July 14, 2020

LONGBEACH

CITY OF

**C-15** 

HONORABLE MAYOR AND CITY COUNCIL City of Long Beach California

#### **RECOMMENDATION:**

Adopt a Resolution of Intention to vacate the portion of Elm Avenue, between Spring Street and the unnamed east-west public alley south of 31<sup>st</sup> Street, the unnamed east-west public alley between Elm Avenue and Pasadena Avenue, north of Spring Street and south of 31<sup>st</sup> Street, and the unnamed north-south public alley between Spring Street and 31<sup>st</sup> Street, east of Elm Avenue and west of Pasadena Avenue; set the date of August 18, 2020, for the public hearing on the vacation; authorize the City Manager, or designee, to accept an easement deed from The Salvation Army, a California corporation, the owner of the property at 3000 Long Beach Boulevard, for right-of-way widening purposes including emergency vehicle access; and,

Accept Mitigated Negative Declaration No. MND-04-15. (District 7)

### DISCUSSION

The Salvation Army, a California corporation, owner of the property at 3000 Long Beach Boulevard, requests the vacation of the portion of Elm Avenue, between Spring Street and the unnamed east-west public alley south of 31<sup>st</sup> Street, the unnamed east-west public alley between Elm Avenue and Pasadena Avenue, north of Spring Street and south of 31<sup>st</sup> Street, and the unnamed north-south public alley between Spring Street and 31<sup>st</sup> Street, east of Elm Avenue and west of Pasadena Avenue (Attachment A). Vacating these portions of public rightsof-way would allow the applicant to construct the approved Salvation Army Citadel Campus development project. The applicant proposes to construct a new two-story gymnasium with a fitness center and activity room, a youth soccer field, and a new 70-space parking lot, as part of the final phase of the development project. On April 19, 2018, the Planning Commission determined that the proposed vacation of the 20,547 square-foot area was in conformance with the adopted goals of the City's General Plan (Attachment B).

Proceedings for this vacation are being conducted in accordance with Chapter 3, General Vacation Procedure, of the Public Streets, Highways, and Service Easements Vacation Law of the California Streets and Highways Code. Findings must establish that the subject rights-of-way is unnecessary for present or prospective public use. Although a portion of the unnamed east-west public alley provides access to another property's private garage and contains various underground utility lines, the applicant has agreed to development conditions requiring them to maintain access to the private garage and reserve an easement over the area to be vacated. The Public Works Department supports this vacation based on findings that these portions of right-of-way are not necessary as a vehicular or pedestrian thoroughfare. The Department of Public Works is asking the City Council to adopt a Resolution to accomplish the vacation discussed above.

### HONORABLE MAYOR AND CITY COUNCIL July 14, 2020 Page 2

Additionally, when a new development is proposed, the public rights-of-way adjacent to the site are reviewed for sufficiency to accommodate the new development. To accommodate the pedestrian and vehicular traffic in the area, including emergency vehicles, it is necessary that a dedication of additional right-of-way be recorded for right-of-way widening purposes along Elm Avenue (Attachment C). The Department of Public Works is asking the City Council to authorize acceptance of an easement deed to accomplish this purpose.

The necessary City departments have reviewed the proposed right-of-way vacation and have no objections to this action. In conformance with the California Environmental Quality Act (CEQA), Mitigated Negative Declaration No. MND-04-15 was issued on June 19, 2018 (Attachment D). The Department of Public Works is asking the City Council to accept CEQA Mitigated Negative Declaration No. MND-04-15.

This matter was reviewed by Deputy City Attorney Erin Weesner-McKinley on June 16, 2020 and by Budget Analysis Officer Julissa José-Murray on June 22, 2020.

#### TIMING CONSIDERATIONS

City Council action is requested on July 14, 2020, to set a public hearing date on this matter for August 18, 2020.

FISCAL IMPACT

A tentative vacation processing fee of \$10,328 and a dedication processing fee of \$1,285 were deposited in the General Fund Group in the Public Works Department. This recommendation has no staffing impact beyond the normal budgeted scope of duties and is consistent with existing City Council priorities. There is no local job impact associated with this recommendation.

SUGGESTED ACTION:

Approve recommendation.

Respectfully submitted,

CRAIG A. BECK DIRECTOR OF PUBLIC WORKS

CB:AP:EL:JH:BP:md:II

ATTACHMENTS:

RESOLUTION OF INTENTION TO VACATE

A – VACATION SKETCH

B – PLANNING COMMISSION STAFF REPORT FINDINGS

C – DEDICATION SKETCH

D – MITIGATED NEGATIVE DECLARATION MND-04-15

APPROVED:

THOMAS B. MODICA CITY MANAGER







## Attachment B Page 1 of 6

# **CITY OF LONG BEACH**

DEPARTMENT OF DEVELOPMENT SERVICES

333 West Ocean Blvd., 5th Floor

Long Beach, CÁ 90802

(562) 570-6194

FAX (562) 570-6068

April 19, 2018

CHAIR AND PLANNING COMMISSIONERS City of Long Beach California

### **RECOMMENDATION:**

Recommend that the City Council: 1) Adopt Mitigated Negative Declaration MND-04-15 and approve a Zone Change (ZCHG18-001) to re-designate a portion of the Salvation Army Campus from the I (Institutional), CCA (Community Automobile-Oriented), and R-1-N (Single Family Residential) zoning districts to SP-1 (Midtown Specific Plan); 2) Approve the Addendum to the Midtown Specific Plan EIR and a Zoning Code Amendment (ZCH18-002) to address technical errors and provide clarifying language in the Midtown Specific Plan (SP-1); 3) Approve a Site Plan Review (SPR18-020) for a new two-story gymnasium with a fitness center and activity room, a youth soccer field, and a 70-space parking lot located at 3012 Long Beach Boulevard; 4) Approve a Lot Merger (LMG18-008) to consolidate the Salvation Army Campus into two lots; and 5) Find the proposed vacation of a portion of Elm Avenue north of Spring Street, and two alleys located between Elm and Pasadena Avenues, consistent with the General Plan (GPC18-002). (District 7)

APPLICANT: The Salvation Army Long Beach Citadel Corps 3012 Long Beach Boulevard Long Beach, CA 90807 (Application No. 1511-12)

### DISCUSSION

The Salvation Army Citadel Campus (Campus) is situated on a site that is approximately 3.6 acres in size and located at the northeast corner of Long Beach Boulevard and Spring Street. The Campus consists of 10 parcels in an L-shaped configuration ranging from 31<sup>st</sup> Street to a midblock point, and includes a to-be-vacated portion of Elm Avenue (Exhibit A – Location Map). The Campus currently consists of a social services building, administrative offices, chapel, multipurpose building, parking lot, and vacant land. The Campus is adjacent to commercial uses and a Long Beach Memorial Hospital parking lot, and is bordered by single-family residences and oil fields to the north and east. The project site will be developed on vacant land on the Campus.

#### CHAIR AND PLANNING COMMISSIONERS April 19, 2018 Page 2 of 6

The project site is currently zoned I (Institutional), CCA (Automobile-Oriented Commercial) and R-1-N (Single Family Residential) (Exhibit B – Existing Zoning Map). The site is also located in General Plan Land Use District No. 7– Mixed Use District. This designation allows for large multi-purpose activity centers, including centers of employment and a wide variety of larger-scale uses.

#### Background

The proposed project is part of a multiple-phased development of the Campus. The first phase of development (Administrative Use Permit No. 1306-10) involved the conversion of an existing retail building into a social service office without food distribution at 3092 Long Beach Boulevard in 2014. The second phase of development (No.1501-38) consisted of the conversion of a retail hardware store into the Chapel (299 seats), a new 3,200-square-foot lobby, a new parking lot with 43 parking spaces, and the demolition of the former two-story (+/- 20,000SF) Chapel/Community Center. During the second phase of development, oil wells were discovered on the property, which led to the current site design to allow for compliance with Fire and Building Codes regarding oil wells.

#### Proposed Project

The proposed project, the third and final phase, involves the construction of a 22,931square-foot, two-story gymnasium with a fitness center and activity room, a new 70-space parking lot, and a youth soccer field. Access to the Citadel Chapel Hall and gym would be provided by drive aisles from Spring Street and Long Beach Boulevard, through the existing parking lot. Landscaped areas and decorative fences would be located along the Spring Street corridor and along the perimeter of the Campus area. Monument signs would be located at the corner points of the Campus.

The gym is designed in a contemporary style, with an architectural theme that blends appropriately with the design of the existing gym and lobby. The north residential-facing elevation does not provide windows or access points to the Campus, in order to minimize the impacts to the neighborhood. Furthermore, a larger-than-required setback is provided (15'4" setback) to the side of the nearest home to provide for more privacy and separation from any potential noise-emitting uses associated with the gym.

The proposed soccer field will be placed between the existing east/west alley to the north, Pasadena Avenue to the east, and Elm Avenue to the west. The proposed soccer field will be a standard-size field, and will include a concession stand, landscaping buffers from the street and residential homes to the north, and a pedestrian path to connect the new parking lot to the existing chapel. No lights will be provided at this time, given that no youth games will take place at night.

#### Zone Change

The proposed Zone Change from CCA, R-1-N, and I to SP-1 allows the proposed properties proposed for the gym and soccer field uses to be incorporated into the existing Phase I improvements, which are currently within the Midtown Specific Plan (SP-1)

### CHAIR AND PLANNING COMMISSIONERS April 19, 2018 Page 3 of 6

zoning (Exhibit D - Zone Change Map). As proposed, the project and the consolidated campus would comply with all development standards within the Midtown Specific Plan (SP-1), as shown in Table 1.

Table 1 Midtown Specific Plan Compliance						
Development Standards	Required	Proposed	Complies with SP-1			
Maximum Building Height	36 Feet	36 Feet	Yes			
Maximum Floor Area Ratio	1.5	<1.5	Yes			
Minimum Lot Size	10,000	3.6 acres	Yes			
Minimum Side Setback	6 Feet	6 Feet	Yes			
Minimum Rear Setback	5 Feet	15'4"	Yes			
Parking	66 spaces @ 2 per 1,000 (Mon- Fri) 151 spaces @ 2 per 1,000 (Evenings and Weekends)	180	Yes			

The parking required for all non-residential uses in the Midtown Specific Plan is two parking spaces for every 1,000 square feet of useable area, excluding the restrooms and storage areas. With the exclusion of restrooms and storage areas and the varying hours of operation for the church, gym, social service office, and soccer field, a total of 180 parking spaces complies with on-site parking standards in the Midtown Specific Plan.

The existing Phase I campus improvements are located on property that is currently located within Land Use District No. 7 (Mixed Uses) of the City's General Plan Land Use Element. The LUD #7 designation is present throughout the Midtown Specific Plan on Long Beach Boulevard and stretches from Spring Street on the north to Anaheim Street on the south. The proposed project is consistent with this designation as it adds to an already-established mix of uses in the surrounding area and is in conformance with the General Plan.

### Zone Code Amendment

This request includes a Zoning Code Amendment to allow for minor amendments to SP-1 that provide clarification to ambiguities and minor updates to the text. The text language proposed is technical in nature and does not affect land development standards or policies of the Midtown Specific Plan. The text amendments are summarized below, and provided in the attached Midtown Specific Plan (Exhibit E – Midtown Specific Plan).

#### CHAIR AND PLANNING COMMISSIONERS April 19, 2018 Page 4 of 6

- Section 3.6: Clarify open space requirements for residential developments
- Table 3-2: Change churches from being conditionally permitted to a by-right use in compliance with the Federal Religious Land Use and Institutionalized Persons' Act.
- Section 7.2.2: Correct an error in the listed hearing bodies for Specific Plan Amendments
- Section 7.2.3, Number 2: Clarify when Site Plan Review is necessary for residential projects.
- Section 7.3.3, Task 3: Clarify implementation of funding for new parks for new development.

#### Lot Merger

The applicant is also requesting approval of a Lot Merger to consolidate eight lots along Pasadena Avenue into one lot, and five lots located on the northeast corner of Long Beach Boulevard and Spring Street into one lot. The former merger is needed to allow the soccer field and associated parking lot to be placed on one lot. Before the Lot Merger can occur, the vacation of a portion of Elm Avenue and the entire portion of two alleys (one north/south and one east/west) located north of the project site must occur so the former rights-of-way can be included. A hammerhead will be constructed on Elm Avenue along the northern project site boundary to allow emergency vehicles to turn around.

#### General Plan Conformity Findings (Street/Alley Vacation)

The General Plan Land Use Element establishes Land Use Districts, which provide general guidance as to the type and density of land uses considered appropriate. The project site is located within Land Use District No. 7 (Mixed Use). The Land Use Element states, "The district is intended for use in large, vital activity centers, not in strips along major arterials." The proposed right-of-way vacations will reduce the length of an existing street (Elm Avenue), and remove a north/south and east/west alley adjacent to the property to allow the Campus to be consolidated into integrated development and create a cohesive campus-like setting. Therefore, the proposed vacations are consistent with the Land Use Element.

The Mobility Element does not identify Elm Avenue, nor the subject alleys for any street improvements and does not provide a street classification. Public Works staff has preliminarily reviewed the street and alley vacation requests and has determined that vacating this segment of Elm Avenue and both alleys will not impede traffic flow, nor block entry or exit ways. Staff has determined that the vacations are consistent with the Mobility Element (Exhibit F – Vacation Plans). There will be Conditions of Approval on the project that provide for improvements to the alley that are to be vacated.

#### CHAIR AND PLANNING COMMISSIONERS April 19, 2018 Page 5 of 6

#### ENVIRONMENTAL REVIEW

Pursuant to the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, a Mitigated Negative Declaration (MND) has been prepared for this project (Exhibit G – Mitigated Negative Declaration MND 04-15). The MND was circulated for a public review period from March 1, 2018 to March 30, 2018. Written comments were only received from County Sanitation Districts of Los Angeles County. None of the comments received identified potential environmental impacts not analyzed in the MND or provided evidence requiring recirculation of the MND. The MND included mitigation measures for Biological Resources, Cultural Resources, Noise, Transportation and Traffic, and Tribal Cultural Resources. The MND determined that the project, in compliance with all mitigation measures set forth in the MND, will not result in any significant adverse environmental impacts.

An Addendum to the Midtown Specific Plan Program Environmental Impact Report (EIR) was prepared to analyze the Zoning Code Amendment. The Addendum determined that the minor text changes are in compliance with the Program EIR for the Midtown Specific Plan, and will not result in any significant adverse environmental impacts (Exhibit H – EIR Addendum). The preparation and public availability of the MND and Addendum to the Midtown Specific Plan EIR have been carried out in compliance with the provisions of CEQA and the CEQA Guidelines.

Overall, staff finds that the proposed project conforms to the requirements of the applicable Zoning Regulations, subject to City Council approval of the Zone Change request, and that all other relevant findings of fact necessary for approval are met (Exhibit I – Findings and Conditions). Staff recommends that the Planning Commission recommend that the City Council adopt Mitigated Negative Declaration MND-04-15; approve the Zone Change, Site Plan Review, and Lot Merger; approve an Addendum to the Midtown Specific Plan EIR; approve a Zoning Code Amendment; and find the vacation of Elm Avenue and the two alleys consistent with the General Plan.

#### PUBLIC HEARING NOTICE

A total of 211 notices of public hearing were distributed on March 30, 2018, in accordance with the requirements of Chapter 21.21 of the Zoning Regulations. A newspaper notice for the Zone Change and Zoning Code Amendment was published on April 5, 2018, in the local newspaper of record, as required by Chapter 21.21. As of the preparation of this report, no comments or written testimony have been received.

CHAIR AND PLANNING COMMISSIONERS April 19, 2018 Page 6 of 6 Attachment B Page 6 of 6

Respectfully submitted,

Binda J. Jahrm

LINDA F. TATUM, AICP PLANNING BUREAU MANAGER

SU .

TOM MODICA INTERIM DIRECTOR OF DEVELOPMENT SERVICES

TM:LT:CT:sv

Attachments: Exhibit A - Project Location and Vicinity Map

Exhibit B – Existing Zoning Map Exhibit C – Plans and Renderings Exhibit D – Zone Change Map Exhibit E – Midtown Specific Plan Exhibit F – Vacation Plans Exhibit G –Mitigated Negative Declaration MND 04-15 Exhibit H – Addendum to the Midtown Specific Plan EIR Exhibit I – Findings and Conditions







# Long Beach Citadel Project

# Initial Study - Mitigated Negative Declaration

prepared by

**City of Long Beach** 333 W. Ocean Boulevard, 5<sup>th</sup> Floor Long Beach, California 90802 Contact: Craig Chalfant, Planner

prepared with the assistance of

**Rincon Consultants, Inc.** 250 East 1<sup>st</sup> Street, Suite 301 Los Angeles, California 90012

March 2018



# Long Beach Citadel Project

# Initial Study - Mitigated Negative Declaration

prepared by

**City of Long Beach** 333 W. Ocean Boulevard, 5<sup>th</sup> Floor Long Beach, California 90802 Contact: Craig Chalfant, Planner

prepared with the assistance of

**Rincon Consultants, Inc.** 250 East 1<sup>st</sup> Street, Suite 301 Los Angeles, California 90012

March 2018

rincon Rincon Consultants, Inc. Environmental Scientists Planners Engineers www.rinconconsultants.com This report prepared on 50% recycled paper with 50% post-consumer content.

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Appendix B	Noise Measurement and TNM Results
Appendix C	Traffic Study
Appendix D	Tribal Consultation Letters

# **Initial Study**

# 1 Project Title

Long Beach Citadel Project

# 2 Lead Agency Name and Address

City of Long Beach 333 W. Ocean Boulevard, 5<sup>th</sup> Floor Long Beach, California 90802

# 3 Contact Person and Phone Number

Craig Chalfant, Senior Planner (562) 570-6368

## 4 Project Location

The project site comprises approximately 3.6 acres at 3012 Long Beach Boulevard and 455 East Spring Street in the City of Long Beach. The site includes Assessor Parcel Numbers (APNs) 7207-019-55 to 56, and 051, 7207-020-20 to 26, 60, and 61. The site lies along the north side of East Spring Street, east of the intersection with Long Beach Boulevard. The site includes portions of Elm and Pasadena Avenues just north of East Spring Street. Figure 1 shows the location of the site in the region and Figure 2 shows the project site in its neighborhood context.

# 5 Project Sponsor's Name and Address

The Salvation Army Long Beach Citadel Corps 3012 Long Beach Boulevard Long Beach, California 90807

# 6 Existing Setting

The project site is a portion of the existing Salvation Army Citadel campus. The campus as a whole includes a social services building, administrative offices, a chapel, and a multipurpose building. The project site includes a parking lot and vacant land. The project site is bordered by single-family residences and oil fields to the north and east, oil fields to the southeast, and a parking lot to the south. Figure 3 shows photographs of the project site.





Figure 2 Project Location



Imagery provided by Esri and its licensors © 2018.

MNDFig 2 Project Location 201801

City of Long Beach Long Beach Citadel Project

## Figure 3 Site Photographs



Photo 1: Location of proposed soccer field as viewed from Elm Avenue, looking east.



Photo 2: Location of proposed gymnasium as viewed from Elm Avenue, looking west.

# 7 General Plan Designation

Per the Long Beach General Plan Land Use Element (1989), the project site is located in the Memorial Heights Neighborhood, and the site location is currently designated Mixed Use.

# 8 Zoning

As shown in Figure 4, the area of the project site located at the northwest corner of Elm Avenue and East Spring Street is zoned Community Commercial Automobile-Oriented (CCA). The area of the project site located along East Spring Street is zoned Institutional (I). The remainder of the site, adjacent to the single-family residences to the north, is zoned Single-family Residential, standard lot (R-1-N).

# 9 Description of Project

As shown in Figure 2, the project site is a portion of the existing Salvation Army Citadel Campus. The campus is partially developed with a social services building, administrative offices, a chapel hall, a 2,650 square foot multipurpose room, and a parking lot. The rest of the site is vacant.

## **General Characteristics**

The project involves the construction of a two-story gymnasium with a fitness center and activity room. The project would also include a new 70-space parking lot (described below) and a youth soccer field. The project would require the vacation of a portion of Elm Avenue that passes through the site and a north south alley located between Elm and Pasadena Avenue. Elm Street would become a cul-de-sac at the northern site boundary.

Gym access would be provided by drive lanes from Spring Street and Long Beach Boulevard, through the existing parking lot located at the intersections of these two streets. Landscaped areas and decorative fences would be located along the main street corridors and along the perimeter of the campus area. Monument signs would be located at the corner points of the campus. A hammerhead turn is proposed on Elm Avenue, which would provide easier emergency access.

Table 1 provides a summary of the project components, and Figure 5 shows the proposed site plan.

Project Area	
Proposed	
Gymnasium	22,391 sf
Soccer Field	37,600 sf
Total	59,991 sf
Parking Stalls	
Proposed	70 spaces

### Table 1 Project Summary

### Figure 4 Existing Zoning Map



Imagery provided by Esri and its licensors © 2018. Zoning Data: City of Long Beach, 2016.



## Access and Parking

The project includes the addition of a 70-space parking lot near the northeast corner of Pasadena Avenue on East Spring Street. With the addition of these new spaces, the campus would have a total of 190 spaces.

Access to the project site would be provided by driveways to the parking lot on the corner of Spring Street and Long Beach Boulevard and a driveway to the parking lot on Pasadena Avenue. The southern end of Pasadena Avenue would be closed and gated between the proposed youth soccer field and the new parking lot. These gates would allow for the area to become a pedestrian walkway while still allowing emergency vehicle access to the field and East Spring Street. The main entry and drop-off plaza will be on the corner of Long Beach Avenue and East Spring Street with driving lanes accessing each street and two other parking lots with 60 spaces each. Elm Avenue where it passes through the project site and the alley between 31<sup>st</sup> Street and East Spring Street, adjacent to the existing chapel building and proposed gym, would be vacated to provide pedestrian promenades.

## Water Quality and Drainage

The project would incorporate biofiltration planting areas and an underground pipe collector system.

## **Existing Oil Wells**

The project site is located in the Long Beach Oil Field, and contains Department of Conservation – Division of Oil, Gas, and Geothermal Resources (DOGGR) oil wells that have been previously plugged and abandoned. Oil wells that were abandoned after 1985 were abandoned according to current standards. DOGGR requires wells that were abandoned prior to 1985 be re-abandoned when feasible. Some of the existing wells on-site may have been abandoned prior to 1985, while others may have been abandoned post 1985. Per the DOGGR Construction Site Plan Review Program, qualifying wells would require re-abandonment prior to construction, per current DOGGR standards. The project would re-abandon the necessary existing wells that are located on-site in compliance with Section 3208.1, Division 3 of the Public Resources Code, to ensure that construction would not take place over previous, improperly abandoned wells.

### **Specific Plan**

The project includes a zone change that would include the entire site in the Midtown Specific Plan area. A portion of the western edge of the campus is already located in the boundaries of the Plan, and this action would ensure that the entire property is governed by the same Plan.

# 10 Required Approvals

The following entitlements are required for the proposed development:

- Zone Change from Commercial and PD-29 to SP-1, The Midtown Specific Plan
- Site Plan Review
- Approval of a General Plan Conformity Finding to vacate approximately 120 feet of Elm Street and approximately 150 feet of the alleyways adjacent to the existing chapel

# 11 Surrounding Land Uses and Setting

Surrounding land uses include the existing Salvation Army Citadel facility to the west, single-family residences and oil fields to the north and east, and oil fields and a shopping center parking lot to the south. Currently, the project site is vacant.

# 12 Other Public Agencies Whose Approval is Required

The City of Long Beach is the lead agency with responsibility for approving the proposed project. To re-abandon existing oil wells on-site, approval from the Division of Oil, Gas, and Geothermal Resources is also required.

# **Environmental Factors Potentially Affected**

This project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Potentially Significant Unless Mitigation Incorporated" as indicated by the checklist on the following pages.

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

## Determination

Based on this initial evaluation:

- □ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to 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 potential 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.

Signature

halfant

Printed Name

Date

3/1/18 2/annet

Title

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# **Environmental Checklist**

1	Aesthetics				
		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project have any of the following imp	pacts?			
a.	Substantial adverse effect on a scenic vista			•	
b.	Substantial damage to scenic resources, including but not limited to trees, rock outcroppings, and historic buildings along 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 that would adversely affect daytime or nighttime views in the area			•	

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

The site is located in an urbanized area of Long Beach and is bordered by single-family residences to the north and east of the project site. A large parking lot is located south of the site and oil extraction facilities are located to the north and southeast of the site. The site is not located near any scenic vistas, as identified in the City's Resource Conservation Element (Long Beach 1975). The site and surroundings are flat and do not offer scenic vistas. There are no views of the ocean from the project site, as it is located approximately 3.5 miles from the coastline.

The project includes the construction of a two-story multi-purpose gymnasium building, a parking lot, and a youth soccer field. The proposed gymnasium building is similar in character and height to the multipurpose building and chapel building that are currently on campus, as well as the businesses and residences in the area. Although the project would alter views from adjacent residences on Elm Ave and Pasadena Ave, it would not adversely affect any identified scenic vistas, and impacts would be less than significant.

#### LESS THAN SIGNIFICANT IMPACT

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings in a state scenic highway?

The site contains a few trees and other bushes, which are ornamental and scattered throughout the site. Some of these trees would be removed in order to construct the new building, parking lot, and soccer field. There are no rock outcroppings or historic buildings on the site. New landscaping would be added to the site in conjunction with the project. The only designated scenic route established by the Long Beach General Plan Scenic Routes Element is Ocean Boulevard, located approximately six miles south of the project site near the mouth of the Los Angeles River. The project site is not in the view shed of Ocean Boulevard, and there are no State-designated scenic highways are located in the city of Long Beach. Although the site contains trees that may be removed, since the project would not damage scenic resources, impacts are less than significant.

#### LESS THAN SIGNIFICANT IMPACT

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

The project site is located in a residential, commercial, and industrial area of Long Beach. The areas to the north and east contain single-family residences and the areas to the east and south contain oil fields and commercial development.

The height of proposed buildings would be similar to that of surrounding buildings and would conform to Long Beach's height limits for the property, which range between two and four stories (Long Beach Development Services, 2016, p. 66). The max height of the proposed project is two stories. Additionally, there are other two-story buildings in the general vicinity of the project site and the current Salvation Army building on the campus is two stories tall.

The project would change the visual character of the site. However, the new development would visually enhance the site through the introduction of new landscaping, a soccer field and a new building that would be compatible with other development in the area. As the project would not degrade the visual character or quality of the site or surroundings, this impact would be less than significant.

### LESS THAN SIGNIFICANT IMPACT

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

The campus is currently developed with a social services building, administrative offices, a renovated chapel hall, a 2,650 square feet multipurpose room, and a parking lot. A portion of the project site is currently undeveloped, but previously contained a two-story chapel building. The site and its surroundings are located in an urbanized environment with high levels of nighttime lighting.

The project involves the construction of a multi-purpose gymnasium building, parking lot, and a soccer field. Light and glare from the proposed building would be similar to the light and glare currently produced from the existing two-story chapel and programs building on-site. The security lighting proposed for the project would impact the surrounding area. However, it would be comparable to the existing lighting on the campus as well as lighting associated with the existing residential, commercial, and industrial facilities surrounding the site. Additionally, the project would be required to comply with the lighting requirements of the Long Beach Municipal Code (LBMC), including Section 21.41.259, which states that all parking lots shall be illuminated with lights

directed and shielded to prevent light and glare from intruding onto adjacent sites. As all light would be directed and shielded on site, and since views in the area would not be adversely affected, this impact is less than significant.

#### LESS THAN SIGNIFICANT IMPACT

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# 2 Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land. This includes the Forest and Range Assessment Project and the Forest Legacy Assessment Project, along with the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board (CARB).

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project have any of the following imp	acts?			
a.	Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on 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 the 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				

a. Would the project convert Prime Farmland, Unique Farmland, 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.* Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?
- c. Would the project 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. Would the project result in the loss of forest land or conversion of forest land to non-forest use?
- e. Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

There are no agricultural zones or forest lands in Long Beach, which has been fully urbanized for over half a century. The proposed project would have no impact upon agricultural or forest resources.

#### **NO IMPACT**

# 3 Air Quality

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project have any of the following imp	acts?			
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				

The project site is inside the South Coast Air Basin (the Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The local air quality management agency is required to monitor air pollutant levels to ensure that applicable air quality standards are met and, if they are not met, to develop strategies to meet the standards.

Depending on whether or not the standards are met or exceeded, the Basin is classified as being in "attainment" or "nonattainment." The part of the Basin in which the project site is located is in nonattainment for both the federal and state standards for ozone, particulate matter ( $PM_{10}$  and  $PM_{2.5}$ ), and lead, as well as the state standard for nitrogen dioxide ( $NO_X$ ) (CARB 2011, 2013). Thus, the Basin currently exceeds several state and federal ambient air quality standards and is required to implement strategies that would reduce the pollutant levels to recognized acceptable standards. This non-attainment status is a result of several factors, the primary ones being the naturally adverse meteorological conditions that limit the dispersion and diffusion of pollutants, the limited capacity of the local airshed to eliminate pollutants from the air, and the number, type, and density of emission sources in the Basin. The SCAQMD has adopted an Air Quality Management Plan (AQMP) that provides a strategy for the attainment of state and federal air quality standards.

The SCAQMD has adopted the following thresholds for temporary construction-related pollutant emissions:

City of Long Beach Long Beach Citadel Project

- 75 pounds per day reactive organic compounds (ROC)
- 100 pounds per day NO<sub>x</sub>
- 550 pounds per day carbon monoxide (CO)
- 150 pounds per day sulfur oxides (SO<sub>x</sub>)
- 150 pounds per day PM<sub>10</sub>
- 55 pounds per day PM<sub>2.5</sub>

The SCAQMD has adopted the following thresholds for operational pollutant emissions:

- 55 pounds per day ROC
- 55 pounds per day NO<sub>x</sub>
- 550 pounds per day CO
- 150 pounds per day SO<sub>x</sub>
- 150 pounds per day PM<sub>10</sub>
- 55 pounds per day PM<sub>2.5</sub>

The SCAQMD has also developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the SCAQMD's California Environmental Quality Act (CEQA) Air Quality Handbook. LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities. LSTs represent the maximum emissions from a project that would not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), project size, and distance to the sensitive receptor. LSTs only apply to emissions in a fixed stationary location, including idling emissions during both project construction and operation. LSTs have been developed only for NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. LSTs do not apply to mobile sources such as cars on a roadway (SCAQMD June 2003).

LSTs have been developed for emissions in areas up to five acres in size, with air pollutant modeling recommended for activity in larger areas. The SCAQMD provides lookup tables for project sites that measure one, two, or five acres. The proposed project involves approximately 3.6 acres of on-site grading and construction. SCAQMD's Sample Construction Scenarios for Projects Less than 5 Acres in Size contains methodology for determining the thresholds for projects that are not exactly one, two, or five acres in size. This methodology was implemented to determine the thresholds for the proposed project. The project site is located in Source Receptor Area 4 (SRA-4, Long Beach). LSTs are provided for sensitive receptors at a distance of 82 to 1,640 feet from the project site boundary. Sensitive receptors to the project site are the residential houses approximately 25 feet north of the project site. Although the closest sensitive receptor is approximately 25 feet from the project site, LSTs are only available for distances of 82 feet. Therefore, the 82-feet (25 meters) threshold was used. LSTs for construction on a 3.6-acre site in SRA-4 are shown in Table 2.
Pollutant	Allowable emissions <sup>1</sup> (lbs/day)			
Gradual conversion of $NO_X$ to $NO_2$	104			
со	1,209			
PM <sub>10</sub>	11			
PM <sub>2.5</sub>	7			
<sup>1</sup> Allowable emissions from site involving 3.6 acres of grading in SRA-4 for a receptor 25 meters away.				
Source: SCAQMD, Appendix C – Mass Rate LST Look-up Table. Accessed December 2016				

#### Table 2 SCAQMD LSTs for Emissions in SRA-4

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

According to the SCAQMD Guidelines, to be consistent with the AQMP, a project must conform to the local General Plan and must not result in or contribute to an exceedance of the City's projected population growth forecast.

Implementation of the project involves the construction of a multi-purpose gymnasium building, soccer field, and parking lot. The project does not include any housing.

As discussed in Section 13(a), Population and Housing, the California Department of Finance (DOF) states that the population of Long Beach in 2017 was 480,173. The Southern California Association of Governments (SCAG) estimates that the city's population will increase to 534,100 by 2035, an increase of 53,927. The multi-purpose gymnasium building, soccer field, and parking lot are not residential uses, and therefore, would not have a direct impact on population. Therefore, the project would not obstruct implementation of the AQMP and this impact would be less than significant.

#### LESS THAN SIGNIFICANT IMPACT

- *b.* Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?
- c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

The project would generate both temporary construction and long-term operational emissions. Emissions generated during construction are typically associated with the operation of heavy diesel equipment and grading. Operational emissions would primarily be dependent upon vehicular traffic increases. Both construction- and operational-phase emissions are discussed below.

### **Construction Emissions**

The Air Basin is in non-attainment for the federal eight-hour ozone standard, the state one-hour ozone standard, the federal 24-hour  $PM_{10}$  standard, and the state 24-hour and annual  $PM_{10}$  standards. The Basin is in attainment or unclassified for all other federal and state ambient air quality standards. The ozone precursors VOC and  $NO_x$ , in addition to fine particulate matter ( $PM_{2.5}$  and  $PM_{10}$ ), are the pollutants of primary concern for projects located in the SCAQMD. A project

would have a significant adverse impact on regional air quality if it generates emissions exceeding adopted SCAQMD thresholds.

Temporary construction emissions were estimated using the California Emissions Estimator Model (CalEEMod). For purposes of modeling CalEEMod default construction schedules were used for site preparation, grading, paving, and building construction. The architectural coating phase was extended to 20 days, and no days were included for demolition, as no demolition would occur. Table 3 compares the maximum daily construction emissions that would result from site preparation, grading, building construction, and paving to SCAQMD construction emission thresholds, including LSTs. The CalEEMod output sheets detailing construction emissions by phase are shown in Appendix A.

	SCAQMD Daily Thresholds (lbs./day)					
Pollutant	ROG	NO <sub>x</sub>	со	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>x</sub>
Maximum Daily Emissions	6	23	17	4	4	<1
SCAQMD Thresholds (peak day)	75	100	550	150	55	150
Exceed Daily SCAQMD Thresholds?	No	No	No	No	No	No
Maximum Daily On-Site Emissions	6	27	16	4	3	<1
Localized Significance Thresholds	_	104	1,209	11	7	-
Exceed LST?	_	No	No	No	No	_

#### Table 3 Construction Emissions

- LST not available for ROG and SO<sub>x</sub>

See Appendix A for CalEEMod worksheets.

Maximum daily emissions generated by construction of the project, would not exceed SCAQMD regional thresholds. Construction activities (including site preparation, grading, and paving) would also be required to comply with SCAQMD Rule 403, Fugitive Dust, which requires the implementation of Reasonably Available Control Measures (RACM) for all fugitive dust sources, and the AQMP, which identifies Best Available Control Measures (BACM) and Best Available Control Technologies (BACT) for area sources and point sources, respectively. Implementation of these requirements would further reduce project impacts associated with fugitive dust.

With implementation of standard SCAQMD requirements, construction-related impacts would be less than significant

### **Operational Emissions**

Long-term operational emissions associated with the project are those attributed to vehicle trips (mobile emissions), the use of natural gas (energy emissions), consumer products, and architectural coatings. CalEEMod was used to calculate emissions based on the land uses for the proposed project and the number of vehicle trips generated by development. Development of the project would require compliance with all applicable rules set forth by the SCAQMD and all applicable policies of the City of Long Beach General Plan. As shown in Table 4, the project would result in an increase of emissions in the long term. However, this increase would be under SCAQMD thresholds. Therefore, no significant long-term impact to regional air quality would occur.

Emission Source	ROG	NO <sub>x</sub>	со	PM <sub>10</sub>	PM <sub>2.5</sub>
Area	0.5	<0.1	<0.1	<0.1	<0.1
Energy	<0.1	0.1	0.1	<0.1	<0.1
Mobile	2	5.8	15	3.8	1
Total Emissions	2	6	15	3.8	1
SCAQMD Thresholds	55	55	550	150	55
Exceeds Threshold?	No	No	No	No	No
See Appendix A for CalEEMod worksheets	5.				

#### Table 4 Operational Emissions (pounds/day)

#### LESS THAN SIGNIFICANT IMPACT

#### d. Would the project expose sensitive receptors to substantial pollutant concentrations?

Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Sensitive receptors are defined as land uses that are more likely to be used by these population groups and include health care facilities, retirement homes, school and playground facilities, and residential areas. The sensitive receptors nearest to the project include single-family residences located to the north, east, and west, as well as schools, including Jackie Robinson K-8 Academy located approximately 0.3 mile away to the southeast and Pacific Baptist School located approximately 0.6 miles northwest of the site.

As discussed above, neither temporary construction nor long-term project emissions would exceed SCAQMD thresholds. Therefore, the project would not subject sensitive receptors to significant pollutant concentrations.

#### LESS THAN SIGNIFICANT IMPACT

#### e. Would the project create objectionable odors affecting a substantial number of people?

Odors would be generated by the operation of equipment during the construction phases of the project. Odors associated with construction machinery would be those of diesel machinery, which includes the smells of oil or diesel fuels. The odors would be limited to the time that construction equipment is operating. All off-road construction equipment would be covered by the CARB antiidling rule (SS2449[d][2]), which limits idling to five minutes. Some of these odors may reach sensitive receptors adjacent to the project site. However, the impacts would be temporary in nature. Multi-purpose gymnasium buildings, soccer fields, and parking lots typically do not create objectionable odors. Since the project would not create objectionable odors, this impact is less than significant.

#### LESS THAN SIGNIFICANT IMPACT

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# 4 Biological Resources

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project have any of the following imp	acts?			
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service		-		
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service				-
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. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

The project site is a partially developed portion of the existing Salvation Army Citadel campus. The site is in an urbanized area and does not contain native biological habitats or habitats for special-status species.

Scattered mature trees located on-site may provide suitable nesting habitat for a variety of bird species that are afforded protection under the federal Migratory Bird Treaty Act (MBTA – 16 United States Code Section 703-711). Although special-status bird species or active nests are not currently present, project construction has potential to impact migratory and other bird species if construction activities occur during the nesting season, which is typically February 15 through September 15. Construction-related disturbances could result in nest abandonment or premature fledging of the young. Therefore, the project could result in potentially significant impacts unless mitigation is incorporated.

### **Mitigation Measure**

The following mitigation measure and compliance with MBTA and California Fish and Game Code (CFGC) requirements would be required to reduce impacts to nesting birds to a less than significant level.

BIO-1 To avoid disturbance of nesting and special-status birds, including raptorial species protected by the MBTA and CFGC, activities related to the project, including, but not limited to, vegetation removal, ground disturbance, and construction shall occur outside of the bird breeding season (February 1 through August 30). If construction must begin during the breeding season, then a pre-construction nesting bird survey shall be conducted no more than three days prior to initiation of ground disturbance and vegetation removal activities. The nesting bird pre-construction survey shall be conducted on foot inside the Project Boundary, including a 300-foot buffer (500-foot for raptors), and in inaccessible areas (e.g., private lands) from afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California coastal communities. If nests are found, an avoidance buffer (dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary. All construction personnel shall be notified as to the existence of the buffer zone and to avoid entering the buffer zone during the nesting season. No ground-disturbing activities shall occur within this buffer until the avian biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist.

#### POTENTIALLY SIGNIFICANT UNLESS MITIGATION INCORPORATED

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

c. Would the project 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?

The project site is located in an urban setting and contains a social services building, administrative offices, a renovated chapel hall, 2,650 square feet multipurpose room, parking lot, and vacant disturbed land. No riparian habitat or other sensitive natural community is located on or in the vicinity of the site. No impact would occur.

#### **NO IMPACT**

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

The project site contains a social services building, administrative offices, renovated chapel hall, 2,650-square-foot multipurpose room, parking lot, and vacant disturbed area. The site is in an urbanized area and does not provide for any substantial movement or nursery habitat. Since the project would not interfere with the movement of any native resident or migratory fish or wildlife species or affect any nursery sites as compared to the current site conditions, there would be no impact.

#### **NO IMPACT**

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

The project would not conflict with any local policies or ordinances protecting biological resources as there are no protected biological resources on site. Mature landscape trees may be removed in order to construct the proposed project. However, these ornamental trees are not protected by any local policies or ordinances. Since the project would not conflict with any local policies or ordinances protecting biological resources, no impact would occur.

