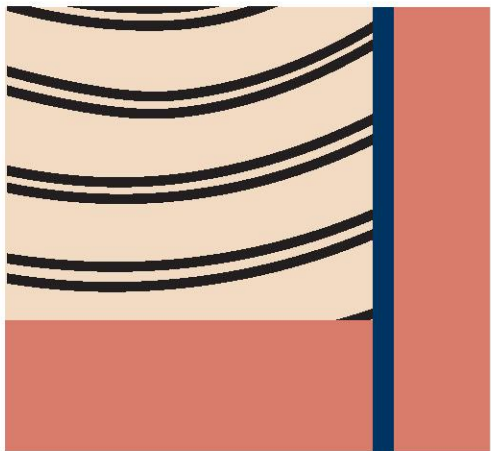


THE DISTRICT AT SOUTH BAY
SPECIFIC PLAN PROJECT



SCH No. 2005051059

JANUARY 2018



VOLUME II

FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

THE DISTRICT AT SOUTH BAY SPECIFIC PLAN PROJECT

LEAD AGENCY

CITY OF CARSON
701 EAST CARSON STREET
CARSON, CALIFORNIA 90745

PREPARED BY

ENVIRONMENTAL SCIENCE ASSOCIATES
626 WILSHIRE BOULEVARD, SUITE 1100
LOS ANGELES, CALIFORNIA 90017
213.599.4300
WWW.ESASSOC.COM

SCH No. 2005051059

JANUARY 2018



OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations. This document was produced using recycled paper.

CONTENTS

FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

	<u>Page</u>
I. INTRODUCTION TO THE FINAL SEIR	I-1
II. MITIGATION MONITORING AND REPORTING PROGRAM	II-1
III. CORRECTIONS AND ADDITIONS TO THE DRAFT EIR.....	III-1
IV. RESPONSES TO WRITTEN COMMENTS.....	IV-1
A. Introduction	IV-1
B. Comments Received on the Draft EIR	IV-5

APPENDICES

Appendix


Appendix M Supplemental Lighting Study

FIGURES

<u>Figures</u>	<u>Page</u>
Figure I-1	Conceptual PA 2 Sub-Phasing Plan I-6
Figure II-8	Potential Residential Locations [Revised] III-8
Figure IV.B-6a	Conceptual Sign Locations – Option A III-17
Figure IV.B-6b	Conceptual Sign Locations – Option B III-18
Figure RTC-1	Avalon I-405 Interchange 2006 IV-20
Figure RTC-2	Avalon I-405 Interchange 2017 IV-21

TABLES

<u>Tables</u>	<u>Page</u>
Table I-1	Environmental Impacts Comparison Chart..... I-4
Table IV.B-1	General Sign Standards [Revised]..... III-12
Table IV.G-17	Criteria Pollutant Impact Comparison..... III-32
Table IV-1	Written Comments Summary..... IV-3
Table IV-2	Summary of Prior Environmental Documents Associated with Oil/Water Well Activities IV-37
Table IV-3	Summary of Worst-Case Impacts to Residential across the Torrance Lateral Channel IV-48



I. INTRODUCTION TO THE FINAL SEIR

I. INTRODUCTION TO THE FINAL SEIR

1. PURPOSE OF THE FINAL SEIR

This Volume II, comprises the Final Supplemental Environmental Impact Report (Final SEIR) for The District at South Bay Specific Plan Project and supplements and amends the Draft Supplemental Environmental Impact Report (Draft SEIR) for The District at South Bay Specific Plan prepared and circulated by the City of Carson (as lead agency) in 2017, which comprises Volume I. The Draft SEIR and Final SEIR (together referred to as the SEIR) have been prepared by the lead agency to analyze the potential environmental impacts of the proposed modified Project as further described in the Draft SEIR and this Final SEIR.¹

This Final SEIR provides the lead agency the opportunity to respond to comments received on the Draft SEIR during the public review period and to incorporate any additions or revisions to the Draft SEIR necessary to clarify or supplement information contained in the Draft EIR. Pursuant to CEQA Guidelines Section 15090, the Lead Agency is required to certify that the SEIR (comprised of the Draft SEIR and the Final SEIR) has been completed in accordance with CEQA and that the information presented in the SEIR has been presented to, reviewed by, and considered by the lead agency's decision-making body.

2. FORMAT OF THE FINAL SEIR

This Final SEIR consists of the following four chapters:

- I. **Introduction.** This chapter includes a brief introduction of the purpose and content of the Final SEIR, the public review process, a summary of the environmental impacts of the proposed modified Project as analyzed in the SEIR and a comparison of the impacts of the proposed modified Project to the impact determinations for the approved Project made in the FEIR, and provides clarification of conceptual sub-phasing of a portion of the proposed modified Project.
- II. **Mitigation Monitoring and Reporting Program (MMRP).** The MMRP presented in this chapter sets forth the mitigation measures imposed by the lead agency for the implementation of the proposed modified Project and takes into account all the revisions resulting from agency and public comments on the Draft SEIR. The MMRP is the document that is used by the enforcement and monitoring agencies responsible for the implementation of the proposed modified Project's mitigation measures. Mitigation measures are listed by environmental topic.

¹ See Draft SEIR Section II, *Modified Project Description* for a description of the proposed modified Project. Capitalized terms used in this Final SEIR and not defined have the same meaning as set forth in the Draft SEIR.

III. Additions and Corrections to the Draft SEIR. This chapter sets forth the changes and clarifications made to the Draft SEIR, based on comments received from the responding agencies and public and includes corrections, updates and errata to the Draft SEIR.

IV. Comments and Responses. This chapter presents all comments received by the Lead Agency during the Draft SEIR's 45-day public review period, as well as the Lead Agency's responses to those comments.

In addition, to the Final SEIR, the SEIR includes—and incorporates by reference—the following:

- The Draft SEIR and all its appendices;
- The Notice of Preparation (NOP) and Comments on the NOP, each included as Appendix A to the Draft SEIR;
- The Notice of Completion and Availability of the Draft SEIR for public review; and
- Any other information added by the lead agency.

3. PUBLIC REVIEW PROCESS

The City of Carson circulated an NOP for the proposed modified Project on August 1, 2017. During the following 30-day comment period, two letters were received; two additional letters were received after the close of the 30-day comment period. Also, a public scoping meeting was held on August 23, 2017, which was attended by members of the public but at which no comments were received. The NOP and letters received during the NOP comment period are included in Appendix A of the Draft SEIR.

The Draft SEIR was provided to the State Clearinghouse and in compliance with CEQA, was circulated for a 45-day review period.² Following the public review period, written responses were prepared on all comments received, and these comments and responses were incorporated into this Final SEIR. No final actions (e.g., approval or denial) will be taken on the proposed modified Project until the SEIR has been reviewed, certified as complete, and considered by the appropriate decision makers. Dates of public hearings will be published and officially noticed in accordance with all legal requirements.

