.0000	2.6125
Total	**3.1800e-003**	**0.0354**	**0.0162**	**3.0000e-005**		**1.8700e-003**	**1.8700e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**2.5958**	**2.5958**	**8.0000e-004**	**0.0000**	**2.6125**

3.3 Building Construction 1 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	3.1800e-003	0.0354	0.0162	3.0000e-005		1.8700e-003	1.8700e-003		1.7200e-003	1.7200e-003	0.0000	2.5958	2.5958	8.0000e-004	0.0000	2.6125
Total	**3.1800e-003**	**0.0354**	**0.0162**	**3.0000e-005**		**1.8700e-003**	**1.8700e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**2.5958**	**2.5958**	**8.0000e-004**	**0.0000**	**2.6125**

3.3 Building Construction 1 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Building Construction 2 - 2017

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	7.9600e-003	0.0884	0.0404	7.0000e-005		4.6700e-003	4.6700e-003		4.2900e-003	4.2900e-003	0.0000	6.4895	6.4895	1.9900e-003	0.0000	6.5313
Total	**7.9600e-003**	**0.0884**	**0.0404**	**7.0000e-005**		**4.6700e-003**	**4.6700e-003**		**4.2900e-003**	**4.2900e-003**	**0.0000**	**6.4895**	**6.4895**	**1.9900e-003**	**0.0000**	**6.5313**

3.4 Building Construction 2 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	7.9600e-003	0.0884	0.0404	7.0000e-005		4.6700e-003	4.6700e-003		4.2900e-003	4.2900e-003	0.0000	6.4895	6.4895	1.9900e-003	0.0000	6.5313
Total	**7.9600e-003**	**0.0884**	**0.0404**	**7.0000e-005**		**4.6700e-003**	**4.6700e-003**		**4.2900e-003**	**4.2900e-003**	**0.0000**	**6.4895**	**6.4895**	**1.9900e-003**	**0.0000**	**6.5313**

3.4 Building Construction 2 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction 3 - 2017

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	5.1100e-003	0.0586	0.0318	5.0000e-005		3.0000e-003	3.0000e-003		2.7600e-003	2.7600e-003	0.0000	4.9582	4.9582	1.5200e-003	0.0000	4.9901
Total	**5.1100e-003**	**0.0586**	**0.0318**	**5.0000e-005**		**3.0000e-003**	**3.0000e-003**		**2.7600e-003**	**2.7600e-003**	**0.0000**	**4.9582**	**4.9582**	**1.5200e-003**	**0.0000**	**4.9901**

3.5 Building Construction 3 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	5.1100e-003	0.0586	0.0318	5.0000e-005		3.0000e-003	3.0000e-003		2.7600e-003	2.7600e-003	0.0000	4.9582	4.9582	1.5200e-003	0.0000	4.9901
Total	**5.1100e-003**	**0.0586**	**0.0318**	**5.0000e-005**		**3.0000e-003**	**3.0000e-003**		**2.7600e-003**	**2.7600e-003**	**0.0000**	**4.9582**	**4.9582**	**1.5200e-003**	**0.0000**	**4.9901**

3.5 Building Construction 3 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.0200e-003	0.0934	0.0404	8.0000e-005		4.6300e-003	4.6300e-003		4.2600e-003	4.2600e-003	0.0000	7.1428	7.1428	2.1900e-003	0.0000	7.1888
Total	**8.0200e-003**	**0.0934**	**0.0404**	**8.0000e-005**		**4.6300e-003**	**4.6300e-003**		**4.2600e-003**	**4.2600e-003**	**0.0000**	**7.1428**	**7.1428**	**2.1900e-003**	**0.0000**	**7.1888**

3.6 Building Construction 4 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.0200e-003	0.0934	0.0404	8.0000e-005		4.6300e-003	4.6300e-003		4.2600e-003	4.2600e-003	0.0000	7.1428	7.1428	2.1900e-003	0.0000	7.1887
Total	**8.0200e-003**	**0.0934**	**0.0404**	**8.0000e-005**		**4.6300e-003**	**4.6300e-003**		**4.2600e-003**	**4.2600e-003**	**0.0000**	**7.1428**	**7.1428**	**2.1900e-003**	**0.0000**	**7.1887**