#### **NO IMPACT**

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

The project site is not in the area of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

#### **NO IMPACT**

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# 5 Cultural Resources

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Wc	ould the project have any of the following imp	acts?			
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 as defined in §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. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

There are no designated historic buildings on the project site and the project is not located in a historic district (City of Long Beach 2016). No impact on any historic resources would occur.

#### NO IMPACT

- *b.* Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?
- *c.* Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
- d. Would the project disturb any human remains, including those interred outside of formal cemeteries?

The site is relatively flat and does not contain unique geologic features. The project site has been previously graded and paved. Therefore, the likelihood that intact archaeological, paleontological resources, or human remains are present is low. Because the site has been developed previously, any surficial archaeological or paleontological resources that may have been present at one time have likely been disturbed. Therefore, the topmost layers of soil in the project area are not likely to contain intact fossils. Although project implementation is not expected to uncover archaeological resources, paleontological resources, or human remains, the possibility for such resources exists and impacts would be potentially significant.

### **Mitigation Measures**

The following mitigation measures would reduce the impacts of disturbing intact resources and uncovering human remains to a less than significant level.

- **CR-1** Archaeological Resource Procedures. In the event that archaeological resources are unearthed during project construction, all work within 50 feet of the discovery shall cease and the construction contractor shall contact the City of Long Beach Development Services Department. With direction from the Development Services Department, an archaeologist certified by the County of Los Angeles shall be retained to evaluate the discovery prior to resuming grading in the immediate vicinity of the find. If warranted, the archaeologist shall develop a plan of mitigation which may include, but not limited, to, salvage excavation, laboratory analysis and processing, research, curation of the find in a local museum or repository, and preparation of a report summarizing the find.
- CR-2 Paleontological Resource Procedures. If evidence of subsurface paleontological resources is found during excavation and other ground-breaking activities, all work within 50 feet of the discovery shall cease and the construction contractor shall contact the City of Long Beach Development Service Department. With direction from the Development Services Department, a paleontologist certified by the County of Los Angeles shall evaluate the find. If warranted, the paleontologist shall prepare and complete a standard Paleontological Resources Mitigation Program for the salvage and curation of identified resources.
- CR-3 Human Remains Recovery Procedures. If human remains are found, those remains would require proper treatment, in accordance with applicable laws. State of California Public Resources Health and Safety Code Section 7050.5-7055 describe the general provisions for human remains. Specifically, Health and Safety Code 7050.5 describes the requirements if any human remains are accidently discovered during excavation of a site. As required by State law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission, and consultation with the individual identified by the Native American Heritage Commission to be the "most likely descendant". If human remains are found during excavation, excavation must stop in the vicinity of the find and any area that is reasonably suspected to overlay adjacent remains until the County coroner has been called out, and the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains.

#### POTENTIALLY SIGNIFICANT UNLESS MITIGATION INCORPORATED

# 6 Geology and Soils

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
W	ould the project have any of the following imp	acts?			
a.	Expose people or structures to potentially substantial adverse effects, including the risk of loss, injury, or death involving:				
	<ol> <li>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</li> </ol>			-	
	2. Strong seismic ground shaking			-	
	3. Seismic-related ground failure, including liquefaction			-	
	4. Landslides				-
b.	Result in substantial soil erosion or the loss of topsoil				
C.	Be located on a geologic unit or soil that is made unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse			•	
d.	Be located on expansive soil, as defined in Table 1-B of the <i>Uniform Building Code</i> , creating substantial risks to life or property			•	
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater	П	Π		

a.1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving 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? a.2 Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Per Plate 2 of the Seismic Safety Element of the Long Beach General Plan (1988), the most significant fault system in the city is the Newport-Inglewood fault zone. This fault zone runs in a northwest to southeast angle across the southern half of the city. The project site is located in the Newport-Inglewood Fault Zone with the eastern edge of the project site lying approximately 350 feet from the Newport-Inglewood Fault. No known fault lines cross through the site (California 1999).

The Newport-Inglewood fault could create substantial ground shaking if a seismic event occurred along that fault. Similarly, a strong seismic event on any other fault system in Southern California has the potential to create considerable levels of ground shaking throughout the city. However, the project site is not subject to unusual levels of ground shaking and all new structures would be required to comply with all applicable provisions of the CBC. Impacts associated with ground shaking would be less than significant.

#### LESS THAN SIGNIFICANT IMPACT

a.3. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

Liquefaction is a process whereby soil is temporarily transformed to fluid form during intense and prolonged ground shaking or because of a sudden shock or strain. Liquefaction typically occurs in areas where the groundwater is less than 30 feet from the surface and where the soils are composed of poorly consolidated fine to medium sand.

The project site is located southwest of the Newport-Inglewood fault on deep-stiff soil conditions characterized as granular terrace deposits overlying Pleistocene sediments at shallow depths (Long Beach 1988). There is a low potential for ground failure in the region. The project site is not located in an area where liquefiable materials are mapped and/or where liquefaction has occurred in the past according to the State of California Seismic Hazard Zones Long Beach Quadrangle (1999). Nevertheless, the project would be required to be constructed in accordance with CBC standards that address liquefaction hazards, including strengthening the foundation and its footings.

#### LESS THAN SIGNIFICANT IMPACT

a.4. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Per the City of Long Beach Seismic Safety Element (1988), the city is relatively flat and characterized by slopes that are not high (less than 50 feet) or steep (generally sloping flatter than 1:1/2:1, horizontal to vertical). The State Seismic Hazard Zone map of the Long Beach Quadrangle indicates that the lack of steep terrain results in only about 0.1 percent chance of the land lying in the earthquake-induced landslide zone for this quadrangle (1999). Additionally, the topography of the site and its immediate built environment is relatively flat. The site is not located in any landside zones. Therefore, there is no risk of landslides on the site.

#### **NO IMPACT**

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

The project site is generally flat, which limits the potential for substantial soil erosion. However, there is potential for soil erosion to occur during site preparation and grading activities. Excavation activities would be required to adhere to Section 18.95.050 of the Long Beach Municipal Code, which identifies standard construction measures regarding erosion control, including Best Management Practices (BMP), to minimize runoff and erosion impacts from project activities. Examples of required BMPs include sediment traps, stockpile management, and methods for material delivery and storage. The use of BMPs during construction would ensure that erosion and loss of topsoil impacts would be less than significant.

#### LESS THAN SIGNIFICANT IMPACT

- c. Would the project be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?
- d. Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code, creating substantial risks to life or property?

Per the Long Beach General Plan Seismic Safety Element, the project site is not located in an area of slope instability (1988). The Seismic Safety Element divides the city into four predominant soil profiles, designated as Profiles A through D. The project site is located in Profile D, which is composed of granular terrace deposits overlying Pleistocene sediments at shallow depths. As stated above, the project site is not located in an area where landslides are mapped and/or where landslides have occurred in the past (California 1999). Furthermore, the project site is not located in an area where liquefiable materials are mapped and/or where liquefaction has occurred in the past according to the State of California Seismic Hazard Zones Long Beach Quadrangle (1999). The project would be required to be constructed in accordance with CBC standards. This would ensure that construction of the project would not result in on or off site geologic impacts.

Unstable soils include expansive, compressible, erodible, corrosive, or collapsible soils. As noted above, the project site is located in Profile D, which is composed of granular terrace deposits overlying Pleistocene sediments at shallow depths. No issues with expansive soils are known to be present; therefore, impacts would be less than significant.

#### LESS THAN SIGNIFICANT IMPACT

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

The entire city is served by an existing sewer system. Therefore, since the project would not involve the use of septic tanks or any other alternative waste water disposal systems, there would be no impact.

#### **NO IMPACT**

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### 7 Greenhouse Gas Emissions

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact		
Wo	Would the project have any of the following impacts?						
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment						
b.	Conflict with any applicable plan, policy, or regulation adopted to reduce the emissions of greenhouse gases						

Climate gases that trap heat in the atmosphere are often called greenhouse gases (GHG), analogous to the way in which a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide  $(CO_2)$ , methane  $(CH_4)$ , nitrous oxides  $(N_2O_x)$ , fluorinated gases, and ozone. GHGs are emitted by both natural processes and human activities. Of these gases,  $CO_2$  and  $CH_4$  are emitted in the greatest quantities from human activities. Emissions of  $CO_2$  are largely by-products of fossil fuel combustion, whereas  $CH_4$  results from off-gassing associated with agricultural practices and landfills. Man-made GHGs, many of which have greater heat-absorption potential than  $CO_2$ , include fluorinated gases, such as hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF<sub>6</sub>) (CalEPA 2006).

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat-trapping effect of GHGs, Earth's surface would be about 34° C cooler (CalEPA 2006). However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Pursuant to the requirements of SB 97, the Resources Agency adopted amendments to the *CEQA Guidelines* for the feasible mitigation of GHG emissions and analysis of the effects of GHG emissions. The adopted *CEQA Guidelines* provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. To date, the Bay Area Air Quality Management District (BAAQMD), the SCAQMD, and the San Joaquin Air Pollution Control District (SJVAPCD) have adopted significance thresholds for GHGs. The SCAQMD threshold, which was adopted in December 2008, considers emissions of over 10,000 metric tons of carbon dioxide equivalent ( $CO_2e^1$ ) emissions per year to be significant. However, the SCAQMD is threshold applies only to stationary sources and is intended to apply only when the SCAQMD is the CEQA lead agency. Although not formally adopted, the SCAQMD has a recommended quantitative threshold for all land use types of 3,000 metric tons CDE/year (SCAQMD, "Proposed Tier 3 Quantitative Thresholds – Option 1", September 2010).

<sup>&</sup>lt;sup>1</sup> Because GHGs absorb different amounts of heat, a common reference gas (CO<sub>2</sub>) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO<sub>2</sub>e).

City of Long Beach Long Beach Citadel Project

Because the SCAQMD has not adopted GHG emissions thresholds that apply to land use projects where the SCAQMD is not the lead agency and no GHG emissions reduction plan or GHG emissions thresholds have been adopted in the city of Long Beach, the proposed project is evaluated based on the SCAQMD's recommended/preferred option threshold for all land use types of 3,000 metric tons CDE per year (SCAQMD, "Proposed Tier 3 Quantitative Thresholds – Option 1", September 2010).

# a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

The project's construction activities, energy use, daily operational activities, and mobile sources (traffic) would generate GHG emissions. CalEEMod was used to calculate emissions resulting from project construction and long-term operation. Project-related construction emissions are confined to a relatively short period of time in relation to the overall life of the proposed project. Therefore, construction-related GHG emissions were amortized over a 30-year period to determine the annual construction-related GHG emissions over the life of the project. As shown in Table 5, the project would result in an increase of 952 metric tons CDE. Since the project's increase is less than the recommended SCAQMD threshold of 3,000 metric tons per year, this impact would be less than significant.

Emission Source	Annual Emissions (metric tons of CDE)	
Construction (amortized over 30 years)	11	
Operational and Mobile	941	
Total	952	
SCAQMD Threshold	3,000	
Threshold Exceeded?	No	

#### Table 5 Estimated Emissions of Greenhouse Gases

Carbon dioxide equivalent (CDE or  $CO_2E$ ) is a quantity that describes, for a given mixture and amount of GHGs, the amount of  $CO_2$  (usually in metric tons; million metric tons [megatonne] = MMTCO\_2E = terragram [Tg]  $CO_2$  Eq; 1,000 MMT = gigatonne) that would have the same global warming potential (GWP) when measured over a specified timescale (generally, 100 years).

Sources: Emissions reported are from CalEEMod mitigated construction and operational data. See Appendix A for calculations

#### LESS THAN SIGNIFICANT IMPACT

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

On April 7, 2016, the Southern California Association of Governments (SCAG) adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). SCAG's RTP/SCS includes a commitment to reduce emissions from transportation sources by promoting compact and infill development. The proposed gymnasium, soccer field, and parking lot would be infill development on a site that is partially developed. The project involves increased efficiency regarding the use of the land. Additionally, the RTP/SCS contains goals to reduce air emissions by increasing walkability. The project would also be required to comply with the energy efficiency measures contained in Title 24 of the California Administrative Code (the California Building Energy Efficiency Program). Since the project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases, this impact would be less than significant.

#### LESS THAN SIGNIFICANT IMPACT

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# 8 Hazards and Hazardous Materials

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Wc	ould the project have any of the following imp	acts?			
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 0.25 mile of an existing or proposed school				
d.	Be located on a site that is included on a list of hazardous material 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 in 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 near a private airstrip, would it 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	Potentially Significant Unless Mitigation Incorporated	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. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

The project would involve the construction of a multi-purpose gymnasium building, parking lot, and a soccer field. Community center uses, such as the multi-purpose gymnasium building and soccer field typically do not use or store large quantities of hazardous materials. Potentially hazardous materials such as fuels, lubricants, and solvents would be used during construction of the project. However, the transport, use, and storage of hazardous materials during the construction of the project would be conducted in accordance with all applicable state and federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and the California Code of Regulations, Title 22. Adherence to these requirements would reduce impacts to a less than significant level.

#### LESS THAN SIGNIFICANT IMPACT

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The nearest schools are the Jackie Robinson K-8 Academy located approximately 0.3 mile southeast of the site and Pacific Baptist School located approximately 0.6 mile northwest of the site. The project involves the construction a multi-purpose gymnasium building, parking lot, and a soccer field. These types of uses do not typically emit or involve the handling of hazardous materials. Since the project would not emit hazardous emissions or handle hazardous materials within one quarter mile of a school, there would be no impact.

#### **NO IMPACT**

d. Would the project be located on a site included on a list of hazardous material 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?

The following databases compiled pursuant to Government Code Section 65962.5 were checked (January 15, 2018) for known hazardous materials contamination at the project site:

- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database
- Geotracker search for leaking underground storage tanks (LUST)
- The Department of Toxic Substances Control's Site Mitigation and Brownfields Database

The CERLCIS database showed no evidence of toxic substances at the project site.

Geotracker shows that there are no LUSTs or hazardous waste deposits at the project site. Geotracker does show two LUSTs within a 500 foot radius of the project site. The first LUST is an underground storage tank at 2995 Long Beach Boulevard. The site had potential gasoline as a contaminant of concern when first reported leaks occurred in 1992. The case was closed in 1996.

The second LUST is located at 3009 Long Beach Boulevard, approximately 100 feet west of the project site. The cleanup status is currently open. The potential contaminant of concern is gasoline that has infiltrated an aquifer. As of August 2016, the State Water Board concluded that continued active remediation should occur at the site to achieve policy criteria, resume free product removal, and to continue groundwater monitoring. This storage tank, although it is open for remediation is not directly on the proposed project site, and the affected shallow groundwater is not proposed to be used as a source of drinking water for the project. Also, according to the State Water Resources Control Board, it is unlikely that the affected shallow groundwater would be used as a source of drinking water in the foreseeable future (2016). Since the project would not be located on a hazardous material site, impacts would be less than significant.

#### LESS THAN SIGNIFICANT IMPACT

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

The project site is located approximately 1.3 miles to the southwest of the Long Beach Airport. The site is not within the airport land use planning area for the airport. The proposed multi-purpose gymnasium building would have a maximum height of two stories (36 feet), and would not impact airport operations, alter air traffic patterns, or in any way conflict with established Federal Aviation Administration (FAA) flight protection zones. There would be no impact.

#### **NO IMPACT**

*f.* For a project near a private airstrip, would it result in a safety hazard for people residing or working in the project area?

There are no private airstrips located within two miles of the site, therefore no impact would occur.

#### **NO IMPACT**

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The project would not involve the development of structures that could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The project includes design features that would maintain access for emergency vehicles to Elm Avenue by installing gates at both ends. The design of new access points on Elm Avenue would be reviewed and approved by the Long Beach Fire Department to ensure that emergency access meets City standards. In addition, a hammerhead turn area would be located at the end of the Elm Avenue, and would provide large emergency response vehicles with access to the gym. Since the project would not interfere with emergency response or evacuation plans, impacts would be less than significant.

#### LESS THAN SIGNIFICANT IMPACT

h. Would the project 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?

The city is an urbanized community and there are no wild lands in the project site vicinity. There would be no risk of exposing people or structures to a significant risk of loss, injury, or death involving wild land fires.

#### NO IMPACT

# 9 Hydrology and Water Quality

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Wc	ould the project have any of the following imp	acts?			
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 or the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that 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 that would result in substantial erosion or siltation on- or off-site?				
d.	Substantially alter the existing drainage pattern of the site or area, including the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite				
e.	Create or contribute runoff water that 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 in a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map				

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
h.	Place structures in a 100-year flood hazard area that would impede or redirect flood flows				•
i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including that occurring as a result of the failure of a levee or dam				-
j.	Result in inundation by seiche, tsunami, or mudflow			•	

#### a. Would the project violate any water quality standards or waste discharge requirements?

Temporary site preparation, grading, and paving activities associated with the project may result in soil erosion that could degrade water quality. However, on-site activities would be necessary to comply with the requirements of the Long Beach Municipal Code Chapter 18.95, National Pollutant Discharge Elimination System (NPDES) and Standard Urban Stormwater Mitigation Plan (SUSMP) regulations. Specifically, construction activities would be required to comply with Long Beach Municipal Code Section 18.95.050, which calls for construction plans to include construction and erosion and sediment control BMPs. Examples of required BMPs include sediment traps, stockpile management, and material delivery and storage requirements. The project is designed to incorporate bio-filtration planting areas as well as an underground pipe collector system. Compliance with these requirements would reduce potential impacts to water quality during construction of the project.

The project would increase the amount of impervious surface on the site. The project would comply with Section 18.74.040 of the Long Beach Municipal Code, which requires runoff to be infiltrated, captured and reused, evapotranspired, and/or treated on-site through stormwater BMPs listed in the Low Impact Development (LID) Best Management Practices Manual. The project would also comply with the project SUSMP, which requires that post development peak runoff shall not exceed pre-development rates, the conservation of natural areas, minimization of stormwater pollutants through use of BMPs, protection of slopes and channels, appropriate signage at storm drain systems, and proof of ongoing BMP maintenance. The SUSMP also sets standards for design of outside material storage areas, trash storage areas, and structural or treatment control BMPs that would be followed by the proposed project. Therefore, as no long-term change to hydrology or water quality would occur, this impact would be less than significant.

#### LESS THAN SIGNIFICANT IMPACT

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

The project would receive water service from the City of Long Beach Water Department. The site is already developed and the project would increase the amount of pavement on the site. Current stormwater regulations require the stormwater to be contained on-site, which would aid in recharge. Therefore, the project would not substantially decrease groundwater or interfere with groundwater recharge, and this impact would be less than significant.

#### LESS THAN SIGNIFICANT IMPACT

- c. Would the project substantially alter the existing drainage pattern of the site or area, including by altering the course of a stream or river, in a manner that would result in substantial erosion or siltation on or offsite?
- d. Would the project substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite?
- e. Would the project create or contribute runoff water that 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?

The project would not alter the course of any stream or other drainage and would not increase the potential for flooding. The project site is located in the Lower Los Angeles River Watershed. As discussed above, adherence to the City's urban runoff programs and implementation of design features to capture and treat stormwater runoff would reduce the quantity and level of pollutants in runoff leaving the site. The project would not impact the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff that would degrade water quality. As such, impacts would be less than significant.

#### LESS THAN SIGNIFICANT IMPACT

- g. Would the project place housing in a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map?
- *h.* Would the project place structures in a 100-year flood hazard area structures that would impede or redirect flood flows?

The project site is in FEMA Flood Zone C, Minimal Flood Hazard, outside the 100-year flood plain and has a higher elevation than the 500-year floodplain (Long Beach Development Services 2016). No housing is proposed for the site and since the site is not in the 100-year flood plain, it would not place structures in the flood hazard area. There would be no impact.

#### **NO IMPACT**

*i.* Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding including that occurs as a result of the failure of a levee or dam?

The project site is located away from any dams or levees. According to the City of Los Angeles General Plan Safety Element, the project site is not subject to flooding due to dam or levee failure nor would it increase exposure to risks associated with dam or levee failure (1996). There would be no impact.

#### **NO IMPACT**

#### j. Would the project result in inundation by seiche, tsunami, or mudflow?

The project site is located approximately 3.5 miles from the coastline and 1.3 miles from the Los Angeles River. According to the City of Long Beach General Plan Safety Element, the project site is located in a low hazard area for tsunamis, seiches, or mudflow (1975). Since the project would not expose people or structures to seiche, tsunami, or mudflow hazards, this impact would be less than significant.

#### LESS THAN SIGNIFICANT IMPACT

# 10 Land Use and Planning

		Potentially Significant	Potentially Significant Unless Mitigation	Less than Significant	No Impact
Wo	ould the project have any of the following imp	acts?			
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 an applicable habitat conservation plan or natural community conservation plan				•

#### a. Would the project physically divide an established community?

The project site is surrounded by residential, commercial and industrial buildings. The project would be infill development. The project includes closure of part of Elm Avenue to allow for a pedestrian promenade. This project component would provide for better pedestrian connections in the area. Although the elimination of the Elm Street and East Spring Street Intersection would restrict access between East Spring Street and the neighborhood, it would not divide the established community, and the proposed pedestrian promenade at this location would allow for increased pedestrian access. Since no established communities would be divided, this impact would be less than significant.

#### LESS THAN SIGNIFICANT IMPACT

b. Would the project 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?

The project consists of the construction of a multi-purpose gymnasium building, parking lot, and a soccer field. The General Plan designation for the site is Mixed Use. As shown in Figure 4, the project site is has multiple zoning designations including Community Commercial Automobile-Oriented (CCA), Institutional(I), and Single-family Residential, standard lot (R-1-N). In order to accommodate the proposed project, the applicant is requesting a zone change from CCA and R-1-N to SP-1 within the Midtown Specific Plan. The project includes a request to add the site to the Midtown Specific Plan. This would be consistent with the surrounding zoning that currently exists west and south of the site. The incorporation of the project into the Midtown Specific Plan would alter (increase) the

existing boundary of the Plan Area. However, this change would only occur in the boundaries of the project site, and would not involve other parcels, or result in any broader changes pertaining to the goals, policies, and programs contained in the Midtown Specific Plan.

The project site is not located in the coastal zone and is not subject to the Local Coastal Program. The proposed uses are compatible with the Mixed Use General Plan Designation and are permitted in the Institutional zone district. With the requested zone change, the project would not conflict with applicable land use plans and impacts would be less than significant.

#### LESS THAN SIGNIFICANT IMPACT

*c.* Would the project conflict with an applicable habitat conservation plan or natural community conservation plan?

The project site is comprised of previously disturbed parcels in an urban area characterized by residential, industrial and commercial development. As discussed in Section 4, Biological Resources, the project site is not inside the boundaries of a habitat conservation plan or natural community conservation plan. There would be no impact.

#### NO IMPACT

### 11 Mineral Resources

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project have any of the following imp	acts:			
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. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

### **Mineral Extraction**

The Surface Mining and Reclamation Act of 1975 (SMARA) requires the state geologist (Division of Mines and Geology) to identify and classify all mineral deposits in California. In 1979, the California State Mining and Geology Board adopted guidelines that require local general plans to reference identified mineral deposits and sites that are identified for conservation. In addition, the board identified urban areas where irreversible land uses (development with structures) preclude mineral extraction.

According to the State of California Department of Conservation, the project site is located in the San Gabriel Production-Consumption Region, but is not located in a MRZ-2 area, which is defined as an area where geologic data indicates significant PCC-Grade aggregate resources are located (Kohler 2010). Per the most recent Department of Conservation's Active Mine Operations Map, there are no active mine operations in the project area (Division of Mine Reclamation 2017). Since the project site does not contain significant mineral resources, extraction of mineral resources is not currently occurring, and the project does not involve mineral extraction operations or zoning for extraction, there would be no impact towards the loss of availability of known mineral resources.

### **Oil Extraction**

The City of Long Beach is located in Oil and Gas District 1, which covers the following counties: Los Angeles, Orange, San Bernardino, Riverside, San Diego, and Imperial. Per the DOGGR well finder, the project site is located in the Long Beach Oil Field, and contains oil wells that have been previously plugged and abandoned (see Figure 6). There are no active wells in the project area (DOGGR 2018).

Although the existing wells are no longer extracting oil and have been previously plugged and abandoned, the project proposes to re-abandon these wells in compliance with Section 3229,

### Figure 6 DOGGR Oil Wells



Division 3 of the Public Resources Code and current DOGGR standards. There would be no impact to the loss of availability of oil resources, no conflict with operation of existing active oil wells, and impacts would be less than significant.

#### LESS THAN SIGNIFICANT IMPACT

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12	2 Noise				
		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project result in any of the following	impacts?			
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 groundborne vibration or groundborne noise levels			•	
C.	A substantial permanent increase in ambient noise levels above those existing prior to implementation of the project			-	
d.	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above those existing prior to implementation of the project		-		
e.	For a project located in 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 near a private airstrip, would it expose people residing or working in the project area to excessive noise				

Noise is defined as unwanted sound that disturbs human activity. Environmental noise levels typically fluctuate over time, and different types of noise descriptors are used to account for this variability. Noise level measurements include intensity, frequency, and duration, as well as time of occurrence. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA).

Some land uses are considered more sensitive to ambient noise levels than other uses due to the amount of noise exposure and the types of activities involved. Residences, motels, hotels, schools, libraries, churches, nursing homes, auditoriums, parks, and outdoor recreation areas are more sensitive to noise than are commercial and industrial land uses.

The City uses the State Noise/Land Use Compatibility Standards, which suggests a desirable exterior noise exposure at 65 dBA Community Noise Equivalent Level (CNEL) for sensitive land uses such as residences. Less sensitive commercial and industrial uses may be compatible with ambient noise levels up to 70 dBA. The City has adopted a Noise Ordinance (Long Beach Municipal Code Chapter 8.80) that sets exterior and interior noise standards.

Vibration is a unique form of noise. It is unique because its energy is carried through buildings, structures, and the ground, whereas noise is simply carried through the air. Thus, vibration is generally felt rather than heard. Some vibration effects can be caused by noise (e.g., the rattling of windows from passing trucks). This phenomenon is caused by the coupling of the acoustic energy at frequencies that are close to the resonant frequency of the material being vibrated. Typically, ground-borne vibration generated by man-made activities attenuates rapidly as distance from the source of the vibration increases. The ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB) in the U.S.

The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources inside buildings such as operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel wheeled trains, and traffic on rough roads.

Vibration impacts would be significant if they exceed the following Federal Railroad Administration (FRA) thresholds:

- 65 VdB where low ambient vibration is essential for interior operations, such as hospitals and recording studios
- 72 VdB for residences and buildings where people normally sleep, including hotels
- 75 VdB for institutional land uses with primary daytime use, such as churches and schools
- 95 VdB for physical damage to extremely fragile historic buildings
- 100 VdB for physical damage to buildings

Construction-related vibration impacts would be less than significant for residential receptors if they are below the threshold of physical damage to buildings and occur during the City's normally permitted hours of construction, as described above, because these construction hours are during the daytime and would therefore not normally interfere with sleep.

Noise measurements were taken on the project site on Wednesday, October 19, 2016 during the a.m. peak hour (between 7 a.m. and 9 a.m.). Two measurements were taken along East Spring Street, and one near the intersection of East 31<sup>st</sup> Street and Long Beach Boulevard (see Figure 7). The measured noise levels at these locations were 70.0 dBA Leq, 70.0 dBA Leq, and 73.0 dBA Leq, respectively (Appendix B).

a. Would the project result in 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?

The project consists of building a multi-purpose gymnasium building, parking lot, and soccer field. A noise measurement taken on the project site at the northwest corner of the project site, directly adjacent to the street, was measured at 73 dBA Leq during the a.m. peak hour. Based on the



Figure 7 Noise Measurement and Sensitive Receptor Locations

attenuation rate of the traffic at the noise measurement location, the proposed multi-purpose building would be exposed to exterior noise levels around 66 dBA Leq during peak hours since the proposed buildings would be located approximately 150 feet from the street .The manner in which newer development in California is constructed generally provides a reduction of exterior-to-interior noise levels of about 25 to 30 dBA with closed windows (FTA 2006). Therefore, the exterior-tointerior noise level would be no greater than 140 dBA Leq during peak hour.

The project would not expose users of the multi-purpose building to noise levels in excess of the State Noise/Land Use Compatibility Standards for sensitive land uses, an exterior noise level of 65 dBA CNEL.

#### LESS THAN SIGNIFICANT IMPACT

b. Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Project construction activities are anticipated to result in some vibration that may be felt on properties in the vicinity of the project site, as commonly occurs with construction projects. Table 6 identifies various vibration velocity levels for different types of construction equipment. Project construction would not involve the use of pile drivers, but could involve the use of a bulldozer and jackhammers on the project site. Additionally, loaded trucks carrying construction materials would operate on the project site and some surrounding streets during construction.

	Approximate VdB		
Equipment	25 Feet	75 Feet	700 Feet
Bulldozer	91	82	62
Loaded Trucks	91	82	62
Jackhammer	94	85	65
Grader	91	82	62
Paver	95	86	66
Source: Federal Transit Administration 2006			

#### Table 6 Vibration Source Levels for Construction Equipment

Construction would occur on site as close as 25 feet from the nearest residences and existing structures on the Salvation Army Campus. Construction would occur as close as 700 feet from the medical buildings across the street. At 25 feet, residences would be exposed to vibration levels of up to 94 VdB, which exceeds the 72 VdB threshold for residences and buildings where people normally sleep. However, this is below the 100 VdB threshold where vibration causes damage to buildings. Additionally, most of the construction would occur further than 25 feet from the nearest receptor since most construction would take place towards the center of the site and not along the perimeter. The Long Beach Noise Ordinance prohibits construction outside daytime hours. Therefore, construction vibration would not be significant at these receptors because activities would occur outside hours when people normally sleep. Therefore, the project would not result in excessive ground-borne vibration or noise, and this impact would be less than significant.

#### LESS THAN SIGNIFICANT IMPACT
# c. Would the project result in a substantial permanent increase in ambient noise levels above levels existing without the project?

Noise associated with operation of the project would primarily be due to increased traffic on local roadways. On-site operations would also involve noise from rooftop ventilation, heating systems, trash hauling, and people playing soccer on the field. These would be consistent with the noise associated with the existing social service buildings, parking and administrative office spaces on the project site.

Permanent project-related changes in noise would be primarily due to increases in traffic volumes on Long Beach Boulevard, East Spring Street, Elm Avenue, Pasadena Avenue, Linden Avenue, and the driveways into the project site. For traffic-related noise, impacts would be significant if projectgenerated traffic results in exposure of sensitive receptors to unacceptable noise levels. The FTA recommendations in the May 2006 Transit Noise and Vibration Impact Assessment were used to determine whether or not increases in roadway noise would be significant. The allowable noise exposure increase changes with increasing noise exposure, such that lower ambient noise levels have a higher allowable noise exposure increase. Table 7 shows the significance thresholds for increases in traffic related noise levels caused by the project. Noise measurements taken on local roadways indicate that noise levels are 73 dBA Leq on Lakewood Boulevard and 70 dBA Leq on East Spring Street (Appendix B for noise measurement results and Figure 7 for measurement locations). Therefore, the project would result in a significant operational roadway noise impact if it would increase roadway noise by 1 dBA.

DNL or Leq in dBA		
Existing Noise Exposure	Allowable Noise Exposure Increase	
45-50	7	
50-55	5	
55-60	3	
60-65	2	
65-75	1	
75+	0	
Source: FTA 2006		

Table 7	Significance of	Changes in O	perational Roadwa	av Noise Exposure
	Significance of	onunges in o	perutional Roadwe	I'Y NOISE EXPOSUIE

Off-site traffic generation on area roadways would incrementally increase noise in the area. Traffic noise was modeled using Traffic Noise Model 2.5 (TNM 2.5) to show noise levels under existing, existing plus project, cumulative, and cumulative plus project traffic scenarios based on traffic volumes from the Traffic Study prepared by Linscott, Law, and Greenspan (LLG) (Appendix C). Existing traffic noise and existing plus project traffic noise are shown in Table 8.

As shown in Table 8, project traffic would not generate roadway noise in excess of the significance thresholds on either roadway. The noise levels at sensitive receptor locations 2 and 5 were reduced due to the closure of a portion of Elm Avenue and the associated rerouting of traffic. The reduction at sensitive receptor location 6 was due to the rerouting of traffic that would occur with the

placement of the parking lot and associated driveways. The traffic is anticipated to cluster at the entrance and on East Spring Street instead of driving past the receptor. Therefore, development of the project would not create a substantial permanent increase in ambient noise levels above levels existing without the project.

	Projected Noise Level (dBA DNL)		Projected Noise Level Change in Noise Level (dBA DNL) (dBA DNL)		
Receptor #	Existing (1)	Existing + Project (2)	Due to Project Traffic (2-1)	Significance Threshold	Exceed Significance Threshold?
1	71.5	71.6	0.1	1	No
2	68.4	67.8	(0.6)	1	No
3	66.9	67.0	0.1	1	No
4	68.9	68.9	0.0	1	No
5	61.9	60.0	(1.9)	2	No
6	59.0	58.9	(0.1)	3	No

Table 8	Comparison o	f Pre-Project an	d Post-Project	<b>Traffic Noise</b>	on Local	Roadways
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Source: TNM 2.5, see Appendix B for noise model outputs and assumptions. Leq is the equivalent noise level over a period of time, typically one hour. Estimates of noise generated by traffic are from the centerlines of northbound/eastbound and southbound/westbound lanes on road segments during PM peak-hour traffic conditions.

Cumulative development in the project area would incrementally increase noise levels along area roadways. Cumulative noise levels were modeled with and without project-generated traffic, as shown in Table 9. In order for the project to cause a significant cumulative impact, the project would have to cause a significant portion of the increase.

	Projected Noise Level (dBA DNL)		Projected Noise Level Change in Noise Level (dBA DNL) (dBA DNL)		_	
Receptor #	Cumulative (1)	Cumulative + Project (2)	Due to Project Traffic (2-1)	Significance Threshold	Exceed Significance Threshold?	
1	71.6	71.7	0.1	1	No	
2	68.9	68.9	0.0	1	No	
3	67.1	67.1	0.0	1	No	
4	69.0	69.0	0.0	1	No	
5	62.1	60.3	(1.8)	2	No	
6	59.1	59.0	(0.1)	3	No	

 Table 9
 Comparison of Cumulative Traffic Noise on Local Roadways

Source: TNM 2.5, see Appendix B for noise model outputs and assumptions. Leq is the equivalent noise level over a period of time, typically one hour. Estimates of noise generated by traffic are from the centerlines of northbound/eastbound and southbound/westbound lanes on road segments during PM peak-hour traffic conditions.

As shown in Table 9 at locations 1 through 4, development under the cumulative plus project scenario would cause a 0.1 to 0.5 dBA CNEL increase. However, without the project, the cumulative development would still cause a 0.1 to 0.5 dBA CNEL increase at these locations. The cumulative plus project scenario would also reduce noise levels at sensitive receptor location 5 due to the closure of a portion of Elm Avenue and the associated rerouting of traffic. Noise would also be reduced at sensitive receptor location 6 due to the rerouting of traffic that would occur with the placement of the parking lot and associated driveways. The traffic is anticipated to cluster at the

entrance and on East Spring Street instead of driving past the receptor. No noise reductions would occur under the cumulative project scenario. Therefore, the project's contribution to the cumulative impact would be less than significant and impacts related to a permanent increase in noise would be less than significant.

# LESS THAN SIGNIFICANT IMPACT

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Project construction would generate temporary noise levels that could be audible to sensitive receptors near the project site. Noise impacts are a function of the type of activity being undertaken and the distance to the receptor location. Nearby noise-sensitive land uses include residential units located directly north and east of the site and medical buildings 700 feet south of the project. During project construction, construction equipment would be active on the site, and construction workers and trucks would also drive to and from the site.

Table 10 shows typical noise levels associated with equipment used for the construction of the proposed project. Noise levels associated with these activities would temporarily affect the identified sensitive receptors near and on the project site. Noise from point sources generally decreases by about 6 dBA per doubling of distance for point source emitters.

Equipment	Typical Level (dBA Leq) 25 Feet from the Source	Typical Level (dBA Leq) 75 Feet from the Source	Typical Level (dBA Leq) 300 Feet from the Source
Bulldozer	91	82	62
Loaded Trucks	91	82	62
Jackhammer	94	85	65
Grader	91	82	62
Paver	95	86	66
Source: FTA 2006			

Tabla 10	Typical Construction Noise Loyals
	Typical Construction Noise Levels

Table 10 illustrates the noise levels that would occur with construction of the proposed project at the nearby sensitive receptors. As indicated, the maximum noise level during construction activities at the exterior of the residences on Elm Avenue, which are located approximately 25 feet from the proposed construction site, would be approximately 95 dBA Leq, while construction activities at the medical buildings across East Spring Street would be approximately 66 dBA Leq. Noise measurements taken in the vicinity of the project site indicate that existing noise levels during peak hour are approximately 70 dBA Leq along East Spring Street and noise levels are 55 dBA Leq at adjacent residences. Therefore, construction noise would exceed ambient noise levels in the area and may cause temporary disturbance to nearby residents. Construction noise impacts would be temporary, and construction contractors would be required to comply with Municipal Code requirements restricting hours of construction. Construction noise impacts would be potentially significant.

# **Mitigation Measures**

The following mitigation measures would bring construction noise impacts to a less than significant level by utilizing quieter electric equipment instead of gas powered equipment whenever possible, reducing the number of equipment operating simultaneously and putting up noise reducing curtains and blankets. These measures along with compliance with the LBMC would be required to reduce construction noise impacts.

- **N-1 Electrical Power.** Electrical power must be used to run air compressors and similar power tools.
- N-2 Construction Noise Complaint Line. The applicant must provide a non-automated telephone number for local residents and employees to call to submit complaints associated with construction noise. The telephone number must be included and posted on near all project site entrances and must be easily viewed from adjacent public areas.
- N-3 Distancing of Vehicles and Equipment. Noise and ground-borne vibration construction activities whose specific location on the project site may be flexible (e.g., operation of compressors and generators, cement mixing, general truck idling) must be conducted as far as possible from the nearest noise- and vibration-sensitive land uses. The location of vehicles and equipment must be designated on building and grading plans. Equipment and vehicles must remain in the designated location throughout construction activities.
- N-4 Avoid Operating Equipment Simultaneously. Whenever possible, construction activities must be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels. The construction schedule and timing of operation of each piece of equipment must be provided to the City by the applicant.
- N-5 Sound Control Curtains and Acoustical Blankets. Flexible sound control curtains must be placed around all drilling apparatuses, drill rigs, and jackhammers when in use. Acoustical blankets (or similarly effective temporary noise barriers) must be placed along the northern and eastern project site boundaries to reduce noise transmission to existing land uses to the north and east, which are residential units along Elm Avenue and Pasadena Avenue. The equipment area with appropriate sound control curtains and the locations of acoustical blankets must be designated on building and grading plans. Equipment and shielding must remain in the designated location throughout construction activities.
- **N-6 Newest Power Construction Equipment.** The project contractor must use the newest available power construction equipment with standard recommended noise shielding and muffling devices.

# POTENTIALLY SIGNIFICANT UNLESS MITIGATION INCORPORATED

- e. For a project located in 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?

As discussed in Section 8, Hazards and Hazardous Materials, the project site is located approximately 1.3 miles to the southwest of the Long Beach Airport. The project site is not inside

the Long Beach Airport Planning Boundary or Airport Influence Area (Los Angeles County Airport Land Use Commission 2003). The project site is not in the vicinity of a private airstrip. As shown in the Long Beach Airport Influence Plan, the project site is not within the airport's 65 dBA CNEL noise contour. Airport noise conflicts would be less than significant.

# 13 Population and Housing

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
W	ould the project result in any of the following	impacts?			
a.	Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)				
b.	Displace substantial amounts of existing housing, necessitating the construction of replacement housing elsewhere				
C.	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere				

a. Would the project 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)?

The project consists of a multi-purpose gymnasium building, parking lot, and a soccer field. The project would not directly impact population growth through the increase in community service infrastructure. The DOF states that the population of Long Beach in 2017 was 480,173. SCAG estimates that the city's population will increase to 534,100 by 2035, an increase of 53,927. The project would not directly add population since the facilities are expected to service the existing community and employees would most likely come from the existing population. Since the project would not induce substantial population growth, this impact is less than significant.

## LESS THAN SIGNIFICANT IMPACT

- *b.* Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
- d. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

There are no housing units on the project site or people residing on the project site in any form of temporary housing. Therefore, since the project would not displace any existing housing units or people, there would be no impact.

# NO IMPACT

# 14 Public Services

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact

Would the project result in any of the following impacts?