4. ENVIRONMENTAL IMPACTS COMPARISON BETWEEN THE FEIR AND THE FINAL SEIR

The Draft SEIR was prepared as a supplement to the previously approved Final Environmental Impact Report for the Carson Marketplace Project (2006 Final EIR) certified in 2006 and the Addendum to the FEIR approved in 2009 (together with the 2006 Final EIR, referred to as

² *Public Resources Code Section 21091.*

the FEIR) in order to evaluate the changes to the approved Project evaluated in the FEIR proposed by the proposed modified Project and to determine whether substantial changes in circumstances surrounding the Property and the approved Project (if any), and new information of substantial importance (if any), require further analysis under CEQA. **Table I-1, Environmental Impacts Comparison Chart**, provides a summary of environmental impacts associated with the proposed modified Project and a comparison to the impact determinations made in the FEIR. As indicated in Table I-1, the SEIR discloses new significant impacts associated with the proposed modified Project with respect to air quality and traffic and circulation that were not disclosed as significant impacts of the approved Project in the FEIR. Specifically, regional operational air quality impacts for the proposed modified Project would, as was the case for the approved Project in the FEIR, be significant and unavoidable with respect to ROC, NO_x, CO, and PM₁₀. However, the SEIR also indicates that regional operational air quality impacts with respect to PM_{2.5}, which were not analyzed in the FEIR, would be significant and unavoidable. Although the SEIR concludes that this same impact would have occurred under the approved Project had PM_{2.5} been analyzed at the time the FEIR was prepared, the SEIR concludes that this is a new significant and unavoidable impact. Traffic and circulation impacts during operations would occur at more study locations (i.e., intersections, freeway segments) than those identified in the FEIR due to changes in baseline conditions and analysis methodology. Specifically, the proposed modified Project would have six additional significant and unavoidable intersection impacts and six additional significant and unavoidable freeway segment impacts as compared to the approved Project as assessed in the FEIR; however, the SEIR concludes that the proposed modified Project would have one less significant and unavoidable intersection impact and less-severe freeway segment impacts as compared to the approved Project if the approved Project was likewise assessed to reflect current baseline conditions and 2017 state-of-practice methodologies.

For the remaining impact areas, the impacts of the proposed modified Project are described in Table I-1 as “similar” to the impacts of the approved Project under the FEIR, meaning that although the impacts disclosed by the SEIR for the proposed modified Project may be slightly greater or slightly reduced from the impacts disclosed in the FEIR for the approved Project, such impacts are not significant for both the proposed modified Project and the approved Project, have significant or potentially significant impacts that are in each case reduced to less than significant with application of required mitigation, or in each case have significant impacts with respect to an area of impact that are considered to be significant and unavoidable impacts after application of all feasible mitigation.

Table I-1
Environmental Impacts Comparison Chart

<u>Environmental Topic</u>	<u>Significant and Unavoidable</u>	<u>Not Significant with Mitigation</u>	<u>Less than Significant</u>	<u>Comparison to FEIR</u>
Agriculture and Forestry			X	Similar
Air Quality—Construction	X			Similar
Air Quality—Operations	X			Similar except for new PM _{2.5} impact
Biological Resources			X	Similar
Cultural Resources			X	Similar
Energy			X	Not applicable; not considered in FEIR
Geology and Soils		X		Similar
Greenhouse Gas Emissions			X	Not applicable; not considered in FEIR
Hazards and Hazardous Material		X		Similar
Hydrology and Water Quality			X	Similar
Land Use and Planning			X	Similar
Mineral Resources			X	Similar
Noise—Construction	X			Similar
Noise—Operations		X		Similar
Population and Housing			X	Similar
Public Services—Parks and Recreation		X		Similar
Public Services—Fire Protection		X		Similar
Public Services—Libraries		X		Similar
Public Services—Police Protection		X		Similar
Public Services—Schools			X	Similar
Traffic and Circulation—Construction		X		Similar
Traffic and Circulation—Operations	X			Different and greater
Utilities—Solid Waste		X		Similar
Utilities—Wastewater		X		Similar
Visual Resources—Aesthetics	X			Similar
Visual Resources—Shade/Shadow		X		Similar
Visual Resources—Views		X		Similar
Visual Resources—Artificial Lighting		X		Similar
Water Supply		X		Similar

5. CLARIFICATION OF SUB-PHASING OF THE PROPOSED MODIFIED PROJECT

The proposed modified Project includes three planning areas. Overlapping of construction phases over the three planning areas is anticipated and analyzed in the Draft SEIR to provide a peak construction day analysis occurring over 32 months of construction activity. Peak construction would occur during the remedial and horizontal phases of construction. In addition, sub-phasing may occur in PA 2 during the vertical construction phase, with construction of both sub-phases to be carried out by 2023. All remedial and horizontal construction including, deep dynamic compaction (DDC), grading, pile driving, and building pads for the entirety of PA 2 would be completed during the first phase along with vertical construction of a majority of the overall commercial square footage of PA 2, see **Figure I-1, Conceptual PA 2 Sub-phasing Plan**. The second phase of PA 2 construction would consist of the vertical construction of the remaining commercial square footage at the northern portion of PA 2. Sub-phasing of PA 2 would not affect the peak construction activity day analysis as peak construction activity would occur during remedial and horizontal construction. Construction activity associated with vertical construction would be less intensive than the analyzed peak construction day. Therefore, delaying and/or extending overall vertical construction due to sub-phasing would not exceed or invalidate the peak construction day analysis included in the Draft SEIR. With implementation of mitigation as modified by and described in Section III of this Final SEIR, the overlap of construction and operational emissions due to sub-phasing would not exceed proposed modified Project buildout operational emissions. With respect to noise impacts, the overlap of construction and operations within PA 2 in conjunction with Property-wide activities would not result in greater increases in ambient noise at sensitive receptors associated with overall proposed modified Project construction or operations as disclosed in the Draft SEIR. With respect to traffic and circulation, the peak construction day would occur during the building construction (vertical) phases of construction. Sub-phasing would not affect the peak construction day analysis. Additionally, sub-phasing of PA 2 would not result in greater daily trips than analyzed in the Draft EIR for Property-wide operations. Therefore, additional air quality, noise, and traffic and circulation impacts are not anticipated.



OVERALL PLAN - PHASE I
SCALE: 1" = 100'-0"

PHASE I SUMMARY

PHASE I GBA - 458,654 sf (Podium)

Note: Open concourse excluded is 109,673 sf

PARKING - 993 COVERED PODIUM
 2,098 OPEN SURFACE

3,091 TOTAL STALLS (7.8/1000)



D:\160573.03 - The Boulevards\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Macerich, 2017

The District at South Bay

Figure I-1
 Conceptual PA 2 Sub-Phasing Plan





II. MITIGATION MONITORING AND REPORTING PROGRAM

II. MITIGATION MONITORING AND REPORTING PROGRAM

A. INTRODUCTION

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared in accordance with Public Resources Code Section 21081.6 and CEQA Guidelines Section 15091(d), which require a public agency to adopt a program for monitoring or reporting on the changes it has required in the project or conditions of approval to substantially lessen significant environmental effects. Specifically, Public Resources Code Section 21081.6 states: "... the [lead] agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment ... The ... program ... shall be designed to ensure compliance during project implementation." The City of Carson, specifically the Planning Division of the Community Development Department, is the Lead Agency for the proposed modified Project.

The MMRP describes the procedures for the implementation of all of the mitigation measures identified in the SEIR for the proposed modified Project. Mitigation measures set forth in the MMRP are specific and enforceable and are capable of being fully implemented by the City of Carson, the various applicants, including the Carson Reclamation Authority, and/or other identified public agencies of responsibility. It is the intent of the MMRP to (1) verify satisfaction of the required mitigation measures of the SEIR; (2) provide a methodology to document implementation of the required mitigation; (3) provide a record of the Monitoring Program; (4) identify monitoring responsibility; and (5) establish administrative procedures for the clearance of mitigation measures. As stated in the SEIR, the 300-unit residential development entitled for construction on Development District 3 (DD3) on the 11 acres north of Del Amo Boulevard is not included under the proposed modified Project and as such, would not be subject to the mitigation measures established in this MMRP, unless specifically stated, but would instead continue to be subject to the MMRP already adopted for the approved Project.

The MMRP lists mitigation measures according to the same numbering system contained in the Draft SEIR sections. Each mitigation measure is categorized by topic, with an accompanying discussion of the following:

- The enforcement agency (i.e., the agency with the authority to enforce the mitigation measure);
- The monitoring agency (i.e., the agency to which mitigation reports involving feasibility, compliance, implementation, and development operation are made); and
- The phase of the proposed modified Project during which the mitigation measure should be monitored (i.e., prior to issuance of a building permit, construction, or occupancy).