3.6 Building Construction 4 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Building Construction 5 - 2017

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	1.2700e-003	0.0127	8.0400e-003	1.0000e-005		8.6000e-004	8.6000e-004		7.9000e-004	7.9000e-004	0.0000	1.0519	1.0519	3.2000e-004	0.0000	1.0587
Total	**1.2700e-003**	**0.0127**	**8.0400e-003**	**1.0000e-005**		**8.6000e-004**	**8.6000e-004**		**7.9000e-004**	**7.9000e-004**	**0.0000**	**1.0519**	**1.0519**	**3.2000e-004**	**0.0000**	**1.0587**

3.7 Building Construction 5 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2700e-003	0.0127	8.0400e-003	1.0000e-005		8.6000e-004	8.6000e-004		7.9000e-004	7.9000e-004	0.0000	1.0519	1.0519	3.2000e-004	0.0000	1.0587
Total	**1.2700e-003**	**0.0127**	**8.0400e-003**	**1.0000e-005**		**8.6000e-004**	**8.6000e-004**		**7.9000e-004**	**7.9000e-004**	**0.0000**	**1.0519**	**1.0519**	**3.2000e-004**	**0.0000**	**1.0587**

3.7 Building Construction 5 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.513125	0.060112	0.180262	0.139218	0.042100	0.006630	0.016061	0.030999	0.001941	0.002506	0.004348	0.000594	0.002104

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	3.6100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	3.6100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6100e-003					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		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.6100e-003**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
Consumer Products	3.6100e-003					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		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.6100e-003**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

La Palma Marlin Circle Digital Billboard Project

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - User Defined

Construction Phase - Site Preparation: Saw cut, dig hole, remove dirt (2)
Construction 1: Set Base Pipe, pour concrete base (2)
Construction 2: Install and weld second pipe, install and weld third pipe, install pylon cover. (5)
Construction 3: Install electrical panel and communications (sub-contract) (3)
Construction 4: Install Truss and LED (5)
Construction 5: Final hook-up and touch up. (2)

Off-road Equipment - Per City estimates.

Off-road Equipment - Based on City construction estimates.

Off-road Equipment - Based on City construction estimates.

Off-road Equipment - Based on City construction estimates.

Off-road Equipment - Based on City construction estimates.

Off-road Equipment - According to City estimates.

Off-road Equipment - Per City estimates

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	5.00
tblConstructionPhase	NumDays	0.00	3.00
tblConstructionPhase	NumDays	0.00	5.00
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	2.00
tblLandUse	LandUseSquareFeet	0.00	1,000.00
tblOffRoadEquipment	HorsePower	62.00	97.00
tblOffRoadEquipment	HorsePower	62.00	89.00
tblOffRoadEquipment	HorsePower	62.00	226.00
tblOffRoadEquipment	HorsePower	205.00	174.00
tblOffRoadEquipment	HorsePower	9.00	97.00

tblOffRoadEquipment	HorsePower	64.00	205.00
tblOffRoadEquipment	HorsePower	80.00	226.00
tblOffRoadEquipment	LoadFactor	0.29	1.00
tblOffRoadEquipment	LoadFactor	0.29	1.00
tblOffRoadEquipment	LoadFactor	0.29	1.00
tblOffRoadEquipment	LoadFactor	0.31	1.00
tblOffRoadEquipment	LoadFactor	0.31	1.00
tblOffRoadEquipment	LoadFactor	0.31	1.00
tblOffRoadEquipment	LoadFactor	0.50	1.00
tblOffRoadEquipment	LoadFactor	0.56	1.00
tblOffRoadEquipment	LoadFactor	0.73	1.00
tblOffRoadEquipment	LoadFactor	0.37	1.00
tblOffRoadEquipment	LoadFactor	0.50	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	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName	Building Construction	Building Construction 1
tblOffRoadEquipment	PhaseName	Building Construction	Building Construction 1
tblOffRoadEquipment	PhaseName	Building Construction	Building Construction 1
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Building Construction 3
tblOffRoadEquipment	PhaseName		Building Construction 5
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation

tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Building Construction 4
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOnRoadDust	PhaseName	Building Construction	Building Construction 1
tblTripsAndVMT	PhaseName	Building Construction	Building Construction 1
tblTripsAndVMT	WorkerTripNumber	15.00	10.00