а.	Wo adv the gov faci cau ord res obj	build the project result in substantial verse physical impacts associated with e provision of new or physically altered vernmental facilities, or the need for w or physically altered governmental ilities, the construction of which could use significant environmental impacts, in ler to maintain acceptable service ratios, ponse times or other performance ectives for any of the public services:			
	1.	Fire protection		•	
	2.	Police protection		-	
	3.	Schools		-	
	4.	Parks			•
	5.	Other public facilities			

# a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 fire protection?

Fire protection is provided by the Long Beach Fire Department (LBFD) and the Los Angeles County Fire Department (LACFD). The Fire Departments provide medical, paramedic, and other first aid rescue service. The LBFD and the LACFD would be required to sign off on project activities prior to implementation of the portions project that are in their respective jurisdictions.

The fire station closest to the site is Fire Station 7, located at 2295 23rd Street, approximately one mile south of the site. The site is in the existing service area of the LBFD and LACFD and on-site construction would comply with applicable Fire Code requirements. The project would be required to comply with the California Fire Code and the Uniform Building Code and the site is in the existing service area of the LBFD. Therefore, the project would not significantly affect community fire protection services or result in the need for construction of fire protection facilities.

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 police protection?

Police protection is provided by the Long Beach Police Department (LBPD) and the Los Angeles County Sheriff's Department (LACSD). The project would increase the number of buildings on the site and the programs offered would incrementally increase police demand on the site. However, the project site is in the LBPD and LACSD service areas and, thus, would not create the need for new or expanded police protection facilities.

# LESS THAN SIGNIFICANT IMPACT

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 schools?

The Long Beach Unified School District (LBUSD) provides primary and secondary public education services to students living in the local area. The LBUSD currently provides services for 84 schools ranging from pre-K to high school (LBUSD 2015).

The project does not include any housing that would directly add students to the school district. Regardless, in accordance with State law, the applicant would be required to pay school impact fees. Pursuant to Section 65995 (3)(h) of the California Government Code (Senate Bill 50, chaptered August 27, 1998), the payment of statutory fees "...is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization." Thus, payment of development fees is considered full mitigation for the modified project's impacts under CEQA.

## LESS THAN SIGNIFICANT IMPACT

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 parks?

The project consists of building a multi-purpose gymnasium building, parking lot, and a soccer field. While the project would add additional jobs to the site, it would not directly add residents to the area that would increase demand for parks. The project includes a gymnasium and soccer field that would be available for use by residents of the area. No impact to parks would occur.

## **NO IMPACT**

a.5. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 other public facilities?

The closest public library branch is the Long Beach Public Library – Dana Branch, approximately one mile away, located at 3680 Atlantic Ave. The project includes the development of a multi-purpose gymnasium, parking lot, and soccer field. These types of uses do not cause a significant increase in the demand for libraries. Since the project would not necessitate the construction of new library facilities, and would not adversely affect the existing facilities servicing the project, this impact would be less than significant.

Impacts to other public facilities (e.g., sewer, storm drains, and roadways) are discussed in Sections 16, Transportation/Traffic, and Section 17, Utilities and Public Services, of this Initial Study.

# 15 Recreation

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project result in any of the following	impacts?			
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	П	П	П	_
			-	_	_

- 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?

The City owns and operates approximately 3,100 acres of public land for recreation, including community parks, neighborhood parks, sports parks, open spaces, beaches, community centers, and marinas. The park closest to the proposed site is the Stearns Champions Park, which is a quarter mile southeast of the site. The city's estimated 2017 population is 480,173 (DOF 2017). The ratio of public parks to residents in the city is 6.4 acres of parkland for every 1,000 residents, which is less than the City's goal to achieve and maintain a ratio of eight acres of parkland per 1,000 residents, but greater than the standard ratio of three acres of parkland for every 1,000 residents used by the Quimby Act.

The project includes a gymnasium and soccer field. The project would provide additional recreational facilities for the surrounding community and would not cause deterioration of existing parks.

# NO IMPACT

# 16 Transportation

	папэропацон				
		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project result in any of the following	impacts?			
a.	Conflict with an applicable plan, ordinance or policy establishing a measure 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 use (e.g., farm equipment)?				
e.	Result in inadequate emergency access?			•	
f.	Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?				

a. Would the project conflict with an applicable plan, ordinance or policy establishing a measure 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?

Construction of the project would generate temporary construction-related traffic, such as deliveries of equipment and materials to the project site and construction worker traffic. Construction traffic would be limited and temporary, and would not be substantial in relation to the existing traffic load and capacity of the street system.

The project would generate traffic during operation. Linscott, Law, and Greenspan (LLG) conducted a Traffic Impact Analysis (TIA) for the project in December 2016 (Appendix C). The total number of forecasted trips is shown in Table 11.

	We		
ITE Land Use	AM	РМ	Total Daily Trips
448: Soccer Complex	2	18	71
495: Recreational Community Center	50	67	832
Source: LLG 2016 (Appendix C)			

# Table 11 Estimated Project Traffic Trip Generation

The increase in the amount of trips due to the project has the potential to affect existing intersections and streets around the project site. The Intersection Capacity Utilization (ICU) Method of Analysis is intended for signalized intersections and estimates volume to capacity ratios. The ICU value translates to a Level of Service (LOS) estimate, which is a relative measure of intersection performance. Levels range from A- F, based on their performance, with A levels associated with excellent timing and low wait, and F levels for failing, delayed intersection. According to the City of Long Beach General Plan, LOS D is the minimum acceptable condition that should be maintained during the peak commute hours or the current LOS if the existing LOS is worse than LOS D (i.e., E or F). The LOS determinations and second per vehicle delays are shown below in Table 12.

As shown below in Table 12, a significant impact would occur at Pasadena Avenue at Spring Street due to the increase in delay. This intersection satisfies the peak hour signal warrant under existing traffic conditions. Through discussion with the City of Long Beach Public Works Department, mitigation measure T-1 has been developed and would mitigate potential impacts. The other five studied intersections would continue to operate at acceptable LOS and maintain acceptable ratios of delay and would not require any mitigation. As a result, this impact would be less than significant with implementation of mitigation measure T-1.

			Existing Plus	Significan	t Impact
Key Intersection	Time Period	Existing Conditions LOS	Project Conditions LOS	Increase s/v	Yes/No
Long Beach Boulevard at 31 <sup>st</sup> Street	AM	D	D	0.0	No
	PM	F	F	0.0	No
Long Beach Boulevard at Spring Street	AM	С	С	0.0	No
	PM	D	D	0.0	No
Pacific Avenue at Spring Street	AM	С	С	0.0	No
	PM	С	С	0.0	No
Elm Avenue at Spring Street	AM	В	-	-	-
	PM	В			
Pasadena Avenue at Spring Street	AM	E	E	0.0	No
	PM	F	F	8.5	Yes
Atlantic Avenue at Spring Street	AM	С	С	0.0	No
	PM	D	D	0.0	No

## Table 12 Existing Plus Project Peak Hour Intersection Capacity

- Not Applicable as the vacation of Elm Avenue would turn Elm into a Cul-de-sac and eliminate the intersection For more information See Appendix C

Cumulative traffic conditions were also analyzed in the TIA, and a list of nine projects were used in addition to this project. Using the same LOS and delay factor analysis used above, the project would significantly impact the Pasadena at Spring Street intersection. The project is forecasted to degrade the LOS to level F during PM peak hours.

Cumulative traffic conditions for year 2018 were also analyzed. The cumulative plus project conditions in 2018 would significantly impact the same Pasadena Ave at Spring Street intersection. The cumulative plus project would degrade the LOS to F during the PM peak hours. The implementation of mitigation measure T-1 would improve the cumulative plus project conditions to a less than significant level.

# **Mitigation Measure**

The following mitigation measure would be required to reduce impacts at the Pasadena Avenue at Spring Street intersection to a less than significant level.

T-1 Fair Share Fees. The applicant shall pay fair share fees to offset the incremental contribution of their project to identified traffic impacts. These fees may include, but are not limited to a form of first/last mile improvements connecting to blue line stations or bike projects within the City. A funding mechanism shall be established as a condition of project approval. Fee payment shall occur prior to issuance of building permits.

## POTENTIALLY SIGNIFICANT UNLESS MITIGATION INCORPORATED

b. Would the project 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?

The Congestion Management Program (CMP) was created as a result of Proposition 111 and been implemented locally by the Los Angeles County Metropolitan Transportation Authority (LACMTA). As required by the CMP for Los Angeles County, a review must be done to determine if a project must undergo a CMP traffic impact analysis.

The project's trip generation would not add more than 150 trips in either direction at the 1066 CMP monitored station during the weekday AM or PM hours. A CMP analysis is not required for projects adding less than 150 trips in either direction. Also, the project would not add more than 50 trips at the 37 identified CMP monitored intersection during weekday a.m. or p.m. hours. A CMP analysis is not required (LLG 2016). Since the project would not conflict with an applicable congestion management program, this impact would be less than significant.

# LESS THAN SIGNIFICANT IMPACT

c. Would the project 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?

As discussed in Section 8, Hazards and Hazardous Materials, and Section 12, Noise, the project site is located approximately 1.3 miles to the southwest of the Long Beach Airport. The proposed multipurpose building would have a maximum height of two stories tall (36 feet) and would not impact airport operations, alter air traffic patterns or in any way conflict with established Federal Aviation Administration (FAA) flight protection zones. No impact would occur.

## **NO IMPACT**

- d. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?
- e. Would the project result in inadequate emergency access?

Major boulevards are primarily used for travel between cities and neighborhoods. Adjacent to the project site, Long Beach Boulevard is a four-lane road with right and left turn lanes. East Spring Street also borders the project site and is similar in size.

The vehicular access to the site would be provided via existing driveways on both Long Beach Boulevard and East Spring Street, and a proposed driveway located on Pasadena Avenue. Based on the TIA, the project driveways are forecasted to operate at acceptable LOS B or better during both the AM and PM peak hours for existing plus project, as well as Year 2018 plus project traffic conditions. Therefore, project access would be adequate, and impacts would be less than significant.

The project includes closing an alley between the East 31st Street and East Spring Street to create a pedestrian promenade. The project includes closing Elm Avenue adjacent to the project site. Emergency vehicle access would be maintained by installing a gate at each end of the closure. In addition, a hammerhead turn would be installed on Elm Avenue, east of the proposed gymnasium. This would provide easier emergency access to the site, and the gymnasium facility. Therefore, the project would not increase hazards and emergency access issues would not occur.

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

The project site is located in an area already served by public transportation and bicycle programs. Pedestrian circulation would be provided via existing public sidewalks along East Spring Street and Long Beach Boulevard near the project. These sidewalks would connect to the project's internal walkways. The existing sidewalk system in the project vicinity provides direct connectivity to the adjacent residential community, commercial development, and public transit along Long Beach Boulevard.

The City of Long Beach promotes bicycling as a means of mobility and a way in which to improve quality of life in the community. East Spring Street has bike lanes on both sides of the road adjacent to the project site and is currently a Class II bicycle route. The project proposes new routes including a Class III route on Long Beach Boulevard. See Appendix C for further information regarding bikeway facilities. The site is also located directly adjacent to a bus stop that is served by bus lines 51 and 52.

The existing transit service in the project area would be able to accommodate the project generated trips. The project would generate on average less than one new boarding per bus in the a.m. and p.m. peak hours (LLG 2016). Therefore, given the number of transit trips generated, the system would not be significantly impacted by the project.

The project would not affect or conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities.

# 17 Tribal Cultural Resources

	Potentially Significant		
Potentially	Unless	Less than	
Significant	Mitigation	Significant	
Impact	Incorporated	Impact	No Impact

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



a., b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is (a) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or (b) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 2024.1?

Tribal cultural resources are defined in Public Resources Code 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either:

- Included or determined to be eligible for inclusion in the California Register of Historical Resources
- Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1

AB 52 consultation letters were sent out to 5 tribal councils based on a list provided by the Native American Heritage Commission. The letters were sent via both email and certified email on January 29, 2018. Copies of the letters have been included as Appendix D to this Initial Study. A response letter was received from Andrew Salas of the Gabrieleno Band of Mission Indians on February 7, 2018. The letter requested that a Native American monitor be present on site during grounddisturbing activities . The project involves ground-disturbing activity. Therefore, a Native American Monitor shall be on site during all ground-disturbing activities. Mitigation measures TCR-1 and TCR-2 below have been designed in order to mitigate potential impacts.

# **Mitigation Measures**

With the oversight and monitoring by a Native American monitor, the potential to disrupt tribal cultural resources would be less than significant. The following mitigation measures would be required to reduce impacts of impacting tribal cultural resources to a less than significant level.

- TCR-1 Native American Monitoring. Prior to issuance of any Grading Permit for the project, the City of Long Beach Development Services Department shall ensure that the construction contractor provide access for Native American monitoring during ground-disturbing activities. The provision shall be included on project plans and specifications. The site shall be made accessible to any Native American tribe requesting to be present, provided adequate notice is given to the construction contractor and that a construction safety hazard does not occur. The monitor(s) shall be approved by a local tribal representative and shall be present on-site during the construction phases that involve ground disturbing activities. The monitor(s) shall possess Hazardous Waste Operations and Emergency Response (HAZWOPER) certification. In addition, the monitor(s) shall be required to provide insurance certificates, including liability insurance, for any archaeological resource(s) encountered during grading and excavation activities pertinent to the provisions outlined in the California Environmental Quality Act (CEQA), California Public Resources Code Division 13, Section 21083.2 (a) through (k). Neither the City of Long Beach, the project applicant, or construction contractor shall be financially obligated for any monitoring activities. If evidence of any tribal cultural resources is found during ground-disturbing activities, the monitor(s) shall have the capacity to halt construction in the immediate vicinity of the find, in order to recover and/or determine the appropriate plan of recovery for the resource. The recovery process shall not unreasonably delay the construction process. The on-site monitoring shall end when the project site grading and excavation activities are completed, or when the monitor has indicated that the site has a low potential for archaeological resources.
- **TCR-2 Recovery Procedures.** All archaeological resources unearthed by project construction activities shall be evaluated by the qualified archaeologist and Native American monitor. If the resources are Native American in origin, the tribe shall coordinate with the landowner regarding treatment and curation of these resources. The treatment plan established for the resources shall be in accordance with California Environmental Quality Act (CEQA) Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) shall be the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis.

# POTENTIALLY SIGNIFICANT UNLESS MITIGATION INCORPORATED

# 18 Utilities and Service Systems

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project result in any of the following	impacts?			
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. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- b. Would the project 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?
- e. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Currently, a majority of the city's wastewater is delivered to the Joint Water Pollution Control Plant (JWPCP) of the Los Angeles County Sanitation Districts. The remaining portion of the city's wastewater is delivered to the Long Beach Water Reclamation Plant of the Sanitation Districts of Los Angeles County. The JWPCP provides advanced primary and partial secondary treatment for 250 million gallons of wastewater per day (mgd), with a permitted capacity for 400 mgd of wastewater (2016). The Long Beach Water Reclamation Plant provides primary, secondary, and tertiary treatment for 25 mgd of wastewater (Sanitation Districts of Los Angeles County 2015).

Generation rates based on the project uses are calculated below in Table 13. Based on wastewater generation rates developed by the Sanitation Districts of Los Angeles County (2006), the proposed project would generate an estimated net total of 1,792 gallons of wastewater per day (gpd).

Land Use	Quantity	Generation Factor	Amount (gpd)*
Proposed			
Gymnasium	22,391 sf	80 gal/1,000 sf	1,792
Total			1,792
gpd = gallons per day			

## Table 13 Estimated Wastewater Generation

Soccer field and parking lot uses not included as these would not generate wastewater.

Source: Sanitation Districts of Los Angeles County 2006.

The increase associated with the project constitutes less than 0.1 percent of the available daily capacity. Thus, the project would not exceed wastewater treatment requirements, exceed the capacity of the city's wastewater systems, or require the construction of new wastewater treatment facilities, and impacts would be less than significant.

# LESS THAN SIGNIFICANT IMPACT

c. Would the project 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?

As discussed in Section 9, Hydrology and Water Quality, the project includes bio filtration planting areas as well as an underground pipe collector system and comply with State and Local storm water regulations. Therefore, since the site would not increase runoff from the site and would not require the construction of new storm water drainage facilities or expansion of existing facilities, impacts would be less than significant.

# d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The City of Long Beach's 2015 Urban Water Management Plan (UWMP) reports total citywide water demand for 2015 at 55,206 acre feet. This is projected to increase by 3,900 acre feet (or 7.1 percent) to 59,106 acre feet in 2040. Adequate water supplies are identified in the UWMP to meet future demand. Long Beach Board of Water Commissioners declared a Stage 1 Water Supply Shortage on November 20, 2014 for the City of Long Beach. This declaration put into place regulations that limit the use of water in the city including when landscaping can be watered, when and how residential swimming pools can be filled, limit the use of water by restaurants, among other requirements.

Water demand is estimated to be 120 percent of the wastewater generated by the project. Based on the project's estimated wastewater generation, the project's water demand is estimated at 2,150 gpd (0.006 acre foot per day or 2.41 acre feet per year). The proposed parking lot and soccer field were not evaluated as water demanding land uses, as these uses would not generate wastewater or require consistent water supplies. Based on the Urban Water Management Plan, commercial entities demanded 14,359 acre feet in 2015. Projections expect this to increase to 16,374 acre feet by 2040. Project water demand would represent approximately 0.01 percent of the forecast citywide commercial increase in water demand, and the projected water demand is within forecasted water supply. According to the Long Beach UWMP, the City expects to meet project demand needs for the next 25 years (UWMP 2015). Based on the project's incremental contribution to future demand, new sources of water supply would be not required to meet project water needs. Since sufficient water supplies are available to service the project, this impact would be less than significant.

# LESS THAN SIGNIFICANT IMPACT

- *f.* Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
- g. Would the project comply with federal, state, and local statutes and regulations related to solid waste?

The project involves vacating portions of Elm and Pasadena Avenues and construction of a multipurpose gymnasium building, parking lot, and a soccer field. CalRecycle maintains a waste characterization list of waste generation rates. The most recent information for public/institutional projects indicates a waste generation rate of 0.007 pounds of waste per square foot per day (CalRecycle 2016). The 22,391 square foot gymnasium building would generate solid waste. The proposed soccer field and 70-space parking lot were not included because these land uses would not generate continuous streams of solid waste. Based on the rate of 0.007 pound of waste per square foot per day, the project would generate a net amount of 157 pounds per day or 0.07 ton per day. This increase would be within the capacity of Scholl Canyon Landfill, which currently receives 1,400 tons per day, with 2,000 tons per day of capacity available (Scholl Canyon Expansion Draft EIR 2014). Based on the disposal capacity of landfills serving the project site, this incremental increase in solid waste generation would not affect the availability of solid waste disposal capacity and impacts would be less than significant.

# 19 Mandatory Findings of Significance

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a.	Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, 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? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?		•		
c.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				

a. Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, 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?

As discussed in Section 4, Biological Resources, the project site and surrounding area contains trees that could possibly be used by birds for nesting. These trees would be adjacent to nearby construction and have a potential impact on nesting birds. Mitigation measure BIO-1 would reduce these impacts to less than significant. As discussed in Section 5, Cultural Resources, the project would involve disturbance of soils on the site which could potentially disturb cultural or archaeological resources. Incorporation of mitigation measures CR-1 and CR-2 would reduce this potential impact to a less than significant level. As discussed further in Section 17, Tribal Cultural Resources, the project has the potential to affect tribal cultural resources. A Native American

Monitor shall be on site during all ground disturbing activities. Mitigation Measures TCR-1 and TCR-2 would reduce potential impacts to a less than significant level.

# POTENTIALLY SIGNIFICANT UNLESS MITIGATION INCORPORATED

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

As described in the discussion of environmental checklist Sections 1 through 18, the project would have no impact, a less than significant impact, or a less than significant impact after mitigation with respect to all environmental issues. The project would be consistent with the current General Plan land use designation for the site as well as the land use pattern in the project site vicinity. A cumulative project list for projects in the vicinity of the project is provided in the TIA prepared by LLG (Appendix C). There are five planned or pending projects nearby in the city of Long Beach, and four nearby in the city of Signal Hill. As discussed in Section 16, Transportation, cumulative traffic conditions were analyzed and determined to be potentially significant unless mitigated. With the implementation of mitigation measure T-1, impacts would be less than significant. Due to the developed nature of Long Beach, these additional projects would not create cumulative impacts in respect to the other issue areas.

## POTENTIALLY SIGNIFICANT UNLESS MITIGATION INCORPORATED

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

The project has been found in this Initial Study to have less than significant impacts to human health. As discussed in Section 12, Noise, although some construction noise and vibration may occur during daylight hours, mitigation measures N-1 through N-6 would reduce impacts to a less than significant level. The project would less than significant amounts of criteria pollutants during construction, however the amounts of pollutants are under SCAQMD thresholds, and are less than significant. Hazards and Hazardous Materials are discussed in Section 8 and all impacts would be less than significant. Overall impacts associated with operation of the project would remain similar to current conditions. Therefore, the project would not have an adverse effect on human beings, and this impact would be less than significant.

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Appendix A

CalEEMod Results - Air Quality and Greenhouse Gas

Long Beach Citadel - Los Angeles-South Coast County, Annual

# Long Beach Citadel

Los Angeles-South Coast County, Annual

# **1.0 Project Characteristics**

# 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	70.00	Space	0.63	28,000.00	0
Golf Course	0.86	Acre	0.86	37,461.60	0
Health Club	22.40	1000sqft	0.51	22,400.00	0

# **1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2021
Utility Company	Southern California Edisor	1			
CO2 Intensity (Ib/MWhr)	702.44	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity 0 (Ib/MWhr)	0.006

# 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Soccer Field inputted as Golf Course, Gymnasium inputted as Health Club

Construction Phase - Phases default. No demo, arch coating extended to 20 days

Architectural Coating - SCAQMD Rule 1113

Vehicle Trips - Trip Generation from Traffic Study

Construction Off-road Equipment Mitigation - Water 2x

Area Mitigation - no hearth. low VOC paint - SCAQMD Rule 1113

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Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorV alue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorV alue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	200.00	220.00
tblConstructionPhase	NumDays	20.00	1.00
tblConstructionPhase	NumDays	4.00	7.00
tblConstructionPhase	NumDays	2.00	3.00
tblConstructionPhase	PhaseEndDate	12/10/2019	12/24/2019
tblConstructionPhase	PhaseEndDate	11/12/2019	11/14/2019
tblConstructionPhase	PhaseEndDate	1/28/2019	1/1/2019
tblConstructionPhase	PhaseEndDate	2/5/2019	1/11/2019
tblConstructionPhase	PhaseEndDate	11/26/2019	11/27/2019
tblConstructionPhase	PhaseEndDate	1/30/2019	1/3/2019
tblConstructionPhase	PhaseStartDate	2/6/2019	1/11/2019
tblConstructionPhase	PhaseStartDate	1/31/2019	1/3/2019
tblConstructionPhase	PhaseStartDate	11/13/2019	11/14/2019
tblConstructionPhase	PhaseStartDate	1/29/2019	1/1/2019
tblGrading	AcresOfGrading	3.50	2.00
tblGrading	AcresOfGrading	4.50	3.00
tblProjectCharacteristics	OperationalYear	2018	2021

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tblVehicleTrips	WD_TR	5.04	71.30
tblVehicleTrips	WD_TR	32.93	33.80

# 2.0 Emissions Summary
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# Long Beach Citadel - Los Angeles-South Coast County, Annual

# 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					ton	s/yr							MT	/yr		
2019	0.3837	2.4843	2.0601	3.8900e- 003	0.0802	0.1321	0.2123	0.0271	0.1263	0.1534	0.0000	335.5304	335.5304	0.0582	0.0000	336.9843
Maximum	0.3837	2.4843	2.0601	3.8900e- 003	0.0802	0.1321	0.2123	0.0271	0.1263	0.1534	0.0000	335.5304	335.5304	0.0582	0.0000	336.9843

# 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					ton	s/yr							МТ	/yr		
2019	0.3837	2.4843	2.0600	3.8900e- 003	0.0672	0.1321	0.1992	0.0206	0.1263	0.1469	0.0000	335.5301	335.5301	0.0582	0.0000	336.9840
Maximum	0.3837	2.4843	2.0600	3.8900e- 003	0.0672	0.1321	0.1992	0.0206	0.1263	0.1469	0.0000	335.5301	335.5301	0.0582	0.0000	336.9840

	ROG	NOx	со	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	16.27	0.00	6.15	24.07	0.00	4.26	0.00	0.00	0.00	0.00	0.00	0.00

# Long Beach Citadel - Los Angeles-South Coast County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2019	3-31-2019	0.7856	0.7856
2	4-1-2019	6-30-2019	0.7627	0.7627
3	7-1-2019	9-30-2019	0.7711	0.7711
		Highest	0.7856	0.7856

# 2.2 Overall Operational

# Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr												MT	/yr		
Area	0.0940	1.0000e- 005	1.1900e- 003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3100e- 003	2.3100e- 003	1.0000e- 005	0.0000	2.4700e- 003
Energy	2.1900e- 003	0.0199	0.0168	1.2000e- 004		1.5200e- 003	1.5200e- 003		1.5200e- 003	1.5200e- 003	0.0000	110.2792	110.2792	4.0700e- 003	1.1500e- 003	110.7251
Mobile	0.2045	0.9879	2.3886	7.7400e- 003	0.6045	6.7300e- 003	0.6112	0.1620	6.2800e- 003	0.1683	0.0000	714.5997	714.5997	0.0403	0.0000	715.6073
Waste	n					0.0000	0.0000		0.0000	0.0000	26.0803	0.0000	26.0803	1.5413	0.0000	64.6128
Water	n					0.0000	0.0000		0.0000	0.0000	0.4203	11.9979	12.4182	0.0437	1.1200e- 003	13.8441
Total	0.3007	1.0079	2.4066	7.8600e- 003	0.6045	8.2500e- 003	0.6127	0.1620	7.8000e- 003	0.1698	26.5006	836.8790	863.3796	1.6294	2.2700e- 003	904.7917

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# Long Beach Citadel - Los Angeles-South Coast County, Annual

# 2.2 Overall Operational

# Mitigated Operational

	ROG	NOx	C	0	SO2	Fugit PM	ive 10	Exhaust PM10	PM10 Total	Fugi PM	itive I I2.5	Exhaust PM2.5	PM2.5 Total	В	Bio- CO2	NBio- CO2	Total C	02	CH4	N2O	CO2	2e
Category							tons	s/yr										MT/yr				
Area	0.0886	1.0000¢ 005	- 1.19 00	00e- )3	0.0000			0.0000	0.0000			0.0000	0.0000		0.0000	2.3100e- 003	2.310 003	)e- 1.(	0000e- 005	0.0000	2.470 003	)0e- 3
Energy	2.1900e- 003	0.0199	0.0	168	1.2000e- 004	 - - -		1.5200e- 003	1.5200e- 003		1	1.5200e- 003	1.5200e 003	-	0.0000	110.2792	110.27	/92 4.(	0700e- 003	1.1500e- 003	110.7	251
Mobile	0.2045	0.9879	2.38	386	7.7400e- 003	0.60	45	6.7300e- 003	0.6112	0.1	620 6	6.2800e- 003	0.1683		0.0000	714.5997	714.59	97 0	.0403	0.0000	715.6	073
Waste	f;					 - - -		0.0000	0.0000			0.0000	0.0000	2	26.0803	0.0000	26.08	03 1.	.5413	0.0000	64.61	128
Water	f;					     		0.0000	0.0000			0.0000	0.0000		0.4203	11.9979	12.41	82 0	.0437	1.1200e- 003	13.84	441
Total	0.2953	1.0079	2.40	066	7.8600e- 003	0.60	45	8.2500e- 003	0.6127	0.1	620 7	7.8000e- 003	0.1698	2	26.5006	836.8790	863.37	<b>796 1</b> .	.6294	2.2700e- 003	904.7	917
	ROG		NOx	CC	D S	02	Fugit PM	tive Exh 10 Pl	aust F M10	M10 Fotal	Fugitiv PM2.	/e Exi 5 P	naust F M2.5	PM2.5 Total	Bio- (	CO2 NBio	-CO2 T	otal CO2	2 CH	4 N	20	CO2e
Percent Reduction	1.79		0.00	0.0	0 0	.00	0.0	0 0	.00	0.00	0.00	(	).00	0.00	0.0	0 0.	00	0.00	0.0	0 0	.00	0.00

# **3.0 Construction Detail**

**Construction Phase** 

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	1/1/2019	5	1	
2	Site Preparation	Site Preparation	1/1/2019	1/3/2019	5	3	
3	Grading	Grading	1/3/2019	1/11/2019	5	7	
4	Building Construction	Building Construction	1/11/2019	11/14/2019	5	220	
5	Paving	Paving	11/14/2019	11/27/2019	5	10	
6	Architectural Coating	Architectural Coating	11/27/2019	12/24/2019	5	20	

Acres of Grading (Site Preparation Phase): 3

Acres of Grading (Grading Phase): 2

Acres of Paving: 0.63

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 33,600; Non-Residential Outdoor: 11,200; Striped Parking Area: 1,680 (Architectural Coating – sqft)

OffRoad Equipment

Long Beach Citadel - Los Angeles-South Coast County, Annual
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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

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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
Architectural Coating	1	7.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	37.00	14.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

# **3.1 Mitigation Measures Construction**

Water Exposed Area

Clean Paved Roads

## 3.2 Demolition - 2019

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					ton	s/yr							МТ	/yr		
Off-Road	1.1500e- 003	0.0113	7.4500e- 003	1.0000e- 005		6.4000e- 004	6.4000e- 004		6.0000e- 004	6.0000e- 004	0.0000	1.0708	1.0708	2.7000e- 004	0.0000	1.0776
Total	1.1500e- 003	0.0113	7.4500e- 003	1.0000e- 005		6.4000e- 004	6.4000e- 004		6.0000e- 004	6.0000e- 004	0.0000	1.0708	1.0708	2.7000e- 004	0.0000	1.0776

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# 3.2 Demolition - 2019

# Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e- 005	3.0000e- 005	3.0000e- 004	0.0000	7.0000e- 005	0.0000	7.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0685
Total	3.0000e- 005	3.0000e- 005	3.0000e- 004	0.0000	7.0000e- 005	0.0000	7.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0685

# Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	1.1500e- 003	0.0113	7.4500e- 003	1.0000e- 005		6.4000e- 004	6.4000e- 004		6.0000e- 004	6.0000e- 004	0.0000	1.0708	1.0708	2.7000e- 004	0.0000	1.0776
Total	1.1500e- 003	0.0113	7.4500e- 003	1.0000e- 005		6.4000e- 004	6.4000e- 004		6.0000e- 004	6.0000e- 004	0.0000	1.0708	1.0708	2.7000e- 004	0.0000	1.0776

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# 3.2 Demolition - 2019

#### 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					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e- 005	3.0000e- 005	3.0000e- 004	0.0000	7.0000e- 005	0.0000	7.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0685
Total	3.0000e- 005	3.0000e- 005	3.0000e- 004	0.0000	7.0000e- 005	0.0000	7.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0685

3.3 Site Preparation - 2019

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					ton	s/yr							MT	/yr		
Fugitive Dust					1.5900e- 003	0.0000	1.5900e- 003	1.7000e- 004	0.0000	1.7000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6300e- 003	0.0323	0.0179	4.0000e- 005		1.2800e- 003	1.2800e- 003		1.1800e- 003	1.1800e- 003	0.0000	3.3020	3.3020	1.0400e- 003	0.0000	3.3281
Total	2.6300e- 003	0.0323	0.0179	4.0000e- 005	1.5900e- 003	1.2800e- 003	2.8700e- 003	1.7000e- 004	1.1800e- 003	1.3500e- 003	0.0000	3.3020	3.3020	1.0400e- 003	0.0000	3.3281

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# 3.3 Site Preparation - 2019

## Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	'/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e- 005	5.0000e- 005	5.4000e- 004	0.0000	1.3000e- 004	0.0000	1.3000e- 004	3.0000e- 005	0.0000	4.0000e- 005	0.0000	0.1264	0.1264	0.0000	0.0000	0.1265
Total	6.0000e- 005	5.0000e- 005	5.4000e- 004	0.0000	1.3000e- 004	0.0000	1.3000e- 004	3.0000e- 005	0.0000	4.0000e- 005	0.0000	0.1264	0.1264	0.0000	0.0000	0.1265

# 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					ton	s/yr							МТ	ī/yr		
Fugitive Dust					7.2000e- 004	0.0000	7.2000e- 004	8.0000e- 005	0.0000	8.0000e- 005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6300e- 003	0.0323	0.0179	4.0000e- 005		1.2800e- 003	1.2800e- 003		1.1800e- 003	1.1800e- 003	0.0000	3.3020	3.3020	1.0400e- 003	0.0000	3.3281
Total	2.6300e- 003	0.0323	0.0179	4.0000e- 005	7.2000e- 004	1.2800e- 003	2.0000e- 003	8.0000e- 005	1.1800e- 003	1.2600e- 003	0.0000	3.3020	3.3020	1.0400e- 003	0.0000	3.3281

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# 3.3 Site Preparation - 2019

# Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e- 005	5.0000e- 005	5.4000e- 004	0.0000	1.3000e- 004	0.0000	1.3000e- 004	3.0000e- 005	0.0000	4.0000e- 005	0.0000	0.1264	0.1264	0.0000	0.0000	0.1265
Total	6.0000e- 005	5.0000e- 005	5.4000e- 004	0.0000	1.3000e- 004	0.0000	1.3000e- 004	3.0000e- 005	0.0000	4.0000e- 005	0.0000	0.1264	0.1264	0.0000	0.0000	0.1265

3.4 Grading - 2019

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					ton	s/yr							МТ	/yr		
Fugitive Dust					0.0221	0.0000	0.0221	0.0117	0.0000	0.0117	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1000e- 003	0.0796	0.0355	7.0000e- 005		3.7600e- 003	3.7600e- 003		3.4500e- 003	3.4500e- 003	0.0000	6.4813	6.4813	2.0500e- 003	0.0000	6.5326
Total	7.1000e- 003	0.0796	0.0355	7.0000e- 005	0.0221	3.7600e- 003	0.0259	0.0117	3.4500e- 003	0.0152	0.0000	6.4813	6.4813	2.0500e- 003	0.0000	6.5326

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# 3.4 Grading - 2019

## Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e- 004	1.5000e- 004	1.5900e- 003	0.0000	3.8000e- 004	0.0000	3.9000e- 004	1.0000e- 004	0.0000	1.0000e- 004	0.0000	0.3687	0.3687	1.0000e- 005	0.0000	0.3690
Total	1.8000e- 004	1.5000e- 004	1.5900e- 003	0.0000	3.8000e- 004	0.0000	3.9000e- 004	1.0000e- 004	0.0000	1.0000e- 004	0.0000	0.3687	0.3687	1.0000e- 005	0.0000	0.3690

# 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					ton	s/yr							МТ	ī/yr		
Fugitive Dust					9.9600e- 003	0.0000	9.9600e- 003	5.2700e- 003	0.0000	5.2700e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1000e- 003	0.0796	0.0355	7.0000e- 005		3.7600e- 003	3.7600e- 003		3.4500e- 003	3.4500e- 003	0.0000	6.4813	6.4813	2.0500e- 003	0.0000	6.5325
Total	7.1000e- 003	0.0796	0.0355	7.0000e- 005	9.9600e- 003	3.7600e- 003	0.0137	5.2700e- 003	3.4500e- 003	8.7200e- 003	0.0000	6.4813	6.4813	2.0500e- 003	0.0000	6.5325

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# 3.4 Grading - 2019

# Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	'/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e- 004	1.5000e- 004	1.5900e- 003	0.0000	3.8000e- 004	0.0000	3.9000e- 004	1.0000e- 004	0.0000	1.0000e- 004	0.0000	0.3687	0.3687	1.0000e- 005	0.0000	0.3690
Total	1.8000e- 004	1.5000e- 004	1.5900e- 003	0.0000	3.8000e- 004	0.0000	3.9000e- 004	1.0000e- 004	0.0000	1.0000e- 004	0.0000	0.3687	0.3687	1.0000e- 005	0.0000	0.3690

# 3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.2814	2.0801	1.6780	2.7500e- 003		0.1199	0.1199	1 1	0.1149	0.1149	0.0000	230.7297	230.7297	0.0480	0.0000	231.9297
Total	0.2814	2.0801	1.6780	2.7500e- 003		0.1199	0.1199		0.1149	0.1149	0.0000	230.7297	230.7297	0.0480	0.0000	231.9297

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# 3.5 Building Construction - 2019

# 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					ton	s/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	6.5200e- 003	0.1819	0.0498	4.0000e- 004	9.7000e- 003	1.1400e- 003	0.0108	2.8000e- 003	1.0900e- 003	3.8900e- 003	0.0000	38.5099	38.5099	2.5700e- 003	0.0000	38.5742
Worker	0.0204	0.0170	0.1848	4.7000e- 004	0.0446	3.9000e- 004	0.0450	0.0119	3.6000e- 004	0.0122	0.0000	42.8716	42.8716	1.4700e- 003	0.0000	42.9085
Total	0.0269	0.1989	0.2345	8.7000e- 004	0.0543	1.5300e- 003	0.0558	0.0147	1.4500e- 003	0.0161	0.0000	81.3816	81.3816	4.0400e- 003	0.0000	81.4827

# 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	s/yr							MT	/yr		
Off-Road	0.2814	2.0801	1.6780	2.7500e- 003		0.1199	0.1199		0.1149	0.1149	0.0000	230.7295	230.7295	0.0480	0.0000	231.9294
Total	0.2814	2.0801	1.6780	2.7500e- 003		0.1199	0.1199		0.1149	0.1149	0.0000	230.7295	230.7295	0.0480	0.0000	231.9294

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# 3.5 Building Construction - 2019

# Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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	6.5200e- 003	0.1819	0.0498	4.0000e- 004	9.7000e- 003	1.1400e- 003	0.0108	2.8000e- 003	1.0900e- 003	3.8900e- 003	0.0000	38.5099	38.5099	2.5700e- 003	0.0000	38.5742
Worker	0.0204	0.0170	0.1848	4.7000e- 004	0.0446	3.9000e- 004	0.0450	0.0119	3.6000e- 004	0.0122	0.0000	42.8716	42.8716	1.4700e- 003	0.0000	42.9085
Total	0.0269	0.1989	0.2345	8.7000e- 004	0.0543	1.5300e- 003	0.0558	0.0147	1.4500e- 003	0.0161	0.0000	81.3816	81.3816	4.0400e- 003	0.0000	81.4827

3.6 Paving - 2019

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					ton	s/yr							МТ	/yr		
Off-Road	6.2300e- 003	0.0628	0.0593	9.0000e- 005		3.6500e- 003	3.6500e- 003		3.3600e- 003	3.3600e- 003	0.0000	7.9208	7.9208	2.4600e- 003	0.0000	7.9823
Paving	8.3000e- 004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	7.0600e- 003	0.0628	0.0593	9.0000e- 005		3.6500e- 003	3.6500e- 003		3.3600e- 003	3.3600e- 003	0.0000	7.9208	7.9208	2.4600e- 003	0.0000	7.9823

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# 3.6 Paving - 2019

# Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e- 004	3.1000e- 004	3.4000e- 003	1.0000e- 005	8.2000e- 004	1.0000e- 005	8.3000e- 004	2.2000e- 004	1.0000e- 005	2.2000e- 004	0.0000	0.7900	0.7900	3.0000e- 005	0.0000	0.7907
Total	3.8000e- 004	3.1000e- 004	3.4000e- 003	1.0000e- 005	8.2000e- 004	1.0000e- 005	8.3000e- 004	2.2000e- 004	1.0000e- 005	2.2000e- 004	0.0000	0.7900	0.7900	3.0000e- 005	0.0000	0.7907

# 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					ton	s/yr							МТ	/yr		
Off-Road	6.2300e- 003	0.0628	0.0593	9.0000e- 005		3.6500e- 003	3.6500e- 003		3.3600e- 003	3.3600e- 003	0.0000	7.9208	7.9208	2.4600e- 003	0.0000	7.9823
Paving	8.3000e- 004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	7.0600e- 003	0.0628	0.0593	9.0000e- 005		3.6500e- 003	3.6500e- 003		3.3600e- 003	3.3600e- 003	0.0000	7.9208	7.9208	2.4600e- 003	0.0000	7.9823

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# 3.6 Paving - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e- 004	3.1000e- 004	3.4000e- 003	1.0000e- 005	8.2000e- 004	1.0000e- 005	8.3000e- 004	2.2000e- 004	1.0000e- 005	2.2000e- 004	0.0000	0.7900	0.7900	3.0000e- 005	0.0000	0.7907
Total	3.8000e- 004	3.1000e- 004	3.4000e- 003	1.0000e- 005	8.2000e- 004	1.0000e- 005	8.3000e- 004	2.2000e- 004	1.0000e- 005	2.2000e- 004	0.0000	0.7900	0.7900	3.0000e- 005	0.0000	0.7907