The Implementing Parties shall be the applicable Applicant(s), who shall be obligated to demonstrate that compliance with the required mitigation measures has been effected. Where the term “Applicant(s) Horizontal” or similar terminology is used in the table below, it shall be deemed to refer to the developer(s)/operator(s) (or contractor(s) of same) responsible for construction, operation and maintenance, as applicable, of the horizontal infrastructure improvements, including utilities, roads, entry signage, entry plazas, other infrastructure, piles, cap and slab, remedial systems and building protection systems whether located on or off of the Property. Where the term “Applicant(s) Vertical” or similar terminology is used, it shall be deemed to refer to the developers/operators (or contractors of same) responsible for construction, operation and maintenance of only the above grade (vertical) improvements (i.e., above the slab) to be constructed within each Planning Area on the Property, including signage and lighting improvements.

All departments listed below are within the City of Carson unless otherwise noted. The entity responsible for the implementation of all mitigation measures shall be the Applicant(s) unless otherwise noted.

B. MITIGATION MEASURES

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
VISUAL RESOURCES							
Mitigation Measure B-1: The minimum setback for buildings greater than 52 feet in height along the Torrance Lateral, adjacent to residential uses, shall be 250 feet.	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure B-2: The distribution, placement, and orientation of signs along the I-405 Freeway shall be in substantial compliance with the signage concepts and in compliance with the sign standards in the SPA.	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure B-3a: If any portion of the illuminated surface of the sign is visible from a residential use within 1,000 feet of said sign at night, then the proposed modified Project sign luminance shall be reduced to less than 300 cd/m ² at night.	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure B-3b: If any portion of the illuminated surface of the sign is visible from a residential use within 1,000 feet of said sign, sign area and/or sign luminance shall be limited so that the light trespass illuminance is less than 0.74 foot-candle at said residential property line.	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure B-4: All Project development shall undergo site plan review by the Planning Manager to ensure that the following design measures have been implemented: – Landscaping. All Landscaping shall be consistent	Prior to issuance of a building permit/Pre-Construction	Applicant(s)/ Vertical and, as to Landscaping, etc.,	City of Carson Department of Community Development, Planning	City of Carson Department of Community Development, Planning			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
<p>with a plant palette of native trees, shrubs, and groundcovers that shall add uniformity to the Property. Plants shall be selected to support and complement the themes of the various Project components. Specially themed landscaping treatments shall occur at key locations (e.g., freeway edge, channel slope, and entertainment area). Of more detailed note: (1) continuous shrub and ground cover plantings shall be provided in the medians and edges of internal streets with vertical landscape and/or hardscape elements on average every 50 feet along the edges; (2) 5% landscape coverage shall be provided in parking lots, including landscaping adjacent to edges of parking fields; and (3) 50% landscape coverage shall be provided on the sides of parking structures visible to residences, not inclusive of commercial over podium.</p> <ul style="list-style-type: none"> - Buildings. Buildings shall include the following design features: varied and articulated building façades, with a variety of architectural accent materials for exterior treatment at visually accessible locations. - Accessory Facilities and Walls. Wall facades shall be varied and articulated. Accessory facilities such as trash bins, storage areas, etc., shall be covered and screened as set forth in the SPA. - Lighting. Lighting shall be limited in intensity, light control methods, and pole heights, so as to be directed on site, and not interfere with off-site activities. 		Applicant(s) Horizontal	Division	Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
TRAFFIC AND CIRCULATION							
<p>Mitigation Measure C-1: A Construction Traffic Management Plan shall be developed by the contractor and approved by the City of Carson to alleviate construction period impacts, which may include but is not limited to the following measures:</p> <ul style="list-style-type: none"> – In the unlikely case that on-site truck staging areas are insufficient, provide off-site truck staging in a legal area (per the local jurisdiction’s municipal code) furnished by the construction truck contractor. Anticipated truck access to the Project site will be off Street B and Street A. – Schedule deliveries and pick-ups of construction materials during non-peak commute travel periods (e.g., early morning, midday) to the extent possible and coordinate to reduce the potential of trucks waiting to load or unload for protracted periods. – As a vehicular travel lane, parking lane, bicycle lane, and/or sidewalk closures are anticipated, worksite traffic control plan(s), approved by the City of Carson, should be implemented to route vehicular traffic, bicyclists, and pedestrians around any such closures. – Establish requirements for loading/unloading and storage of materials on the Project site including the locations where parking spaces would be affected, length of time traffic travel lanes would be blocked, sidewalk closures or pedestrian diversions to ensure the safety of the pedestrian and access to local businesses and residences. – Ensure that access will remain unobstructed for land uses in proximity to the Project site during project construction. – Coordinate with the City and emergency service 	Prior to issuance of a grading permit/Pre-Construction; during Construction	Applicant(s)/ Contractor Horizontal and Applicant(s)/ Contractor Vertical, as applicable	City of Carson Department of Public Works, Traffic Engineering Division	City of Carson Department of Public Works, Traffic Engineering Division			