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					
2017	3.4084	39.0652	27.6129	0.0428	0.6420	1.9975	2.3790	0.0869	1.8377	1.8377	0.0000	4,280.6878	4,280.6878	1.1164	0.0000	4,304.1323
Total	**3.4084**	**39.0652**	**27.6129**	**0.0428**	**0.6420**	**1.9975**	**2.3790**	**0.0869**	**1.8377**	**1.8377**	**0.0000**	**4,280.6878**	**4,280.6878**	**1.1164**	**0.0000**	**4,304.1323**

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					
2017	3.4084	39.0652	27.6129	0.0428	0.6420	1.9975	2.3790	0.0869	1.8377	1.8377	0.0000	4,280.6878	4,280.6878	1.1164	0.0000	4,304.1323
Total	**3.4084**	**39.0652**	**27.6129**	**0.0428**	**0.6420**	**1.9975**	**2.3790**	**0.0869**	**1.8377**	**1.8377**	**0.0000**	**4,280.6878**	**4,280.6878**	**1.1164**	**0.0000**	**4,304.1323**

	ROG	NOx	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	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0198**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0198**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2017	1/3/2017	5	2	
2	Building Construction 1	Building Construction	1/4/2017	1/5/2017	5	2	
3	Building Construction 2	Building Construction	1/6/2017	1/12/2017	5	5	
4	Building Construction 3	Building Construction	1/13/2017	1/17/2017	5	3	
5	Building Construction 4	Building Construction	1/18/2017	1/24/2017	5	5	
6	Building Construction 5	Building Construction	1/25/2017	1/26/2017	5	2	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Aerial Lifts	1	8.00	97	1.00
Site Preparation	Bore/Drill Rigs	1	8.00	174	1.00
Site Preparation	Concrete/Industrial Saws	1	8.00	81	1.00
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Skid Steer Loaders	1	8.00	205	1.00
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction 1	Cranes	1	8.00	226	1.00
Building Construction 1	Forklifts	2	6.00	89	0.20
Building Construction 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction 2	Cement and Mortar Mixers	1	8.00	97	1.00
Building Construction 2	Cranes	1	8.00	226	1.00
Building Construction 2	Forklifts	2	6.00	89	0.20
Building Construction 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction 3	Aerial Lifts	1	8.00	89	1.00
Building Construction 3	Cranes	1	8.00	226	1.00
Building Construction 3	Forklifts	2	6.00	89	0.20
Building Construction 3	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction 4	Cranes	1	4.00	226	0.29
Building Construction 4	Forklifts	2	6.00	89	0.20
Building Construction 4	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction 4	Trenchers	1	8.00	226	1.00
Building Construction 5	Aerial Lifts	1	8.00	226	1.00
Building Construction 5	Cranes	1	4.00	226	0.29
Building Construction 5	Forklifts	2	6.00	89	0.20
Building Construction 5	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	6	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 1	5	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 2	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 3	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 4	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 5	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	3.0594	31.7188	27.0259	0.0414		1.7361	1.7361		1.6308	1.6308		4,166.2821	4,166.2821	1.0992		4,189.3656
Total	**3.0594**	**31.7188**	**27.0259**	**0.0414**	**0.5303**	**1.7361**	**2.2664**	**0.0573**	**1.6308**	**1.6881**		**4,166.2821**	**4,166.2821**	**1.0992**		**4,189.3656**

3.2 Site Preparation - 2017

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	0.0374	0.0470	0.5870	1.4200e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		114.4058	114.4058	5.6300e-003		114.5239
Total	**0.0374**	**0.0470**	**0.5870**	**1.4200e-003**	**0.1118**	**9.0000e-004**	**0.1127**	**0.0296**	**8.3000e-004**	**0.0305**		**114.4058**	**114.4058**	**5.6300e-003**		**114.5239**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	3.0594	31.7188	27.0259	0.0414		1.7361	1.7361		1.6308	1.6308	0.0000	4,166.2821	4,166.2821	1.0992		4,189.3656
Total	**3.0594**	**31.7188**	**27.0259**	**0.0414**	**0.5303**	**1.7361**	**2.2664**	**0.0573**	**1.6308**	**1.6881**	**0.0000**	**4,166.2821**	**4,166.2821**	**1.0992**		**4,189.3656**

3.2 Site Preparation - 2017

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	0.0374	0.0470	0.5870	1.4200e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		114.4058	114.4058	5.6300e-003		114.5239
Total	**0.0374**	**0.0470**	**0.5870**	**1.4200e-003**	**0.1118**	**9.0000e-004**	**0.1127**	**0.0296**	**8.3000e-004**	**0.0305**		**114.4058**	**114.4058**	**5.6300e-003**		**114.5239**