3.7 Architectural Coating - 2019

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					ton	s/yr							МТ	/yr		
Archit. Coating	0.0539					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e- 003	0.0184	0.0184	3.0000e- 005		1.2900e- 003	1.2900e- 003		1.2900e- 003	1.2900e- 003	0.0000	2.5533	2.5533	2.2000e- 004	0.0000	2.5587
Total	0.0565	0.0184	0.0184	3.0000e- 005		1.2900e- 003	1.2900e- 003		1.2900e- 003	1.2900e- 003	0.0000	2.5533	2.5533	2.2000e- 004	0.0000	2.5587

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# 3.7 Architectural Coating - 2019

# Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e- 004	2.9000e- 004	3.1800e- 003	1.0000e- 005	7.7000e- 004	1.0000e- 005	7.7000e- 004	2.0000e- 004	1.0000e- 005	2.1000e- 004	0.0000	0.7374	0.7374	3.0000e- 005	0.0000	0.7380
Total	3.5000e- 004	2.9000e- 004	3.1800e- 003	1.0000e- 005	7.7000e- 004	1.0000e- 005	7.7000e- 004	2.0000e- 004	1.0000e- 005	2.1000e- 004	0.0000	0.7374	0.7374	3.0000e- 005	0.0000	0.7380

# 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					ton	s/yr							МТ	ī/yr		
Archit. Coating	0.0539	, , ,				0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e- 003	0.0184	0.0184	3.0000e- 005		1.2900e- 003	1.2900e- 003		1.2900e- 003	1.2900e- 003	0.0000	2.5533	2.5533	2.2000e- 004	0.0000	2.5586
Total	0.0565	0.0184	0.0184	3.0000e- 005		1.2900e- 003	1.2900e- 003		1.2900e- 003	1.2900e- 003	0.0000	2.5533	2.5533	2.2000e- 004	0.0000	2.5586

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# 3.7 Architectural Coating - 2019

## 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					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e- 004	2.9000e- 004	3.1800e- 003	1.0000e- 005	7.7000e- 004	1.0000e- 005	7.7000e- 004	2.0000e- 004	1.0000e- 005	2.1000e- 004	0.0000	0.7374	0.7374	3.0000e- 005	0.0000	0.7380
Total	3.5000e- 004	2.9000e- 004	3.1800e- 003	1.0000e- 005	7.7000e- 004	1.0000e- 005	7.7000e- 004	2.0000e- 004	1.0000e- 005	2.1000e- 004	0.0000	0.7374	0.7374	3.0000e- 005	0.0000	0.7380

# 4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Mitigated	0.2045	0.9879	2.3886	7.7400e- 003	0.6045	6.7300e- 003	0.6112	0.1620	6.2800e- 003	0.1683	0.0000	714.5997	714.5997	0.0403	0.0000	715.6073
Unmitigated	0.2045	0.9879	2.3886	7.7400e- 003	0.6045	6.7300e- 003	0.6112	0.1620	6.2800e- 003	0.1683	0.0000	714.5997	714.5997	0.0403	0.0000	715.6073

# 4.2 Trip Summary Information

	Aver	age Daily Trip Ra	ite	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	61.32	5.01	5.06	110,173	110,173
Health Club	757.12	467.49	598.75	1,482,425	1,482,425
Parking Lot	0.00	0.00	0.00		
Total	818.44	472.49	603.81	1,592,598	1,592,598

# 4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
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
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

#### 4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Golf Course	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Health Club	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

# 5.0 Energy Detail

Historical Energy Use: N

# 5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	88.5717	88.5717	3.6600e- 003	7.6000e- 004	88.8885
Electricity Unmitigated	F;		,			0.0000	0.0000		0.0000	0.0000	0.0000	88.5717	88.5717	3.6600e- 003	7.6000e- 004	88.8885
NaturalGas Mitigated	2.1900e- 003	0.0199	0.0168	1.2000e- 004		1.5200e- 003	1.5200e- 003		1.5200e- 003	1.5200e- 003	0.0000	21.7075	21.7075	4.2000e- 004	4.0000e- 004	21.8365
NaturalGas Unmitigated	2.1900e- 003	0.0199	0.0168	1.2000e- 004		1.5200e- 003	1.5200e- 003		1.5200e- 003	1.5200e- 003	0.0000	21.7075	21.7075	4.2000e- 004	4.0000e- 004	21.8365

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# 5.2 Energy by Land Use - NaturalGas

# <u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							MT	ſ/yr		
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	406784	2.1900e- 003	0.0199	0.0168	1.2000e- 004		1.5200e- 003	1.5200e- 003		1.5200e- 003	1.5200e- 003	0.0000	21.7075	21.7075	4.2000e- 004	4.0000e- 004	21.8365
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		2.1900e- 003	0.0199	0.0168	1.2000e- 004		1.5200e- 003	1.5200e- 003		1.5200e- 003	1.5200e- 003	0.0000	21.7075	21.7075	4.2000e- 004	4.0000e- 004	21.8365

#### Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							МТ	'/yr		
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	406784	2.1900e- 003	0.0199	0.0168	1.2000e- 004		1.5200e- 003	1.5200e- 003		1.5200e- 003	1.5200e- 003	0.0000	21.7075	21.7075	4.2000e- 004	4.0000e- 004	21.8365
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		2.1900e- 003	0.0199	0.0168	1.2000e- 004		1.5200e- 003	1.5200e- 003		1.5200e- 003	1.5200e- 003	0.0000	21.7075	21.7075	4.2000e- 004	4.0000e- 004	21.8365

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# 5.3 Energy by Land Use - Electricity

# <u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		ΜT	7/yr	
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Health Club	253344	80.7208	3.3300e- 003	6.9000e- 004	81.0096
Parking Lot	24640	7.8508	3.2000e- 004	7.0000e- 005	7.8789
Total		88.5717	3.6500e- 003	7.6000e- 004	88.8885

# Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		Π	/yr	
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Health Club	253344	80.7208	3.3300e- 003	6.9000e- 004	81.0096
Parking Lot	24640	7.8508	3.2000e- 004	7.0000e- 005	7.8789
Total		88.5717	3.6500e- 003	7.6000e- 004	88.8885

6.0 Area Detail

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# 6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior Use Low VOC Paint - Residential Exterior Use Low VOC Paint - Non-Residential Interior Use Low VOC Paint - Non-Residential Exterior No Hearths Installed

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Mitigated	0.0886	1.0000e- 005	1.1900e- 003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3100e- 003	2.3100e- 003	1.0000e- 005	0.0000	2.4700e- 003
Unmitigated	0.0940	1.0000e- 005	1.1900e- 003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3100e- 003	2.3100e- 003	1.0000e- 005	0.0000	2.4700e- 003

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# 6.2 Area by SubCategory

# <u>Unmitigated</u>

	ROG	NOx	со	SO2	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					ton	s/yr							МТ	/yr		
Architectural Coating	0.0108					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0831					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e- 004	1.0000e- 005	1.1900e- 003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3100e- 003	2.3100e- 003	1.0000e- 005	0.0000	2.4700e- 003
Total	0.0940	1.0000e- 005	1.1900e- 003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3100e- 003	2.3100e- 003	1.0000e- 005	0.0000	2.4700e- 003

#### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	is/yr							МТ	/yr		
Architectural Coating	5.3900e- 003	, , ,				0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0831					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e- 004	1.0000e- 005	1.1900e- 003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3100e- 003	2.3100e- 003	1.0000e- 005	0.0000	2.4700e- 003
Total	0.0886	1.0000e- 005	1.1900e- 003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3100e- 003	2.3100e- 003	1.0000e- 005	0.0000	2.4700e- 003

7.0 Water Detail

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7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category		MT	ī/yr	
Mitigated	12.4182	0.0437	1.1200e- 003	13.8441
Unmitigated	12.4182	0.0437	1.1200e- 003	13.8441

# 7.2 Water by Land Use

# <u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		MT	ī/yr	
Golf Course	0 / 1.02467	3.6272	1.5000e- 004	3.0000e- 005	3.6402
Health Club	1.32481 / 0.811978	8.7909	0.0435	1.0900e- 003	10.2039
Parking Lot	0/0	0.0000	0.0000	0.0000	0.0000
Total		12.4182	0.0437	1.1200e- 003	13.8441

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# 7.2 Water by Land Use

# Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e				
Land Use	Mgal	MT/yr							
Golf Course	0 / 1.02467	3.6272	1.5000e- 004	3.0000e- 005	3.6402				
Health Club	1.32481 / 0.811978	8.7909	0.0435	1.0900e- 003	10.2039				
Parking Lot	0/0	0.0000	0.0000	0.0000	0.0000				
Total		12.4182	0.0437	1.1200e- 003	13.8441				

# 8.0 Waste Detail

8.1 Mitigation Measures Waste

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Long Beach Citadel - Los Angeles-South Coast County, Annual

# Category/Year

	Total CO2	CH4	N2O	CO2e					
	MT/yr								
Mitigated	26.0803	1.5413	0.0000	64.6128					
Unmitigated	26.0803	1.5413	0.0000	64.6128					

# 8.2 Waste by Land Use

<u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	/yr	
Golf Course	0.8	0.1624	9.6000e- 003	0.0000	0.4023
Health Club	127.68	25.9179	1.5317	0.0000	64.2105
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		26.0803	1.5413	0.0000	64.6128

# Long Beach Citadel - Los Angeles-South Coast County, Annual

# 8.2 Waste by Land Use

## Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	/yr	
Golf Course	0.8	0.1624	9.6000e- 003	0.0000	0.4023
Health Club	127.68	25.9179	1.5317	0.0000	64.2105
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		26.0803	1.5413	0.0000	64.6128

# 9.0 Operational Offroad

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

# **10.0 Stationary Equipment**

#### Fire Pumps and Emergency Generators

Equipment type Inumber Hous/Day Hous/Tean House Fower Education Fue	Equipment Type	Number	Hours/Day	Hours/Voor	Horse Power	Load Eactor	Eucl Type
	Equipment Type	Number	Hours/Day	nouis/ real	HUISE FUWEI		Fuertype

## **Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

#### **User Defined Equipment**

Equipment Type Number Page 31 of 32

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Long Beach Citadel - Los Angeles-South Coast County, Annual

11.0 Vegetation

Long Beach Citadel - Los Angeles-South Coast County, Summer

# Long Beach Citadel

Los Angeles-South Coast County, Summer

## **1.0 Project Characteristics**

### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	70.00	Space	0.63	28,000.00	0
Golf Course	0.86	Acre	0.86	37,461.60	0
Health Club	22.40	1000sqft	0.51	22,400.00	0

#### **1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s) 2.2		Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (Ib/MWhr)	702.44	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity ( (Ib/MWhr)	0.006

## 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Soccer Field inputted as Golf Course, Gymnasium inputted as Health Club

Construction Phase - Phases default. No demo, arch coating extended to 20 days

Architectural Coating - SCAQMD Rule 1113

Vehicle Trips - Trip Generation from Traffic Study

Construction Off-road Equipment Mitigation - Water 2x

Area Mitigation - no hearth. low VOC paint - SCAQMD Rule 1113

# Long Beach Citadel - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorV alue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorV alue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	200.00	220.00
tblConstructionPhase	NumDays	20.00	1.00
tblConstructionPhase	NumDays	4.00	7.00
tblConstructionPhase	NumDays	2.00	3.00
tblConstructionPhase	PhaseEndDate	12/10/2019	12/24/2019
tblConstructionPhase	PhaseEndDate	11/12/2019	11/14/2019
tblConstructionPhase	PhaseEndDate	1/28/2019	1/1/2019
tblConstructionPhase	PhaseEndDate	2/5/2019	1/11/2019
tblConstructionPhase	PhaseEndDate	11/26/2019	11/27/2019
tblConstructionPhase	PhaseEndDate	1/30/2019	1/3/2019
tblConstructionPhase	PhaseStartDate	2/6/2019	1/11/2019
tblConstructionPhase	PhaseStartDate	1/31/2019	1/3/2019
tblConstructionPhase	PhaseStartDate	11/13/2019	11/14/2019
tblConstructionPhase	PhaseStartDate	1/29/2019	1/1/2019
tblGrading	AcresOfGrading	3.50	2.00
tblGrading	AcresOfGrading	4.50	3.00
tblProjectCharacteristics	OperationalYear	2018	2021

Long Beach Citadel - Los Angeles-South Coast County, Summer

tblVehicleTrips	WD_TR	5.04	71.30
tblVehicleTrips	WD_TR	32.93	33.80

# 2.0 Emissions Summary

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# Long Beach Citadel - Los Angeles-South Coast County, Summer

# 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/d	lay						
2019	7.1726	44.3491	30.0424	0.0550	7.5868	2.1780	9.5152	3.5108	2.0461	5.5542	0.0000	5,313.827 7	5,313.827 7	1.4211	0.0000	5,343.113 4
Maximum	7.1726	44.3491	30.0424	0.0550	7.5868	2.1780	9.5152	3.5108	2.0461	5.5542	0.0000	5,313.827 7	5,313.827 7	1.4211	0.0000	5,343.113 4

## 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							
2019	7.1726	44.3491	30.0424	0.0550	3.5247	2.1780	5.6392	1.6694	2.0461	3.7156	0.0000	5,313.827 7	5,313.827 7	1.4211	0.0000	5,343.113 4
Maximum	7.1726	44.3491	30.0424	0.0550	3.5247	2.1780	5.6392	1.6694	2.0461	3.7156	0.0000	5,313.827 7	5,313.827 7	1.4211	0.0000	5,343.113 4

	ROG	NOx	со	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	53.54	0.00	40.73	52.45	0.00	33.10	0.00	0.00	0.00	0.00	0.00	0.00

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# Long Beach Citadel - Los Angeles-South Coast County, Summer

# 2.2 Overall Operational

# Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Area	0.5153	9.0000e- 005	9.5600e- 003	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005		0.0204	0.0204	5.0000e- 005		0.0218
Energy	0.0120	0.1093	0.0918	6.6000e- 004		8.3000e- 003	8.3000e- 003		8.3000e- 003	8.3000e- 003		131.1149	131.1149	2.5100e- 003	2.4000e- 003	131.8941
Mobile	1.3215	5.8153	14.9093	0.0490	3.7609	0.0410	3.8019	1.0065	0.0382	1.0448		4,981.136 4	4,981.136 4	0.2715		4,987.924 1
Total	1.8488	5.9246	15.0107	0.0496	3.7609	0.0493	3.8102	1.0065	0.0466	1.0531		5,112.271 7	5,112.271 7	0.2741	2.4000e- 003	5,119.839 9

# Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Area	0.4858	9.0000e- 005	9.5600e- 003	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005		0.0204	0.0204	5.0000e- 005		0.0218
Energy	0.0120	0.1093	0.0918	6.6000e- 004	,	8.3000e- 003	8.3000e- 003		8.3000e- 003	8.3000e- 003		131.1149	131.1149	2.5100e- 003	2.4000e- 003	131.8941
Mobile	1.3215	5.8153	14.9093	0.0490	3.7609	0.0410	3.8019	1.0065	0.0382	1.0448		4,981.136 4	4,981.136 4	0.2715		4,987.924 1
Total	1.8193	5.9246	15.0107	0.0496	3.7609	0.0493	3.8102	1.0065	0.0466	1.0531		5,112.271 7	5,112.271 7	0.2741	2.4000e- 003	5,119.839 9

#### Long Beach Citadel - Los Angeles-South Coast County, Summer

	ROG	NOx	со	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	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

# **3.0 Construction Detail**

#### **Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	1/1/2019	5	1	
2	Site Preparation	Site Preparation	1/1/2019	1/3/2019	5	3	
3	Grading	Grading	1/3/2019	1/11/2019	5	7	
4	Building Construction	Building Construction	1/11/2019	11/14/2019	5	220	
5	Paving	Paving	11/14/2019	11/27/2019	5	10	
6	Architectural Coating	Architectural Coating	11/27/2019	12/24/2019	5	20	

Acres of Grading (Site Preparation Phase): 3

Acres of Grading (Grading Phase): 2

Acres of Paving: 0.63

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 33,600; Non-Residential Outdoor: 11,200; Striped Parking Area: 1,680 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT
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## Long Beach Citadel - Los Angeles-South Coast County, Summer

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
Architectural Coating	1	7.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	37.00	14.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

## **3.1 Mitigation Measures Construction**

Water Exposed Area

Clean Paved Roads

### 3.2 Demolition - 2019

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Off-Road	2.2950	22.6751	14.8943	0.0241		1.2863	1.2863		1.2017	1.2017		2,360.719 8	2,360.719 8	0.6011		2,375.747 5
Total	2.2950	22.6751	14.8943	0.0241		1.2863	1.2863		1.2017	1.2017		2,360.719 8	2,360.719 8	0.6011		2,375.747 5

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## Long Beach Citadel - Los Angeles-South Coast County, Summer

## 3.2 Demolition - 2019

## Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0477	0.6268	1.5800e- 003	0.1453	1.2500e- 003	0.1466	0.0385	1.1500e- 003	0.0397		157.6839	157.6839	5.4200e- 003		157.8193
Total	0.0649	0.0477	0.6268	1.5800e- 003	0.1453	1.2500e- 003	0.1466	0.0385	1.1500e- 003	0.0397		157.6839	157.6839	5.4200e- 003		157.8193

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	day							lb/d	lay		
Off-Road	2.2950	22.6751	14.8943	0.0241		1.2863	1.2863		1.2017	1.2017	0.0000	2,360.719 7	2,360.719 7	0.6011		2,375.747 5
Total	2.2950	22.6751	14.8943	0.0241		1.2863	1.2863		1.2017	1.2017	0.0000	2,360.719 7	2,360.719 7	0.6011		2,375.747 5

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## Long Beach Citadel - Los Angeles-South Coast County, Summer

## 3.2 Demolition - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0477	0.6268	1.5800e- 003	0.1453	1.2500e- 003	0.1466	0.0385	1.1500e- 003	0.0397		157.6839	157.6839	5.4200e- 003		157.8193
Total	0.0649	0.0477	0.6268	1.5800e- 003	0.1453	1.2500e- 003	0.1466	0.0385	1.1500e- 003	0.0397		157.6839	157.6839	5.4200e- 003		157.8193

3.3 Site Preparation - 2019

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust		, , ,			1.0605	0.0000	1.0605	0.1145	0.0000	0.1145			0.0000			0.0000
Off-Road	1.7557	21.5386	11.9143	0.0245		0.8537	0.8537		0.7854	0.7854		2,426.540 8	2,426.540 8	0.7677		2,445.734 1
Total	1.7557	21.5386	11.9143	0.0245	1.0605	0.8537	1.9142	0.1145	0.7854	0.8999		2,426.540 8	2,426.540 8	0.7677		2,445.734 1

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## Long Beach Citadel - Los Angeles-South Coast County, Summer

# 3.3 Site Preparation - 2019

### Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	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	0.0400	0.0294	0.3857	9.7000e- 004	0.0894	7.7000e- 004	0.0902	0.0237	7.1000e- 004	0.0244		97.0362	97.0362	3.3300e- 003		97.1196
Total	0.0400	0.0294	0.3857	9.7000e- 004	0.0894	7.7000e- 004	0.0902	0.0237	7.1000e- 004	0.0244		97.0362	97.0362	3.3300e- 003		97.1196

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Fugitive Dust		, , ,			0.4772	0.0000	0.4772	0.0515	0.0000	0.0515			0.0000			0.0000
Off-Road	1.7557	21.5386	11.9143	0.0245		0.8537	0.8537		0.7854	0.7854	0.0000	2,426.540 8	2,426.540 8	0.7677		2,445.734 1
Total	1.7557	21.5386	11.9143	0.0245	0.4772	0.8537	1.3309	0.0515	0.7854	0.8369	0.0000	2,426.540 8	2,426.540 8	0.7677		2,445.734 1

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## Long Beach Citadel - Los Angeles-South Coast County, Summer

## 3.3 Site Preparation - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	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	0.0400	0.0294	0.3857	9.7000e- 004	0.0894	7.7000e- 004	0.0902	0.0237	7.1000e- 004	0.0244		97.0362	97.0362	3.3300e- 003		97.1196
Total	0.0400	0.0294	0.3857	9.7000e- 004	0.0894	7.7000e- 004	0.0902	0.0237	7.1000e- 004	0.0244		97.0362	97.0362	3.3300e- 003		97.1196

3.4 Grading - 2019

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Fugitive Dust		, , ,			6.3251	0.0000	6.3251	3.3429	0.0000	3.3429		, , ,	0.0000			0.0000
Off-Road	2.0287	22.7444	10.1518	0.0206		1.0730	1.0730		0.9871	0.9871		2,041.253 9	2,041.253 9	0.6458		2,057.399 7
Total	2.0287	22.7444	10.1518	0.0206	6.3251	1.0730	7.3981	3.3429	0.9871	4.3301		2,041.253 9	2,041.253 9	0.6458		2,057.399 7

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## Long Beach Citadel - Los Angeles-South Coast County, Summer

## 3.4 Grading - 2019

### 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/d	day							lb/c	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	0.0500	0.0367	0.4822	1.2200e- 003	0.1118	9.6000e- 004	0.1127	0.0296	8.9000e- 004	0.0305		121.2953	121.2953	4.1700e- 003		121.3995
Total	0.0500	0.0367	0.4822	1.2200e- 003	0.1118	9.6000e- 004	0.1127	0.0296	8.9000e- 004	0.0305		121.2953	121.2953	4.1700e- 003		121.3995

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Fugitive Dust		1 1 1	1		2.8463	0.0000	2.8463	1.5043	0.0000	1.5043			0.0000			0.0000
Off-Road	2.0287	22.7444	10.1518	0.0206		1.0730	1.0730		0.9871	0.9871	0.0000	2,041.253 9	2,041.253 9	0.6458		2,057.399 7
Total	2.0287	22.7444	10.1518	0.0206	2.8463	1.0730	3.9193	1.5043	0.9871	2.4915	0.0000	2,041.253 9	2,041.253 9	0.6458		2,057.399 7

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## Long Beach Citadel - Los Angeles-South Coast County, Summer

## 3.4 Grading - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	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	0.0500	0.0367	0.4822	1.2200e- 003	0.1118	9.6000e- 004	0.1127	0.0296	8.9000e- 004	0.0305		121.2953	121.2953	4.1700e- 003		121.3995
Total	0.0500	0.0367	0.4822	1.2200e- 003	0.1118	9.6000e- 004	0.1127	0.0296	8.9000e- 004	0.0305		121.2953	121.2953	4.1700e- 003		121.3995

## 3.5 Building Construction - 2019

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Off-Road	2.5581	18.9103	15.2545	0.0250		1.0901	1.0901	ſ	1.0449	1.0449		2,312.145 4	2,312.145 4	0.4810		2,324.170 5
Total	2.5581	18.9103	15.2545	0.0250		1.0901	1.0901		1.0449	1.0449		2,312.145 4	2,312.145 4	0.4810		2,324.170 5

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## Long Beach Citadel - Los Angeles-South Coast County, Summer

# 3.5 Building Construction - 2019

## 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/e	day							lb/c	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	0.0582	1.6202	0.4299	3.6600e- 003	0.0896	0.0103	0.1000	0.0258	9.8800e- 003	0.0357		390.3405	390.3405	0.0250		390.9658
Worker	0.1848	0.1359	1.7840	4.5100e- 003	0.4136	3.5700e- 003	0.4171	0.1097	3.2900e- 003	0.1130		448.7926	448.7926	0.0154		449.1780
Total	0.2430	1.7561	2.2139	8.1700e- 003	0.5032	0.0139	0.5171	0.1355	0.0132	0.1487		839.1330	839.1330	0.0404		840.1438

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	lay							lb/d	lay		
Off-Road	2.5581	18.9103	15.2545	0.0250		1.0901	1.0901	1 1	1.0449	1.0449	0.0000	2,312.145 4	2,312.145 4	0.4810		2,324.170 5
Total	2.5581	18.9103	15.2545	0.0250		1.0901	1.0901		1.0449	1.0449	0.0000	2,312.145 4	2,312.145 4	0.4810		2,324.170 5

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## Long Beach Citadel - Los Angeles-South Coast County, Summer

## 3.5 Building Construction - 2019

## 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/e	day							lb/c	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	0.0582	1.6202	0.4299	3.6600e- 003	0.0896	0.0103	0.1000	0.0258	9.8800e- 003	0.0357		390.3405	390.3405	0.0250		390.9658
Worker	0.1848	0.1359	1.7840	4.5100e- 003	0.4136	3.5700e- 003	0.4171	0.1097	3.2900e- 003	0.1130		448.7926	448.7926	0.0154		449.1780
Total	0.2430	1.7561	2.2139	8.1700e- 003	0.5032	0.0139	0.5171	0.1355	0.0132	0.1487		839.1330	839.1330	0.0404		840.1438

3.6 Paving - 2019

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Off-Road	1.2453	12.5685	11.8507	0.0178		0.7301	0.7301		0.6728	0.6728		1,746.243 2	1,746.243 2	0.5418		1,759.787 0
Paving	0.1651					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4104	12.5685	11.8507	0.0178		0.7301	0.7301		0.6728	0.6728		1,746.243 2	1,746.243 2	0.5418		1,759.787 0

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## Long Beach Citadel - Los Angeles-South Coast County, Summer

## 3.6 Paving - 2019

## 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/d	day							lb/c	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	0.0749	0.0551	0.7233	1.8300e- 003	0.1677	1.4500e- 003	0.1691	0.0445	1.3300e- 003	0.0458		181.9429	181.9429	6.2500e- 003		182.0992
Total	0.0749	0.0551	0.7233	1.8300e- 003	0.1677	1.4500e- 003	0.1691	0.0445	1.3300e- 003	0.0458		181.9429	181.9429	6.2500e- 003		182.0992

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	lay		
Off-Road	1.2453	12.5685	11.8507	0.0178		0.7301	0.7301		0.6728	0.6728	0.0000	1,746.243 2	1,746.243 2	0.5418		1,759.787 0
Paving	0.1651					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4104	12.5685	11.8507	0.0178		0.7301	0.7301		0.6728	0.6728	0.0000	1,746.243 2	1,746.243 2	0.5418		1,759.787 0

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## Long Beach Citadel - Los Angeles-South Coast County, Summer

## 3.6 Paving - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	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	0.0749	0.0551	0.7233	1.8300e- 003	0.1677	1.4500e- 003	0.1691	0.0445	1.3300e- 003	0.0458		181.9429	181.9429	6.2500e- 003		182.0992
Total	0.0749	0.0551	0.7233	1.8300e- 003	0.1677	1.4500e- 003	0.1691	0.0445	1.3300e- 003	0.0458		181.9429	181.9429	6.2500e- 003		182.0992

3.7 Architectural Coating - 2019

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Archit. Coating	5.3859					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e- 003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	5.6523	1.8354	1.8413	2.9700e- 003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423

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## Long Beach Citadel - Los Angeles-South Coast County, Summer

# 3.7 Architectural Coating - 2019

## 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/o	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	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	0.0350	0.0257	0.3375	8.5000e- 004	0.0782	6.7000e- 004	0.0789	0.0208	6.2000e- 004	0.0214		84.9067	84.9067	2.9200e- 003		84.9796
Total	0.0350	0.0257	0.3375	8.5000e- 004	0.0782	6.7000e- 004	0.0789	0.0208	6.2000e- 004	0.0214		84.9067	84.9067	2.9200e- 003		84.9796

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Archit. Coating	5.3859	, , ,	, , ,			0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e- 003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	5.6523	1.8354	1.8413	2.9700e- 003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423

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## Long Beach Citadel - Los Angeles-South Coast County, Summer

# 3.7 Architectural Coating - 2019

## 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/o	day							lb/c	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	0.0350	0.0257	0.3375	8.5000e- 004	0.0782	6.7000e- 004	0.0789	0.0208	6.2000e- 004	0.0214		84.9067	84.9067	2.9200e- 003		84.9796
Total	0.0350	0.0257	0.3375	8.5000e- 004	0.0782	6.7000e- 004	0.0789	0.0208	6.2000e- 004	0.0214		84.9067	84.9067	2.9200e- 003		84.9796

## 4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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## Long Beach Citadel - Los Angeles-South Coast County, Summer

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Mitigated	1.3215	5.8153	14.9093	0.0490	3.7609	0.0410	3.8019	1.0065	0.0382	1.0448		4,981.136 4	4,981.136 4	0.2715		4,987.924 1
Unmitigated	1.3215	5.8153	14.9093	0.0490	3.7609	0.0410	3.8019	1.0065	0.0382	1.0448		4,981.136 4	4,981.136 4	0.2715		4,987.924 1

## 4.2 Trip Summary Information

	Ave	rage Daily Trip Ra	ite	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	61.32	5.01	5.06	110,173	110,173
Health Club	757.12	467.49	598.75	1,482,425	1,482,425
Parking Lot	0.00	0.00	0.00		
Total	818.44	472.49	603.81	1,592,598	1,592,598

## 4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
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
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

## 4.4 Fleet Mix

CalEEMod Version: CalEEMod.2016.3.1

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# Long Beach Citadel - Los Angeles-South Coast County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Golf Course	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Health Club	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

# 5.0 Energy Detail

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
NaturalGas Mitigated	0.0120	0.1093	0.0918	6.6000e- 004		8.3000e- 003	8.3000e- 003		8.3000e- 003	8.3000e- 003		131.1149	131.1149	2.5100e- 003	2.4000e- 003	131.8941
NaturalGas Unmitigated	0.0120	0.1093	0.0918	6.6000e- 004		8.3000e- 003	8.3000e- 003		8.3000e- 003	8.3000e- 003		131.1149	131.1149	2.5100e- 003	2.4000e- 003	131.8941

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## Long Beach Citadel - Los Angeles-South Coast County, Summer

## 5.2 Energy by Land Use - NaturalGas

## <u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/	day							lb/e	day		
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	1114.48	0.0120	0.1093	0.0918	6.6000e- 004		8.3000e- 003	8.3000e- 003		8.3000e- 003	8.3000e- 003		131.1149	131.1149	2.5100e- 003	2.4000e- 003	131.8941
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0120	0.1093	0.0918	6.6000e- 004		8.3000e- 003	8.3000e- 003		8.3000e- 003	8.3000e- 003		131.1149	131.1149	2.5100e- 003	2.4000e- 003	131.8941

#### Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/	day							lb/d	day		
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	1.11448	0.0120	0.1093	0.0918	6.6000e- 004		8.3000e- 003	8.3000e- 003	,	8.3000e- 003	8.3000e- 003		131.1149	131.1149	2.5100e- 003	2.4000e- 003	131.8941
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	,	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0120	0.1093	0.0918	6.6000e- 004		8.3000e- 003	8.3000e- 003		8.3000e- 003	8.3000e- 003		131.1149	131.1149	2.5100e- 003	2.4000e- 003	131.8941

6.0 Area Detail

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### Long Beach Citadel - Los Angeles-South Coast County, Summer

## 6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior Use Low VOC Paint - Residential Exterior Use Low VOC Paint - Non-Residential Interior Use Low VOC Paint - Non-Residential Exterior No Hearths Installed

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	Jay		
Mitigated	0.4858	9.0000e- 005	9.5600e- 003	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005		0.0204	0.0204	5.0000e- 005		0.0218
Unmitigated	0.5153	9.0000e- 005	9.5600e- 003	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005		0.0204	0.0204	5.0000e- 005		0.0218

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## Long Beach Citadel - Los Angeles-South Coast County, Summer

## 6.2 Area by SubCategory

### <u>Unmitigated</u>

	ROG	NOx	СО	SO2	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/e	day							lb/d	day		
Architectural Coating	0.0590					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.9000e- 004	9.0000e- 005	9.5600e- 003	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005		0.0204	0.0204	5.0000e- 005		0.0218
Total	0.5153	9.0000e- 005	9.5600e- 003	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005		0.0204	0.0204	5.0000e- 005		0.0218

#### 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/d	day		
Architectural Coating	0.0295					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4554				,	0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.9000e- 004	9.0000e- 005	9.5600e- 003	0.0000	,	3.0000e- 005	3.0000e- 005	,	3.0000e- 005	3.0000e- 005		0.0204	0.0204	5.0000e- 005		0.0218
Total	0.4858	9.0000e- 005	9.5600e- 003	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005		0.0204	0.0204	5.0000e- 005		0.0218

7.0 Water Detail

#### Long Beach Citadel - Los Angeles-South Coast County, Summer

## 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

## **10.0 Stationary Equipment**

#### Fire Pumps and Emergency Generators

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

#### **Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

#### **User Defined Equipment**

Equipment Type Number

## 11.0 Vegetation

Long Beach Citadel - Los Angeles-South Coast County, Winter

## Long Beach Citadel

Los Angeles-South Coast County, Winter

### **1.0 Project Characteristics**

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	70.00	Space	0.63	28,000.00	0
Golf Course	0.86	Acre	0.86	37,461.60	0
Health Club	22.40	1000sqft	0.51	22,400.00	0

#### **1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (Ib/MWhr)	702.44	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity 0. (Ib/MWhr)	.006

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

Project Characteristics -

Land Use - Soccer Field inputted as Golf Course, Gymnasium inputted as Health Club

Construction Phase - Phases default. No demo, arch coating extended to 20 days

Architectural Coating - SCAQMD Rule 1113

Vehicle Trips - Trip Generation from Traffic Study

Construction Off-road Equipment Mitigation - Water 2x

Area Mitigation - no hearth. low VOC paint - SCAQMD Rule 1113

## Long Beach Citadel - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorV alue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorV alue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	200.00	220.00
tblConstructionPhase	NumDays	20.00	1.00
tblConstructionPhase	NumDays	4.00	7.00
tblConstructionPhase	NumDays	2.00	3.00
tblConstructionPhase	PhaseEndDate	12/10/2019	12/24/2019
tblConstructionPhase	PhaseEndDate	11/12/2019	11/14/2019
tblConstructionPhase	PhaseEndDate	1/28/2019	1/1/2019
tblConstructionPhase	PhaseEndDate	2/5/2019	1/11/2019
tblConstructionPhase	PhaseEndDate	11/26/2019	11/27/2019
tblConstructionPhase	PhaseEndDate	1/30/2019	1/3/2019
tblConstructionPhase	PhaseStartDate	2/6/2019	1/11/2019
tblConstructionPhase	PhaseStartDate	1/31/2019	1/3/2019
tblConstructionPhase	PhaseStartDate	11/13/2019	11/14/2019
tblConstructionPhase	PhaseStartDate	1/29/2019	1/1/2019
tblGrading	AcresOfGrading	3.50	2.00
tblGrading	AcresOfGrading	4.50	3.00
tblProjectCharacteristics	OperationalYear	2018	2021

Long Beach Citadel - Los Angeles-South Coast County, Winter

tblVehicleTrips	WD_TR	5.04	71.30
tblVehicleTrips	WD_TR	32.93	33.80

# 2.0 Emissions Summary

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## Long Beach Citadel - Los Angeles-South Coast County, Winter

## 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/o	day							lb/d	lay		
2019	7.1845	44.3562	29.8800	0.0546	7.5868	2.1781	9.5152	3.5108	2.0463	5.5543	0.0000	5,269.988 8	5,269.988 8	1.4206	0.0000	5,299.288 3
Maximum	7.1845	44.3562	29.8800	0.0546	7.5868	2.1781	9.5152	3.5108	2.0463	5.5543	0.0000	5,269.988 8	5,269.988 8	1.4206	0.0000	5,299.288 3

### 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/d	day							lb/c	lay		
2019	7.1845	44.3562	29.8800	0.0546	3.5247	2.1781	5.6394	1.6694	2.0463	3.7157	0.0000	5,269.988 8	5,269.988 8	1.4206	0.0000	5,299.288 3
Maximum	7.1845	44.3562	29.8800	0.0546	3.5247	2.1781	5.6394	1.6694	2.0463	3.7157	0.0000	5,269.988 8	5,269.988 8	1.4206	0.0000	5,299.288 3

	ROG	NOx	со	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	53.54	0.00	40.73	52.45	0.00	33.10	0.00	0.00	0.00	0.00	0.00	0.00

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## Long Beach Citadel - Los Angeles-South Coast County, Winter

# 2.2 Overall Operational

## Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Area	0.5153	9.0000e- 005	9.5600e- 003	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005		0.0204	0.0204	5.0000e- 005		0.0218
Energy	0.0120	0.1093	0.0918	6.6000e- 004		8.3000e- 003	8.3000e- 003		8.3000e- 003	8.3000e- 003		131.1149	131.1149	2.5100e- 003	2.4000e- 003	131.8941
Mobile	1.2832	5.9148	14.4349	0.0465	3.7609	0.0413	3.8022	1.0065	0.0385	1.0451		4,733.681 0	4,733.681 0	0.2731		4,740.507 7
Total	1.8105	6.0241	14.5362	0.0472	3.7609	0.0496	3.8105	1.0065	0.0469	1.0534		4,864.816 3	4,864.816 3	0.2756	2.4000e- 003	4,872.423 6

## Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	lay		
Area	0.4858	9.0000e- 005	9.5600e- 003	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005		0.0204	0.0204	5.0000e- 005		0.0218
Energy	0.0120	0.1093	0.0918	6.6000e- 004	,	8.3000e- 003	8.3000e- 003		8.3000e- 003	8.3000e- 003		131.1149	131.1149	2.5100e- 003	2.4000e- 003	131.8941
Mobile	1.2832	5.9148	14.4349	0.0465	3.7609	0.0413	3.8022	1.0065	0.0385	1.0451		4,733.681 0	4,733.681 0	0.2731		4,740.507 7
Total	1.7810	6.0241	14.5362	0.0472	3.7609	0.0496	3.8105	1.0065	0.0469	1.0534		4,864.816 3	4,864.816 3	0.2756	2.4000e- 003	4,872.423 6

#### Long Beach Citadel - Los Angeles-South Coast County, Winter

	ROG	NOx	со	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	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

# **3.0 Construction Detail**

#### **Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	1/1/2019	5	1	
2	Site Preparation	Site Preparation	1/1/2019	1/3/2019	5	3	
3	Grading	Grading	1/3/2019	1/11/2019	5	7	
4	Building Construction	Building Construction	1/11/2019	11/14/2019	5	220	
5	Paving	Paving	11/14/2019	11/27/2019	5	10	
6	Architectural Coating	Architectural Coating	11/27/2019	12/24/2019	5	20	

Acres of Grading (Site Preparation Phase): 3

Acres of Grading (Grading Phase): 2

Acres of Paving: 0.63

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 33,600; Non-Residential Outdoor: 11,200; Striped Parking Area: 1,680 (Architectural Coating – sqft)

OffRoad Equipment

## Long Beach Citadel - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

# Trips and VMT

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## Long Beach Citadel - Los Angeles-South Coast County, Winter

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
Architectural Coating	1	7.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	37.00	14.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

## **3.1 Mitigation Measures Construction**

Water Exposed Area

Clean Paved Roads

### 3.2 Demolition - 2019

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	2.2950	22.6751	14.8943	0.0241		1.2863	1.2863		1.2017	1.2017		2,360.719 8	2,360.719 8	0.6011		2,375.747 5
Total	2.2950	22.6751	14.8943	0.0241		1.2863	1.2863		1.2017	1.2017		2,360.719 8	2,360.719 8	0.6011		2,375.747 5

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# Long Beach Citadel - Los Angeles-South Coast County, Winter

## 3.2 Demolition - 2019

## Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	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	0.0720	0.0529	0.5752	1.4900e- 003	0.1453	1.2500e- 003	0.1466	0.0385	1.1500e- 003	0.0397		148.4770	148.4770	5.1100e- 003		148.6047
Total	0.0720	0.0529	0.5752	1.4900e- 003	0.1453	1.2500e- 003	0.1466	0.0385	1.1500e- 003	0.0397		148.4770	148.4770	5.1100e- 003		148.6047

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	day							lb/d	lay		
Off-Road	2.2950	22.6751	14.8943	0.0241		1.2863	1.2863		1.2017	1.2017	0.0000	2,360.719 7	2,360.719 7	0.6011		2,375.747 5
Total	2.2950	22.6751	14.8943	0.0241		1.2863	1.2863		1.2017	1.2017	0.0000	2,360.719 7	2,360.719 7	0.6011		2,375.747 5

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# Long Beach Citadel - Los Angeles-South Coast County, Winter

## 3.2 Demolition - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	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	0.0720	0.0529	0.5752	1.4900e- 003	0.1453	1.2500e- 003	0.1466	0.0385	1.1500e- 003	0.0397		148.4770	148.4770	5.1100e- 003		148.6047
Total	0.0720	0.0529	0.5752	1.4900e- 003	0.1453	1.2500e- 003	0.1466	0.0385	1.1500e- 003	0.0397		148.4770	148.4770	5.1100e- 003		148.6047