II. Mitigation Monitoring and Reporting Program

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
providers to ensure adequate access is maintained to the Project site and neighboring businesses and residences.							
<p>Mitigation Measure C-2.1: Main Street and I 405 Southbound On-Ramp (Intersection No. 3). A significant impact would occur at this intersection during the P.M. peak hour under the existing year and future year analysis. The Applicant shall pay a fair-share contribution for the following intersection striping improvement:</p> <ul style="list-style-type: none"> – Conversion of the eastbound left-turn lane to a through/left-turn lane is proposed. 	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal	City of Carson Department of Public Works, Traffic Engineering Division	City of Carson Department of Public Works, Traffic Engineering Division			
<p>Mitigation Measure C-3: Vermont Avenue and Del Amo Boulevard (Intersection No. 5). A significant impact would occur at this intersection during the A.M. and P.M. peak hours under the existing year and future year analysis. The Applicant shall pay a fair-share contribution for the following intersection striping and geometric improvements:</p> <ul style="list-style-type: none"> – Addition of a second westbound left-turn lane; and – Conversion of the northbound through/right-turn lane to a second northbound through and a dedicated right-turn lane. This would require the removal of approximately eight parking spaces. 	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal	City of Carson Department of Public Works, Traffic Engineering Division	City of Carson Department of Public Works, Traffic Engineering Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
<p>Mitigation Measure C-5: Figueroa Street and Del Amo Boulevard (Intersection No. 7). A significant impact would occur at this intersection during the A.M. and P.M. peak hours under the existing year and future year analysis. The Applicant shall pay a fair-share contribution for the following intersection striping and geometric improvements:</p> <ul style="list-style-type: none"> – Addition of a second westbound left-turn lane; – Conversion of the westbound right-turn lane to a through/right-turn lane; – Addition of a second southbound left-turn lane; – Conversion of the southbound through and southbound right-turn lane to a through/right-turn lane; – Conversion of the eastbound right-turn lane to a through/right-turn lane; and – Addition of a northbound right-turn-only lane. 	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal	City of Carson Department of Public Works, Traffic Engineering Division	City of Carson Department of Public Works, Traffic Engineering Division			
<p>Mitigation Measure C-6: Main Street and Del Amo Boulevard (Intersection No. 8). A significant impact would occur at this intersection during the P.M. peak hour under the existing year and future year analysis. The Applicant shall pay a fair-share contribution for the following intersection striping and geometric improvements:</p> <ul style="list-style-type: none"> – Addition of a second westbound left-turn lane; – Addition of a second southbound dedicated through lane; – Conversion of the eastbound through/right-turn lane to a through lane and a right-turn lane; and – Conversion of the northbound through/right-turn lane to a through lane and a right-turn lane. 	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal	City of Carson Department of Public Works, Traffic Engineering Division	City of Carson Department of Public Works, Traffic Engineering Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
<p>Mitigation Measure C-6.1: Avalon Boulevard and Del Amo Boulevard (Intersection No. 10). A significant impact would occur at this intersection during the A.M. and P.M. peak hours under the existing year and future year analysis. The Applicant shall pay a fair-share contribution for the following intersection striping and geometric improvements:</p> <ul style="list-style-type: none"> – Conversion of the southbound through/right-turn lane to a through lane and a right-turn lane; and – Addition of a second northbound left-turn lane. 	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal	City of Carson Department of Public Works, Traffic Engineering Division	City of Carson Department of Public Works, Traffic Engineering Division			
<p>Mitigation Measure C-8: Figueroa Street and I 110 Northbound Ramps (Intersection No. 12). A significant impact would occur at this intersection during the A.M. and P.M. peak hours under the existing year and future year analysis. The Applicant shall pay a fair-share contribution for the following intersection striping and geometric improvements:</p> <ul style="list-style-type: none"> – Addition of a southbound through/right-turn lane; – Addition of a third southbound receiving lane; and – Conversion of the eastbound left/right-turn lane to a dedicated left-turn lane and a dedicated right-turn lane. 	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal	City of Carson Department of Public Works, Traffic Engineering Division	City of Carson Department of Public Works, Traffic Engineering Division			
<p>Mitigation Measure C-9: Figueroa Street and Torrance Boulevard (Intersection No. 15). A significant impact would occur at this intersection during the P.M. peak hour under the future year analysis only. The Applicant shall pay a fair-share contribution for the following intersection striping and geometric improvements:</p> <ul style="list-style-type: none"> – Conversion of the northbound through/right-turn lane to a through lane and a right-turn lane. 	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal	City of Carson Department of Public Works, Traffic Engineering Division	City of Carson Department of Public Works, Traffic Engineering Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
<p>Mitigation Measure C-10.1: Main Street and 213th Street (Intersection No. 20). A significant impact would occur at this intersection during the P.M. peak hour under the existing year and future year analysis. The Applicant shall pay a fair-share contribution for the following intersection striping and geometric improvements:</p> <ul style="list-style-type: none"> – Conversion of the westbound left/right-turn lane to a left-turn lane and a right-turn lane. 	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal	City of Carson Department of Public Works, Traffic Engineering Division	City of Carson Department of Public Works, Traffic Engineering Division			
<p>Mitigation Measure C-11: Vermont Avenue and Carson Street (Intersection No. 22). A significant impact would occur at this intersection during the A.M. and P.M. peak hours under the existing year and future year analysis. The Applicant shall pay a fair-share contribution for the following intersection striping and geometric improvements:</p> <ul style="list-style-type: none"> – Conversion of the westbound right-turn lane to a through/right-turn lane; and – Conversion of the eastbound right-turn lane to a through/right-turn lane. 	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal	City of Carson Department of Public Works, Traffic Engineering Division	City of Carson Department of Public Works, Traffic Engineering Division			
<p>Mitigation Measure C-14: Avalon Boulevard and Carson Street (Intersection No. 25). A significant impact would occur at this intersection during the P.M. peak hour under the existing year analysis, and during the A.M. and P.M. peak hours under the future year analysis. The Applicant shall pay a fair-share contribution for the following intersection striping improvements:</p> <ul style="list-style-type: none"> – Convert the southbound through/right-turn lane to a dedicated right-turn lane; and – Convert the northbound through/right-turn lane to a dedicated right-turn lane 	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal	City of Carson Department of Public Works, Traffic Engineering Division	City of Carson Department of Public Works, Traffic Engineering Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
<p>Mitigation Measure C-16: In coordination with the Carson Circuit, Metro, Torrance Transit, and LADOT, the Applicant shall:</p> <ul style="list-style-type: none"> – Request an extension of existing public bus routes into the Project site, which will increase transit capacity by adding service to the area; – Request that additional buses be deployed on extended routes to increase frequency and capacity on key routes serving the Project site; and – Provide transit stops, potentially including benches and shelters, in and adjacent to the Project site, which will improve the quality and increase the network density of transit service. 	Post-Construction of the 1 st Phase of Project	Applicant(s) Horizontal	City of Carson Department of Public Works, Traffic Engineering Division	City of Carson Department of Public Works, Traffic Engineering Division			
HAZARDS AND HAZARDOUS MATERIALS							
<p>Mitigation Measure D-1: To the extent the Applicant desires to refine or modify requirements in the RAP, the Applicant shall provide documentation to the City indicating DTSC approval of such refinements or modifications prior to commencement of construction.</p>	Prior to issuance of grading permit/Pre-Construction	Applicant(s) Horizontal	Department of Toxic Substances Control (DTSC), City of Carson Department of Community Development, Planning Division	California Environmental Protection Agency (Cal EPA), DTSC, City of Carson Department of Community Development, Planning Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
Mitigation Measure D-2: The Applicant shall provide documentation to the City indicating DTSC shall permit any proposed residential uses prior to issuance of a building permit for residential development.	Prior to issuance of building permit/Pre-Construction	Applicant(s) Horizontal	DTSC	Cal EPA, DTSC, City of Carson Department of Community Development, Planning Division			
Mitigation Measure D-3: The Applicant shall provide documentation to the City indicating both on- and off-site risks associated with RAP construction have been evaluated to the satisfaction of the DTSC, and at a minimum, perimeter air monitoring shall be completed for dust, particulates, and constituents determined to be Constituents of Concern (COCs). Should the air monitoring indicate any violations of air quality as defined in the RAP, then construction activities causing the exceedance shall cease until modifications have been implemented to remedy the exceedances.	Pre-Construction/ Construction	Applicant(s) Horizontal	DTSC, City of Carson Department of Community Development, Planning Division	Cal EPA, DTSC, City of Carson Department of Community Development, Planning Division			
Mitigation Measure D-4: The Applicant shall provide to the City documentation indicating that (1) a cell-specific risk assessment has been prepared by the Applicant and approved by DTSC demonstrating that the risk of exposure for occupancy of that cell is within acceptable levels to DTSC and (2) DTSC has approved a remedial action completion report documenting that the remedial systems are properly functioning prior to issuance of a Certificate of Occupancy.	Prior to issuance of a Certificate of Occupancy/ Pre-Construction	Applicant(s) Horizontal	DTSC, City of Carson Department of Community Development, Planning Division	Cal EPA, DTSC, City of Carson Department of Community Development, Planning Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
<p>Mitigation Measure D-6: The Applicant’s construction contractor shall incorporate the contingency plan recommended under the July 9, 2008, Oil/Water Well Investigation report by Arcadis into construction specifications. The contingency plan shall be physically on site during any earthwork activities and implemented in the event that a previously unknown well is encountered at the Property.</p>	Construction	Applicant(s)/ Construction Contractor Horizontal	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
GEOLOGY AND SOILS							
<p>Mitigation Measure E-1: In accordance with City of Carson Municipal Code, the Applicant shall comply with site-specific recommendations set forth in engineering geology and geotechnical reports prepared to the satisfaction of the City of Carson Building Official, as follows:</p> <ul style="list-style-type: none"> – The engineering geology report shall be prepared and signed by a California Certified Engineering Geologist and the geotechnical report shall be prepared and signed by a California Registered Civil Engineer experienced in the area of geotechnical engineering. Geology and geotechnical reports shall include site-specific studies and analyses for all potential geologic and/or geotechnical hazards. Geotechnical reports shall address the design of pilings, foundations, walls below grade, retaining walls, shoring, subgrade preparation for floor slab support, paving, earthwork methodologies, and dewatering, where applicable. – Geology and geotechnical reports may be prepared separately or together. – Where the studies indicate, compensating siting and design features shall be required. – Laboratory testing of soils shall demonstrate the 	Prior to issuance of a grading permit/Pre-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	City of Carson Department of Community Development, Building and Safety Division	City of Carson Department of Community Development, Building and Safety Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
suitability of underlying native soils to support driven piles to the satisfaction of the City of Carson Building Official.							
Mitigation Measure E-2: Due to the classification of portions of the Property as a liquefaction zone, the Applicant shall demonstrate that liquefaction either (a) poses a sufficiently low hazard to satisfy the defined acceptable risk criteria, in accordance with CGS Special Bulletin 117A, or (b) implements suitable mitigation measures to effectively reduce the hazard to acceptable levels (CCR Title 14, Section 3721). The analysis of liquefaction risk shall be prepared by a registered civil engineer and shall be submitted to the satisfaction of the City Building Official.	Prior to issuance of a grading permit/Pre-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	City of Carson Department of Community Development, Building and Safety Division	City of Carson Department of Community Development, Building and Safety Division			
Mitigation Measure E-3: Any roads realigned from the existing configuration, or otherwise located in areas underlain by waste soils, shall comply with site-specific recommendations as set forth in engineering, geology, and geotechnical reports prepared to the satisfaction of the City of Carson building officials.	Prior to issuance of a grading permit/Pre-Construction	Applicant(s) Horizontal	City of Carson Department of Community Development, Building and Safety Division	City of Carson Department of Community Development, Building and Safety Division			
AIR QUALITY							
Mitigation Measure G-1: General contractors shall implement a fugitive dust control program pursuant to the provisions of SCAQMD Rule 403.	Prior to the issuance of a grading permit/Construction	Applicant(s)/ Construction Contractor Horizontal and Applicant(s)/ Construction Contractor Vertical, as applicable	South Coast Air Quality Management District (SCAQMD)	City of Carson Department of Community Development, Planning Division			