3.3 Building Construction 1 - 2017

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	3.1844	35.3549	16.1659	0.0280		1.8665	1.8665		1.7172	1.7172		2,861.3879	2,861.3879	0.8767		2,879.7991
Total	**3.1844**	**35.3549**	**16.1659**	**0.0280**		**1.8665**	**1.8665**		**1.7172**	**1.7172**		**2,861.3879**	**2,861.3879**	**0.8767**		**2,879.7991**

3.3 Building Construction 1 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.1844	35.3549	16.1659	0.0280		1.8665	1.8665		1.7172	1.7172	0.0000	2,861.3879	2,861.3879	0.8767		2,879.7991
Total	**3.1844**	**35.3549**	**16.1659**	**0.0280**		**1.8665**	**1.8665**		**1.7172**	**1.7172**	**0.0000**	**2,861.3879**	**2,861.3879**	**0.8767**		**2,879.7991**

3.3 Building Construction 1 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.4 Building Construction 2 - 2017

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	3.1844	35.3549	16.1659	0.0280		1.8665	1.8665		1.7172	1.7172		2,861.3879	2,861.3879	0.8767		2,879.7991
Total	**3.1844**	**35.3549**	**16.1659**	**0.0280**		**1.8665**	**1.8665**		**1.7172**	**1.7172**		**2,861.3879**	**2,861.3879**	**0.8767**		**2,879.7991**

3.4 Building Construction 2 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.1844	35.3549	16.1659	0.0280		1.8665	1.8665		1.7172	1.7172	0.0000	2,861.3879	2,861.3879	0.8767		2,879.7991
Total	**3.1844**	**35.3549**	**16.1659**	**0.0280**		**1.8665**	**1.8665**		**1.7172**	**1.7172**	**0.0000**	**2,861.3879**	**2,861.3879**	**0.8767**		**2,879.7991**

3.4 Building Construction 2 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.5 Building Construction 3 - 2017

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	3.4084	39.0652	21.1643	0.0356		1.9975	1.9975		1.8377	1.8377		3,643.6322	3,643.6322	1.1164		3,667.0767
Total	**3.4084**	**39.0652**	**21.1643**	**0.0356**		**1.9975**	**1.9975**		**1.8377**	**1.8377**		**3,643.6322**	**3,643.6322**	**1.1164**		**3,667.0767**

3.5 Building Construction 3 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.4084	39.0652	21.1643	0.0356		1.9975	1.9975		1.8377	1.8377	0.0000	3,643.6322	3,643.6322	1.1164		3,667.0767
Total	**3.4084**	**39.0652**	**21.1643**	**0.0356**		**1.9975**	**1.9975**		**1.8377**	**1.8377**	**0.0000**	**3,643.6322**	**3,643.6322**	**1.1164**		**3,667.0767**

3.5 Building Construction 3 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.6 Building Construction 4 - 2017

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	3.2097	37.3640	16.1571	0.0308		1.8521	1.8521		1.7039	1.7039		3,149.4331	3,149.4331	0.9650		3,169.6976
Total	**3.2097**	**37.3640**	**16.1571**	**0.0308**		**1.8521**	**1.8521**		**1.7039**	**1.7039**		**3,149.4331**	**3,149.4331**	**0.9650**		**3,169.6976**

3.6 Building Construction 4 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.2097	37.3640	16.1571	0.0308		1.8521	1.8521		1.7039	1.7039	0.0000	3,149.4331	3,149.4331	0.9650		3,169.6976
Total	**3.2097**	**37.3640**	**16.1571**	**0.0308**		**1.8521**	**1.8521**		**1.7039**	**1.7039**	**0.0000**	**3,149.4331**	**3,149.4331**	**0.9650**		**3,169.6976**

3.6 Building Construction 4 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.7 Building Construction 5 - 2017

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	1.2740	12.6738	8.0395	0.0113		0.8553	0.8553		0.7869	0.7869		1,159.5310	1,159.5310	0.3553		1,166.9919
Total	**1.2740**	**12.6738**	**8.0395**	**0.0113**		**0.8553**	**0.8553**		**0.7869**	**0.7869**		**1,159.5310**	**1,159.5310**	**0.3553**		**1,166.9919**