3.3 Site Preparation - 2019

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust		, , ,			1.0605	0.0000	1.0605	0.1145	0.0000	0.1145			0.0000			0.0000
Off-Road	1.7557	21.5386	11.9143	0.0245		0.8537	0.8537		0.7854	0.7854		2,426.540 8	2,426.540 8	0.7677		2,445.734 1
Total	1.7557	21.5386	11.9143	0.0245	1.0605	0.8537	1.9142	0.1145	0.7854	0.8999		2,426.540 8	2,426.540 8	0.7677		2,445.734 1

CalEEMod Version: CalEEMod.2016.3.1

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## Long Beach Citadel - Los Angeles-South Coast County, Winter

# 3.3 Site Preparation - 2019

## 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/e	day							lb/c	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	0.0443	0.0325	0.3540	9.2000e- 004	0.0894	7.7000e- 004	0.0902	0.0237	7.1000e- 004	0.0244		91.3705	91.3705	3.1400e- 003		91.4491
Total	0.0443	0.0325	0.3540	9.2000e- 004	0.0894	7.7000e- 004	0.0902	0.0237	7.1000e- 004	0.0244		91.3705	91.3705	3.1400e- 003		91.4491

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Fugitive Dust		, , ,			0.4772	0.0000	0.4772	0.0515	0.0000	0.0515			0.0000			0.0000
Off-Road	1.7557	21.5386	11.9143	0.0245		0.8537	0.8537		0.7854	0.7854	0.0000	2,426.540 8	2,426.540 8	0.7677		2,445.734 1
Total	1.7557	21.5386	11.9143	0.0245	0.4772	0.8537	1.3309	0.0515	0.7854	0.8369	0.0000	2,426.540 8	2,426.540 8	0.7677		2,445.734 1

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## Long Beach Citadel - Los Angeles-South Coast County, Winter

## 3.3 Site Preparation - 2019

#### 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/o	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	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	0.0443	0.0325	0.3540	9.2000e- 004	0.0894	7.7000e- 004	0.0902	0.0237	7.1000e- 004	0.0244		91.3705	91.3705	3.1400e- 003		91.4491
Total	0.0443	0.0325	0.3540	9.2000e- 004	0.0894	7.7000e- 004	0.0902	0.0237	7.1000e- 004	0.0244		91.3705	91.3705	3.1400e- 003		91.4491

3.4 Grading - 2019

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Fugitive Dust		, , ,			6.3251	0.0000	6.3251	3.3429	0.0000	3.3429		, , ,	0.0000			0.0000
Off-Road	2.0287	22.7444	10.1518	0.0206		1.0730	1.0730		0.9871	0.9871		2,041.253 9	2,041.253 9	0.6458		2,057.399 7
Total	2.0287	22.7444	10.1518	0.0206	6.3251	1.0730	7.3981	3.3429	0.9871	4.3301		2,041.253 9	2,041.253 9	0.6458		2,057.399 7

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## Long Beach Citadel - Los Angeles-South Coast County, Winter

# 3.4 Grading - 2019

### Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	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	0.0554	0.0407	0.4425	1.1500e- 003	0.1118	9.6000e- 004	0.1127	0.0296	8.9000e- 004	0.0305		114.2131	114.2131	3.9300e- 003		114.3113
Total	0.0554	0.0407	0.4425	1.1500e- 003	0.1118	9.6000e- 004	0.1127	0.0296	8.9000e- 004	0.0305		114.2131	114.2131	3.9300e- 003		114.3113

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Fugitive Dust		1 1 1			2.8463	0.0000	2.8463	1.5043	0.0000	1.5043			0.0000			0.0000
Off-Road	2.0287	22.7444	10.1518	0.0206		1.0730	1.0730		0.9871	0.9871	0.0000	2,041.253 9	2,041.253 9	0.6458		2,057.399 7
Total	2.0287	22.7444	10.1518	0.0206	2.8463	1.0730	3.9193	1.5043	0.9871	2.4915	0.0000	2,041.253 9	2,041.253 9	0.6458		2,057.399 7

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## Long Beach Citadel - Los Angeles-South Coast County, Winter

## 3.4 Grading - 2019

## 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/d	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	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	0.0554	0.0407	0.4425	1.1500e- 003	0.1118	9.6000e- 004	0.1127	0.0296	8.9000e- 004	0.0305		114.2131	114.2131	3.9300e- 003		114.3113
Total	0.0554	0.0407	0.4425	1.1500e- 003	0.1118	9.6000e- 004	0.1127	0.0296	8.9000e- 004	0.0305		114.2131	114.2131	3.9300e- 003		114.3113

## 3.5 Building Construction - 2019

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Off-Road	2.5581	18.9103	15.2545	0.0250		1.0901	1.0901	ſ	1.0449	1.0449		2,312.145 4	2,312.145 4	0.4810		2,324.170 5
Total	2.5581	18.9103	15.2545	0.0250		1.0901	1.0901		1.0449	1.0449		2,312.145 4	2,312.145 4	0.4810		2,324.170 5

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## Long Beach Citadel - Los Angeles-South Coast County, Winter

# 3.5 Building Construction - 2019

## 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/e	day							lb/c	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	0.0607	1.6224	0.4739	3.5600e- 003	0.0896	0.0105	0.1001	0.0258	0.0100	0.0359		379.7880	379.7880	0.0267		380.4550
Worker	0.2049	0.1504	1.6372	4.2400e- 003	0.4136	3.5700e- 003	0.4171	0.1097	3.2900e- 003	0.1130		422.5884	422.5884	0.0145		422.9518
Total	0.2656	1.7728	2.1110	7.8000e- 003	0.5032	0.0141	0.5173	0.1355	0.0133	0.1488		802.3764	802.3764	0.0412		803.4068

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	lay							lb/d	lay		
Off-Road	2.5581	18.9103	15.2545	0.0250		1.0901	1.0901	1 1	1.0449	1.0449	0.0000	2,312.145 4	2,312.145 4	0.4810		2,324.170 5
Total	2.5581	18.9103	15.2545	0.0250		1.0901	1.0901		1.0449	1.0449	0.0000	2,312.145 4	2,312.145 4	0.4810		2,324.170 5

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## Long Beach Citadel - Los Angeles-South Coast County, Winter

## 3.5 Building Construction - 2019

## 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/e	day							lb/c	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	0.0607	1.6224	0.4739	3.5600e- 003	0.0896	0.0105	0.1001	0.0258	0.0100	0.0359		379.7880	379.7880	0.0267		380.4550
Worker	0.2049	0.1504	1.6372	4.2400e- 003	0.4136	3.5700e- 003	0.4171	0.1097	3.2900e- 003	0.1130		422.5884	422.5884	0.0145		422.9518
Total	0.2656	1.7728	2.1110	7.8000e- 003	0.5032	0.0141	0.5173	0.1355	0.0133	0.1488		802.3764	802.3764	0.0412		803.4068

3.6 Paving - 2019

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Off-Road	1.2453	12.5685	11.8507	0.0178		0.7301	0.7301		0.6728	0.6728		1,746.243 2	1,746.243 2	0.5418		1,759.787 0
Paving	0.1651					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4104	12.5685	11.8507	0.0178		0.7301	0.7301		0.6728	0.6728		1,746.243 2	1,746.243 2	0.5418		1,759.787 0

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## Long Beach Citadel - Los Angeles-South Coast County, Winter

## 3.6 Paving - 2019

## Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	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	0.0831	0.0610	0.6637	1.7200e- 003	0.1677	1.4500e- 003	0.1691	0.0445	1.3300e- 003	0.0458		171.3196	171.3196	5.8900e- 003		171.4670
Total	0.0831	0.0610	0.6637	1.7200e- 003	0.1677	1.4500e- 003	0.1691	0.0445	1.3300e- 003	0.0458		171.3196	171.3196	5.8900e- 003		171.4670

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Off-Road	1.2453	12.5685	11.8507	0.0178		0.7301	0.7301		0.6728	0.6728	0.0000	1,746.243 2	1,746.243 2	0.5418		1,759.787 0
Paving	0.1651					0.0000	0.0000		0.0000	0.0000		 - - - -	0.0000			0.0000
Total	1.4104	12.5685	11.8507	0.0178		0.7301	0.7301		0.6728	0.6728	0.0000	1,746.243 2	1,746.243 2	0.5418		1,759.787 0
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#### Long Beach Citadel - Los Angeles-South Coast County, Winter

## 3.6 Paving - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	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	0.0831	0.0610	0.6637	1.7200e- 003	0.1677	1.4500e- 003	0.1691	0.0445	1.3300e- 003	0.0458		171.3196	171.3196	5.8900e- 003		171.4670
Total	0.0831	0.0610	0.6637	1.7200e- 003	0.1677	1.4500e- 003	0.1691	0.0445	1.3300e- 003	0.0458		171.3196	171.3196	5.8900e- 003		171.4670

3.7 Architectural Coating - 2019

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/d	day							lb/c	lay		
Archit. Coating	5.3859		1			0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e- 003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	5.6523	1.8354	1.8413	2.9700e- 003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423

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#### Long Beach Citadel - Los Angeles-South Coast County, Winter

# 3.7 Architectural Coating - 2019

#### 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/o	day							lb/c	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	0.0388	0.0285	0.3097	8.0000e- 004	0.0782	6.7000e- 004	0.0789	0.0208	6.2000e- 004	0.0214		79.9492	79.9492	2.7500e- 003		80.0179
Total	0.0388	0.0285	0.3097	8.0000e- 004	0.0782	6.7000e- 004	0.0789	0.0208	6.2000e- 004	0.0214		79.9492	79.9492	2.7500e- 003		80.0179

#### 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/e	day							lb/d	lay		
Archit. Coating	5.3859	, , ,		, , ,		0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e- 003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	5.6523	1.8354	1.8413	2.9700e- 003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423

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#### Long Beach Citadel - Los Angeles-South Coast County, Winter

# 3.7 Architectural Coating - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	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	0.0388	0.0285	0.3097	8.0000e- 004	0.0782	6.7000e- 004	0.0789	0.0208	6.2000e- 004	0.0214		79.9492	79.9492	2.7500e- 003		80.0179
Total	0.0388	0.0285	0.3097	8.0000e- 004	0.0782	6.7000e- 004	0.0789	0.0208	6.2000e- 004	0.0214		79.9492	79.9492	2.7500e- 003		80.0179

# 4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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#### Long Beach Citadel - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Mitigated	1.2832	5.9148	14.4349	0.0465	3.7609	0.0413	3.8022	1.0065	0.0385	1.0451		4,733.681 0	4,733.681 0	0.2731		4,740.507 7
Unmitigated	1.2832	5.9148	14.4349	0.0465	3.7609	0.0413	3.8022	1.0065	0.0385	1.0451		4,733.681 0	4,733.681 0	0.2731		4,740.507 7

# 4.2 Trip Summary Information

	Aver	age Daily Trip Ra	ite	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	61.32	5.01	5.06	110,173	110,173
Health Club	757.12	467.49	598.75	1,482,425	1,482,425
Parking Lot	0.00	0.00	0.00		
Total	818.44	472.49	603.81	1,592,598	1,592,598

# 4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
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
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

### 4.4 Fleet Mix

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#### Long Beach Citadel - Los Angeles-South Coast County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Golf Course	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Health Club	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

# 5.0 Energy Detail

Historical Energy Use: N

# 5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
NaturalGas Mitigated	0.0120	0.1093	0.0918	6.6000e- 004		8.3000e- 003	8.3000e- 003		8.3000e- 003	8.3000e- 003		131.1149	131.1149	2.5100e- 003	2.4000e- 003	131.8941
NaturalGas Unmitigated	0.0120	0.1093	0.0918	6.6000e- 004		8.3000e- 003	8.3000e- 003		8.3000e- 003	8.3000e- 003		131.1149	131.1149	2.5100e- 003	2.4000e- 003	131.8941

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### Long Beach Citadel - Los Angeles-South Coast County, Winter

# 5.2 Energy by Land Use - NaturalGas

## <u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/	day							lb/e	day		
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	1114.48	0.0120	0.1093	0.0918	6.6000e- 004		8.3000e- 003	8.3000e- 003		8.3000e- 003	8.3000e- 003		131.1149	131.1149	2.5100e- 003	2.4000e- 003	131.8941
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0120	0.1093	0.0918	6.6000e- 004		8.3000e- 003	8.3000e- 003		8.3000e- 003	8.3000e- 003		131.1149	131.1149	2.5100e- 003	2.4000e- 003	131.8941

#### **Mitigated**

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/	day							lb/d	day		
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	1.11448	0.0120	0.1093	0.0918	6.6000e- 004		8.3000e- 003	8.3000e- 003	,	8.3000e- 003	8.3000e- 003		131.1149	131.1149	2.5100e- 003	2.4000e- 003	131.8941
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	,	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0120	0.1093	0.0918	6.6000e- 004		8.3000e- 003	8.3000e- 003		8.3000e- 003	8.3000e- 003		131.1149	131.1149	2.5100e- 003	2.4000e- 003	131.8941

6.0 Area Detail

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#### Long Beach Citadel - Los Angeles-South Coast County, Winter

#### 6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior Use Low VOC Paint - Residential Exterior Use Low VOC Paint - Non-Residential Interior Use Low VOC Paint - Non-Residential Exterior No Hearths Installed

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/e	day		
Mitigated	0.4858	9.0000e- 005	9.5600e- 003	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005		0.0204	0.0204	5.0000e- 005		0.0218
Unmitigated	0.5153	9.0000e- 005	9.5600e- 003	0.0000		3.0000e- 005	3.0000e- 005	 ! ! !	3.0000e- 005	3.0000e- 005		0.0204	0.0204	5.0000e- 005		0.0218

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#### Long Beach Citadel - Los Angeles-South Coast County, Winter

# 6.2 Area by SubCategory

#### <u>Unmitigated</u>

	ROG	NOx	CO	SO2	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/e	day							lb/e	day		
Architectural Coating	0.0590	, , ,				0.0000	0.0000	1 1 1	0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4554	 - - - -				0.0000	0.0000	 - - - -	0.0000	0.0000			0.0000			0.0000
Landscaping	8.9000e- 004	9.0000e- 005	9.5600e- 003	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005		0.0204	0.0204	5.0000e- 005		0.0218
Total	0.5153	9.0000e- 005	9.5600e- 003	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005		0.0204	0.0204	5.0000e- 005		0.0218

#### Mitigated

	ROG	NOx	СО	SO2	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/d	day		
Architectural Coating	0.0295	, , ,				0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4554				,	0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.9000e- 004	9.0000e- 005	9.5600e- 003	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005		0.0204	0.0204	5.0000e- 005		0.0218
Total	0.4858	9.0000e- 005	9.5600e- 003	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005		0.0204	0.0204	5.0000e- 005		0.0218

7.0 Water Detail

#### Long Beach Citadel - Los Angeles-South Coast County, Winter

#### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

#### 8.1 Mitigation Measures Waste

# 9.0 Operational Offroad

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

# **10.0 Stationary Equipment**

#### Fire Pumps and Emergency Generators

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

#### **Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

#### **User Defined Equipment**

Equipment Type Number

# 11.0 Vegetation

Long Beach Citadel - Los Angeles-South Coast County, Summary Report

# Long Beach Citadel

Los Angeles-South Coast, Summary Report

#### **1.0 Project Characteristics**

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	70.00	Space	0.63	28,000.00	0
Golf Course	0.86	Acre	0.86	37,461.60	0
Health Club	22.40	1000sqft	0.51	22,400.00	0

#### **1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (Ib/MWhr)	702.44	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity 0 (Ib/MWhr)	.006

#### **1.3 User Entered Comments**

Only CalEEMod defaults were used.

Project Characteristics -

Land Use - Soccer Field inputted as Golf Course, Gymnasium inputted as Health Club

Construction Phase - Phases default. No demo, arch coating extended to 20 days

Architectural Coating - SCAQMD Rule 1113

Vehicle Trips - Trip Generation from Traffic Study

Construction Off-road Equipment Mitigation - Water 2x

Area Mitigation - no hearth. low VOC paint - SCAQMD Rule 1113

Page 2 of 3

Long Beach Citadel - Los Angeles-South Coast County, Summary Report

# 2.0 Peak Daily Emissions

## **Peak Daily Construction Emissions**

### Peak Daily Construction Emissions

				Unmit	igated					Mitig	ated		
		ROG	NOX	СО	SO2	PM10	PM2.5	ROG	NOX	со	SO2	PM10	PM2.5
Year	Phase						lb/c	lay					
2019	Demolition	2.3670 W	22.7279 W	15.5212 S	0.0257 S	1.4329 S	1.2414 S	2.3670 W	22.7279 W	15.5212 S	0.0257 S	1.4329 S	1.2414 S
2019	Site Preparation	1.8000 W	21.5712 W	12.3000 S	0.0255 S	2.0044 S	0.9243 S	1.8000 W	21.5712 W	12.3000 S	0.0255 S	1.4211 S	0.8614 S
2019	Grading	2.0841 W	22.7851 W	10.6340 S	0.0218 S	7.5108 S	4.3606 S	2.0841 W	22.7851 W	10.6340 S	0.0218 S	4.0320 S	2.5220 S
2019	Building Construction	2.8236 W	20.6831 W	17.4684 S	0.0332 S	1.6074 W	1.1937 W	2.8236 W	20.6831 W	17.4684 S	0.0332 S	1.6074 W	1.1937 W
2019	Paving	1.4935 W	12.6295 W	12.5740 S	0.0197 S	0.8992 S	0.7186 S	1.4935 W	12.6295 W	12.5740 S	0.0197 S	0.8992 S	0.7186 S
2019	Architectural Coating	5.6911 W	1.8638 W	2.1788 S	3.8200e-003 S	0.2077 S	0.1501 S	5.6911 W	1.8638 W	2.1788 S	3.8200e-003 S	0.2077 S	0.1501 S
	Peak Daily Total	5.6911 W	22.7851 W	17.4684 S	0.0332 S	7.5108 S	4.3606 S	5.6911 W	22.7851 W	17.4684 S	0.0332 S	4.0320 S	2.5220 S
	Air District Threshold												
	Exceed Significance?												

**Peak Daily Operational Emissions** 

Peak Daily Operational Emissions

#### Long Beach Citadel - Los Angeles-South Coast County, Summary Report

				Unmit	igated			Mitigated					
		ROG	NOX	СО	SO2	PM10	PM2.5	ROG	NOX	СО	SO2	PM10	PM2.5
	Operational Activity						lb/d	day					
On-Site	Area	0.5153 S	9.0000e-005 S	9.5600e-003 S	0.0000 S	3.0000e-005 S	3.0000e-005 S	0.4858 S	9.0000e-005 S	9.5600e-003 S	0.0000 S	3.0000e-005 S	3.0000e-005 S
On-Site	Energy	0.0120 S	0.1093 S	0.0918 S	6.6000e-004 S	8.3000e-003 S	8.3000e-003 S	0.0120 S	0.1093 S	0.0918 S	6.6000e-004 S	8.3000e-003 S	8.3000e-003 S
Off-Site	Mobile	1.3215 S	5.9148 W	14.9093 S	0.0490 S	3.8022 W	1.0451 W	1.3215 S	5.9148 W	14.9093 S	0.0490 S	3.8022 W	1.0451 W
	Peak Daily Total	1.8488 S	6.0241 W	15.0107 S	0.0496 S	3.8105 W	1.0534 W	1.8193 S	6.0241 W	15.0107 S	0.0496 S	3.8105 W	1.0534 W
	Air District Threshold												
	Exceed Significance?												

# 3.0 Annual GHG Emissions

# Annual GHG

Annual GHG

			Unmit	ligated			Mitic	gated	
		CO2	CH4	N2O	CO2e	CO2	CH4	N2O	CO2e
GHG Activity	Year				M	Г/yr			
Construction	2019	335.5304	0.0582	0.0000	336.9844	335.5301	0.0582	0.0000	336.9841
Operational	2021	863.3796	1.6293	2.2770e-003	904.7919	863.3796	1.6293	2.2770e-003	904.7919
	Total								
	Significance Threshold								
	Exceed Significance?								

		constructio	n emissions	s (SRA-4, 25	meters from	m site bound	dary)	
	acres	NOX	CO	PM10	PM2.5			
LST default (2 acre)	2	82	842	7	5			
project	3.6	104	1,209	11	7	0	0	0
LST default (5 acre)	5	123	1,530	14	8			
~		2 5	2 5	2 5	2 5	2 5	2 5	2 5
A		5.5	5.5	5.5	5.5	5.5	5.5	5.5
Y		102.5	1186	10.5	6.5	0	0	0
а		54.66667	383.3333	2.333333	3	0	0	0
b		13.66667	229.3333	2.333333	1	0	0	0

0	0	0
3.5	3.5	3.5
0	0	0
0	0	0
0	0	0

# Greenhouse Gas Emission Worksheet N20 Mobile Emissions

Salvation Citadel Proposed

#### From CalEEMod:

Annual VMT:

1,738,193

				N2O	
			CH4	Emission	N2O
	Percent	CH4 Emission	Emission	Factor	Emission
Vehicle Type	Туре	Factor (g/mile)*	(g/mile)**	(g/mile)*	(g/mile)**
Light Auto	55.0%	0.04	0.022	0.04	0.022
Light Truck < 3750 lbs	4.6%	0.05	0.0023	0.06	0.00276
Light Truck 3751-5750 lbs	20.0%	0.05	0.01	0.06	0.012
Med Truck 5751-8500 lbs	12.4%	0.12	0.01488	0.2	0.0248
Lite-Heavy Truck 8501-10,000 lbs	1.7%	0.12	0.00204	0.2	0.0034
Lite-Heavy Truck 10,001-14,000 lbs	0.6%	0.09	0.00054	0.125	0.00075
Med-Heavy Truck 14,001-33,000 lbs	1.9%	0.06	0.00114	0.05	0.00095
Heavy-Heavy Truck 33,001-60,000 lbs	2.8%	0.06	0.00168	0.05	0.0014
Other Bus	0.2%	0.06	0.00012	0.05	0.0001
Urban Bus	0.2%	0.06	0.00012	0.05	0.0001
Motorcycle	0.5%	0.09	0.00045	0.01	0.00005
School Bus	0.1%	0.06	0.00006	0.05	0.00005
Motor Home	0.0%	0.09	0	0.125	0
Tota	l 100.0%		0.05533		0.06836

#### Total Emissions (metric tons) =

Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

21 GWP	
310 GWP	

0.90718474 metric ton

#### Annual Mobile Emissions:

1 ton (short, US) =

	Total Emission	ons	Total CO2e units
N20 Emissions:	0.1188	metric tons N2O	36.84 metric tons CO2e
		Project Total:	36.84 metric tons CO2e

#### References

CH4 N2O

\* from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile).

in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.

Assume Model year 2000-present, gasoline fueled.

\*\* Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.



Noise Measurement and TNM Results

AMBIEN	T NOISE SURVEY DATA	SHEET	
Project: Date: Operator:	Long Beach Citadel F 1017a116 Vanessa Villanueva	coject	Job Number:
Station: Measurement Wind: Temperature: Cloud Cover Cl <i>Daytime</i> <i>Nighttime</i>	Spring St Begin: $7:41$ No Finish: $8:02$ mph Direction: ass $3 - 5$ Sunny <20% 4 - Clear <50% 5 - Overcast >50%	Station: <u>C</u> Measurement N Wind: Temperature: Cloud Cover Class <i>Daytime</i> Nighttime	Spring St,  Begin : 1:30    Io. 2  Finish: 1:45    mph  Direction:    mph  Direction:    mph  Direction:    s  # 2    1 - Overcast >80%    2 - Light 20-80%    3 - Sunny <20%
Primary Noise Source: Distance:	Traffic on Spring St.	Primary Noise Source: Distance:	Traffic on Spring.St.
Secondary Nois	se Sources:	Secondary Noise S	Sources:
Notes:	4 lanes total + turning lanes + bicycle lanes	Notes:	4 lanes total + turning lanes + bicycle lame
Traffic <i>LDA/T</i> :	310	Traffic LDA/T:	<u>412</u>
MDT: HDT:		МDT: НDT:	1 74.2
Leq: Lmin: Lmax: Peak:	10.0  L(10):  75.5    55.3  L(33):     66.1  L(50):  66.1    L(90):  58.9	Leq: Lmin: Lmax: Peak:	10.0  L(10):  Deputs    59.0  L(33):
Calibration	Start: <u>94</u> dB End: <u>94</u> dB	Calibration	Start: <u> </u>
Response:	Gast Slow Gast Peak Impulse	Response:	☐ Slow ☐ Fast ☐ Peak ☐ Impulse
Weighting:	G A B C □ Linear	Weighting:	⊠ A □ B □ C □ Linear
Octave Filter:	NA Hz	Octave Filter:	TA TA Hz

itotor i forfao onotori of Eooanon on Daon	Note:	Provide	Sketch	of	Location	on	Back.
--	-------	---------	--------	----	----------	----	-------

AMBIEN	TNOISE SURVEY DATA	SHEET	
Project:	Long Brach Citadel	Project	Job Number:
Date:	10/19/16	J	
Operator:	Vanessa Villanueva		
Station: LO	ng Beach Begin: 7:10	Station:	Begin : XIAD
Measurement	No. 3 Finish: 7:25	Measurement	No. Finish: 4745
Wind:	mph Direction:	Wind:	mph Direction:
Temperature:		Temperature:	
Cloud Cover Cl	ass #1	Cloud Cover Cla	ISS
Daytime	🖵 1 - Overcast >80%	Daytime	🖵 1 - Overcast >80%
	🗹 2 - Light 20-80%		🖵 2 - Light 20-80%
	🗔 3 - Sunny <20%		🗔 3 - Sunny <20%
Nighttime	🗀 4 - Clear <50%	Nighttime	🖵 4 - Clear <50%
ç	⊑ 5 - Overcast >50%	L L	□ 5 - Overcast >50%
Primary Noise	1	Primary Noise	
Source:	Traffic on Long Beach	Source:	
Distance:	J	Distance:	
Secondary Nois	se Sources: birds	Secondary Noise	e Sources:
Notos	11.1	Notos:	
Notes.	9 Ianes	Notes.	
Traffic LDA/T:	426	Traffic LDA/T:	
MDT:	704	MDT:	
HDT:	111	HDT:	
			6
Leq:	<u>13.0</u> L(10): <u>14.9</u>	Leq:	L(10):
Lmin:	58.2 L(33):	Lmin:	L(33):
Lmax:	95.1 L(50): 69.3	Lmax:	L(50):
Peak:	L(90): 62.7	Peak:	L(90):
Calibration	Start: <u>94</u> dB	Calibration	Start:dB
0	End: <u>94</u> dB		End:dB
Posponeci	E Slow	Responses	
Response:		Response:	
			чыя reak чыя impulse
		Mainhtinn	
weighting:		weighting:	
Octave Filter		Octave Filter	

Note: Provide Sketch of Location on Back.

Freq We Time We Level Ra Max dB	ight : A ight : FAST ange : 40-100 : 86 7 - 2009/06/09 02:20	· 06
Level Ra SEL : 9 Leq : 7	ange : 40-100 9.5 0.0	
No.s	Date Time (d	В)
1 2	009/06/09 02: 05: 32 65	. 4
2 2 3 2	009/06/09 02:05:33 65 009/06/09 02:05:34 64	. 6 . 3
4 20 5 20	009/06/09 02:05:35 64 009/06/09 02:05:36 63	. 2 . 6
6 20 7 20	009/06/09 02:05:37 63 009/06/09 02:05:38 63	. 0 . 1
8 2	009/06/09 02:05:39 63 009/06/09 02:05:40 63	. 9
10 2	009/06/09 02:05:41 63	. 5
12 20	009/06/09 02:05:42 62 009/06/09 02:05:43 62	. 0
13 20 14 20	009/06/09 02:05:44 60 009/06/09 02:05:45 58	. / . 8
15 20 16 20	009/06/09 02:05:46 58 009/06/09 02:05:47 59	. 6 . 1
17 20 18 20	009/06/09 02:05:48 60 009/06/09 02:05:49 62	. 0 . 2
19 20 20 20	009/06/09 02:05:50 60 009/06/09 02:05:51 60	. 8 7
21 2	009/06/09 02:05:52 60	. 7
23 20	009/06/09 02:05:54 66	. 4
24 20	009/06/09 02:05:55 67 009/06/09 02:05:56 65	. 2
26 20 27 20	009/06/09 02:05:57 62 009/06/09 02:05:58 60	. 4 . 1
28 20 29 20	009/06/09 02:05:59 59 009/06/09 02:06:00 59	. 9 . 4
30 20 31 20	009/06/09 02:06:01 59 009/06/09 02:06:02 59	. 0 . 1
32 2 33 2	009/06/09 02:06:03 58 009/06/09 02:06:04 60	. 2
34 20	009/06/09 02:06:05 59	. 6
36 2	009/06/09 02:06:07 59	. 8
37 20	009/06/09 02:06:09 59 009/06/09 02:06:09 59	. 4
39 20 40 20	009/06/09 02:06:10 58 009/06/09 02:06:11 57	. 3 . 2
41 20 42 20	009/06/09 02:06:12 56 009/06/09 02:06:13 57	. 9 . 9
43 20 44 20	009/06/09 02:06:14 56 009/06/09 02:06:15 56	. 6 . 5
45 20 46 20	009/06/09 02:06:16 56 009/06/09 02:06:17 56	. 0 . 9
47 2 48 2	009/06/09 02:06:18 56 009/06/09 02:06:19 56	. 6
49 20	009/06/09 02:06:20 57	5
51 2	009/06/09 02:06:22 58 009/06/09 02:06:22 58	.0
53 20	009/06/09 02:06:23 58 009/06/09 02:06:24 59	. 3
54 20 55 20	009/06/09 02:06:25 58 009/06/09 02:06:26 59	. 7
56 2 57 2	009/06/09 02:06:27 61 009/06/09 02:06:28 63	. 3
58 20 59 20	009/06/09 02:06:29 64 009/06/09 02:06:30 64	. 3 . 9
60 20 61 20	009/06/09 02:06:31 64 009/06/09 02:06:32 64	. 9 . 5
62 20 63 20	009/06/09 02:06:33 64 009/06/09 02:06:34 63	. 3 . 9
64 20 65 20	009/06/09 02:06:35 65 009/06/09 02:06:36 65	. 7 . 7
66 2 67 2	009/06/09 02:06:37 66 009/06/09 02:06:38 67	. 4
68 2	009/06/09 02:06:39 72	. 9
70 20	009/06/09 02:06:40 75 009/06/09 02:06:41 72	. 1
72 2	009/06/09 02:06:42 71	. <del>.</del>
73 20	009/06/09 02:06:44 // 009/06/09 02:06:45 73	. 5
75 20 76 20	009/06/09 02:06:46 73 009/06/09 02:06:47 76	. 2 . 6
77 20 78 20	009/06/09 02:06:48 75 009/06/09 02:06:49 74	. 7 . 5
79 20 80 20	009/06/09 02:06:50 76 009/06/09 02:06:51 75	. 8 . 3
81 2 82 2	009/06/09 02:06:52 76 009/06/09 02:06:53 76	. 5
83 20 84 20	009/06/09 02:06:55 70 009/06/09 02:06:54 77	. 2
85 2	009/06/09 02:06:56 74	. 0

----

	86 87	2009/06/09 2009/06/09	02: ( 02: (	06: 06:	57 58	77.3 77.7
	88 89	2009/06/09	02:0	06: 07:	59 00	74.8 75.4
	90 01	2009/06/09	02:0	07:	01	73.7
	91 92	2009/06/09	02:0	07: 07:	02 03	72.5 72.9
	93 94	2009/06/09	02:(	07:	04 05	68.6 65.4
	95 95	2009/06/09	02:0	07:	06	64.5
	96 97	2009/06/09 2009/06/09	02:0	07: 07:	07 08	64.1 62.5
	98 99	2009/06/09	02:0	07:	09 10	63.8 69.4
1	100	2009/06/09	02:0	07:	11	73.5
1	101 102	2009/06/09 2009/06/09	02:0	07: 07:	12 13	69.3 64.8
1	103	2009/06/09	02:0	07:	14 15	64.0
1	105	2009/06/09	02:0	07: 07:	16	69. 4
-	106 107	2009/06/09 2009/06/09	02:0	07: 07:	17 18	66.1 68.3
1	108	2009/06/09	02:(	07:	19 20	70.7
1	110	2009/06/09	02:0	07:	20	62.3
1	111 112	2009/06/09 2009/06/09	02:0	07: 07:	22 23	62.4 62.5
1	113	2009/06/09	02:(	07:	24 25	62.3
1	115	2009/06/09	02:0	07:	26	67.8
1	116 117	2009/06/09 2009/06/09	02:0	07: 07:	27 28	72.2 73.6
1	118	2009/06/09	02:0	07:	29 30	71.6
1	120	2009/06/09	02:0	07:	31	66.2
-	121 122	2009/06/09 2009/06/09	02:0	07: 07:	32 33	65.7 62.7
1	123	2009/06/09	02:0	07:	34	63.1
1	125	2009/06/09	02:0	07:	36	65.8
-	126 127	2009/06/09 2009/06/09	02:0	07: 07:	37 38	68.6 69.4
1	128	2009/06/09	02:0	07:	39	68.0
-	130	2009/06/09	02:0	07: 07:	40 41	67.2 65.3
-	131 132	2009/06/09	02:0	07: 07:	42 43	66.1 65.8
1	133	2009/06/09	02:0	07:	44	66.9
1	134 135	2009/06/09	02:0	07: 07:	45 46	64. <i>1</i> 66. 0
1	136 137	2009/06/09	02:0	07: 07:	47 48	66.7 67 0
1	138	2009/06/09	02:0	07:	49	66.7
-	140	2009/06/09	02:0	07: 07:	50 51	65.0 65.4
-	141 142	2009/06/09 2009/06/09	02:0	07: 07:	52 53	65.8 65.8
1	143	2009/06/09	02:0	07:	54	64.8
1	145	2009/06/09	02:0	07:	56	66. 3
-	146 147	2009/06/09 2009/06/09	02:0	07: 07:	57 58	66.2 64.4
1	148	2009/06/09	02:0	07:	59	63.4
1	150	2009/06/09	02:0	08: 08:	01	65.5
-	151 152	2009/06/09 2009/06/09	02:0	08: 08:	02 03	70.6
1	153	2009/06/09	02:0	08:	04	79.4
1	155	2009/06/09	02:0	08:	05	74.5
1	156 157	2009/06/09 2009/06/09	02:0	08: 08:	07 08	75.3 77.9
1	158	2009/06/09	02:0	08: ng·	09 10	76.8
1	160	2009/06/09	02:0	08:	11	76.4
1	161 162	2009/06/09 2009/06/09	02:0	08: 08:	12 13	75.3 77.8
1	163	2009/06/09	02:0	08: ng·	14 15	75.7
1	165	2009/06/09	02:0	28:	16	75.6
1	166 167	2009/06/09	02:0	08: 08:	17 18	73. T 71. 0
1	168 169	2009/06/09 2009/06/09	02:0 02:0	08: 08:	19 20	69.1 72.1
1	170	2009/06/09	02:0	08:	21	72.3
1	172	2009/06/09	02:0	08: 08:	∠∠ 23	67.6
-	173 174	2009/06/09	02:0	08: 08:	24 25	67.7 68 2
1	175	2009/06/09	02:0	28:	26	72.0
1	176 177	2009/06/09 2009/06/09	02:0	08: 08:	27 28	77.3 73.1
1	178 179	2009/06/09	02:0	08: 08:	29 30	75.8
1	180	2009/06/09	02:0	08:	31	70.8
-	181 182	2009/06/09 2009/06/09	02: ( 02: (	08: 08:	32 33	67.8 66.5
-	183	2009/06/09	02:0	08:	34	65.1
	104	2007/00/09	UZ. (	00.	55	04.0