II. Mitigation Monitoring and Reporting Program

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
Mitigation Measure G-2: All construction equipment shall be properly tuned and maintained in accordance with manufacturer’s specifications.	Prior to the issuance of a grading permit/ Construction	Construction Contractor Horizontal and Construction Contractor Vertical, as applicable	SCAQMD, City of Carson Department of Community Development, Building and Safety Division	City of Carson Department of Community Development, Building and Safety Division			
Mitigation Measure G-3: General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues would turn their engines off, when not in use, to reduce vehicle emissions. Construction emissions should be phased and scheduled to avoid emissions peaks and discontinued during second-stage smog alerts.	Prior to the issuance of a grading permit/ Construction	Construction Contractor Horizontal and Construction Contractor Vertical, as applicable	SCAQMD	City of Carson Department of Community Development, Building and Safety Division			
Mitigation Measure G-4: Electricity from power poles rather than temporary diesel- or gasoline-powered generators shall be used to the extent feasible.	Prior to the issuance of a grading permit/ Construction	Construction Contractor Horizontal and Construction Contractor Vertical, as applicable	SCAQMD	City of Carson Department of Community Development, Building and Safety Division			
Mitigation Measure G-5: All construction vehicles shall be prohibited from idling in excess of 5 minutes, both on and off Property.	Prior to the issuance of a grading permit/ Construction	Construction Contractor Horizontal and Construction Contractor Vertical, as applicable	SCAQMD	City of Carson Department of Community Development, Building and Safety Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
Mitigation Measure G-6: Project heavy-duty construction equipment shall use alternative clean fuels, such as low-sulfur diesel or compressed natural gas with oxidation catalysts or particulate traps, to the extent feasible.	Prior to the issuance of a grading permit/ Construction	Construction Contractor Horizontal and Construction Contractor Vertical, as applicable	SCAQMD	City of Carson Department of Community Development, Building and Safety Division			
Mitigation Measure G-7: The Applicant shall utilize coatings and solvents that are consistent with applicable SCAQMD rules and regulations. Should sub-phasing within any of the Planning Areas result in the overlap of construction and operation, construction shall be coordinated and managed to ensure that Property-wide coating activities would not result in the exceedance of maximum operational ROC emissions as shown in Table IV.G-14. Construction ROC emissions can be limited through the use of pre-fabricated and pre-coated materials, limiting the amount of daily coating activities, and tenant coordination.	Prior to the issuance of a grading permit/ Construction	Applicant(s)/ Construction Contractor Horizontal and Applicant(s)/ Construction Contractor Vertical, as applicable	SCAQMD	City of Carson Department of Community Development, Building and Safety Division			
Mitigation Measure G-8: The Applicant shall comply with SCAQMD Rule 402 to reduce potential nuisance impacts due to odors from construction activities.	Prior to the issuance of a grading permit/ Construction	Applicant(s)/ Construction Contractor Horizontal and Applicant(s)/ Construction Contractor Vertical, as applicable	SCAQMD	City of Carson Department of Community Development, Building and Safety Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
Mitigation Measure G-9: All construction vehicle tires shall be washed at the time these vehicles exit the Property, or use vehicle tracking pad per approved SWPPP.	Prior to the issuance of a grading permit/ Construction	Construction Contractor Horizontal and Construction Contractor Vertical, as applicable	SCAQMD	City of Carson Department of Community Development, Building and Safety Division			
Mitigation Measure G-10: All fill material carried by haul trucks shall be covered by a tarp or other means.	Prior to the issuance of a grading permit/ Construction	Construction Contractor Horizontal and Construction Contractor Vertical, as applicable	SCAQMD	City of Carson Department of Community Development, Building and Safety Division			
Mitigation Measure G-11: Any intensive dust-generating activity such as grinding concrete for existing roads shall be controlled to the greatest extent feasible.	Prior to the issuance of a grading permit/ Construction	Construction Contractor Horizontal and Construction Contractor Vertical, as applicable	SCAQMD	City of Carson Department of Community Development, Building and Safety Division			
Mitigation Measure G-12: The Applicant shall provide documentation to the City indicating both on- and off-Property air-borne risks associated with Remedial Action Plan construction have been evaluated to the satisfaction of DTSC, and at a minimum, perimeter air monitoring shall be completed for dust, particulates, and constituents determined to be Constituents of Concern (COCs).	Prior to the issuance of a grading permit/ Pre-Construction	Applicant(s) Horizontal	City of Carson Department of Community Development, Building and Safety Division	City of Carson Department of Community Development, Building and Safety Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
Mitigation Measure G-13: All point source facilities shall obtain all required permits from SCAQMD. The issuance of these permits by SCAQMD shall require the operators of these facilities to implement Best Available Control Technology and other required measures that reduce emissions of criterial air pollutants.	Prior to the issuance of a grading permit/ Pre-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	SCAQMD	City of Carson Department of Community Development, Building and Safety Division			
Mitigation Measure G-14: Land uses on the Property shall be limited to those that do not emit high levels of potentially toxic contaminants or odors.	Pre-Construction	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure G-15: All residential and non-residential buildings shall exceed the 2016 California Title 24 Energy Efficiency standards for water heating, space heating, and cooling, by a minimum of 5 percent or achieve equivalent energy efficiency savings by other means.	Prior to the issuance of a building permit/ Pre-Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Building and Safety Division	City of Carson Department of Community Development, Building and Safety Division			
Mitigation Measure G-16: All fixtures used for lighting of exterior common areas shall be regulated by automatic devices to turn off lights when they are not needed, but a minimum level of lighting should be provided for safety.	Prior to the issuance of a building permit/ Pre-Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Building and Safety Division	City of Carson Department of Community Development, Building and Safety Division			
Mitigation Measure G-17: Building materials shall comply with all applicable SCAQMD rules and regulations. The use of low-VOC cleaning products shall be required in all hotels. The Project shall incorporate the use of low-VOC architectural coating for repainting and maintenance/touch-up of the non-residential buildings and residential buildings for all common/non-living space/outdoor areas.	Prior to the issuance of a grading permit/ Construction	Applicant(s)/ Contractor Vertical	City of Carson Department of Community Development, Building and Safety Division	City of Carson Department of Community Development, Building and Safety Division			