3.7 Building Construction 5 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.2740	12.6738	8.0395	0.0113		0.8553	0.8553		0.7869	0.7869	0.0000	1,159.5310	1,159.5310	0.3553		1,166.9919
Total	**1.2740**	**12.6738**	**8.0395**	**0.0113**		**0.8553**	**0.8553**		**0.7869**	**0.7869**	**0.0000**	**1,159.5310**	**1,159.5310**	**0.3553**		**1,166.9919**

3.7 Building Construction 5 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.513125	0.060112	0.180262	0.139218	0.042100	0.006630	0.016061	0.030999	0.001941	0.002506	0.004348	0.000594	0.002104

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Unmitigated	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

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					
Consumer Products	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping						0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.0198**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

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					
Consumer Products	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping						0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.0198**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

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 Vegetation

La Palma Marlin Circle Digital Billboard Project

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - User Defined

Construction Phase - Site Preparation: Saw cut, dig hole, remove dirt (2)
Construction 1: Set Base Pipe, pour concrete base (2)
Construction 2: Install and weld second pipe, install and weld third pipe, install pylon cover. (5)
Construction 3: Install electrical panel and communications (sub-contract) (3)
Construction 4: Install Truss and LED (5)
Construction 5: Final hook-up and touch up. (2)

Off-road Equipment - Per City estimates.

Off-road Equipment - Based on City construction estimates.

Off-road Equipment - Based on City construction estimates.

Off-road Equipment - Based on City construction estimates.

Off-road Equipment - Based on City construction estimates.

Off-road Equipment - According to City estimates.

Off-road Equipment - Per City estimates

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	5.00
tblConstructionPhase	NumDays	0.00	3.00
tblConstructionPhase	NumDays	0.00	5.00
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	2.00
tblLandUse	LandUseSquareFeet	0.00	1,000.00
tblOffRoadEquipment	HorsePower	62.00	97.00
tblOffRoadEquipment	HorsePower	62.00	89.00
tblOffRoadEquipment	HorsePower	62.00	226.00
tblOffRoadEquipment	HorsePower	205.00	174.00
tblOffRoadEquipment	HorsePower	9.00	97.00

tblOffRoadEquipment	HorsePower	64.00	205.00
tblOffRoadEquipment	HorsePower	80.00	226.00
tblOffRoadEquipment	LoadFactor	0.29	1.00
tblOffRoadEquipment	LoadFactor	0.29	1.00
tblOffRoadEquipment	LoadFactor	0.29	1.00
tblOffRoadEquipment	LoadFactor	0.31	1.00
tblOffRoadEquipment	LoadFactor	0.31	1.00
tblOffRoadEquipment	LoadFactor	0.31	1.00
tblOffRoadEquipment	LoadFactor	0.50	1.00
tblOffRoadEquipment	LoadFactor	0.56	1.00
tblOffRoadEquipment	LoadFactor	0.73	1.00
tblOffRoadEquipment	LoadFactor	0.37	1.00
tblOffRoadEquipment	LoadFactor	0.50	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	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName	Building Construction	Building Construction 1
tblOffRoadEquipment	PhaseName	Building Construction	Building Construction 1
tblOffRoadEquipment	PhaseName	Building Construction	Building Construction 1
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Building Construction 3
tblOffRoadEquipment	PhaseName		Building Construction 5
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation

tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Building Construction 4
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOnRoadDust	PhaseName	Building Construction	Building Construction 1
tblTripsAndVMT	PhaseName	Building Construction	Building Construction 1
tblTripsAndVMT	WorkerTripNumber	15.00	10.00

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					
2017	3.4084	39.0652	27.5651	0.0427	0.6420	1.9975	2.3790	0.0869	1.8377	1.8377	0.0000	4,273.5667	4,273.5667	1.1164	0.0000	4,297.0111
Total	**3.4084**	**39.0652**	**27.5651**	**0.0427**	**0.6420**	**1.9975**	**2.3790**	**0.0869**	**1.8377**	**1.8377**	**0.0000**	**4,273.5667**	**4,273.5667**	**1.1164**	**0.0000**	**4,297.0111**

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					
2017	3.4084	39.0652	27.5651	0.0427	0.6420	1.9975	2.3790	0.0869	1.8377	1.8377	0.0000	4,273.5667	4,273.5667	1.1164	0.0000	4,297.0111
Total	**3.4084**	**39.0652**	**27.5651**	**0.0427**	**0.6420**	**1.9975**	**2.3790**	**0.0869**	**1.8377**	**1.8377**	**0.0000**	**4,273.5667**	**4,273.5667**	**1.1164**	**0.0000**	**4,297.0111**