185 186	2009/06/09	02:08:36	64.3 65.6
187	2009/06/09	02:08:38	70.2
188	2009/06/09	02:08:39 02:08:40	74.0 69.6
190	2009/06/09	02:08:41	68.2
191	2009/06/09	02:08:42	69.9 69.7
193	2009/06/09	02:08:44	70.2
194 195	2009/06/09	02:08:45	/0.6 71 7
196	2009/06/09	02:08:47	76.5
197 198	2009/06/09	02:08:48	81.1 74 8
199	2009/06/09	02:08:50	78.0
200	2009/06/09	02:08:51	73.4
202	2009/06/09	02:08:53	73.9
203	2009/06/09	02:08:54	74.4
205	2009/06/09	02:08:56	65.8
206	2009/06/09	02:08:57	63.9 63.0
208	2009/06/09	02:08:59	62. 0
209	2009/06/09	02:09:00	60.5
211	2009/06/09	02:09:02	60.2
212	2009/06/09	02:09:03	61.3
213	2009/06/09	02:09:04	59.0
215	2009/06/09	02:09:06	59.1
210	2009/06/09	02:09:07	59.1
218	2009/06/09	02:09:09	58.9
219	2009/06/09	02:09:10	59.3 58.7
221	2009/06/09	02: 09: 12	58.0
222	2009/06/09	02:09:13	56.5 57.0
224	2009/06/09	02: 09: 15	57.1
225	2009/06/09	02:09:16 02:09:17	56. 1 56. 9
227	2009/06/09	02: 09: 18	56.1
228	2009/06/09	02:09:19 02:09:20	56. 1 55. 5
230	2009/06/09	02: 09: 21	56.6
231 232	2009/06/09	02:09:22	57.0
233	2009/06/09	02: 09: 24	58.2
234 235	2009/06/09	02:09:25	59.3 59.3
236	2009/06/09	02: 09: 27	60.8
237	2009/06/09	02:09:28	62.4 65.1
239	2009/06/09	02:09:30	69.3
240 241	2009/06/09	02:09:31	74.8
242	2009/06/09	02: 09: 33	78.9
243 244	2009/06/09	02:09:34	75.3 75.1
245	2009/06/09	02: 09: 36	77.5
246 247	2009/06/09	02:09:37	78.0
248	2009/06/09	02:09:39	75.9
249 250	2009/06/09	02:09:40	76.4 75.5
251	2009/06/09	02:09:42	73.6
252 253	2009/06/09	02: 09: 43 02: 09: 44	72.9
254	2009/06/09	02:09:45	70.3
255 256	2009/06/09	02:09:46	70.8
257	2009/06/09	02: 09: 48	70.7
258 259	2009/06/09	02:09:49	68.2 65.5
260	2009/06/09	02:09:51	67.2
261 262	2009/06/09	02:09:52	69.0 68.1
263	2009/06/09	02:09:54	66.3
264 265	2009/06/09	02:09:55	64.8 67.8
266	2009/06/09	02:09:57	76.8
267 268	2009/06/09	02: 09: 58 02: 09: 59	77.9
269	2009/06/09	02: 10: 00	74.3
270 271	2009/06/09	02: 10: 01 02: 10: 02	72.2
272	2009/06/09	02: 10: 03	79.8
273 274	2009/06/09	02: 10: 04 02: 10: 05	/8.8 74 /
275	2009/06/09	02: 10: 06	72.1
276 277	2009/06/09	02: 10: 07 02: 10: 08	68.4 67 2
278	2009/06/09	02: 10: 09	66. 4
279 280	2009/06/09	02: 10: 10 02: 10: 11	65.2
281	2009/06/09	02: 10: 12	63.1
282 283	2009/06/09 2009/06/09	02: 10: 13 02: 10: 14	61.7 60.9
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284	2009/06/09	02:1	0:15	61.7
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287	2009/06/09	02:1	10: 18	67.7
288	2009/06/09	02:1	10:19	67.8
289 290	2009/06/09	02:1	10:20 10:21	09.0 71.2
291	2009/06/09	02:1	10: 22	68.8
292	2009/06/09	02:1	0: 23	64.3
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294	2009/06/09	02:1	10:25	65.9
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300	2009/06/09	02:1	0:31	58.4
301	2009/06/09	02:1	0: 32	57.2
302	2009/06/09	02:1	0:33	5/.6
303	2009/06/09	02:1	10:34	56.8
305	2009/06/09	02: 1	0: 36	57.8
306	2009/06/09	02:1	10:37	57.6
308	2009/06/09	02.1	10.30 10:39	60 5
309	2009/06/09	02:1	0: 40	67.2
310	2009/06/09	02:1	0:41	70.9
311	2009/06/09	02:1	10:42 10:43	10. Z
313	2009/06/09	02:1	10:43	61.8
314	2009/06/09	02: 1	0: 45	60.4
315	2009/06/09	02:1	10:46	59.9
317	2009/06/09	02:1	10:47	57.9
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324	2009/06/09	02:1	0:55	58.9
325	2009/06/09	02:1	10:57	61.2
327	2009/06/09	02:1	0: 58	62.6
328	2009/06/09	02:1	0:59	64.1
329	2009/06/09	02:1	11:00	60. Z
331	2009/06/09	02:1	1:02	72.2
332	2009/06/09	02: 1	1:03	75.9
333	2009/06/09	02:1	1:04	80.0
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336	2009/06/09	02:1	1:07	76.9
337	2009/06/09	02:1	1:08	76.8
338 339	2009/06/09	02:1	11:09	77.5
340	2009/06/09	02:1	1:11	80.6
341	2009/06/09	02:1	1:12	76.4
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344	2009/06/09	02:1	11:15	74.1
345	2009/06/09	02:1	1: 16	72.3
346	2009/06/09	02:1	1:17	71.4
347	2009/06/09	02:1	1:10	76.6
349	2009/06/09	02:1	1:20	73.5
350	2009/06/09	02:1	1:21	78.5
351 352	2009/06/09	02:1	: 22  1· 23	/5. I 78 3
353	2009/06/09	02:1	1:24	78.1
354	2009/06/09	02:1	1:25	79.3
355	2009/06/09	02:1	11:26	76.0 75.3
357	2009/06/09	02:1	1:28	73.0
358	2009/06/09	02: 1	1:29	70.9
359	2009/06/09	02:1	1:30	68.9
361	2009/06/09	02:1	1:32	68.6
362	2009/06/09	02:1	1:33	66.1
363	2009/06/09	02:1	1:34	66.9
364 365	2009/06/09	02:1	11:35 11:36	68. U 71 5
366	2009/06/09	02:1	1: 37	70.7
367	2009/06/09	02:1	1:38	65.8
308 370	2009/06/09	02:1	11:39 11:40	66.5 66 0
370	2009/06/09	02:1	1:40	69.5
371	2009/06/09	02:1	1: 42	68.2
372 272	2009/06/09	02:1	1:43	68.9
373 374	2009/06/09	02:1	1: 44	65.5
375	2009/06/09	02:1	1: 46	65.3
376	2009/06/09	02:1	1:47	63.2
378 378	2009/06/09	02:1 02:1	1:48 1:49	59.8 59.0
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380	2009/06/09	02:1	1:51	59.3
381 382	2009/06/09	02:1	11:52 11:53	60.0 60 5
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383 384	2009/06/09 2009/06/09	02: 1 02: 1	11: 54 11: 55	61. 1 60. 7
385 386	2009/06/09	02: 1	11: 56 11: 57	61.4 64.2
387	2009/06/09	02: 1	11:58	63.9
388 389	2009/06/09	02:	12:00	64.2 62.8
390 391	2009/06/09	02: 1	12:01 12:02	62.7 61 0
392	2009/06/09	02:1	12:02	61.7
393 394	2009/06/09 2009/06/09	02: 1	12: 04 12: 05	64.0 62.7
395	2009/06/09	02: 1	12:06	62.7
390 397	2009/06/09	02:1	12:07	60. 7
398 399	2009/06/09	02:1	12: 09 12: 10	58.4 57.0
400	2009/06/09	02:	12:11	62.1
401 402	2009/06/09	02:	12:12	66.9 57.1
403	2009/06/09	02: 1	12:14 12:15	58.9
405	2009/06/09	02: 1	12:16	57.8
406 407	2009/06/09 2009/06/09	02: 1	12:17 12:18	58.0 59.3
408	2009/06/09	02: 1	12:19	59.2
409	2009/06/09	02:1	12:20	61.4
411 412	2009/06/09	02:1	12: 22 12: 23	64.9 68.0
413	2009/06/09	02: 1	12:24	68.0
414	2009/06/09	02:1	12:25	65.4
416 417	2009/06/09	02:1	12:27 12:28	66.4 64 5
418	2009/06/09	02: 1	12:29	62.4
419 420	2009/06/09	02: 1	12: 30 12: 31	60.8 61.8
421 422	2009/06/09	02:1	12:32	63.5
423	2009/06/09	02: 1	12:33	66.3
424 425	2009/06/09 2009/06/09	02: 1	12:35 12:36	66.9 67.2
426	2009/06/09	02: 1	12:37	65.2
427	2009/06/09	02:1	12:30	62.7
429 430	2009/06/09 2009/06/09	02: 1	12: 40 12: 41	62.0 61.8
431	2009/06/09	02: 1	12:42	62.2
432	2009/06/09	02:1	12:43	69.8
434 435	2009/06/09 2009/06/09	02: 1	12: 45 12: 46	73.9 74.4
436 437	2009/06/09	02: 1	12: 47 12: 48	74.1
438	2009/06/09	02:	12:49	76.8
439 440	2009/06/09	02:1	12:50	76.3
441 442	2009/06/09	02:1	12: 52 12: 53	76.0
443	2009/06/09	02: 1	12:54	75.5
444	2009/06/09	02:1	12: 55	74.7
446 447	2009/06/09	02:1	12: 57 12: 58	73.5
448	2009/06/09	02: 1	12:59	71.9
449	2009/06/09	02:1	13:00 13:01	72.2
451 452	2009/06/09	02: 1	13:02 13:03	73.6
453	2009/06/09	02: 1	13:04	71.2
454	2009/06/09	02:1	13:05	67.8
456 457	2009/06/09	02:1	13:07 13:08	66.9 65.5
458	2009/06/09	02: 1	13:09	64.6
460	2009/06/09	02:1	13:10	60. 7
461 462	2009/06/09 2009/06/09	02: 1	13: 12 13: 13	60.8 59.3
463	2009/06/09	02: 1	13:14	58.8
465	2009/06/09	02: 1	13: 16	59.2
466 467	2009/06/09 2009/06/09	02: 1	13:17 13:18	58.2 58.1
468 469	2009/06/09	02: 1	13: 19 13: 20	58.7
470	2009/06/09	02: 1	13:21	61.8
471 472	2009/06/09	02:1	13:22	o∠.5 64.6
473 474	2009/06/09	02: 1	13: 24 13: 25	63.9 62 0
475	2009/06/09	02: 1	13:26	61.0
476 477	2009/06/09	02:1	13:27	60.3 61.4
478 479	2009/06/09	02: 1	13: 29 13: 30	61.7 64 २
480	2009/06/09	02: 1	13:31	66.1
48 I	2009/06/09	02: 1	13:32	00.8

482 483	2009/06/09	02:13:3	33 34	72.3
484	2009/06/09	02: 13: 3	35	65.0
485	2009/06/09	02: 13: 3	36	63.8
487	2009/06/09	02: 13: 3	38	64.0
488	2009/06/09	02: 13: 3	39	63.2
490	2009/06/09	02: 13: 4	40 41	64.6
491	2009/06/09	02: 13: 4	12 12	67.5
492	2009/06/09	02: 13: 4	+3 14	70.5
494	2009/06/09	02:13:4	45 14	75.7
496	2009/06/09	02: 13: 4	47	69.5
497	2009/06/09	02:13:4	18	66.9
498	2009/06/09	02: 13: 2	49 50	66.7
500	2009/06/09	02:13:5	51	65.0
501	2009/06/09	02: 13: 5	53	65.1
503	2009/06/09	02:13:5	54	65.4
504	2009/06/09	02: 13: 5	56	66.8
506	2009/06/09	02:13:5	57	66.8
507	2009/06/09	02: 13: 5	58 59	59.7
509	2009/06/09	02:14:0	00	57.5
510	2009/06/09	02: 14: 0	)1 )2	57.5
512	2009/06/09	02: 14: 0	03	57.0
513	2009/06/09	02: 14: 0	)4 )5	58.3
515	2009/06/09	02: 14: 0	06	60.9
516	2009/06/09	02:14:0	)/ )8	62.2
518	2009/06/09	02: 14: 0	)9	64.7
519 520	2009/06/09	02:14:1	10 11	64.7 64 3
521	2009/06/09	02:14:	12	65.7
522 523	2009/06/09	02:14:	13 14	69.3 74 9
524	2009/06/09	02:14:	15	78.5
525 526	2009/06/09	02:14:1	16 17	77.4
527	2009/06/09	02:14:	18	73.3
528 529	2009/06/09	02: 14: 1	19 20	74.2
530	2009/06/09	02: 14: 2	21	75.1
531	2009/06/09	02: 14: 2	22	75.1
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536	2009/06/09	02: 14: 2	27	75.3
537	2009/06/09	02: 14: 2	28	72.7
539	2009/06/09	02: 14: 3	30	75.5
540 541	2009/06/09	02:14:3	31 32	74.8 727
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543 544	2009/06/09	02: 14: 3	34	68.3 64 9
545	2009/06/09	02: 14: 3	36	63.4
546 547	2009/06/09	02: 14: 3	37 38	62.9 61 9
548	2009/06/09	02: 14: 3	39	61.7
549 550	2009/06/09	02: 14: 4	40 11	61.2
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552 553	2009/06/09	02:14:4	13 14	64.5 66 0
554	2009/06/09	02: 14: 4	45	67.6
555 556	2009/06/09	02:14:4	46 17	66.8 65.6
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560	2009/06/09	02: 14: 5	51	62.9
561	2009/06/09	02:14:5	52	63.3 62.4
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566	2009/06/09	02: 14: 5	57	65.2
567 568	2009/06/09	02:14:5	58	66.0 67 2
569	2009/06/09	02: 15: 0	50	67.1
570 571	2009/06/09	02:15:0	ןן זכ	64.8
572	2009/06/09	02: 15: 0	53	66. 4
573 574	2009/06/09	02:15:0	)4 )5	65.8 68 7
575	2009/06/09	02: 15: 0	26	66.9
576 577	2009/06/09	02:15:0	)7 )8	65.2 66 0
578	2009/06/09	02: 15: 0	09	65.5
579 580	2009/06/09	02:15:2	10 11	63.9 63.8
550	200//00/09	JZ. IJ.		55.0

581 582	2009/06/09 2009/06/09	02: 1 02: 1	5: 12 5: 13	64.4 61.9
583 584	2009/06/09 2009/06/09	02: 1 02: 1	5: 14 5: 15	60.5 61.2
585 586	2009/06/09 2009/06/09	02: 1 02: 1	5: 16 5: 17	61.4 60.7
587	2009/06/09	02:1	5:18	60.8
589	2009/06/09	02:1	5: 20	60. 8 60. 3
590 591	2009/06/09 2009/06/09	02: 1 02: 1	5: 21 5: 22	60.5 61.3
592	2009/06/09	02:1	5:23	62.9
593 594	2009/08/09	02:1	5: 24 5: 25	72.0
595 596	2009/06/09 2009/06/09	02: 1 02: 1	5: 26 5: 27	69.2 66.5
597 598	2009/06/09	02:1	5:28 5:29	65.7 64.4
599	2009/06/09	02:1	5:30	66.7
600 601	2009/06/09 2009/06/09	02: 1	5:31 5:32	73.2
602 603	2009/06/09	02: 1 02: 1	5: 33 5: 34	76.7
604 605	2009/06/09	02:1	5:35	76.4
605 606	2009/06/09	02:1	5:36 5:37	76.5
607 608	2009/06/09 2009/06/09	02: 1 02: 1	5: 38 5: 39	72.1 72.5
609 610	2009/06/09	02:1	5: 40 5: 41	75.9
611	2009/06/09	02:1	5: 42	74.0
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614 615	2009/06/09	02: 1 02: 1	5: 45 5: 46	73.8 74 4
616	2009/06/09	02:1	5:47	78.7
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631 632	2009/06/09 2009/06/09	02: 1 02: 1	6: 02 6: 03	63.9 63.2
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635	2009/06/09	02:1	6:06	62.8
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641 642	2009/06/09	02:1	6: 12 6: 13	72.0 66.7
643 644	2009/06/09 2009/06/09	02: 1 02: 1	6: 14 6: 15	67.6 71.4
645	2009/06/09	02:1	6: 16 6: 17	71.3
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648 649	2009/06/09 2009/06/09	02: 1 02: 1	6: 19 6: 20	70.3 69.8
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657 658	2009/06/09	02: 1 02: 1	6: 28 6: 29	63.7 65.7
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660 661	2009/06/09 2009/06/09	02: 1 02: 1	6: 31 6: 32	67.4 68.5
662 663	2009/06/09 2009/06/09	02: 1 02: 1	6: 33 6: 34	66.5 66.0
664	2009/06/09	02:1	6:35	65.4
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667 668	2009/06/09	02: 1 02: 1	6: 38 6: 39	63.8 63.1
669 670	2009/06/09	02: 1 02: 1	6: 40 6: 41	61.0 61 २
671	2009/06/09	02:1	6: 42	60.7
673	2009/06/09	02:1	6: 43	60.6
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676 677	2009/06/09	02:1	6: 47 6: 48	63.6
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6/9	2009/06/09	02:1	6:50	64.0

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685 686	2009/06/09	02:1 02·1	16: 56 16: 57	64.9 65.3
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690	2009/06/09	02:1	7:01	72.7
691 692	2009/06/09	02: 1	17:02 17:03	78.9
693	2009/06/09	02:1	7:04	77.2
694 695	2009/08/09	02:1	7:05 7:06	75.9
696 607	2009/06/09	02:1	7:07	77.2
698	2009/06/09	02:1	7:08	77.7
699 700	2009/06/09	02:1	7:10  7·11	77.0
701	2009/06/09	02:1	7: 12	75.2
702 703	2009/06/09	02:1	/: 13  7: 14	76.6 72.1
704	2009/06/09	02:1	7:15	71.6
705	2009/06/09	02:1	17:16	74.8
707	2009/06/09	02:1	7:18	76.7
708	2009/06/09	02:1	17:20	70.5
710	2009/06/09	02:1	7:21  7:22	68.5
712	2009/06/09	02:1	7:23	70.6
713 714	2009/06/09	02:1	17:24 17:25	69.3 68.5
715	2009/06/09	02:1	7:26	66.9
716	2009/06/09	02:1	/:2/  7:28	65. / 64. 1
718	2009/06/09	02:1	7:29	63.5
720	2009/06/09	02:1	17:30	59.7
721	2009/06/09	02:1	7:32	60.4
723	2009/06/09	02:1	17:33	60. 3 62. 4
724	2009/06/09	02:1	7:35	64.6
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729	2009/06/09	02:1	7:40	67.6
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737	2009/06/09	02:1	7:48	60.9
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755 756	2009/06/09	02: 1	18:06 18:07	72.9
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765	2009/06/09	02:1	18: 16	69.5
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768	2009/06/09	02:1	8:19	69.8
709 770	2009/06/09	02:1	18: 20 18: 21	оð. 1 68. 0
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774 775	2009/06/09	02:1 02·1	18:25 18:26	61.1 61.0
776	2009/06/09	02:1	8: 27	60.8
777 778	2009/06/09 2009/06/09	02: 1 02: 1	18: 28 18: 29	61.4 64.8
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815	2009/06/09	02: 19: 06	70.0
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823	2009/06/09	02: 19: 14	65.8
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827	2009/08/09	02: 19: 18	64. 0 63. 0
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831	2009/06/09	02: 19: 22	71.5
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868	2009/06/09	02: 19: 59	<u>69. 1</u>
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874 875	2009/06/09	02: 20: 05	80.5 84 8
876	2009/06/09	02: 20: 07	78.5
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878	2009/06/09	02: 20: 09	75.1
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885	2009/06/09	02: 20: 16	69.9
886	2009/06/09	02: 20: 17	73.7
887	2009/06/09	02: 20: 18	73.8
888	2009/06/09	02: 20: 19	69.4
889	2009/06/09	02: 20: 20	67.5
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891	2009/06/09	02: 20: 22	72.5
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894	2009/06/09	02: 20: 25	69.1
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897	2009/06/09	02: 20: 28	73.2
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81 82	2009/06/09 01: 35: 27 2009/06/09 01: 35: 28 2009/06/09 01: 35: 29	76. 6 73. 8		
83 84 85	2009/06/09 01: 35: 30 2009/06/09 01: 35: 31 2009/06/09 01: 35: 32	71.0 72.2 72.0		

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	90 91	2009/06/09	01:	: 35: 37	71.4
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	93 94	2009/06/09	01:	: 35: 40 : 35: 41	74.1 74.4
	95 96	2009/06/09 2009/06/09	01:	: 35: 42 : 35: 43	75.9 74.5
	97 08	2009/06/09	01	: 35: 44	70.9
	99 99	2009/06/09	01	: 35: 46	71.5
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1	106	2009/06/09	01	: 35: 53	67.8
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196	2009/06/09	01	: 37: 23	66.9
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624 625	2009/06/09 2009/06/09	01 01	: 44: 31 : 44: 32	71.0 71.5
626	2009/06/09	01	: 44: 33	71.3
627 628	2009/06/09	01	: 44: 34	74.8
629 630	2009/06/09 2009/06/09	01 01	: 44: 36 : 44: 37	67.7 67.7
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652	2009/06/09	01	: 44: 58	74.0
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658 659	2009/06/09	01	: 45: 05 : 45: 06	61. T 61. 7
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667 669	2009/06/09	01	: 45: 14	73.8 74 1
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687	2009/06/09	01:	45:34	62.4
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690 691	2009/06/09	01:	45:37	64.9
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724	2009/06/09	01:	46: 11	78.5
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Freq W Time W Level Max dB Level SEL : Leq :	eight : A eight : FAST Range : 40-100 : 95.1 - 2009/06/0 Range : 40-100 102.5 73.0	9 01: 20: 54	
No.s	Date Time	(dB)	
No. s	Date Ti me 2009/06/09 01: 10: 26 2009/06/09 01: 10: 28 2009/06/09 01: 10: 30 2009/06/09 01: 10: 31 2009/06/09 01: 10: 31 2009/06/09 01: 10: 32 2009/06/09 01: 10: 33 2009/06/09 01: 10: 35 2009/06/09 01: 10: 37 2009/06/09 01: 10: 37 2009/06/09 01: 10: 38 2009/06/09 01: 10: 41 2009/06/09 01: 10: 43 2009/06/09 01: 10: 43 2009/06/09 01: 10: 43 2009/06/09 01: 10: 43 2009/06/09 01: 10: 45 2009/06/09 01: 10: 45 2009/06/09 01: 10: 54 2009/06/09 01: 10: 58 2009/06/09 01: 11: 02 2009/06/09 01: 11: 04 2009/06/09 01: 11: 02 2009/06/09 01: 11: 12 2009/06/09 01: 11: 14 2009/06/09 01: 11: 25 2009/06/09 01: 11: 26 2009/06/09		

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	96	2009/06/09	01:	12:01	75.4
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∠/1 272	2009/06/09	01:	14: 50 14: 57	o∠.5 63.0
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567	2009/06/09	01:	19:52	65.7
აიგ 569	2009/06/09	01:	19:53 19:54	65.9 66.0
570	2009/06/09	01:	19:55	69.5
ว/1 572	2009/06/09	01: 01:	19:56 19:57	73.2 74.0
573	2009/06/09	01:	19: 58 10: 50	72.9
575 575	2009/06/09	01:	20:00	67.9 65.9
576 577	2009/06/09	01:	20:01	64.5
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579 580	2009/06/09	01: 01·	20: 04 20: 05	65.9
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587 588	2009/06/09	01:2	20: 12	67.0
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594	2009/06/09	01:2	20: 19	69.5
595 596	2009/06/09 2009/06/09	01:2 01:2	20: 20 20: 21	69.2 71.9
597 598	2009/06/09	01:2	20: 22	70.7
599	2009/06/09	01:2	20: 24	72.3
600 601	2009/06/09	01:2	20: 25 20: 26	72.7 74.3
602 603	2009/06/09	01:2	20: 27	78.5 78.1
604	2009/06/09	01:2	20: 29	78.1
605 606	2009/06/09	01:2	20: 30 20: 31	78. 1 76. 9
607 608	2009/06/09 2009/06/09	01:2	20: 32 20: 33	76.2 75.3
609	2009/06/09	01:2	20: 34	78.0
611	2009/06/09	01:2	20:35	76.6
612 613	2009/06/09 2009/06/09	01:2	20: 37 20: 38	82.0 78.1
614 415	2009/06/09	01:2	20: 39	78.5
616	2009/08/09	01:2	20: 40	77.9
617 618	2009/06/09 2009/06/09	01:2	20: 42 20: 43	77.0
619	2009/06/09	01:2	20:44	81.7
621	2009/06/09	01:2	20: 45	85.2
622 623	2009/06/09 2009/06/09	01:2	20: 47 20: 48	87.2 84.2
624	2009/06/09	01:2	20: 49	80.3
626	2009/06/09	01:2	20: 51	89.0
627 628	2009/06/09 2009/06/09	01:2 01:2	20: 52 20: 53	88.0 91.9
629 630	2009/06/09	01:2	20: 54	88.4 81.8
631	2009/06/09	01:2	20: 56	82.2
632 633	2009/06/09	01:2	20: 57 20: 58	76.5 76.1
634 635	2009/06/09	01:2	20: 59 21: 00	75.2
636	2009/06/09	01:2	21:01	68.9
638	2009/08/09	01:2	21:02 21:03	69.3
639 640	2009/06/09 2009/06/09	01:2	21: 04 21: 05	67.1 64.8
641	2009/06/09	01:2	21:06	64.3
643	2009/06/09	01:2	21:08	61.4
644 645	2009/06/09	01:2	21:09 21:10	60.3 61.2
646 647	2009/06/09	01:2	21: 11 21: 12	61.4
648	2009/06/09	01:2	21: 13	63.2
650	2009/06/09	01:2	21: 14 21: 15	64.3 65.1
651 652	2009/06/09 2009/06/09	01:2	21: 16 21: 17	65.5 65.4
653	2009/06/09	01:2	21:18	64.1
655	2009/06/09	01:2	21: 20	64.7
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658 659	2009/06/09	01:2	21:23 21·24	66.5 65.0
660	2009/06/09	01:2	21: 25	62.0
661 662	2009/06/09	01:2	21:26 21:27	62.4 62.6
663 664	2009/06/09	01:2	21: 28 21: 29	62.0 62.8
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667	2009/06/09	01:2	21:32	63.5
668 669	2009/06/09 2009/06/09	01:2 01:2	21: 33 21: 34	63.1 61.3
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672	2009/06/09	01:2	21: 37	59.7
673 674	2009/06/09 2009/06/09	01:2 01:2	21:38 21:39	61.6 60.9
675 676	2009/06/09	01: 2 01· 2	21: 40 21: 41	65.4 65.5
677	2009/06/09	01:2	21:42	68.2
678 679	2009/06/09 2009/06/09	01:2 01:2	21:43 21:44	70.4 72.5

680 681	2009/06/09 2009/06/09	01 01	: 21: 45 : 21: 46	73.4 71.0
682	2009/06/09	01	21:47	72.5
683 684	2009/08/09	01	: 21: 48	73.4
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687	2009/06/09	01	: 21: 52	76.5
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693	2009/06/09	01	21:58	72.3
695	2009/06/09	01	: 22: 00	69.8
696 697	2009/06/09	01	: 22: 01 : 22: 02	70.7
698	2009/06/09	01	: 22: 03	70.1
699 700	2009/06/09	01	: 22: 04 : 22: 05	69.5 70.3
701	2009/06/09	01	: 22: 06	69.2
702	2009/06/09	01	: 22: 07	67.6
704 705	2009/06/09	01	: 22: 09 · 22· 10	67.3 68.8
706	2009/06/09	01	22:11	70.0
707	2009/06/09	01	: 22: 12 : 22: 13	71.4 69.9
709	2009/06/09	01	: 22: 14	70.4
711	2009/06/09	01	: 22: 15	68.1
712 713	2009/06/09	01	: 22: 17 · 22· 18	68.5 70.2
714	2009/06/09	01	: 22: 19	70.0
715 716	2009/06/09 2009/06/09	01	: 22: 20 : 22: 21	67.8 65.6
717	2009/06/09	01	: 22: 22	63.8
719	2009/06/09	01	: 22: 23	69.0
720 721	2009/06/09	01	: 22: 25 · 22· 26	67.5 65.8
722	2009/06/09	01	: 22: 27	62.0
723 724	2009/06/09	01	: 22: 28 : 22: 29	61.4 61.0
725	2009/06/09	01	: 22: 30	60.6
726 727	2009/06/09	01	: 22: 31 : 22: 32	63.6
728 729	2009/06/09	01	: 22: 33 · 22· 34	61.7
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731 732	2009/06/09 2009/06/09	01	: 22: 36 : 22: 37	64.3 68.0
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736 737	2009/06/09	01	: 22: 41 · 22· 42	65.1 62.7
738	2009/06/09	01	: 22: 43	62.4
739 740	2009/06/09	01	: 22: 44 : 22: 45	62.9 65.3
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744 745	2009/06/09	01	: 22: 49 · 22: 50	67.0 69.5
746	2009/06/09	01	: 22: 51	74.8
747 748	2009/06/09	01	: 22: 52 : 22: 53	74.9 73.0
749	2009/06/09	01	: 22: 54	72.5
751	2009/06/09	01	: 22: 56	75.2
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772	2009/06/09	01	. 23: 16 : 23: 17	09.5 66.8
773 774	2009/06/09	01	: 23: 18 · 23· 10	68.3
775	2009/06/09	01	: 23: 20	70.7
776 777	2009/06/09 2009/06/09	01 01	: 23: 21 : 23: 22	68.3 66.2
778	2009/06/09	01	23: 23	67.9

779 780	2009/06/09 2009/06/09	01 01	: 23: 24 : 23: 25	70.1 69.3
781 782	2009/06/09 2009/06/09	01 01	: 23: 26 : 23: 27	66.5 65.6
783 784	2009/06/09	01 01	: 23: 28	68.1 70.7
785	2009/06/09	01	: 23: 30	71.7
786	2009/06/09	01	: 23: 31	67.6
788 789	2009/06/09 2009/06/09	01 01	: 23: 33 : 23: 34	67.3 67.3
790 791	2009/06/09	01 01	: 23: 35 · 23· 36	69.1 70.0
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808	2009/06/09	01	: 23: 52	65.2
809 810	2009/06/09 2009/06/09	01	: 23: 54 : 23: 55	66.9 68.8
811 812	2009/06/09 2009/06/09	01 01	: 23: 56 : 23: 57	69.2 70.3
813	2009/06/09	01	: 23: 58	69.4
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820	2009/06/09	01	: 24: 05	75.3
822	2009/06/09	01	: 24: 08	71.6
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843	2009/06/09	01	: 24: 28	67.6
844 845	2009/06/09 2009/06/09	01	: 24: 29 : 24: 30	68.2 72.0
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855 856	2009/06/09	01 01	: 24: 40 : 24: 41	74.3 73.0
857	2009/06/09	01	: 24: 42	72.5
859	2009/06/09	01	: 24: 43	70.9
860 861	2009/06/09 2009/06/09	01 01	: 24: 45 : 24: 46	69.3 69.4
862 863	2009/06/09	01 01	: 24: 47 : 24: 48	66.7 65.1
864 865	2009/06/09	01	: 24: 49	62.8
866	2009/06/09	01	: 24: 50	62.6
867 868	2009/06/09 2009/06/09	01 01	: 24: 52 : 24: 53	64.2 66.4
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ช/4 875	2009/06/09	01 01	: 24: 59 : 25: 00	72.5 73.5
876 877	2009/06/09 2009/06/09	01 01	: 25: 01 : 25: 02	72.3 72.5

878	2009/06/09	01: 25: 03	69.8
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884	2009/06/09	01: 25: 09	59.9
885	2009/06/09	01: 25: 10	60.0
886	2009/06/09	01: 25: 11	61.5
887	2009/06/09	01: 25: 12	66.8
888	2009/06/09	01: 25: 13	69.6
889	2009/06/09	01: 25: 14	69.3
890	2009/06/09	01: 25: 15	66.3
891	2009/06/09	01: 25: 16	65.4
892	2009/06/09	01: 25: 17	66.2
893	2009/06/09	01: 25: 18	65.7
894	2009/06/09	01: 25: 19	63.7
895	2009/06/09	01: 25: 20	62.9
896	2009/06/09	01: 25: 21	62.9
897	2009/06/09	01: 25: 22	62.7
898	2009/06/09	01: 25: 23	62.7
899	2009/06/09	01: 25: 24	62.2
900	2009/06/09	01: 25: 25	62.3

RESULTS: SOUND LEVELS	î						Long Beac	h Citadel		·	1	
<organization?></organization?>							3 Januarv	2017				
<analysis by?=""></analysis>							TNM 2.5	-				
							Calculate	d with TNN	1 2.5			
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Long B	each Citad	lel								
RUN:		Existin	g									
BARRIER DESIGN:		INPUT	HEIGHTS					Average p	pavement type	shall be use	d unless	
								a State hi	ghway agency	y substantiat	es the use	1
ATMOSPHERICS:		20 deg	C, 50% RH	ł				of a differ	ent type with	approval of F	HWA.	
Receiver					-			1				
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			Lden	Lden		Increase over	existing	Туре	Calculated	Noise Reduc	ction	
				Calculated	Crit'n	Calculated	Crit'n	Impact	Lden	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
N1	1	1	0.0	71.5	66	6 71.5	5 10	Snd Lvl	71.5	0.0	) (	3 -8.0
N2	3	1	0.0	68.4	66	68.4	10	Snd Lvl	68.4	0.0	) (	3 -8.0
N3	5	1	0.0	66.9	66	66.9	) 10	Snd Lvl	66.9	0.0	) (	3 -8.0
N4	7	1	0.0	68.9	66	68.9	9 10	Snd Lvl	68.9	0.0	) (	3 -8.0
N5	9	1	0.0	61.9	66	61.9	9 10		61.9	0.0	) (	3 -8.0
N6	11	1	0.0	59.0	66	§ 59.0	) 10		59.0	0.0	) (	3 -8.0
Dwelling Units		# DUs	Noise Re	duction								
			Min	Avg	Max							
			dB	dB	dB							
All Selected		6	0.0	0.0	0.0	)						
All Impacted		4	0.0	0.0	0.0	)						
All that meet NR Goal		0	0.0	0.0	0.0	)						

RESULTS: SOUND LEVELS	ĺ	1					Long Bead	h Citadel			Ì	
<organization?></organization?>							3 January	2017				
<analysis by?=""></analysis>							TNM 2.5					
							Calculated	d with TNN	1 2.5			
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Long B	each Citad	lel								
RUN:		Existin	g Plus Pro	ject								
BARRIER DESIGN:		INPUT	HEIGHTS					Average p	pavement type	shall be use	ed unless	
								a State hi	ghway agency	y substantiat	es the use	•
ATMOSPHERICS:		20 deg	C, 50% RH	4				of a differ	ent type with	approval of F	HWA.	
Receiver					_							
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			Lden	Lden		Increase over	existing	Туре	Calculated	Noise Redu	ction	
				Calculated	Crit'n	Calculated	Crit'n	Impact	Lden	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
N1	1	1	0.0	71.6	66	71.6	6 10	Snd Lvl	71.6	0.0	)	8 -8.0
N2	3	1	0.0	67.8	66	67.8	3 10	Snd Lvl	67.8	0.0	)	8 -8.0
N3	5	i 1	0.0	67.0	66	67.0	) 10	Snd Lvl	67.0	0.0	)	8 -8.0
N4	7	<sup>'</sup> 1	0.0	68.9	66	68.9	9 10	Snd Lvl	68.9	0.0	)	8 -8.0
N5	9	1	0.0	60.0	66	60.0	) 10		60.0	0.0	)	8 -8.0
N6	11	1	0.0	58.9	66	58.9	9 10		58.9	0.0	)	8 -8.0
Dwelling Units		# DUs	Noise Re	duction	-							
			Min	Avg	Max							
			dB	dB	dB							
All Selected		6	0.0	0.0	0.0	)						
All Impacted		4	0.0	0.0	0.0	)						
All that meet NR Goal		C	0.0	0.0	0.0	)						

RESULTS: SOUND LEVELS		(					Long Beac	h Citadel		·	1	
<organization?></organization?>							3 January	2017				
<analysis by?=""></analysis>							TNM 2.5					
							Calculate	d with TNN	1 2.5			
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Long B	each Citad	lel								
RUN:		Cumula	ative									
BARRIER DESIGN:		INPUT	HEIGHTS					Average	pavement type	shall be use	d unless	
								a State hi	ghway agency	y substantiat	es the use	
ATMOSPHERICS:		20 deg	C, 50% RH	ł				of a differ	ent type with	approval of F	HWA.	
Receiver					-			1				
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			Lden	Lden		Increase over	existing	Туре	Calculated	Noise Reduc	ction	
				Calculated	Crit'n	Calculated	Crit'n	Impact	Lden	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
N1	1	1	0.0	71.6	66	71.6	6 10	Snd Lvl	71.6	0.0	) (	8 -8.0
N2	3	5 1	0.0	68.9	66	68.9	9 10	Snd Lvl	68.9	0.0	) (	8 -8.0
N3	5	i 1	0.0	67.1	66	67.1	1 10	Snd Lvl	67.1	0.0	) (	8 -8.0
N4	7	· 1	0.0	69.0	66	69.0	0 10	Snd Lvl	69.0	0.0	) (	8 -8.0
N5	9	1	0.0	62.1	66	62.1	1 10		62.1	0.0	) (	8 -8.0
N6	11	1	0.0	59.1	66	59.1	1 10		59.1	0.0	) (	8 -8.0
Dwelling Units		# DUs	Noise Re	duction								
			Min	Avg	Max							
			dB	dB	dB							
All Selected		6	0.0	0.0	0.0							
All Impacted		4	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0	)						

RESULTS: SOUND LEVELS		1				1	Long Beac	h Citadel	1			
<organization?></organization?>							3 January	2017				
<analysis by?=""></analysis>							TNM 2.5					
							Calculated	d with TNN	1 2.5			
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		Long B	each Citad	lel								
RUN:		Cumula	ative Plus F	Project								
BARRIER DESIGN:		INPUT	HEIGHTS					Average p	pavement type	shall be use	d unless	
								a State hi	ghway agency	y substantiat	es the use	•
ATMOSPHERICS:		20 deg	C, 50% RH	4			l	of a differ	ent type with	approval of F	HWA.	
Receiver					_							
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			Lden	Lden		Increase over	existing	Туре	Calculated	Noise Reduc	ction	
				Calculated	Crit'n	Calculated	Crit'n	Impact	Lden	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
N1	1	1	0.0	71.7	66	71.7	7 10	Snd Lvl	71.7	0.0	)	8 -8.0
N2	3	1	0.0	68.9	66	68.9	) 10	Snd Lvl	68.9	0.0	)	8 -8.0
N3	5	1	0.0	67.1	66	67.1	10	Snd Lvl	67.1	0.0	)	8 -8.0
N4	7	1	0.0	69.0	66	69.0	) 10	Snd Lvl	69.0	0.0	)	8 -8.0
N5	9	1	0.0	60.3	66	60.3	3 10		60.3	0.0	)	8 -8.0
N6	11	1	0.0	59.0	66	59.0	) 10		59.0	0.0	)	8 -8.0
Dwelling Units		# DUs	Noise Re	duction	-							
			Min	Avg	Max							
			dB	dB	dB							
All Selected		6	0.0	0.0	0.0							
All Impacted		4	0.0	0.0	0.0	1						
All that meet NR Goal		0	0.0	0.0	0.0							

Appendix C

Traffic Study





# TRAFFIC IMPACT ANALYSIS SALVATION ARMY LONG BEACH CITADEL EXPANSION PROJECT Long Beach, California

December 9, 2016

Prepared for: **RINCON CONSULTANTS, INC.** 180 NORTH ASHWOOD AVENUE Ventura, CA 93003



LLG Ref. 2-16-3722-1



Prepared by:

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## **EXECUTIVE SUMMARY**

#### **Project Description**

- The project site is L-shaped and consists of several parcels of land that are generally located north of Spring Street, east of Long Beach Boulevard, south of 31<sup>st</sup> Street and west of Pasadena Avenue in the City of Long Beach, California. Existing development at the Salvation Army Long Beach Citadel Property consists of four (4) buildings with a total floor area of 59,765 square-feet (SF), one of which includes a new Community Center/Chapel that is now under construction, an administrative office building, a social services building, and the current Chapel. It is our understanding that the new Community Center/Chapel, which will be located at 3012 Long Beach Boulevard, will replace the current Chapel, which is located at 455 Spring Street.
- The proposed Project includes modification and expansion of the current property into a campus-like setting within an overall building area of existing and new floor area totaling 61,307 SF. The proposed Project includes the construction of a new gymnasium with a total floor area of 21,958 SF, a new 2,650 SF lobby/multi-purpose room to be constructed adjacent to the Community Center/Chapel now under construction. The Project also includes construction of one (1) full size Soccer Field in place of the existing 23,066 SF Chapel/Community Center located at 455 Spring Street. In addition to the above-identified improvements, the proposed Project also includes the vacation of an existing alley between 31<sup>st</sup> Street and Spring Street, bordering the Community Center / Chapel and the proposed Gym property to allow for the development of a pedestrian promenade to link the two buildings, and the proposed vacation of Elm Avenue, adjacent to the soccer field site just north of Spring Street, to form a cul-de-sac. The project also includes construction of a new 70-space surface parking lot on the northeast corner of Pasadena Avenue and Spring Street.
- From the above Project description, the traffic impact analysis report will analyze the impacts associated with 24,608 SF of new square footage (i.e. 21,958 SF new gymnasium and 2,650 SF new lobby/multipurpose) and one (1) soccer field. The proposed Project is expected to be completed and fully operational by the Year 2018.
- Vehicular access to the campus will be provided via existing site driveways on both Long Beach Boulevard and Spring Street and a proposed driveway located on Pasadena Avenue. The existing driveways on Long Beach Boulevard and Spring Street are referred to as Project Driveway No. 1 and Project Driveway No. 2, respectively. The proposed driveway on Pasadena Avenue is referred to as Project Driveway No. 3.

The proposed Project is forecast to generate approximately 903 daily trips, with 52 trips (34 inbound, 18 outbound) produced in the AM peak hour and 85 trips (45 inbound, 40 outbound) produced in the PM peak hour on a typical weekday.

#### Study Area

- ➤ The thirty (30) key study intersections selected for evaluation in this report provide local access within the project study area. They consist of the following:
  - 1) 31<sup>st</sup> Street at Long Beach Boulevard
  - 2) Spring Street at Long Beach Boulevard
  - 3) Spring Street at Pacific Avenue
  - 4) Spring Street at Elm Avenue
  - 5) Spring Street at Pasadena Avenue
  - 6) Spring Street at Atlantic Avenue

#### **Cumulative Projects Description**

The nine (9) cumulative projects are expected to generate a combined total of 2,922 daily trips, 199 AM peak hour trips (63 inbound and 136 outbound) and 231 PM peak hour trips (138 inbound and 93 outbound) on a typical weekday.

### **Traffic Impact Analysis**

### Existing Traffic Conditions

Two (2) of the six (6) key study intersections currently operate at an unacceptable service level during the AM and/or PM peak hours. The remaining four (4) key study intersections currently operate at an acceptable service level during the AM and PM peak hours. The locations projected to operate at an adverse LOS are as follows:

	AM Peak	<u>PM Peak Hour</u>		
Key Intersection	ICU/HCM	LOS	ICU/HCM	LOS
1. Long Beach Boulevard at 31 <sup>st</sup> Street			74.3 s/v	F
5. Pasadena Avenue at Spring Street	45.3 s/v	Е	62.0 s/v	F

#### Existing With Project Traffic Conditions

The proposed Project will significantly impact one (1) of the six (6) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. Although the intersection of Long Beach Boulevard/31<sup>st</sup> Street is forecast to operate at unacceptable LOS F during the PM peak hour, the delay value with project traffic is less than the delay value for existing traffic conditions. The remaining key study intersections

currently operate and are forecast to continue to operate at an acceptable service level during the AM and PM peak hours with the addition of Project generated traffic to existing traffic. The intersection impacted under existing plus project traffic conditions is as follows:

	AM Peak	PM Peak Hour		
Key Intersection	ICU/HCM	LOS	ICU/HCM	LOS
5. Pasadena Avenue at Spring Street	39.0 s/v	Е	70.5 s/v	F

The implementation of improvements at the impacted key study intersection completely offsets the impact of project traffic and the impacted key study intersection is forecast to operate at an acceptable LOS during the AM and PM peak hours.