II. Mitigation Monitoring and Reporting Program

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
Mitigation Measure G-18: The Applicant shall, to the extent feasible, schedule deliveries during off-peak traffic periods to encourage the reduction of trips during the most congested periods.	Construction/ Post- Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	City of Carson Department of Community Development, Building and Safety Division	City of Carson Department of Community Development, Building and Safety Division			
Mitigation Measure G-19: The Applicant shall coordinate with the MTA and the City of Carson and Los Angeles Department of Transportation to provide information with regard to local bus and rail services.	Post- construction	Applicant(s) Vertical	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure G-20: During site plan review, consideration shall be given regarding the provision of safe and convenient access to bus stops and public transportation facilities.	Pre-construction	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure G-21: The Applicant shall pay a fair-share contribution for a low-emission shuttle service between the Property and other major activity centers within the Project vicinity (i.e., the Metro Rail Blue Line station at Del Amo Boulevard and Santa Fe Avenue and the Carson Transfer Station at the South Bay Pavilion).	Prior to Certificate of Occupancy/ Post- Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure G-22: The Applicant shall provide bicycle racks located at convenient locations throughout The District at South Bay.	Prior to Certificate of Occupancy/ Post- Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
Mitigation Measure G-23: The Applicant shall provide bicycle paths along the main routes throughout The District at South Bay consistent with the Specific Plan.	Prior to issuance of a grading permit/Pre-Construction	Applicant(s) Horizontal	City of Carson Department of Community Development, Planning and Traffic Engineering Divisions	City of Carson Department of Community Development, Planning and Traffic Engineering Divisions			
Mitigation Measure G-24: The Applicant shall provide convenient pedestrian access throughout The District at South Bay.	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure G-26: Project construction shall be phased to extend the architectural coating phase to the greatest extent feasible to meet construction schedule. Further, architectural coating shall be required to meet the lowest VOC content available for the type of coating being applied.	Prior to issuance of a building permit/Pre-Construction	Applicant(s)/ Construction Contractor Vertical	City of Carson Department of Community Development, Building and Safety and Planning Divisions	City of Carson Department of Community Development, Building and Safety and Planning Divisions			
Mitigation Measure G-27: The on-Property residential units shall not contain any hearths, either wood burning, natural gas, or propane.	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Vertical (Residential only)	City of Carson Department of Community Development, Building and Safety and Planning Divisions	City of Carson Department of Community Development, Building and Safety and Planning Divisions			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
Mitigation Measure G-28: The Project shall incorporate outdoor electrical outlets such that 10 percent of outdoor landscaping equipment can be electrically powered.	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	City of Carson Department of Community Development, Building and Safety and Planning Divisions	City of Carson Department of Community Development, Building and Safety and Planning Divisions			
Mitigation Measure G-29: The Project shall designate at least 8 percent of all commercial parking spaces for priority parking for carpool/vanpool and/or clean air vehicles and comply with California Green Building Standards Code (CALGreen).	Prior to issuance of building permit/Pre-Construction; Prior to issuance of Certificate of Occupancy/Post-Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
NOISE							
Mitigation Measure H-1: Prior to the issuance of any grading, excavation, haul route, foundation, or building permits, the Applicant shall provide proof satisfactory to the Building and Safety and Planning Divisions of the Community Development Department that all construction documents require contractors to comply with City of Carson Municipal Code, as may be modified by variance, which require all construction and demolition activities, including pile driving, to occur between 7:00 a.m. and 8:00 p.m. Monday through Saturday and that a noise management plan for compliance and verification has been prepared by a monitor retained by the Applicant. At a minimum, the plan shall include the following requirements: 1. Noise-generating equipment operated at the Property shall achieve a minimum noise level reduction of 10 dBA lower than the reference	Prior to issuance of any grading, excavation, haul route, foundation, or building permits/Pre-Construction/Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Building and Safety Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance																																																											
					Initials	Date	Remarks																																																									
<p>noise levels used in this analysis, as listed below, to be verified by submittal of manufacturer specifications, evidence of retrofit (i.e., mufflers, intake silencers, lagging, and/or engine enclosures), or monitoring data. All equipment shall be properly maintained to ensure that no additional noise, due to worn or improperly maintained parts, would be generated.</p> <table border="1"> <thead> <tr> <th>Equipment Type</th> <th>Reference Noise Level at 50 Feet (dBA L_{max})</th> <th>Mitigated Noise Level at 50 Feet (dBA L_{max})</th> </tr> </thead> <tbody> <tr><td>Welder</td><td>74</td><td>64</td></tr> <tr><td>Forklift</td><td>75</td><td>65</td></tr> <tr><td>Tractor Trailer</td><td>76</td><td>66</td></tr> <tr><td>Paver</td><td>77</td><td>67</td></tr> <tr><td>Air Compressor</td><td>78</td><td>68</td></tr> <tr><td>Loader</td><td></td><td></td></tr> <tr><td>Concrete Mixer Trucks</td><td>79</td><td>69</td></tr> <tr><td>Water Trucks</td><td></td><td></td></tr> <tr><td>Rollers</td><td>80</td><td>70</td></tr> <tr><td>Trencher</td><td></td><td></td></tr> <tr><td>Excavators</td><td></td><td></td></tr> <tr><td>Cranes</td><td>81</td><td>71</td></tr> <tr><td>Dozer</td><td>82</td><td>72</td></tr> <tr><td>Compactor</td><td>83</td><td>73</td></tr> <tr><td>Scraper</td><td>84</td><td>74</td></tr> <tr><td>Grader</td><td>85</td><td>75</td></tr> <tr><td>Concrete Saw</td><td></td><td></td></tr> <tr><td>Pavement Scarifier</td><td>90</td><td>80</td></tr> </tbody> </table>	Equipment Type	Reference Noise Level at 50 Feet (dBA L _{max})	Mitigated Noise Level at 50 Feet (dBA L _{max})	Welder	74	64	Forklift	75	65	Tractor Trailer	76	66	Paver	77	67	Air Compressor	78	68	Loader			Concrete Mixer Trucks	79	69	Water Trucks			Rollers	80	70	Trencher			Excavators			Cranes	81	71	Dozer	82	72	Compactor	83	73	Scraper	84	74	Grader	85	75	Concrete Saw			Pavement Scarifier	90	80							
Equipment Type	Reference Noise Level at 50 Feet (dBA L _{max})	Mitigated Noise Level at 50 Feet (dBA L _{max})																																																														
Welder	74	64																																																														
Forklift	75	65																																																														
Tractor Trailer	76	66																																																														
Paver	77	67																																																														
Air Compressor	78	68																																																														
Loader																																																																
Concrete Mixer Trucks	79	69																																																														
Water Trucks																																																																
Rollers	80	70																																																														
Trencher																																																																
Excavators																																																																
Cranes	81	71																																																														
Dozer	82	72																																																														
Compactor	83	73																																																														
Scraper	84	74																																																														
Grader	85	75																																																														
Concrete Saw																																																																
Pavement Scarifier	90	80																																																														

II. Mitigation Monitoring and Reporting Program

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
<p>2. Pile drivers used within 1,500 feet of sensitive receptors shall be equipped with noise control techniques (e.g., use of noise attenuation shields or shrouds) having a minimum quieting factor of 10 dBA, or equivalent measures shall be used to result in a minimum reduction of 10 dBA at the source.</p> <p>3. Effective continuous temporary sound barriers (at least 8 feet tall as measured from the grade upon which the noise-producing equipment are operating) equipped with noise blankets rated to achieve sound level reductions of at least 20 dBA shall enclose the active construction work area to block line-of-site between the construction equipment and occupied noise-sensitive receptors. In the alternative, equivalent measures may be used that will achieve sound level reductions of at least 20 dBA, or such lesser fraction thereof required to reach 65 dBA, at the boundary of occupied residential uses.</p> <p>4. Loading and staging areas must be located on site and away from the most noise-sensitive uses surrounding the site as determined by the Building and Safety and Planning Divisions of the Community Development Department.</p> <p>5. An approved haul route authorization that avoids noise-sensitive land uses to the maximum extent feasible.</p> <p>6. A construction relations officer shall be designated to serve as a liaison with residents, and a contact telephone number shall be provided to residents.</p>							