	ROG	NOx	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	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0198**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0198**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2017	1/3/2017	5	2	
2	Building Construction 1	Building Construction	1/4/2017	1/5/2017	5	2	
3	Building Construction 2	Building Construction	1/6/2017	1/12/2017	5	5	
4	Building Construction 3	Building Construction	1/13/2017	1/17/2017	5	3	
5	Building Construction 4	Building Construction	1/18/2017	1/24/2017	5	5	
6	Building Construction 5	Building Construction	1/25/2017	1/26/2017	5	2	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Aerial Lifts	1	8.00	97	1.00
Site Preparation	Bore/Drill Rigs	1	8.00	174	1.00
Site Preparation	Concrete/Industrial Saws	1	8.00	81	1.00
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Skid Steer Loaders	1	8.00	205	1.00
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction 1	Cranes	1	8.00	226	1.00
Building Construction 1	Forklifts	2	6.00	89	0.20
Building Construction 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction 2	Cement and Mortar Mixers	1	8.00	97	1.00
Building Construction 2	Cranes	1	8.00	226	1.00
Building Construction 2	Forklifts	2	6.00	89	0.20
Building Construction 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction 3	Aerial Lifts	1	8.00	89	1.00
Building Construction 3	Cranes	1	8.00	226	1.00
Building Construction 3	Forklifts	2	6.00	89	0.20
Building Construction 3	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction 4	Cranes	1	4.00	226	0.29
Building Construction 4	Forklifts	2	6.00	89	0.20
Building Construction 4	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction 4	Trenchers	1	8.00	226	1.00
Building Construction 5	Aerial Lifts	1	8.00	226	1.00
Building Construction 5	Cranes	1	4.00	226	0.29
Building Construction 5	Forklifts	2	6.00	89	0.20
Building Construction 5	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	6	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 1	5	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 2	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 3	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 4	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 5	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	3.0594	31.7188	27.0259	0.0414		1.7361	1.7361		1.6308	1.6308		4,166.2821	4,166.2821	1.0992		4,189.3656
Total	**3.0594**	**31.7188**	**27.0259**	**0.0414**	**0.5303**	**1.7361**	**2.2664**	**0.0573**	**1.6308**	**1.6881**		**4,166.2821**	**4,166.2821**	**1.0992**		**4,189.3656**

3.2 Site Preparation - 2017

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	0.0382	0.0516	0.5392	1.3300e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2846	107.2846	5.6300e-003		107.4028
Total	**0.0382**	**0.0516**	**0.5392**	**1.3300e-003**	**0.1118**	**9.0000e-004**	**0.1127**	**0.0296**	**8.3000e-004**	**0.0305**		**107.2846**	**107.2846**	**5.6300e-003**		**107.4028**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	3.0594	31.7188	27.0259	0.0414		1.7361	1.7361		1.6308	1.6308	0.0000	4,166.2821	4,166.2821	1.0992		4,189.3656
Total	**3.0594**	**31.7188**	**27.0259**	**0.0414**	**0.5303**	**1.7361**	**2.2664**	**0.0573**	**1.6308**	**1.6881**	**0.0000**	**4,166.2821**	**4,166.2821**	**1.0992**		**4,189.3656**

3.2 Site Preparation - 2017

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	0.0382	0.0516	0.5392	1.3300e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2846	107.2846	5.6300e-003		107.4028
Total	**0.0382**	**0.0516**	**0.5392**	**1.3300e-003**	**0.1118**	**9.0000e-004**	**0.1127**	**0.0296**	**8.3000e-004**	**0.0305**		**107.2846**	**107.2846**	**5.6300e-003**		**107.4028**

3.3 Building Construction 1 - 2017

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	3.1844	35.3549	16.1659	0.0280		1.8665	1.8665		1.7172	1.7172		2,861.3879	2,861.3879	0.8767		2,879.7991
Total	**3.1844**	**35.3549**	**16.1659**	**0.0280**		**1.8665**	**1.8665**		**1.7172**	**1.7172**		**2,861.3879**	**2,861.3879**	**0.8767**		**2,879.7991**