#### Year 2018 Cumulative Traffic Conditions

An analysis of future (Year 2018) cumulative traffic conditions indicates that the addition of ambient traffic growth and cumulative projects traffic will adversely impact three (3) of the six (6) key study intersections. The remaining three (3) key study intersections are forecast to continue to operate at acceptable levels of service during the AM and PM peak hours with the addition of ambient traffic growth and cumulative projects traffic. The locations projected to operate at an adverse LOS are as follows:

	AM Peak	PM Peak Hour		
Key Intersection	ICU/HCM	LOS	ICU/HCM	LOS
1. Long Beach Boulevard at 31 <sup>st</sup> Street			86.6 s/v	F
5. Pasadena Avenue at Spring Street	48.2 s/v	Е	71.9 s/v	F
6. Atlantic Avenue at Spring Street			0.914	Е

#### Year 2018 Cumulative Plus Project Traffic Conditions

The proposed Project will significantly impact one (1) of the six (6) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. Although the intersection of Long Beach Boulevard/31<sup>st</sup> Street is forecast to operate at unacceptable LOS F during the PM peak hour, the delay value with project traffic is less than the delay value for cumulative traffic conditions. Further, although the intersection of Atlantic Avenue/Spring Street is forecast to operate at unacceptable LOS E during the PM peak hour with the addition of project traffic, the proposed Project is expected to add less than the allowable threshold to the ICU value. The remaining key study intersections are forecast to continue to operate at an acceptable LOS with the addition of project traffic in the Year 2018. The intersection impacted under Year 2018 plus project traffic conditions is as follows:

	<u>AM Peak l</u>	PM Peak Hour		
Key Intersection	ICU/HCM	LOS	ICU/HCM	LOS
5. Pasadena Avenue at Spring Street	41.9 s/v	Е	82.4s/v	F

The implementation of improvements at the impacted key study intersection completely offsets the impact of project traffic and the impacted key study intersection is forecast to operate at an acceptable LOS during the AM and PM peak hours.

#### **Site Access Evaluation**

- Vehicular access to the campus will be provided via existing site driveways on both Long Beach Boulevard and Spring Street and a proposed driveway located on Pasadena Avenue. The existing driveways on Long Beach Boulevard and Spring Street are referred to as Project Driveway No. 1 and Project Driveway No. 2, respectively. The proposed driveway on Pasadena Avenue is referred to as Project Driveway No. 3. The project driveways are forecast to operate at acceptable LOS B or better during the AM and PM peak hours for existing plus project traffic conditions and Year 2018 plus project traffic conditions. As such, project access will be adequate. Motorists entering and exiting the Project site will be able to do so comfortably, safely, and without undue congestion.
- ➤ The on-site circulation layout of the proposed Project as illustrated in *Figure 2-2* on an overall basis is adequate. Curb return radii have been confirmed and are generally adequate for small service/delivery (FedEx, UPS) trucks and trash trucks

#### **Project Specific Improvements**

- > The following improvements will be constructed by the proposed Project:
  - The proposed Project also includes the vacation of an existing alley between 31<sup>st</sup> Street and Spring Street, bordering the Community Center / Chapel and the proposed Gym property to allow for the development of a pedestrian promenade to link the two buildings.
  - The proposed Project also includes the proposed vacation of Elm Avenue, adjacent to the soccer field site just north of Spring Street, to form a cul-de-sac.

#### **Recommended Improvements**

#### Existing Plus Project Traffic Conditions

- The proposed Project will significantly impact one (1) of the six (6) key study intersections under the "Existing Plus Project" traffic scenario. The following are improvements recommended to mitigate the existing plus project traffic impacts:
  - No. 5 Pasadena Avenue at Spring Street: Install a two-phase traffic signal. The installation of this improvement is subject to the approval of the City of Long Beach. It should be noted that this key study intersection satisfies the peak hour signal warrant under existing traffic conditions (i.e. Warrant #3 described in the current *California Manual on Uniform Traffic Control Devices (MUTCD)*.

#### Year 2018 Cumulative Plus Project Traffic Conditions

- The proposed Project will significantly impact one (1) of the six (6) key study intersections under the "Year 2018 Plus Project" traffic scenario. The following are improvements recommended to mitigate the Year 2018 plus project traffic impacts:
  - No. 5 Pasadena Avenue at Spring Street: Install a two-phase traffic signal. The installation of this improvement is subject to the approval of the City of Long Beach. It should be noted that this key study intersection satisfies the peak hour signal warrant under existing traffic conditions (i.e. Warrant #3 described in the current *California Manual on Uniform Traffic Control Devices (MUTCD)*.

#### **Congestion Management Program Compliance Assessment**

No significant impacts are expected to occur on the Los Angeles County Congestion Management Program roadway network (i.e. arterial monitoring intersection locations or freeway monitoring locations) due to the development and full occupancy of the proposed Project.

# TRAFFIC IMPACT ANALYSIS SALVATION ARMY LONG BEACH CITADEL EXPANSION PROJECT Long Beach, California

December 9, 2016

## **1.0** INTRODUCTION

This Traffic Impact Analysis report addresses the potential traffic impacts and circulation needs associated with the proposed Salvation Army Long Beach Citadel Expansion Project (hereinafter referred to as Project). The proposed Project includes modification and expansion of the current property into a campus-like setting within an overall building area of existing and new floor area totaling 61,307 SF. In addition to the above-identified improvements, the proposed Project also includes the vacation of an existing alley between 31<sup>st</sup> Street and Spring Street, and the proposed vacation of Elm Avenue, just north of Spring Street, to form a cul-de-sac. The project site is L-shaped and consists of several parcels of land that are generally located north of Spring Street, east of Long Beach Boulevard, and south of 31<sup>st</sup> Street and west of Pasadena Avenue in the City of Long Beach, California.

### 1.1 Scope of Work

This report documents the findings and recommendations of a traffic impact analysis, conducted by Linscott, Law & Greenspan, Engineers (LLG) to determine the potential impacts associated with the proposed Project. The traffic analysis evaluates the existing operating conditions at six (6) key study intersections within the project vicinity, estimates the trip generation potential of the proposed Project, and forecasts future operating conditions without and with the Project. Where necessary, intersection improvements/mitigation measures are identified to offset the impact of the proposed Project.

This traffic report satisfies the traffic impact requirements of the City of Long Beach and is consistent with the requirements and procedures outlined in the most current *Congestion Management Program (CMP) for Los Angeles County.* The Scope of Work for this traffic study, which is included in *Appendix A*, was developed in conjunction with City of Long Beach Engineering Division staff.

The Project site has been visited and an inventory of adjacent area roadways and intersections was performed. Existing peak hour traffic information has been collected at the six (6) key study locations on a "typical" weekday for use in the preparation of intersection level of service calculations. Information concerning cumulative projects (planned and/or approved) in the vicinity of the project has been researched at the City of Long Beach and the City of Signal Hill. Based on our research, nine (9) cumulative projects were considered in the cumulative traffic analysis for this project. Of this total, five (5) cumulative projects are located in the City of Long Beach and four (4) cumulative projects are located in the City of Signal Hill.

Based on City of Long Beach requirements, this traffic report analyzes existing and future (nearterm) weekday AM and PM peak hour traffic conditions for existing and Year 2018 traffic conditions without and with the proposed Project. Peak hour traffic forecasts for the Year 2018 horizon year have been projected by increasing existing traffic volumes by an annual growth rate of one percent (1.0%) per year and adding traffic volumes generated by nine (9) cumulative projects.

#### 1.2 Study Area

The thirty (30) key study intersections selected for evaluation in this report provide local access within the project study area. They consist of the following:

- 1) 31<sup>st</sup> Street at Long Beach Boulevard
- 2) Spring Street at Long Beach Boulevard
- 3) Spring Street at Pacific Avenue
- 4) Spring Street at Elm Avenue
- 5) Spring Street at Pasadena Avenue
- 6) Spring Street at Atlantic Avenue

*Figure 1-1* presents a Vicinity Map, which illustrates the general location of the project and depicts the study locations and surrounding street system. The Volume-Capacity (V/C) and Level of Service (LOS) investigations at these key locations were used to evaluate the potential traffic-related impacts associated with the proposed Project.

Included in this traffic study report are:

- Existing traffic counts,
- Estimated project traffic generation/distribution/assignment,
- Estimated cumulative project traffic generation/distribution/assignment,
- AM and PM peak hour capacity analyses for existing conditions,
- AM and PM peak hour capacity analyses for existing plus project conditions,
- AM and PM peak hour capacity analyses for future (Year 2018) conditions without and with project traffic,
- Site Access and Internal Circulation Evaluation,
- Recommended Improvements, and
- Congestion Management Program Compliance Assessment.



## 2.0 PROJECT DESCRIPTION

The project site is L-shaped and consists of several parcels of land that are generally located north of Spring Street, east of Long Beach Boulevard, and south of 31<sup>st</sup> Street and west of Pasadena Avenue in the City of Long Beach, California. Existing development at the Salvation Army Long Beach Citadel Property, as identified below in *Table 2-1*, consists of four (4) buildings with a total floor area of 59,765 square-feet (SF), one of which includes a new Community Center/Chapel that is now under construction, an administrative office building, a social services building, and the current Chapel. It is our understanding that the new Community Center/Chapel, which will be located at 3012 Long Beach Boulevard, will replace the current Chapel, which is located at 455 Spring Street. *Figure 2-1* presents an aerial depiction of the project site.

EXISTING DEVELOPMENT SUMMARY		
Ex	isting Development	Square-footage SF
•	Community Center / Chapel (under construction)	26,584 SF
•	Administrative Offices	3,560 SF
•	Social Services	6,555 SF
•	Current Chapel / Community Center	23,066 SF
	Total Existing Floor Area	59,765 SF

TABLE 2-1 Existing Development Summary

*Figure 2-2* presents the proposed site plan for the proposed Project, prepared by Kardent Design. As shown in *Table 2-2*, the proposed Project includes modification and expansion of the current property into a campus-like setting within an overall building area of existing and new floor area totaling 61,307 SF. The proposed Project includes the construction of a new gymnasium with a total floor area of 21,958 SF, a new 2,650 SF lobby/multi-purpose room to be constructed adjacent to the Community Center/Chapel now under construction. The Project also includes construction of one (1) full size Soccer Field in place of the existing 23,066 SF Chapel/Community Center located at 455 Spring Street.

TABLE 2-2 PROPOSED DEVELOPMENT SUMMARY

Proposed Development		Square-footage SF)
•	Community Center / Chapel (under construction)	26,584 SF
•	New Lobby/Multi-purpose room	+2,650 SF
•	Administrative Offices	3,560 SF
•	Social Services	6,555 SF
•	Demolish Current Chapel / Community Center	-23,066 SF
	New Gymnasium	+21,958 SF
	Total Proposed Floor Area	61,307 SF

In addition to the above-identified improvements, the proposed Project also includes the vacation of an existing alley between 31<sup>st</sup> Street and Spring Street, bordering the Community Center / Chapel and the proposed Gym property to allow for the development of a pedestrian promenade to link the two buildings, and the proposed vacation of Elm Avenue, adjacent to the soccer field site just north of Spring Street, to form a cul-de-sac. The project also includes construction of a new 70-space surface parking lot on the northeast corner of Pasadena Avenue and Spring Street.

From the above Project description, the traffic impact analysis report will analyze the impacts associated with 24,608 SF of new square footage (i.e. 21,958 SF new gymnasium and 2,650 SF new lobby/multipurpose) and one (1) soccer field. The proposed Project is expected to be completed and fully operational by the Year 2018.

### 2.1 Site Access

As shown in *Figure 2-2*, vehicular access to the campus will be provided via existing site driveways on both Long Beach Boulevard and Spring Street and a proposed driveway located on Pasadena Avenue. The existing driveways on Long Beach Boulevard and Spring Street are referred to as Project Driveway No. 1 and Project Driveway No. 2, respectively. The proposed driveway on Pasadena Avenue is referred to as Project Driveway No. 3.

### 2.2 Pedestrian Circulation

Pedestrian circulation would be provided via existing public sidewalks along Spring Street and Long Beach Boulevard within the vicinity of the project frontage, which will connect to the project's internal walkways. The Project will protect the existing sidewalk along project frontage and if necessary repair or reconstruct sidewalks along the project frontage per the City's request. The existing sidewalk system within the project vicinity provides direct connectivity to the adjacent existing residential community, commercial development and public transit along Long Beach Boulevard.







# 3.0 EXISTING CONDITIONS

## 3.1 Existing Street System

The principal local network of streets serving the project site includes 31<sup>st</sup> Street, Spring Street, Long Beach Boulevard and Pasadena Avenue. The following discussion provides a brief synopsis of these key area streets. The descriptions are based on an inventory of existing roadway conditions.

**31<sup>st</sup> Street** is a two-lane, undivided roadway oriented in the east-west direction. Parking is permitted on both sides of the roadway within the vicinity of the project. The prima face speed limit is 25 miles per hour (mph).

**Spring Street** is a two-lane, divided roadway west of Long Beach Boulevard, and a four-lane divided roadway east of Long Beach Boulevard, oriented in the east-west direction. Parking is permitted on both sides of the roadway west of Long Beach Boulevard, but parking is not permitted on either side of the roadway east of Long Beach Boulevard. The posted speed limit on Spring Street is 30 mph.

**Long Beach Boulevard** is a four-lane, divided roadway oriented in the north-south direction. Parking is permitted on both sides of the roadway within the vicinity of the project. The posted speed limit on Long Beach Boulevard is 35 mph.

**Pasadena Avenue** is a two-lane, undivided roadway oriented in the north-south direction. Parking is permitted on both sides of the roadway within the vicinity of the project. The prima face speed limit is 25 mph.

*Figure 3-1* presents an inventory of the existing roadway conditions for the arterials and intersections evaluated in this report. The number of travel lanes and intersection controls for the key area intersections are identified.

## 3.2 Existing Traffic Volumes

Six (6) key study intersections have been identified as the locations at which to evaluate existing and future traffic operating conditions. Some portion of potential project-related traffic will pass through each of these intersections, and their analysis will reveal the expected impact associated with the proposed Project.

Existing weekday peak hour traffic volumes for the six (6) key study intersections evaluated in this report were obtained from manual turning movement counts conducted by Transportation Studies, Inc. in September 2016.

*Figures 3-2* and *3-3* illustrate the existing weekday AM and PM peak hour traffic volumes at the six (6) key study intersections evaluated in this report, respectively. *Appendix B* contains the detailed peak hour count sheets for the key intersections evaluated in this report.

## 3.3 Existing Public Transit

The Los Angeles County Metropolitan Transportation Authority and Long Beach Transit (LBT) provide public transit services in the vicinity of the proposed Project. In the vicinity of the Project, LBT Route 51, LBT Route 52, LA Metro Blue Line, and LA Metro Line 60 currently serve Long Beach Boulevard, LBT Routes 61, 101, and 103 currently serve Atlantic Avenue, LBT Route 131 currently serves Wardlow Road, and LBT Route 182 currently serves Pacific Avenue. *Figure 3-4* graphically illustrates the transit routes of Long Beach Transit within the vicinity of the Project site. *Figure 3-5* graphically illustrates the transit routes of the Project site. *Figure 3-6* identifies the location of the existing LBT bus stops in proximity to the Project site.

## 3.4 Existing Bicycle Master Plan

The City of Long Beach promotes bicycling as a means of mobility and a way in which to improve the quality of life within its community. The Bicycle Master Plan recognizes the needs of bicycle users and aims to create a complete and safe bicycle network throughout the City. The City of Long Beach Bicycle Facilities in the vicinity of the Project site (existing and proposed) is shown on *Figure 3-7*.

# 3.5 Existing Intersection Conditions

Existing AM and PM peak hour operating conditions for the key signalized study intersections were evaluated using the *Intersection Capacity Utilization* (ICU) methodology for signalized intersections.

# 3.5.1 Intersection Capacity Utilization (ICU) Method of Analysis

In conformance with City of Long Beach and LA County CMP requirements, existing weekday peak hour operating conditions for the key signalized study intersections were evaluated using the Intersection Capacity Utilization (ICU) method. The ICU technique is intended for signalized intersection analysis and estimates the volume to capacity (V/C) relationship for an intersection based on the individual V/C ratios for key conflicting traffic movements. The ICU numerical value represents the percent signal (green) time, and thus capacity, required by existing and/or future traffic. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

Per LA County CMP requirements, the ICU calculations use a lane capacity of 1,600 vehicles per hour (vph) for left-turn, through, and right-turn lanes, and dual left turn capacity of 2,880 vph. A clearance interval is also added to each Level of Service calculation. Per City of Long Beach requirements, a clearance adjustment factor of 0.10 was added to each Level of Service calculation.

The ICU value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding ICU value range and are shown in *Table 3-1*. The ICU value is the sum of the critical volume to capacity ratios at an intersection; it is not intended to be indicative of the LOS of each of the individual turning movements.
#### 3.5.2 Highway Capacity Manual (HCM) Method of Analysis (Unsignalized Intersections)

The HCM unsignalized methodology for stop-controlled intersections was utilized for the analysis of the unsignalized intersections and project driveways. This methodology estimates the average control delay for each of the subject movements and determines the level of service for each movement. For all-way stop controlled intersections, the overall average control delay measured in seconds per vehicle, and level of service is then calculated for the entire intersection. For one-way and two-way stop-controlled (minor street stop-controlled) intersections, this methodology estimates the worst side street delay, measured in seconds per vehicle and determines the level of service for that approach. The HCM control delay value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding HCM control delay value range, as shown in *Table 3-2*.

#### 3.5.3 Level of Service Criteria

According to the City of Long Beach, LOS D is the minimum acceptable condition that should be maintained during the peak commute hours, or the current LOS if the existing LOS is worse than LOS D (i.e. LOS E of F).

#### 3.6 Existing Level of Service Results

**Table 3-3** summarizes the existing peak hour service level calculations for the six (6) key study intersections based on existing traffic volumes and current street geometrics. Review of *Table 3-3* indicates that two (2) of the six (6) key study intersections currently operate at an unacceptable service level during the AM and/or PM peak hours. The remaining four (4) key study intersections currently operate at an acceptable service level during the AM and PM peak hours. The locations projected to operate at an adverse LOS are as follows:

	AM Peak	<u>PM Peak Hour</u>		
Key Intersection	ICU/HCM	LOS	ICU/HCM	LOS
1. Long Beach Boulevard at 31 <sup>st</sup> Street			74.3 s/v	F
5. Pasadena Avenue at Spring Street	45.3 s/v	Е	62.0 s/v	F

Appendix C contains the detailed peak hour level of service worksheets for the key intersections evaluated in this report.















Level of Service (LOS)	Intersection Capacity Utilization Value (V/C)	Level of Service Description
А	≤ 0.600	EXCELLENT. No vehicle waits longer than one red light, and no approach phase is fully used.
В	0.601 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
С	0.701 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
Е	0.901 - 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Potentially very long delays with continuously increasing queue lengths.

 Table 3-1

 Level of Service Criteria For Signalized Intersections

Level of Service (LOS)	Highway Capacity Manual Delay Value (sec/veh)	Level of Service Description
А	≤ 10.0	Little or no delay
В	$> 10.0 \text{ and} \le 15.0$	Short traffic delays
С	$> 15.0$ and $\le 25.0$	Average traffic delays
D	$> 25.0$ and $\le 35.0$	Long traffic delays
Е	$> 35.0 \text{ and } \le 50.0$	Very long traffic delays
F	> 50.0	Severe congestion

 TABLE 3-2

 Level of Service Criteria For Unsignalized Intersections<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Source: *Highway Capacity Manual 2010*, Chapter 19 (Unsignalized Intersections).

Key	Intersections	Time Period	Control Type	ICU/HCM	LOS
1	Long Beach Boulevard at	AM	Two-Way	31.5 s/v	D
1.	31 <sup>st</sup> Street	PM	Stop	74.3 s/v	F
2.	Long Beach Boulevard at	AM	3Ø Traffic	0.766	С
	Spring Street	РМ	Signal	0.827	D
2	Pacific Avenue at	AM	2Ø Traffic	0.786	С
з.	Spring Street	РМ	Signal	0.793	С
4	Elm Avenue at	AM	One-Way	11.0 s/v	В
4.	Spring Street	PM	Stop	11.7 s/v	В
5	Pasadena Avenue at	AM	Two-Way	45.3 s/v	Е
5.	Spring Street	РМ	Stop	62.0 s/v	F
6	Atlantic Avenue at	AM	6Ø Traffic	0.774	С
0.	Spring Street	РМ	Signal	0.896	D

 TABLE 3-3

 EXISTING (YEAR 2016) PEAK HOUR INTERSECTION CAPACITY ANALYSIS

Notes:

- ICU = Intersection Capacity Utilization
- s/v = seconds per vehicle (delay)
- LOS = Level of Service, please refer to *Tables 3-1* and *3-2* for the LOS definitions
- $\emptyset$  = Phase

# 4.0 TRAFFIC FORECASTING METHODOLOGY

In order to estimate the traffic impact characteristics of the proposed Project, a multi-step process has been utilized. The first step is traffic generation, which estimates the total arriving and departing traffic on a peak hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the project development tabulation.

The second step of the forecasting process is traffic distribution, which identifies the origins and destinations of inbound and outbound project traffic. These origins and destinations are typically based on demographics and existing/expected future travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and project traffic assignments developed, the impact of the project is isolated by comparing operational (LOS) conditions at selected key intersections using expected future traffic volumes with and without forecast project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated.

# 5.0 PROJECT TRAFFIC CHARACTERISTICS

## 5.1 Project Traffic Generation

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation equations and/or rates used in the traffic forecasting procedure are found in the 9<sup>th</sup> Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE) [Washington D.C., 2012].

**Table 5-1** summarizes the trip generation rates used in forecasting the vehicular trips generated by the proposed Project and also presents the project's forecast peak hour and daily traffic volumes. As shown, the trip generation potential of the proposed Project was estimated using ITE Land Use 448: Soccer Complex trip rates and ITE Land Use 495: Recreational Community Center trip rates. Review of *Table 5-1* indicates that the proposed Project is forecast to generate approximately 903 daily trips, with 52 trips (34 inbound, 18 outbound) produced in the AM peak hour and 85 trips (45 inbound, 40 outbound) produced in the PM peak hour on a typical weekday.

## 5.2 Project Traffic Distribution and Assignment

*Figure 5-1* illustrates the general, directional traffic distribution pattern for the proposed Project. Project traffic volumes both entering and exiting the project site have been distributed and assigned to the adjacent street system based on the following considerations:

- location of site access points in relation to the surrounding street system,
- the site's proximity to major traffic carriers and regional access routes,
- physical characteristics of the circulation system such as lane channelization and presence of traffic signals that affect travel patterns, and
- ingress/egress availability at the project site.

It should be noted that 5.0% of the traffic associated with the proposed Project was assumed to be non-auto based trips (i.e. transit, bike, walk, etc.).

The anticipated AM and PM peak hour traffic volumes associated with the proposed Project are presented in *Figures 5-2* and *5-3*, respectively. The traffic volume assignments presented in *Figures 5-2* and *5-3* reflect the traffic distribution characteristics shown in *Figure 5-1* and the traffic generation forecast presented in *Table 5-1*.

### 5.3 Existing Plus Project Traffic Conditions

The existing plus project traffic conditions have been generated based upon existing conditions and the estimated project traffic. These forecast traffic conditions have been prepared pursuant to the California Environmental Quality Act (CEQA) guidelines, which require that the potential impacts of a Project be evaluated upon the circulation system as it currently exists. This traffic volume scenario and the related intersection capacity analyses will identify the roadway improvements necessary to mitigate the direct traffic impacts of the Project, if any.

*Figures 5-4* and *5-5* present projected AM and PM peak hour traffic volumes at the six (6) key study intersections with the addition of the trips generated by the proposed Project to existing traffic volumes, respectively. It should be noted that the traffic volumes shown in *Figures 5-4* and *5-5* include the re-routed traffic associated with the vacation of Elm Avenue, north of Spring Street and the construction of a cul-de-sac on Elm Avenue, north of the project site.

ITE Land Use Code /		Daily	AM Peak Hour			PM Peak Hour		
Pr	oject Description	2-Way	Enter	Exit	Total	Enter	Exit	Total
Generation Rates:								
•	ITE 448: Soccer Complex (TE/Field)	71.33	57%	43%	1.12	67%	33%	17.70
•	ITE 495: Recreational Community Center (TE/1000 SF)	33.82	66%	34%	2.05	49%	51%	2.74
Ge	neration Forecast:							
•	Proposed Project – Soccer Field (1 Field)	71	1	1	2	12	6	18
•	Proposed Project – Recreation Community Center (24,608 SF)	832	33	17	50	33	34	67
Total Project Trip Generation		903	34	18	52	45	40	85

TABLE 5-1 PROJECT TRIP GENERATION FORECAST<sup>2</sup>

Notes:

TE/Field = Trip end per field TE/1000 SF = Trip end per 1000 SF of development

<sup>2</sup> Source: Trip Generation, 9th Edition, Institute of Transportation Engineers, (ITE) [Washington, D.C. (2012)].



SALVATION ARMY LONG BEACH CITADEL EXPANSION PROJECT, LONG BEACH











GREENSPAN

engineers

NO SCALE

OF THE PROPOSED PROJECT = PROJECT SITE EXISTING PLUS PROJECT = EXISTING SITE AM PEAK HOUR TRAFFIC VOLUMES SALVATION ARMY LONG BEACH CITADEL EXPANSION PROJECT, LONG BEACH



SALVATION ARMY LONG BEACH CITADEL EXPANSION PROJECT, LONG BEACH

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# 6.0 FUTURE TRAFFIC CONDITIONS

## 6.1 Ambient Traffic Growth

Cumulative traffic growth estimates have been calculated using an ambient growth factor. The ambient traffic growth factor is intended to include unknown and future cumulative projects in the study area, as well as account for regular growth in traffic volumes due to the development of projects outside the study area. The future growth in traffic volumes has been calculated at one percent (1.0%) per year. Applied to existing Year 2016 traffic volumes results in a two percent (2.0%) increase of growth in existing volumes to horizon year 2018.

Please note that the recommended ambient growth factor is generally consistent with the background traffic growth estimates contained in the most current *Congestion Management Program for Los Angeles County*. It should be further noted that the 1.0% per year ambient growth factor was approved by City of Long Beach staff.

### 6.2 Cumulative Projects Traffic Characteristics

The City of Long Beach identified five (5) cumulative projects and the City of Signal Hill identified four (4) cumulative projects within the Project study area. Cumulative projects, as defined by Section 15355 of the CEQA Guidelines, are "closely related past, present and reasonably foreseeable probable future projects". The Traffic Impact Analysis assumes that all of these cumulative projects will be developed and operational when the proposed Project is operational. This is the most conservative, worst-case approach, since the exact timing of each cumulative project is uncertain. In addition, impacts for these cumulative projects would likely be, or have been, subject to mitigation measures, which could reduce potential impacts. Under this analysis, however, those mitigation measures are not considered. With this information, the potential impact of the proposed Project can be evaluated within the context of the cumulative impact of all ongoing development. These nine (9) cumulative projects have been included as part of the cumulative background setting.

*Table 6-1* provides the location and a brief description for each of the nine (9) cumulative projects. *Figure 6-1* graphically illustrates the location of the cumulative projects. These cumulative projects are expected to generate vehicular traffic, which may affect the operating conditions of the key study intersections.

*Table 6-2* presents the development totals and resultant trip generation for the nine (9) cumulative projects. As shown in *Table 6-2*, the nine (9) cumulative projects are expected to generate a combined total of 2,922 daily trips, 199 AM peak hour trips (63 inbound and 136 outbound) and 231 PM peak hour trips (138 inbound and 93 outbound) on a typical weekday.

The AM and PM peak hour traffic volumes associated with the nine (9) cumulative projects are presented in *Figures 6-2* and *6-3* respectively.

No.	Cumulative Project	Location	Description	
<u>City</u>	of Long Beach			
1.	2250 E. Carson Street	2250 E. Carson Street	1,850 SF fast-food with drive-thru	
2.	540-558 E. Willow Street Apartments	540-558 E. Willow Street	23 DU apartments	
3.	2441 Long Beach Boulevard Retail	2441 Long Beach Boulevard	6,974 square-feet of retail	
4.	1836 Locust Avenue Apartments	1836 Locust Avenue	37 DU affordable housing	
5.	1795 Long Beach Boulevard	1795 Long Beach Boulevard	101 DU apartments and 2,667 SF retail	
City of	of Signal Hill			
6.	Far West Industries	N/E corner of Walnut Avenue at Crescent Heights Street	25 DU single-family homes	
7.	Meta Housing	1500 E. Hill Street	72 DU apartments	
8.	3355 Olive Avenue	3355 Olive Avenue	3,991 SF warehouse and 2,299 SF office building	
9.	2355 Walnut Avenue	2355 Walnut Avenue	9,976 SF warehouse and office building	

 TABLE 6-1

 LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Source: City of Long Beach and Signal Hill Planning Departments.

		Daily	AM Peak Hour			PM Peak Hour			
Cumulative Project Description		2-way	In	Out	Total	In	Out	Total	
1.	2250 E. Carson Street	688	22	21	43	15	15	30	
2.	540-558 E. Willow Street Apartments	153	2	10	12	9	5	14	
3.	2441 Long Beach Boulevard Retail	268	4	2	6	8	9	17	
4.	1836 Locust Avenue Apartments	246	4	15	19	15	8	23	
5.	1795 Long Beach Boulevard	775	12	43	55	44	26	70	
6.	Far West Industries	238	5	14	19	16	9	25	
7.	Meta Housing	479	7	30	37	29	16	45	
8.	3355 Olive Avenue	39	5	0	5	1	3	4	
9.	2355 Walnut Avenue	36	2	1	3	1	2	3	
Total Cumulative Projects Trip Generation Potential		2,922	63	136	199	138	93	231	

 TABLE 6-2

 CUMULATIVE PROJECTS TRAFFIC GENERATION FORECAST<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> Source: *Trip Generation*, 9<sup>th</sup> Edition, Institute of Transportation Engineers (ITE) [Washington, D.C. (2012)].

#### 6.3 Year 2018 Traffic Volumes

*Figures 6-4* and *6-5* present future AM and PM peak hour cumulative traffic volumes at the six (6) key study intersections for the Year 2018, respectively. Please note that the cumulative traffic volumes represent the accumulation of existing traffic, ambient growth traffic and cumulative projects traffic.

*Figures 6-6* and *6-7* illustrate Year 2018 forecast AM and PM peak hour traffic volumes with the inclusion of the trips generated by the proposed Project, respectively. It should be noted that the traffic volumes shown in *Figures 6-6* and *6-7* include the re-routed traffic associated with the vacation of Elm Avenue, north of Spring Street and the construction of a cul-de-sac on Elm Avenue, north of the project site.













= PROJECT SITE

= EXISTING SITE

OF THE PROPOSED PROJECT YEAR 2018 CUMULATIVE PLUS PROJECT AM PEAK HOUR TRAFFIC VOLUMES SALVATION ARMY LONG BEACH CITADEL EXPANSION PROJECT, LONG BEACH

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= PROJECT SITE

= EXISTING SITE

NO SCALE

engineers

YEAR 2018 CUMULATIVE PLUS PROJECT PM PEAK HOUR TRAFFIC VOLUMES SALVATION ARMY LONG BEACH CITADEL EXPANSION PROJECT, LONG BEACH

# 7.0 TRAFFIC IMPACT ANALYSIS METHODOLOGY

## 7.1 Impact Criteria and Thresholds

The potential impact of the added project traffic volumes generated by the proposed Project during the weekday peak hours was evaluated based on analysis of future operating conditions at the six (6) key study intersections, without, then with, the proposed Project. The previously discussed capacity analysis procedures were utilized to investigate the future volume-to-capacity relationships and service level characteristics at each study intersection. The significance of the potential impacts of the project at each key intersection was then evaluated using the following traffic impact criteria.

#### 7.1.1 City of Long Beach

Impacts to local and regional transportation systems are considered significant if:

- An unacceptable peak hour Level of Service (LOS) (i.e. LOS E or F) at any of the key intersections is projected. The City of Long Beach considers LOS D (ICU = 0.801 0.900) to be the minimum acceptable LOS for all intersections. For the City of Long Beach, the current LOS, if worse than LOS D (i.e. LOS E or F), should also be maintained; and
- The project increases traffic demand at the study intersection by 2% of capacity (ICU increase ≥ 0.020), causing or worsening LOS E or F (ICU > 0.901).
- At unsignalized intersections, an impact is considered to be significant if the project causes an intersection operating at LOS D or better to degrade to LOS E or F, and the traffic signal warrant analysis determines that a traffic signal is justified.

### 7.2 Traffic Impact Analysis Scenarios

The following scenarios are those for which volume/capacity calculations have been performed using the ICU/HCM methodologies:

- A. Existing Traffic Conditions;
- B. Existing Plus Project Traffic Conditions;
- C. Scenario (B) with Improvements, if necessary;
- D. Year 2018 Cumulative Traffic Conditions;
- E. Year 2018 Cumulative Plus Project Traffic Conditions; and
- F. Scenario (E) with Improvements, if necessary.

# 8.0 PEAK HOUR INTERSECTION CAPACITY ANALYSIS

## 8.1 Existing Plus Project Traffic Conditions

**Table 8-1** summarizes the peak hour Level of Service results at the six (6) key study intersections for existing plus project traffic conditions. The first column (1) of ICU/LOS and HCM/LOS values in *Table 8-1* presents a summary of existing AM and PM peak hour traffic conditions (which were also presented in *Table 3-3*). The second column (2) lists existing plus project traffic conditions with current intersection geometry/lane configurations. The third column (3) shows the increase in ICU/HCM value due to the added peak hour project trips, inclusive of existing re-routed traffic associated with the vacation of Elm Avenue, north of Spring Street, and indicates whether the traffic associated with the Project will have a significant impact based on the significant impact criteria defined in this report. The fourth column (4) indicates the anticipated level of service with recommended improvements, if any.

#### 8.1.1 Existing Traffic Conditions

As previously presented in *Table 3-3*, two (2) of the six (6) key study intersections currently operate at an unacceptable service level during the AM and/or PM peak hours. The remaining four (4) key study intersections currently operate at an acceptable service level during the AM and PM peak hours. The locations projected to operate at an adverse LOS are as follows:

	AM Peak	PM Peak Hour		
Key Intersection	ICU/HCM	LOS	ICU/HCM	LOS
1. Long Beach Boulevard at 31 <sup>st</sup> Street			74.3 s/v	F
5. Pasadena Avenue at Spring Street	45.3 s/v	Е	62.0 s/v	F

### 8.1.2 Existing Plus Project Traffic Conditions

Review of Columns 2 and 3 of *Table 8-1* indicates that traffic associated with the proposed Project will significantly impact one (1) of the six (6) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. Although the intersection of Long Beach Boulevard/31<sup>st</sup> Street is forecast to operate at unacceptable LOS F during the PM peak hour, the delay value with project traffic is less than the delay value for existing traffic conditions. The remaining key study intersections currently operate and are forecast to continue to operate at an acceptable service level during the AM and PM peak hours with the addition of Project generated traffic to existing traffic. The intersection impacted under existing plus project traffic conditions is as follows:

	AM Peak	PM Peak Hour		
Key Intersection	ICU/HCM	LOS	ICU/HCM	LOS
5. Pasadena Avenue at Spring Street	39.0 s/v	Е	70.5 s/v	F

As shown in column 4, the implementation of improvements at the impacted key study intersection completely offsets the impact of project traffic and the impacted key study intersection is forecast to operate at an acceptable LOS during the AM and PM peak hours.

Appendix C also presents the existing plus project weekday ICU/LOS and HCM/LOS calculations for the six (6) key study intersections.

## 8.2 Year 2018 Traffic Conditions

**Table 8-2** summarizes the peak hour Level of Service results at the six (6) key study intersections for the Year 2018 horizon year. The first column (1) of ICU/LOS and HCM/LOS values in *Table 8-2* presents a summary of existing AM and PM peak hour traffic conditions (which were also presented in *Table 3-3*). The second column (2) lists future Year 2018 cumulative traffic conditions (i.e. existing plus ambient growth traffic plus cumulative projects traffic), without any traffic generated by the proposed Project. The third column (3) presents future forecast traffic conditions with the addition of traffic generated by the proposed Project, inclusive of existing re-routed traffic associated with the vacation of Elm Avenue, north of Spring Street. The fourth column (4) shows the increase in ICU/HCM value due to the added peak hour project trips, inclusive of existing re-routed traffic associated with the vacation of Elm Avenue, north of Spring Street, and indicates whether the traffic associated with the Project will have a significant impact based on the LOS standards and significant impact criteria defined in this report. The fifth column (5) indicates the anticipated level of service with recommended improvements, if any.

### 8.2.1 Year 2018 Cumulative Traffic Conditions

An analysis of future (Year 2018) cumulative traffic conditions indicates that the addition of ambient traffic growth and cumulative projects traffic will adversely impact three (3) of the six (6) key study intersections. The remaining three (3) key study intersections are forecast to continue to operate at acceptable levels of service during the AM and PM peak hours with the addition of ambient traffic growth and cumulative projects traffic. The locations projected to operate at an adverse LOS are as follows:

	AM Peak	PM Peak Hour		
Key Intersection	ICU/HCM	LOS	ICU/HCM	LOS
1. Long Beach Boulevard at 31 <sup>st</sup> Street			86.6 s/v	F
5. Pasadena Avenue at Spring Street	48.2 s/v	Е	71.9 s/v	F
6. Atlantic Avenue at Spring Street			0.914	Е

### 8.2.2 Year 2018 Cumulative Plus Project Conditions

Review of Columns 3 and 4 of *Table 8-2* indicates that traffic associated with the proposed Project will significantly impact one (1) of the six (6) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. Although the intersection of Long Beach Boulevard/31<sup>st</sup> Street is forecast to operate at unacceptable LOS F during the PM peak hour, the delay value with project traffic is less than the delay value for cumulative traffic conditions. Further, although the intersection of Atlantic Avenue/Spring Street is forecast to operate at unacceptable LOS E during the PM peak hour with the addition of project traffic, the proposed Project is expected to add less than the allowable threshold to the ICU value. The remaining key study intersections are forecast to continue to operate at an acceptable LOS with the addition of

project generated traffic in the Year 2018. The intersection impacted under Year 2018 plus project traffic conditions is as follows:

	AM Peak	<u>PM Peak Hour</u>		
Key Intersection	ICU/HCM	LOS	ICU/HCM	LOS
5. Pasadena Avenue at Spring Street	41.9 s/v	Е	82.4 s/v	F

As shown in column 5, the implementation of improvements at the impacted key study intersection completely offsets the impact of project traffic and the impacted key study intersection is forecast to operate at an acceptable LOS during the AM and PM peak hours.

*Appendix C* also presents the Year 2018 ICU/LOS and HCM/LOS calculations for the six (6) key study intersections.

		Time	(1) Exist Traffic Co	) ing nditions	(2 Existing Pl Traffic Co	) us Project onditions	(3 Signif Imp	8) ficant pact	(4 Existing Ph Traffic Co with Impr	) us Project onditions ovements
Key I	ntersection	Period	ICU/HCM	LOS	ICU/HCM	LOS	Increase	Yes/No	ICU/HCM	LOS
1	Long Beach Boulevard at	AM	31.5 s/v	D	30.1 s/v	D	0.0 s/v	No		
1.	31 <sup>st</sup> Street	PM	74.3 s/v	F	66.1 s/v	F	0.0 s/v	No		
2	Long Beach Boulevard at	AM	0.766	С	0.778	С	0.012	No		
2.	Spring Street	PM	0.827	D	0.848	D	0.021	No		
2	Pacific Avenue at	AM	0.786	С	0.790	С	0.004	No		
5.	Spring Street	PM	0.793	С	0.797	С	0.004	No		
4	Elm Avenue at	AM	11.0 s/v	В	5					
4.	Spring Street	PM	11.7 s/v	В	5					
5	Pasadena Avenue at	AM	45.3 s/v	E	39.0 s/v	E	0.0 s/v	No	0.484	А
5.	Spring Street	PM	62.0 s/v	F	70.5 s/v	F	8.5 s/v	Yes	0.529	А
	Atlantic Avenue at	AM	0.774	С	0.777	С	0.003	No		
0.	Spring Street	PM	0.896	D	0.897	D	0.001	No		

 TABLE 8-1

 Existing Plus Project Peak Hour Intersection Capacity Analysis Summary

#### Notes:

• LOS = Level of Service, please refer to *Tables 3-1* and *3-2* for the LOS definitions

• s/v = seconds per vehicle (delay)

Bold ICU/LOS and HCM/LOS values indicate adverse service levels based on the LOS standards mentioned in this report

<sup>&</sup>lt;sup>5</sup> The proposed Project includes the vacation of Elm Avenue, adjacent to the soccer field site just north of Spring Street, to form a cul-de-sac. As such, the intersection of Elm Avenue at Spring Street will no longer exist.