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
<p>Mitigation Measure H-2: The Applicant, prior to initiating additional DDC activities on a site-wide basis, shall conduct a DDC Pilot Program (Pilot Program). The Pilot Program shall be implemented via the following guidelines:</p> <ul style="list-style-type: none"> – Prior to the initiation of the Pilot Program, the Applicant shall locate vibration monitors at the following locations: (1) along the Project’s fence-line opposite the off-site residential uses located to the north (if Development District 3 [DD3] is under vertical construction or constructed at the time DDC activities are initiated), south, and southwest of the Property (i.e., within the Property), and (2) along the far side of the Torrance Lateral Channel and along the north side of Del Amo Boulevard (if DD3 is under vertical construction or constructed at the time DDC activities are initiated) in line with the monitors placed within the Property itself. – Continuous monitoring shall be conducted on an ongoing basis during the Pilot Program. All vibration levels measured by the monitors shall be logged with documentation of the measurements provided to the City. Initial DDC drops shall be limited in weight, height, and/or location dictated by calculations that demonstrate that the potential vibration levels are below the 0.2 inch per second (in/s) PPV threshold limit at the residential side of the Torrance Lateral Channel or the 2.0 in/s PPV threshold limit at DD3 (if DD3 is under vertical construction or constructed at the time DDC activities are initiated). – Increases in DDC weight, height, and/or location shall occur in small increments, with continuous monitoring to ensure compliance with the 0.2 in/s 	Prior to initiating additional DDC activities/Pre-Construction	Applicant(s) Horizontal	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			

II. Mitigation Monitoring and Reporting Program

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
<p>PPV (residential side of Torrance Lateral Channel) and 2.0 in/s PPV (if DD3 is under vertical construction or constructed at the time DDC activities are initiated) threshold limits.</p> <p>– If vibration levels at any time during the Pilot Program exceed the 0.2 in/s PPV (residential side of Torrance Lateral Channel) or 2.0 in/s PPV (if DD3 is under vertical construction or constructed at the time DDC activities are initiated) threshold levels, DDC activity shall immediately stop, until new drop parameters are established that would reduce the vibration levels to less than the 0.2 in/s PPV or 2.0 in/s PPV threshold levels.</p>							
<p>Mitigation Measure H-3: Continuous vibration monitoring shall be conducted on an ongoing basis during DDC and pile driving activities. All vibration levels measured by the monitors shall be logged with documentation of the measurements provided to the City. If DDC and/or pile driving vibration levels at any time exceed the 0.2 inch per second (in/s) PPV (at the residential side of Torrance Lateral Channel) or 2.0 in/s PPV (at Development District 3 [DD3] if DD3 is under vertical construction or constructed at the time DDC activities are initiated) threshold levels, DDC and/or pile driving activity shall immediately stop, until modified construction methods are established that would reduce the vibration levels to less than the applicable threshold levels, as defined above.</p>	Construction	Applicant(s)/ Construction Contractor Horizontal	City of Carson Department of Community Development, Building and Safety and Planning Divisions	City of Carson Department of Community Development, Building and Safety and Planning Divisions			
<p>Mitigation Measure H-4: A construction and construction-related monitor satisfactory to the Community Development Director (or his/her designee) shall be retained by the Applicant to document compliance with the mitigation measures. Said Monitor’s qualifications, identification, address, and telephone</p>	Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
<p>number shall be listed in the contracts and shall be placed in the pertinent files of the Community Development Department. The Monitor will be required to monitor all construction and construction-related activities on the Property on a periodic basis; keep all written records, which shall be open for public inspection; and to file monthly reports with the City and appropriate permit granting authorities. In addition:</p> <ol style="list-style-type: none"> 1. Information shall be provided on a weekly basis regarding construction activities and their duration. A Construction Relations Officer shall be established and funded by the Applicant, and approved by the Community Development Director (or his/her designee), to act as a liaison with neighbors and residents concerning on-site construction activity. As part of this mitigation measure, the Applicant shall establish a 24-hour telephone construction hotline, which will be staffed between the hours of 8:00 a.m. and 5:00 p.m. on a Monday through Saturday basis throughout the Project's entire construction period for the purposes of answering questions and resolving disputes with adjacent property owners. The hotline number shall be posted on the Property. 2. The Applicant shall require in all construction and construction-related contracts and subcontracts, provisions requiring compliance with special environmental conditions included in all relevant entitlement approval actions of the City of Carson. Such provisions shall also include retention of the power to effect prompt corrective action by the Applicant, its representative, or prime contractor, subcontractor, or operator to correct noticed noncompliance. 							