3.3 Building Construction 1 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.1844	35.3549	16.1659	0.0280		1.8665	1.8665		1.7172	1.7172	0.0000	2,861.3879	2,861.3879	0.8767		2,879.7991
Total	**3.1844**	**35.3549**	**16.1659**	**0.0280**		**1.8665**	**1.8665**		**1.7172**	**1.7172**	**0.0000**	**2,861.3879**	**2,861.3879**	**0.8767**		**2,879.7991**

3.3 Building Construction 1 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.4 Building Construction 2 - 2017

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	3.1844	35.3549	16.1659	0.0280		1.8665	1.8665		1.7172	1.7172		2,861.3879	2,861.3879	0.8767		2,879.7991
Total	**3.1844**	**35.3549**	**16.1659**	**0.0280**		**1.8665**	**1.8665**		**1.7172**	**1.7172**		**2,861.3879**	**2,861.3879**	**0.8767**		**2,879.7991**

3.4 Building Construction 2 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.1844	35.3549	16.1659	0.0280		1.8665	1.8665		1.7172	1.7172	0.0000	2,861.3879	2,861.3879	0.8767		2,879.7991
Total	**3.1844**	**35.3549**	**16.1659**	**0.0280**		**1.8665**	**1.8665**		**1.7172**	**1.7172**	**0.0000**	**2,861.3879**	**2,861.3879**	**0.8767**		**2,879.7991**

3.4 Building Construction 2 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.5 Building Construction 3 - 2017

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	3.4084	39.0652	21.1643	0.0356		1.9975	1.9975		1.8377	1.8377		3,643.6322	3,643.6322	1.1164		3,667.0767
Total	**3.4084**	**39.0652**	**21.1643**	**0.0356**		**1.9975**	**1.9975**		**1.8377**	**1.8377**		**3,643.6322**	**3,643.6322**	**1.1164**		**3,667.0767**

3.5 Building Construction 3 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.4084	39.0652	21.1643	0.0356		1.9975	1.9975		1.8377	1.8377	0.0000	3,643.6322	3,643.6322	1.1164		3,667.0767
Total	**3.4084**	**39.0652**	**21.1643**	**0.0356**		**1.9975**	**1.9975**		**1.8377**	**1.8377**	**0.0000**	**3,643.6322**	**3,643.6322**	**1.1164**		**3,667.0767**

3.5 Building Construction 3 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.6 Building Construction 4 - 2017

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	3.2097	37.3640	16.1571	0.0308		1.8521	1.8521		1.7039	1.7039		3,149.4331	3,149.4331	0.9650		3,169.6976
Total	**3.2097**	**37.3640**	**16.1571**	**0.0308**		**1.8521**	**1.8521**		**1.7039**	**1.7039**		**3,149.4331**	**3,149.4331**	**0.9650**		**3,169.6976**

3.6 Building Construction 4 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.2097	37.3640	16.1571	0.0308		1.8521	1.8521		1.7039	1.7039	0.0000	3,149.4331	3,149.4331	0.9650		3,169.6976
Total	**3.2097**	**37.3640**	**16.1571**	**0.0308**		**1.8521**	**1.8521**		**1.7039**	**1.7039**	**0.0000**	**3,149.4331**	**3,149.4331**	**0.9650**		**3,169.6976**

3.6 Building Construction 4 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.7 Building Construction 5 - 2017

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	1.2740	12.6738	8.0395	0.0113		0.8553	0.8553		0.7869	0.7869		1,159.5310	1,159.5310	0.3553		1,166.9919
Total	**1.2740**	**12.6738**	**8.0395**	**0.0113**		**0.8553**	**0.8553**		**0.7869**	**0.7869**		**1,159.5310**	**1,159.5310**	**0.3553**		**1,166.9919**

3.7 Building Construction 5 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.2740	12.6738	8.0395	0.0113		0.8553	0.8553		0.7869	0.7869	0.0000	1,159.5310	1,159.5310	0.3553		1,166.9919
Total	**1.2740**	**12.6738**	**8.0395**	**0.0113**		**0.8553**	**0.8553**		**0.7869**	**0.7869**	**0.0000**	**1,159.5310**	**1,159.5310**	**0.3553**		**1,166.9919**

3.7 Building Construction 5 - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.513125	0.060112	0.180262	0.139218	0.042100	0.006630	0.016061	0.030999	0.001941	0.002506	0.004348	0.000594	0.002104

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Unmitigated	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

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					
Consumer Products	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping						0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.0198**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

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					
Consumer Products	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping						0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.0198**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

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 Vegetation