LINSCOTT, LAW & GREENSPAN, engineers
TABLE 8-2

 Year 2018 Cumulative Plus Project Peak Hour Intersection Capacity Analysis Summary

Key Intersection		Time Period	(1) Existing Traffic Conditions		(2) Year 2018 Cumulative Traffic Conditions		(3) Year 2018 Cumulative Plus Project Traffic Conditions		(4) Significant Impact		(5) Year 2018 Cumulative Plus Project Traffic Conditions with Improvements	
1.	Long Beach Boulevard at	AM	31.5 s/v	D	34.5 s/v	D	32.8 s/v	D	0.0 s/v	No		
	31 <sup>st</sup> Street	PM	74.3 s/v	F	86.6 s/v	F	77.1 s/v	F	0.0 s/v	No		
2.	Long Beach Boulevard at	AM	0.766	С	0.787	С	0.800	С	0.013	No		
	Spring Street	PM	0.827	D	0.849	D	0.871	D	0.022	No		
3.	Pacific Avenue at	AM	0.786	С	0.801	D	0.805	D	0.004	No		
	Spring Street	PM	0.793	С	0.807	D	0.811	D	0.004	No		
4.	Elm Avenue at	AM	11.0 s/v	В	11.1 s/v	В	<sup>6</sup>					
	Spring Street	PM	11.7 s/v	В	11.8 s/v	В	<sup>6</sup>					
5.	Pasadena Avenue at	AM	45.3 s/v	Е	48.2 s/v	Е	41.9 s/v	Е	0.0 s/v	No	0.493	А
	Spring Street	PM	62.0 s/v	F	71.9 s/v	F	82.4 s/v	F	10.5 s/v	Yes	0.538	А
6.	Atlantic Avenue at	AM	0.774	С	0.789	С	0.792	С	0.003	No		
	Spring Street	PM	0.896	D	0.914	Ε	0.915	Е	0.001	No		

#### Notes:

• LOS = Level of Service, please refer to *Tables 3-1* and *3-2* for the LOS definitions

• s/v = seconds per vehicle (delay)

- Bold ICU/LOS and HCM/LOS values indicate adverse service levels based on the LOS standards mentioned in this report

<sup>&</sup>lt;sup>6</sup> The proposed Project includes the vacation of Elm Avenue, adjacent to the soccer field site just north of Spring Street, to form a cul-de-sac. As such, the intersection of Elm Avenue at Spring Street will no longer exist.

## 9.0 SITE ACCESS AND INTERNAL CIRCULATION EVALUATION

### 9.1 Site Access

As shown previously in *Figure 2-2*, vehicular access to the campus will be provided via existing site driveways on both Long Beach Boulevard and Spring Street and a proposed driveway located on Pasadena Avenue. The existing driveways on Long Beach Boulevard and Spring Street are referred to as Project Driveway No. 1 and Project Driveway No. 2, respectively. The proposed driveway on Pasadena Avenue is referred to as Project Driveway No. 3.

**Table 9-1** summarizes the intersection operations at the two existing project driveways (i.e. Project Driveways No. 1 and No. 2) and the proposed project driveway (i.e. Project Driveway No. 3) for existing plus project traffic conditions and Year 2018 plus project traffic conditions. The operations analysis for the project driveways is based on the *Highway Capacity Manual 2010* (HCM 2010) unsignalized methodology. Review of *Table 9-1* shows that the project driveways are forecast to operate at acceptable LOS B or better during the AM and PM peak hours for existing plus project traffic conditions and Year 2018 plus project traffic conditions. As such, project access will be adequate. Motorists entering and exiting the Project site will be able to do so comfortably, safely, and without undue congestion.

Appendix D presents the level of service calculation worksheets for the project driveways.

### 9.2 Internal Circulation

The on-site circulation layout of the proposed Project as illustrated in *Figure 2-2* on an overall basis is adequate. Curb return radii have been confirmed and are generally adequate for small service/delivery (FedEx, UPS) trucks and trash trucks.

				(1) Existing Plus Project Traffic Conditions		(2) Year 2018 Cumulative Plus Project Traffic Conditions		
Key Intersections		Time Period	Control Type	НСМ	LOS	нсм	LOS	
A.	Long Beach Boulevard at	AM	One-Way	12.7 s/v	В	13.0 s/v	В	
	Project Driveway No. 1	PM	Stop	14.1 s/v	В	14.4 s/v	В	
B.	Project Driveway No. 2 at	AM	One-Way	11.2 s/v	В	11.3 s/v	В	
	Spring Street	PM	Stop	11.8 s/v	В	11.9 s/v	В	
C.	Pasadena Avenue at	AM	One-Way	8.6 s/v	А	8.6 s/v	А	
	Project Driveway No. 3	PM	Stop	8.7 s/v	А	8.7 s/v	А	

 TABLE 9-1

 PEAK HOUR LEVELS OF SERVICE SUMMARY AT THE PROJECT DRIVEWAYS

Notes:

• s/v = seconds per vehicle (delay)

LOS = Level of Service, please refer to *Table 3-2* for the LOS definitions

## **10.0** RECOMMENDED IMPROVEMENTS

For those intersections where projected traffic volumes are expected to result in poor operating conditions, this report identifies roadway improvements that are expected to:

- Mitigate the impact of existing traffic, Project traffic and future non-project (ambient growth and cumulative project) traffic and
- Improve Levels of Service to an acceptable range and/or to pre-project conditions.

### 10.1 Project Specific Improvements

The following improvements will be constructed by the proposed Project:

- The proposed Project also includes the vacation of an existing alley between 31<sup>st</sup> Street and Spring Street, bordering the Community Center / Chapel and the proposed Gym property to allow for the development of a pedestrian promenade to link the two buildings.
- The proposed Project also includes the proposed vacation of Elm Avenue, adjacent to the soccer field site just north of Spring Street, to form a cul-de-sac.

## 10.2 Existing Plus Project Traffic Conditions

The results of the intersection capacity analysis presented previously in *Table 8-1* shows that the proposed Project will significantly impact one (1) of the six (6) key study intersections under the "Existing Plus Project" traffic scenario. The following are improvements recommended to mitigate the existing plus project traffic impacts:

No. 5 – Pasadena Avenue at Spring Street: Install a two-phase traffic signal. The installation of this improvement is subject to the approval of the City of Long Beach. It should be noted that this key study intersection satisfies the peak hour signal warrant under existing traffic conditions (i.e. Warrant #3 described in the current *California Manual on Uniform Traffic Control Devices (MUTCD). Appendix C* contains the traffic signal warrant worksheets.

## 10.3 Year 2018 Cumulative Plus Project Traffic Conditions

The results of the intersection capacity analysis presented previously in *Table 8-2* shows that the proposed Project will significantly impact one (1) of the six (6) key study intersections under the "Year 2018 Plus Project" traffic scenario. The following are improvements recommended to mitigate the Year 2018 plus project traffic impacts:

• No. 5 – Pasadena Avenue at Spring Street: Install a two-phase traffic signal. The installation of this improvement is subject to the approval of the City of Long Beach. It should be noted that this key study intersection satisfies the peak hour signal warrant under existing traffic conditions (i.e. Warrant #3 described in the current *California Manual on Uniform Traffic Control Devices (MUTCD). Appendix C* contains the traffic signal warrant worksheets.

Figure 10-1 illustrates the recommended improvements at the impacted key study intersection.





## 11.0 CONGESTION MANAGEMENT PROGRAM COMPLIANCE ASSESSMENT

The Congestion Management Program (CMP) was created statewide as a result of Proposition 111 and has been implemented locally by the Los Angeles County Metropolitan Transportation Authority (LACMTA). The CMP for Los Angeles County requires that the traffic impact of individual development projects of potential regional significance be analyzed. A specific system of arterial roadways plus all freeways comprise the CMP system.

### 11.1 Traffic Impact Review

As required by the current *Congestion Management Program for Los Angeles County*, a review has been made of designated monitoring locations on the CMP highway system for potential impact analysis. Per CMP TIA criteria, the geographic area examined in the TIA must include the following, at a minimum:

- All CMP arterial monitoring intersections, including freeway on and off-ramp intersections, where the project will add 50 or more trips during either the AM or PM weekday peak hours.
- Mainline freeway-monitoring stations where the project will add 150 or more trips, in either direction, during the AM or PM weekday peak hours.

#### 11.1.1 Freeways

CMP StationLocation1066I-405 Freeway at Santa Fe Avenue

The closest CMP freeway monitoring location in the Project vicinity is the I-405 Freeway at Santa Fe Avenue (CMP Station 1066 – Post Mile 8.02). Based on the Project's trip generation potential and distribution pattern, the proposed Project will not add more than 150 trips (in either direction) during either the weekday AM or PM peak hour at this CMP mainline freeway-monitoring location. Therefore a CMP freeway traffic impact analysis is not required.

### 11.1.2 Intersections

The following CMP intersection monitoring location in the Project vicinity has been identified:

CMP IntersectionLocation37Orange Avenue at Pacific Coast Highway

As stated earlier, the CMP guidelines require that arterial monitoring intersection locations must be examined if the proposed Project will add 50 or more trips during either the AM or PM weekday peak hours (of adjacent street traffic) at CMP monitoring intersections. Based on the proposed project's trip generation potential, trip distribution, and trip assignment, the Project will not add more than 50 trips at the identified CMP intersections during the weekday AM peak hour or PM peak hour. Therefore, a CMP intersection traffic impact analysis is not required.

### 11.2 Transit Impact Review

As required by the Congestion Management Program for Los Angeles County, a review has been made of the CMP transit service. As previously discussed, a number of transit services exist in the Project area, necessitating the following transit impact review.

The Project trip generation, as shown in *Table 5-1*, was adjusted by values set forth in the CMP (i.e., person trips equal 1.4 times vehicle trips, and transit trips equal 3.5 percent of the total person trips) to estimate Project-related transit trip generation. Pursuant to the CMP guidelines, the proposed Project is forecasted to generate 3 transit trips (2 inbound and 1 outbound) during the AM peak hour and 4 transit trips (2 inbound and 2 outbound) during the PM peak hour. Over a 24-hour period the proposed Project is forecasted to generate 44 daily weekday transit trips.

It is anticipated that the existing transit service in the Project area would be able to accommodate the Project generated transit trips. The Project would generate on average less than one new boarding per bus in the AM and PM peak hours. Therefore, given the number of transit trips generated by the Project and the existing transit routes in the Project vicinity, it is concluded that the public transit system would not be significantly impacted by the proposed Project.



**Tribal Consultation Letters** 



### GABRIELEÑO BAND OF MISSION INDIANS - KIZH NATION

Historically known as The San Gabriel Band of Mission Indians recognized by the State of California as the aboriginal tribe of the Los Angeles basin

City of Long Beach **Development Services** 333 W. Ocean Blvd Long Beach, CA 90802

February 7, 2018

Re: AB52 Consultation request for the Long Beach Citadel Project

Dear Craig Chalfant,

Please find this letter as a written request for consultation regarding the above-mentioned project pursuant to Public Resources Code § 21080.3.1, subd. (d). Your project lies within our ancestral tribal territory, meaning belonging to or inherited from, which is a higher degree of kinship than traditional or cultural affiliation. Your project is located within a sensitive area and may cause a substantial adverse change in the significance of our tribal cultural resources. Most often, a records search for our tribal cultural resources will result in a "no records found" for the project area. The Native American Heritage Commission (NAHC), ethnographers, historians, and professional archaeologists can only provide limited information that has been previously documented about California Native Tribes. This is the reason the NAHC will always refer the lead agency to the respective Native American Tribe of the area because the NAHC is only aware of general information and are not the experts on each California Tribe. Our Elder Committee & tribal historians are the experts for our Tribe and are able to provide a more complete history (both written and oral) regarding the location of historic villages, trade routes, cemeteries and sacred/religious sites in the project area. Therefore, to avoid adverse effects to our tribal cultural resources, we would like to consult with you and your staff to provide you with a more complete understanding of the prehistoric use(s) of the project area and the potential risks for causing a substantial adverse change to the significance of our tribal cultural resources.

Consultation appointments are available on Wednesdays and Thursdays at our offices at 910 N. Citrus Ave. Covina, CA 91722 or over the phone. Please call toll free 1-844-390-0787 or email gabrielenoindians@yahoo.com to schedule an appointment.

\*\* Prior to the first consultation with our Tribe, we ask all those individuals participating in the consultation to view a video produced and provided by CalEPA and the NAHC for sensitivity and understanding of AB52. You can view their videos at: http://calepa.ca.gov/Tribal/Training/ or http://nahc.ca.gov/2015/12/ab-52-tribal-training/

With Respect,

Andrew Salas, Chairman

Andrew Salas, Chairman Albert Perez, treasurer |

Nadine Salas, Vice-Chairman Martha Gonzalez Lemos, treasurer ||

PO Box 393, Covina, CA 91723 www.gabrielenoindians.org

Christina Swindall Martinez, secretary Richard Gradias, Chairman of the Council of Elders gabrielenoindians@yahoo.com



## **CITY OF LONG BEACH**

LONG BEACH DEVELOPMENT SERVICES

333 W. Ocean Blvd. - Long Beach, CA 90802 - 562/570-6194 - FAX 562/570-6068

PLANNING BUREAU

January 29, 2018

Andrew Salas Gabrieleno Band of Mission Indians –Kizh Nation P.O. Box 393 Covina, CA 91723

#### RE: SB 18 and AB 52 Project Notification Long Beach Citadel Project

Dear Mr. Salas:

This letter is to notify you of the proposed Long Beach Citadel Project (Proposed Project) in the City of Long Beach (City), Los Angeles County, California. The City, as Lead Agency under CEQA for the Proposed Project, will prepare a Mitigated Negative Declaration for this Proposed Project.

The Proposed Project, which includes a Zone Change to place the entire Project site in the Midtown Specific Plan area, is located on approximately 3.6 acres at 3012 Long Beach Boulevard and 455 East Spring Street. The Project site includes Assessor Parcel Numbers (APNs) 7207-019-015 to 020, 029 to 032, 051 to 053, 7207-020-022 to 026, 032 to 036, 060 and 061. This site lies along the north side of East Spring Street, east of the intersection with Long Beach Boulevard. The site includes portions of Elm and Pasadena Avenues just north of East Spring Street.

The Proposed Project involves construction of a 19,963 square-foot two-story gymnasium that includes a fitness center and activity room. This Project would also include a new 70-space parking lot and a youth soccer field. The Project would require the vacation of a portion of Elm Avenue that passes through the Project site and a north-south alley located between Elm and Pasadena Avenues. Elm Avenue would become a cul-de-sac at the northern Project site boundary.

The Project site is part of the existing Salvation Army Citadel Campus. This Campus is partially developed with a social services building, administrative offices, a chapel hall, a 2,650 square multi-purpose room, and a parking lot. With the addition of the 70-space Project parking lot, the Campus would have a total of 190 on-site parking spaces.

Since the Proposed Project requires a Zone Change, the City must comply with California Public Resources Code Sections 65352.3-65352.4 per Senate Bill 18 (SB 18), which requires local governments to conduct meaningful consultation with California Native American tribes on the contact list maintained by the California Native American Heritage Commission prior to approval of the Proposed Project.

Andrew Salas Page 2

This letter also serves to initiate consultation in compliance with Assembly Bill 52 (AB 52, Chapter 532, Statutes of 2014), which is required to consider the Proposed Project potential impacts to tribal cultural resources as part of the CEQA environmental review. To ensure compliance with AB 52 and Public Resources Code Section 21080.3.1, we are requesting any information you may have of tribal cultural resources within the project area boundaries and offer this opportunity to request consultation with the City regarding this Proposed Project.

Your input is important to the City's planning process. We request that you advise the City if you wish to initiate consultations with the City on the Proposed Project. Under the provisions of SB 18, you have 90 days from the date of this notice to advise the City if you are interested in further consultation. Under the provisions of AB 52, you have 30 days from the receipt of this notice to advise the City if you are interested in consultation.

Craig Chalfant, Senior Planner City of Long Beach Development Services Department, Planning Bureau 333 W. Ocean Boulevard, 5<sup>th</sup> Floor Long Beach, CA 90802 (562) 570-6368 craig.chalfant@longbeach.gov

Your comments are important to the City. Thank you for your involvement in this process.

Sincerely

Craig Chalfant Senior Planner

Attachments: Project Location Map Site Plan



## **CITY OF LONG BEACH**

LONG BEACH DEVELOPMENT SERVICES

333 W. Ocean Blvd. - Long Beach, CA 90802 - 562/570-6194 - FAX 562/570-6068

PLANNING BUREAU

January 29, 2018

Anthony Morales Gabrieleno/Tongva San Gabriel Band of Mission Indians P.O. Box 693 San Gabriel, CA 91778

#### RE: SB 18 and AB 52 Project Notification Long Beach Citadel Project

Dear Mr. Morales:

This letter is to notify you of the proposed Long Beach Citadel Project (Proposed Project) in the City of Long Beach (City), Los Angeles County, California. The City, as Lead Agency under CEQA for the Proposed Project, will prepare a Mitigated Negative Declaration for this Proposed Project.

The Proposed Project, which includes a Zone Change to place the entire Project site in the Midtown Specific Plan area, is located on approximately 3.6 acres at 3012 Long Beach Boulevard and 455 East Spring Street. The Project site includes Assessor Parcel Numbers (APNs) 7207-019-015 to 020, 029 to 032, 051 to 053, 7207-020-022 to 026, 032 to 036, 060 and 061. This site lies along the north side of East Spring Street, east of the intersection with Long Beach Boulevard. The site includes portions of Elm and Pasadena Avenues just north of East Spring Street.

The Proposed Project involves construction of a 19,963 square-foot two-story gymnasium that includes a fitness center and activity room. This Project would also include a new 70-space parking lot and a youth soccer field. The Project would require the vacation of a portion of Elm Avenue that passes through the Project site and a north-south alley located between Elm and Pasadena Avenues. Elm Avenue would become a cul-de-sac at the northern Project site boundary.

The Project site is part of the existing Salvation Army Citadel Campus. This Campus is partially developed with a social services building, administrative offices, a chapel hall, a 2,650 square multi-purpose room, and a parking lot. With the addition of the 70-space Project parking lot, the Campus would have a total of 190 on-site parking spaces.

Since the Proposed Project requires a Zone Change, the City must comply with California Public Resources Code Sections 65352.3- 65352.4 per Senate Bill 18 (SB 18), which requires local governments to conduct meaningful consultation with California Native American tribes on the contact list maintained by the California Native American Heritage Commission prior to approval of the Proposed Project.

Anthony Morales Page 2

This letter also serves to initiate consultation in compliance with Assembly Bill 52 (AB 52, Chapter 532, Statutes of 2014), which is required to consider the Proposed Project potential impacts to tribal cultural resources as part of the CEQA environmental review. To ensure compliance with AB 52 and Public Resources Code Section 21080.3.1, we are requesting any information you may have of tribal cultural resources within the project area boundaries and offer this opportunity to request consultation with the City regarding this Proposed Project.

Your input is important to the City's planning process. We request that you advise the City if you wish to initiate consultations with the City on the Proposed Project. Under the provisions of SB 18, you have 90 days from the date of this notice to advise the City if you are interested in further consultation. Under the provisions of AB 52, you have 30 days from the receipt of this notice to advise the City if you are interested in consultation.

Craig Chalfant, Senior Planner City of Long Beach Development Services Department, Planning Bureau 333 W. Ocean Boulevard, 5<sup>th</sup> Floor Long Beach, CA 90802 (562) 570-6368 craig.chalfant@longbeach.gov

Your comments are important to the City. Thank you for your involvement in this process.

Sincerely,

Craig Chalfant Senior Planner

Attachments: Project Location Map Site Plan



## **CITY OF LONG BEACH**

LONG BEACH DEVELOPMENT SERVICES

333 W. Ocean Blvd. - Long Beach, CA 90802 - 562/570-6194 - FAX 562/570-6068

PLANNING BUREAU

January 29, 2018

Robert Dorame Gabrieleno Tongva Indians of California Tribal Council P.O. Box 490 Bellflower, CA 90707

#### RE: SB 18 and AB 52 Project Notification Long Beach Citadel Project

Dear Mr. Dorame:

This letter is to notify you of the proposed Long Beach Citadel Project (Proposed Project) in the City of Long Beach (City), Los Angeles County, California. The City, as Lead Agency under CEQA for the Proposed Project, will prepare a Mitigated Negative Declaration for this Proposed Project.

The Proposed Project, which includes a Zone Change to place the entire Project site in the Midtown Specific Plan area, is located on approximately 3.6 acres at 3012 Long Beach Boulevard and 455 East Spring Street. The Project site includes Assessor Parcel Numbers (APNs) 7207-019-015 to 020, 029 to 032, 051 to 053, 7207-020-022 to 026, 032 to 036, 060 and 061. This site lies along the north side of East Spring Street, east of the intersection with Long Beach Boulevard. The site includes portions of Elm and Pasadena Avenues just north of East Spring Street.

The Proposed Project involves construction of a 19,963 square-foot two-story gymnasium that includes a fitness center and activity room. This Project would also include a new 70-space parking lot and a youth soccer field. The Project would require the vacation of a portion of Elm Avenue that passes through the Project site and a north-south alley located between Elm and Pasadena Avenues. Elm Avenue would become a cul-de-sac at the northern Project site boundary.

The Project site is part of the existing Salvation Army Citadel Campus. This Campus is partially developed with a social services building, administrative offices, a chapel hall, a 2,650 square multi-purpose room, and a parking lot. With the addition of the 70-space Project parking lot, the Campus would have a total of 190 on-site parking spaces.

Since the Proposed Project requires a Zone Change, the City must comply with California Public Resources Code Sections 65352.3-65352.4 per Senate Bill 18 (SB 18), which requires local governments to conduct meaningful consultation with California Native American tribes on the contact list maintained by the California Native American Heritage Commission prior to approval of the Proposed Project.

Robert Dorame Page 2

This letter also serves to initiate consultation in compliance with Assembly Bill 52 (AB 52, Chapter 532, Statutes of 2014), which is required to consider the Proposed Project potential impacts to tribal cultural resources as part of the CEQA environmental review. To ensure compliance with AB 52 and Public Resources Code Section 21080.3.1, we are requesting any information you may have of tribal cultural resources within the project area boundaries and offer this opportunity to request consultation with the City regarding this Proposed Project.

Your input is important to the City's planning process. We request that you advise the City if you wish to initiate consultations with the City on the Proposed Project. Under the provisions of SB 18, you have 90 days from the date of this notice to advise the City if you are interested in further consultation. Under the provisions of AB 52, you have 30 days from the receipt of this notice to advise the City if you are interested in consultation.

Craig Chalfant, Senior Planner City of Long Beach Development Services Department, Planning Bureau 333 W. Ocean Boulevard, 5<sup>th</sup> Floor Long Beach, CA 90802 (562) 570-6368 craig.chalfant@longbeach.gov

Your comments are important to the City. Thank you for your involvement in this process.

Sincerely

Craig Chalfant Senior Planner

Attachments: Project Location Map Site Plan



# **CITY OF LONG BEACH**

LONG BEACH DEVELOPMENT SERVICES

333 W. Ocean Blvd. - Long Beach, CA 90802 - 562/570-6194 - FAX 562/570-6068

PLANNING BUREAU

January 29, 2018

Sandonne Goad Gabrielino/Tongva Nation 106 ½ Judge John Aiso Street, #231 Los Angeles, CA 90012

#### RE: SB 18 and AB 52 Project Notification Long Beach Citadel Project

Dear Mr. Goad:

This letter is to notify you of the proposed Long Beach Citadel Project (Proposed Project) in the City of Long Beach (City), Los Angeles County, California. The City, as Lead Agency under CEQA for the Proposed Project, will prepare a Mitigated Negative Declaration for this Proposed Project.

The Proposed Project, which includes a Zone Change to place the entire Project site in the Midtown Specific Plan area, is located on approximately 3.6 acres at 3012 Long Beach Boulevard and 455 East Spring Street. The Project site includes Assessor Parcel Numbers (APNs) 7207-019-015 to 020, 029 to 032, 051 to 053, 7207-020-022 to 026, 032 to 036, 060 and 061. This site lies along the north side of East Spring Street, east of the intersection with Long Beach Boulevard. The site includes portions of Elm and Pasadena Avenues just north of East Spring Street.

The Proposed Project involves construction of a 19,963 square-foot two-story gymnasium that includes a fitness center and activity room. This Project would also include a new 70-space parking lot and a youth soccer field. The Project would require the vacation of a portion of Elm Avenue that passes through the Project site and a north-south alley located between Elm and Pasadena Avenues. Elm Avenue would become a cul-de-sac at the northern Project site boundary.

The Project site is part of the existing Salvation Army Citadel Campus. This Campus is partially developed with a social services building, administrative offices, a chapel hall, a 2,650 square multi-purpose room, and a parking lot. With the addition of the 70-space Project parking lot, the Campus would have a total of 190 on-site parking spaces.

Since the Proposed Project requires a Zone Change, the City must comply with California Public Resources Code Sections 65352.3-65352.4 per Senate Bill 18 (SB 18), which requires local governments to conduct meaningful consultation with California Native American tribes on the contact list maintained by the California Native American Heritage Commission prior to approval of the Proposed Project.

Sandonne Goad Page 2

This letter also serves to initiate consultation in compliance with Assembly Bill 52 (AB 52, Chapter 532, Statutes of 2014), which is required to consider the Proposed Project potential impacts to tribal cultural resources as part of the CEQA environmental review. To ensure compliance with AB 52 and Public Resources Code Section 21080.3.1, we are requesting any information you may have of tribal cultural resources within the project area boundaries and offer this opportunity to request consultation with the City regarding this Proposed Project.

Your input is important to the City's planning process. We request that you advise the City if you wish to initiate consultations with the City on the Proposed Project. Under the provisions of SB 18, you have 90 days from the date of this notice to advise the City if you are interested in further consultation. Under the provisions of AB 52, you have 30 days from the receipt of this notice to advise the City if you are interested in consultation.

Craig Chalfant, Senior Planner City of Long Beach Development Services Department, Planning Bureau 333 W. Ocean Boulevard, 5<sup>th</sup> Floor Long Beach, CA 90802 (562) 570-6368 <u>craig.chalfant@longbeach.gov</u>

Your comments are important to the City. Thank you for your involvement in this process.

Sincerely

Craig Chalfant Senior Planner

Attachments: Project Location Map Site Plan



# **CITY OF LONG BEACH**

LONG BEACH DEVELOPMENT SERVICES

333 W. Ocean Blvd. - Long Beach, CA 90802 - 562/570-6194 - FAX 562/570-6068

PLANNING BUREAU

January 29, 2018

Charles Alvarez Gabrielino-Tongva Tribe 23454 Vanowen Street West Hills, CA 91307

#### RE: SB 18 and AB 52 Project Notification Long Beach Citadel Project

Dear Mr. Alvarez:

This letter is to notify you of the proposed Long Beach Citadel Project (Proposed Project) in the City of Long Beach (City), Los Angeles County, California. The City, as Lead Agency under CEQA for the Proposed Project, will prepare a Mitigated Negative Declaration for this Proposed Project.

The Proposed Project, which includes a Zone Change to place the entire Project site in the Midtown Specific Plan area, is located on approximately 3.6 acres at 3012 Long Beach Boulevard and 455 East Spring Street. The Project site includes Assessor Parcel Numbers (APNs) 7207-019-015 to 020, 029 to 032, 051 to 053, 7207-020-022 to 026, 032 to 036, 060 and 061. This site lies along the north side of East Spring Street, east of the intersection with Long Beach Boulevard. The site includes portions of Elm and Pasadena Avenues just north of East Spring Street.

The Proposed Project involves construction of a 19,963 square-foot two-story gymnasium that includes a fitness center and activity room. This Project would also include a new 70-space parking lot and a youth soccer field. The Project would require the vacation of a portion of Elm Avenue that passes through the Project site and a north-south alley located between Elm and Pasadena Avenues. Elm Avenue would become a cul-de-sac at the northern Project site boundary.

The Project site is part of the existing Salvation Army Citadel Campus. This Campus is partially developed with a social services building, administrative offices, a chapel hall, a 2,650 square multi-purpose room, and a parking lot. With the addition of the 70-space Project parking lot, the Campus would have a total of 190 on-site parking spaces.

Since the Proposed Project requires a Zone Change, the City must comply with California Public Resources Code Sections 65352.3- 65352.4 per Senate Bill 18 (SB 18), which requires local governments to conduct meaningful consultation with California Native American tribes on the contact list maintained by the California Native American Heritage Commission prior to approval of the Proposed Project.

Charles Alvarez Page 2

This letter also serves to initiate consultation in compliance with Assembly Bill 52 (AB 52, Chapter 532, Statutes of 2014), which is required to consider the Proposed Project potential impacts to tribal cultural resources as part of the CEQA environmental review. To ensure compliance with AB 52 and Public Resources Code Section 21080.3.1, we are requesting any information you may have of tribal cultural resources within the project area boundaries and offer this opportunity to request consultation with the City regarding this Proposed Project.

Your input is important to the City's planning process. We request that you advise the City if you wish to initiate consultations with the City on the Proposed Project. Under the provisions of SB 18, you have 90 days from the date of this notice to advise the City if you are interested in further consultation. Under the provisions of AB 52, you have 30 days from the receipt of this notice to advise the City if you are interested in consultation.

Craig Chalfant, Senior Planner City of Long Beach Development Services Department, Planning Bureau 333 W. Ocean Boulevard, 5<sup>th</sup> Floor Long Beach, CA 90802 (562) 570-6368 <u>craig.chalfant@longbeach.gov</u>

Your comments are important to the City. Thank you for your involvement in this process.

Sincerely,

Craig Chalfant Senior Planner

Attachments: Project Location Map Site Plan City of Long Beach Long Beach Citadel Project





Imagery provided by Esri and its licensors © 2018.





Initial Study – Mitigated Negative Declaration

#### **RESOLUTION NO.**

A RESOLUTION OF INTENTION TO VACATE THE PORTION OF ELM AVENUE BETWEEN SPRING STREET AND THE UNNAMED EAST-WEST PUBLIC ALLEY SOUTH OF 31ST STREET, THE UNNAMED EAST-WEST PUBLIC BETWEEN ELM AVENUE AND PASADENA ALLEY AVENUE, NORTH OF SPRING STREET AND SOUTH OF 31ST STREET, AND THE UNNAMED NORTH-SOUTH PUBLIC ALLEY BETWEEN SPRING STREET AND 31ST STREET EAST OF ELM AVENUE AND WEST OF PASADENA AVENUE, IN THE CITY OF LONG BEACH. COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, PURSUANT TO THE PUBLIC STREET, HIGHWAYS AND SERVICE EASEMENTS LAW (DIVISION 9, PART 3, CALIFORNIA STREETS AND HIGHWAYS CODE); FIXING A TIME AND PLACE FOR HEARING ALL PERSONS INTERESTED IN OR OBJECTING TO THE PROPOSED VACATION

21 The City Council of the City of Long Beach resolves as follows: 22 Section 1. The City Council of the City of Long Beach hereby elects to 23 proceed under Division 9, Part 3, Chapter 3, of the California Streets and Highways Code 24 (Section 8320 et seq.), as amended, generally known and referred as the "Public Street, 25 Highways and Service Easements Law", and hereby declares its intention to vacate the 26 portion of Elm Avenue between Spring Street and the unnamed east-west public alley 27 south of 31st Street, the unnamed east-west public alley between Elm Avenue and 28 Pasadena Avenue north of Spring Street and south of 31st Street, and the unnamed

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OFFICE OF THE CITY ATTORNEY CHARLES PARKIN, City Attorney 111 West Ocean Boulevard, 9th Floor Lond Beach. CA 90802-4664 1

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EWM:bg A19-06805 (06-16-20) 01099043.docx north-south public alley between Spring Street and 31st Street east of Elm Avenue and
 west of Pasadena Avenue, in the City of Long Beach, County of Los Angeles, State of
 California, as described on the attached Exhibit "A-1" and "A-2", and as shown on the
 attached Exhibit "B-1" and "B-2".

Section 2. All of the foregoing real property is shown on the map or plan thereof, attached hereto as Exhibit "C", and on file in the office of the City Clerk, which map or plan is known and referred to as "City of Long Beach Department of Public Works Vacation Sketch No. 1025 (V)".

9 Section 3. The City Council hereby fixes August 18, 2020 at the hour of
10 5:00 p.m., as the time and the Civic Chamber, 411 West Ocean Boulevard, in the City of
11 Long Beach, California, as the place for hearing all persons interested in or objecting to
12 the proposed vacation.

Section 4. The City Council hereby directs that notice of said hearing on this proposed street vacation be published for at least two (2) successive weeks prior to the hearing and in the manner provided by Section 8322 of the State Streets and Highways Code.

Section 5. The City Council hereby directs that notice of this street
vacation be posted conspicuously along the street proposed to be vacated at least two
(2) weeks before the date set for hearing and in the manner provided by Section 8323 of
the State Streets and Highways Code.

21 Section 6. This resolution shall take effect immediately upon its adoption 22 by the City Council, and the City Clerk shall certify to the vote adopting this resolution.

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OFFICE OF THE CITY ATTORNEY CHARLES PARKIN, City Attorney 411 West Ocean Boulevard, 9th Floor Long Beach. CA 90802-4664

#### EXHIBIT "A1" STREET, ALLEY AND EASEMENT VACATION (LEGAL DESCRIPTION)

BEGINNING AT THE SOUTH WEST CORNER OF LOT 12, IN BLOCK B, OF TRACT NO. 3207, IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 33, PAGE 7 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY; THENCE WESTERLY ALONG THE SOUTHERLY LINE OF BLOCK B AND BLOCK A OF SAID TRACT 3207 A DISTANCE OF 60.00 FEET TO THE SOUTH EAST CORNER OF LOT 24, IN BLOCK A, OF SAID TRACT NO. 3207; THENCE NORTHERLY ALONG THE EASTERLY LINE OF BLOCK A, OF SAID TRACT NO. 3207 TO THE INTERSECTION OF THE PROLONGATION OF THE SOUTHERLY LINE OF LOT 8, IN BLOCK B, OF SAID TRACT; THENCE EASTERLY ALONG THE PROLONGATION OF THE SOUTHERLY LINE OF LOT 8, IN BLOCK B, OF SAID TRACT 3207 A DISTANCE OF 60.00 FEET TO THE SOUTH LINE OF LOT 8, IN BLOCK B, OF SAID TRACT 3207 A DISTANCE OF 60.00 FEET TO THE SOUTH WEST CORNER OF LOT 8, IN BLOCK B, OF SAID TRACT 3207 A DISTANCE OF 60.00 FEET TO THE SOUTH WEST CORNER OF LOT 8, IN BLOCK B, OF SAID TRACT 3207 A DISTANCE OF 60.00 FEET TO THE SOUTH WEST CORNER OF LOT 8, IN BLOCK B, OF SAID TRACT 3207 A DISTANCE OF 60.00 FEET TO THE SOUTH WEST CORNER OF LOT 8, IN BLOCK B, OF SAID TRACT NO. 3207; THENCE SOUTHERLY ALONG THE WESTERLY LINE OF BLOCK B, OF SAID TRACT NO. 3207, TO THE SOUTHWEST CORNER OF LOT 12, IN BLOCK B, OF SAID TRACT NO. 3207 AND THE POINT OF BEGINNING.

TOGETHER WITH A STRIP OF LAND, 10 FEET WIDE, THAT LIES NORTH OF LOTS 9 AND 21 AND SOUTH OF LOTS 8 AND 20, IN BLOCK B, OF SAID TRACT NO. 3207.

AND THE NORTH 10 FEET OF A STRIP OF LAND, 10 FEET WIDE, THAT LIES EAST OF LOT 9 AND WEST OF LOT 21, IN BLOCK B, OF SAID TRACT NO. 3207.

AND THE NORTH 10 FEET OF LOT 9, IN BLOCK B, OF SAID TRACT NO. 3207.

AND THE NORTH 10 FEET OF LOT 21, IN BLOCK B, OF SAID TRACT NO. 3207.

TOGETHER WITH THAT PORTION OF LOT 12, IN BLOCK B, OF SAID TRACT NO. 3207 WITHIN THE FOLLOWING DESCRIBED BOUNDARIES:

BEGINNING AT THE INTERSECTION OF THE NORTHERLY LINE OF THE ABOVE DESCRIBED EXCEPTION WITH THE WESTERLY LINE OF SAID LOT 12; THENCE NORTHERLY ALONG SAID WESTERLY LINE TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTHEAST, HAVING A RADIUS OF 15 FEET, TANGENT TO SAID WESTERLY LINE AND TANGENT TO SAID NORTHERLY LINE; THENCE SOUTHEASTERLY ALONG SAID CURVE 23.56 FEET TO SAID NORTHERLY LINE; THENCE WESTERLY ALONG SAID NORTHERLY LINE TO THE POINT OF BEGINNING.

SAID PORTION OF LOT 12 BEING A PORTION OF THE EASEMENT RECORDED FEBRUARY 8, 2001 AS INSTRUMENT NO. 01-0209983, OF OFFICIAL RECORDS.

DESCRIPTION CONTINUED ON PAGE 2 OF 2 .....

#### EXHIBIT "A1" STREET, ALLEY AND EASEMENT VACATION (LEGAL DESCRIPTION)

DESCRIPTION CONTINUED FROM PAGE 1 OF 2 .....

ALSO TOGETHER WITH THAT PORTION OF LOT 24, IN BLOCK A, OF SAID TRACT NO. 3207 WITHIN THE FOLLOWING DESCRIBED BOUNDARIES:

BEGINNING AT THE INTERSECTION OF THE NORTHERLY LINE OF THE ABOVE DESCRIBED EXCEPTION WITH THE WESTERLY LINE OF SAID LOT 24; THENCE NORTHERLY ALONG SAID EASTERLY LINE TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTHWEST, HAVING A RADIUS OF 15 FEET, TANGENT TO SAID EASTERLY LINE AND TANGENT TO SAID NORTHERLY LINE; THENCE SOUTHWESTERLY ALONG SAID CURVE 23.56 FEET TO SAID NORTHERLY LINE; THENCE EASTERLY ALONG SAID NORTHERLY LINE TO THE POINT OF BEGINNING.

SAID PORTION OF LOT 24 BEING A PORTION OF THE EASEMENT RECORDED FEBRUARY 7, 2002 AS INSTRUEMNT NO. 02-0295110, OF OFFICIAL RECORDS.

EXCEPT THAT PORTION OF ELM STREET THAT LIES WITHIN THE RIGHT OF WAY OF SPRING STREET (50 FOOT HALF WIDTH).

THE ABOVE DESCRIBED PARCEL CONTAINS 16,597 SQUARE FEET, MORE OR LESS.

SUBJECT TO COVENANTS, CONDITIONS, RESERVATIONS, RESTRICTIONS, RIGHTS-OF-WAY AND EASEMENTS OF RECORD, IF ANY.

RESERVING THEREFROM AN EASEMENT FOR UNDERGROUND UTILITIES AND ACCESS TO THE EXISTING UNIMPROVED ALLEY AND PRIVATE GARAGE ON THE NORTH SIDE OF THE EXISTING ALLEY.

ALL AS MORE PARTICULARLY SHOWN ON EXHIBIT "B1" ATTACHED HERETO AND MADE PART HEREOF.

THIS DESCRIPTION WAS PREPARED BY ME OR UNDER MY DIRECTION, IN CONFORMANCE WITH THE PROFESSIONAL LAND SURVEYOR'S ACT.

MICHAEL FURLONG, PLS 8899 LICENSE EXPIRES: 12-31-19

<u>1-14-19</u> DATE



#### EXHIBIT "A2" ALLEY VACATION (LEGAL DESCRIPTION)

THE 10 FOOT WIDE ALLEY THAT LIES EAST OF LOTS 1 THROUGH 8 AND WEST OF LOTS 13 THROUGH 20. IN BLOCK B, OF TRACT NO. 3207, IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 33, PAGE 7 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, BOUNDED ON THE NORTH BY THE SOUTH LINE OF 31ST STREET (30.00 FOOT HALF WIDTH) AND ON THE SOUTH BY THE NORTH LINE OF THE 10.00 FOOT WIDE ALLEY RUNNING EAST/WEST LOCATED NORTH OF SPRING STREET.

THE ABOVE DESCRIBED PARCEL CONTAINS 3,950 SQUARE FEET, MORE OR LESS.

SUBJECT TO COVENANTS, CONDITIONS, RESTRICTIONS, RESERVATIONS AND RIGHTS-OF-WAY, IF ANY.

ALL AS MORE PARTICULARLY SHOWN ON EXHIBIT "B2" ATTACHED HERETO AND MADE PART HEREOF.

THIS DESCRIPTION WAS PREPARED BY ME OR UNDER MY DIRECTION, IN CONFORMANCE WITH THE PROFESSIONAL LAND SURVEYOR'S ACT.

MICHAEL FURLONG, PLS 8899 LICENSE EXPIRES: 12-31-19

1 - 14 - 19DATE