II. Mitigation Monitoring and Reporting Program

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
3. During construction, loading and staging areas must be located on-site and away from occupied noise-sensitive uses surrounding the Property as determined by the Planning Manager.							
Mitigation Measure H-5: All commercial parking lots shall be located a minimum of 150 feet from an off-site residential structure use located to the south and west (across the Torrance Lateral Channel) unless a minimum 8-foot-high wall is provided along the property boundary to limit noise levels associated with parking lot activities.	Prior to issuance of a grading permit/Pre-Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure H-6: All parking structures shall be located a minimum of 150 feet from an off-site residential structure use located to the south and west (across the Torrance Lateral Channel) unless the exterior wall of the parking structure that faces the off-site residential use is a solid wall or provides acoustical louvers (or equivalent noise reduction measures).	Prior to issuance of a grading permit/Pre-Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure H-7: During operation of a building (following construction), truck delivery within 250 feet of an off-Property residential use shall not occur between 10:00 p.m. and 7:00 a.m.	Prior to issuance of a grading permit/Pre-Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
FIRE PROTECTION							
Mitigation Measure I.1-1: Prior to construction, the Applicant shall submit buildings plans to the Los Angeles County Fire Department (LACoFD) for review. Based on such plan check, any additional fire safety recommendations shall be implemented to the satisfaction of the LACoFD.	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Vertical	Los Angeles County Fire Department (LACoFD)	LACoFD			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
Mitigation Measure I.1-2: The Applicant shall provide adequate ingress/egress access points for emergency response to the satisfaction of the LACoFD.	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Vertical	LACoFD	LACoFD			
Mitigation Measure I.1-3: The Applicant shall comply with all applicable fire code and ordinance requirements for construction, access, water mains, fire flows, and fire hydrants as required by the LACoFD.	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	LACoFD	LACoFD			
Mitigation Measure I.1-4: Every building shall be accessible to Fire Department apparatus by way of access roadways, with an all-weather surface of not less than the width prescribed by the LACoFD. The roadway shall extend to within 150 feet of all portions of exterior building walls when measured by an unobstructed route around the exterior of the building.	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal and Applicants Vertical, as applicable	LACoFD	LACoFD			
Mitigation Measure I.1-5: Requirements for access, fire flows, and hydrants shall be addressed during the City’s subdivision tentative map stage.	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal	LACoFD	LACoFD			
Mitigation Measure I.1-6: Fire sprinkler systems shall be installed in all residential and commercial occupancies to the satisfaction of the LACoFD.	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Vertical	LACoFD	LACoFD			
Mitigation Measure I.1-7: The Applicant shall ensure that adequate water pressure is available to meet Code-required fire flow. Based on the size of the buildings, proximity of other structures, and construction type, a maximum fire flow up to 4,000 gallons per minute (gpm) at 20 pounds per square inch (psi) residual pressure for up to a four-hour duration may be required.	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	LACoFD	LACoFD			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
<p>Mitigation Measure I.1-8: Fire hydrant spacing shall be 300 feet and shall meet the following requirements:</p> <ul style="list-style-type: none"> – No portion of a lot’s frontage shall be more than 200 feet via vehicular access from a properly spaced fire hydrant; – No portion of a building shall exceed 400 feet via vehicular access from a properly spaced fire hydrant; – Additional hydrants shall be required if spacing exceeds specified distances; – When a cul-de-sac depth exceeds 200 feet on a commercial street, hydrants shall be required at the corner and mid-block; – A cul-de-sac shall not be more than 500 feet in length, when serving land zoned for commercial use; and – Turning radii in a commercial zone shall not be less than 32 feet. The measurement shall be determined at the centerline of the road. A turning area shall be provided for all driveways exceeding 150 feet in length at the end of all cul-de-sacs, to the satisfaction of the LACoFD. 	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	LACoFD	LACoFD			
<p>Mitigation Measure I.1-9: All on-site driveways and roadways shall provide a minimum unobstructed (clear-to-sky) width of 28 feet. The on-site driveways shall be within 150 feet of all portions of the exterior walls of the first story of any building. The centerline of the access driveway shall be located parallel to, and within 30 feet of, an exterior wall on one side of the proposed structure or otherwise in accordance with the City Fire Code.</p>	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Vertical	LACoFD	LACoFD			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
<p>Mitigation Measure I.1-10: All on-site driveways shall provide a minimum unobstructed (clear-to-sky) width of 28 feet. Driveway width shall be increased under the following conditions:</p> <ul style="list-style-type: none"> – If parallel parking is allowed on one side of the access roadway/driveway, the roadway width shall be 34 feet; and – If parallel parking is allowed on both sides of the access roadway/driveway, the roadway width shall be 36 feet in a residential area or 42 feet in a commercial area. 	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Vertical	LACoFD	LACoFD			
<p>Mitigation Measure I.1-11: The entrance to any street or driveway with parking restrictions shall be posted with LACoFD-approved signs stating “NO PARKING – FIRE LANE” in 3-inch-high letters, at intermittent distances of 150 feet. Any access-way that is less than 34 feet in width shall be labeled “Fire Lane” on the final tract map and final building plans.</p>	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal	LACoFD	LACoFD			
<p>Mitigation Measure I.1-12: The following standards apply to the Project’s residential component only:</p> <ul style="list-style-type: none"> – A cul-de-sac shall be a minimum of 34 feet in width and shall not be more than 700 feet in length; – The length of the cul-de-sac may be increased to 1,000 feet if a minimum 36-foot-wide roadway is provided; and – An LACoFD-approved turning radius shall be provided at the terminus of all residential cul-de-sacs. 	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Vertical (Residential only).	LACoFD	LACoFD			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
<p>Mitigation Measure I.1-14: All access devices and gates shall meet the following requirements:</p> <ul style="list-style-type: none"> – Any single-gated opening used for ingress and egress shall be a minimum of 26 feet clear-to-sky; – Any divided gate opening (when each gate is used for a single direction of travel, i.e., ingress or egress) shall be a minimum width of 20 feet clear to sky; – Gates and/or control devices shall be positioned a minimum of 50 feet from a public right-of-way and shall be provided with a turnaround having a minimum of 32 feet of turning radius. If an intercom system is used, the 50 feet shall be measured from the right-of-way to the intercom control device; – All limited access devices shall be of a type approved by LACoFD; and – Gate plans shall be submitted to LACoFD prior to installation. These plans shall show all locations, widths, and details of the proposed gates. 	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Vertical	LACoFD	LACoFD			
<p>Mitigation Measure I.1-15: All proposals for traffic calming measures (speed humps/bumps/cushions, traffic circles, roundabouts, etc.) shall be submitted to LACoFD for review prior to implementation.</p>	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	LACoFD	LACoFD			
<p>Mitigation Measure I.1-16: Provide three sets of alternate route (detour) plans with a tentative schedule of planned closures prior to the beginning of construction. Complete architectural/structural plans are not necessary.</p>	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	LACoFD	LACoFD			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
Mitigation Measure I.1-17: Any temporary bridges shall be designed, constructed, and maintained to support a live load of at least 70,000 pounds. A minimum vertical clearance of 13'6" shall be required throughout construction.	Prior to issuance of a building permit/Pre-Construction; Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	LACoFD	LACoFD			
Mitigation Measure I.1-18: Disruptions to water services shall be coordinated with LACoFD, and alternate water sources shall be provided for fire protection during such disruptions.	Construction; Post-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	LACoFD	LACoFD			
POLICE							
Mitigation Measure I.2-1: The Applicant shall provide private security services within Planning Areas 2 and 3 that are occupied by commercial development. On-site security services shall maintain an ongoing dialogue with the Sheriff's Department so as to maximize the value of the security service provided.	Post-Construction	Applicant(s) Vertical	City of Carson Public Safety Services Division	City of Carson Public Safety Services Division			
Mitigation Measure I.2-2: The Applicant shall incorporate into the Project design a space for a Sheriff's substation for use by the Los Angeles County Sheriff's Department.	Pre-Construction	Applicant(s) Vertical	City of Carson Public Safety Services Division; City of Carson Department of Community Development, Planning Division	City of Carson Public Safety Services Division; City of Carson Department of Community Development, Planning Division			
Mitigation Measure I.2-3: The Applicant shall install video cameras throughout the commercial development within Planning Areas 2 and 3 with a digitally recorded feed to the substation that is also accessible via the internet at the Carson Sheriff's Station.	Post-Construction	Applicant(s) Vertical	City of Carson Public Safety Services Division	City of Carson Public Safety Services Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
Mitigation Measure I.2-4: The Applicant shall develop jointly with the Sheriff’s Department a community policing plan, subject to final review and approval by the Sheriff’s Department.	Post-Construction	Applicant(s) Vertical	City of Carson Public Safety Services Division	City of Carson Public Safety Services Division			
Mitigation Measure I.2-5: The Applicant shall confer with the Sheriff’s Department and, if private security is not sufficient, shall fund Deputy Sheriffs on an overtime basis to augment security during peak periods, as jointly determined by the Applicant or its successor, and the Sheriff’s Department.	Post-Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure I.2-6: The management of the entertainment venues located within the Project site shall notify the Sheriff’s Station in advance of planned activities (i.e., movie schedules).	Post-Construction	Management of Entertainment Venues	City of Carson Public Safety Services Division	City of Carson Public Safety Services Division			
Mitigation Measure I.2-7: The Sheriff’s Department Crime Prevention Unit shall be contacted for advice on crime prevention programs that could be incorporated into the proposed modified Project, including Neighborhood Watch.	Post-Construction	Applicant(s) Vertical	City of Carson Public Safety Services Division	City of Carson Public Safety Services Division			
Mitigation Measure I.2-8: Applicant(s) for Planning Areas 1, 2, and 3 shall pay a fair-share contribution for Sheriff department services, facilities, and equipment that is required to offset the impacts of the proposed modified Project, as determined by the City of Carson after consultation with the Sheriff’s Department.	Fair share agreement prior to issuance of a building permit/ Pre- Construction; fair share contribution on ongoing basis per agreement	Applicant(s) Vertical	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
PARKS AND RECREATION							
Mitigation Measure I.4-1: Residential uses of the Project shall provide park and recreation facilities pursuant to Municipal Code Section 9207.19, equivalent to 3 acres per 1,000 population, that would be met through the provision of park space, on-site improvements, and/or, the payment of in-lieu fees.	Prior to the issuance of a building permit/ Pre-Construction	Applicant(s) Vertical (Residential only)	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure I.4-2: Residential uses of the Project shall meet the intent of Municipal Code Sections 9128.54 and 9128.15 through the provision of private open space as defined therein and/or the provision of additional amenities that meet the recreational needs of Project residents, e.g., health clubs.	Prior to the issuance of a building permit/ Pre-Construction	Applicant(s) Vertical (Residential only)	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure I.4 3: Public open space for residential uses of the Project shall be calculated on a per-unit basis: <ul style="list-style-type: none"> - For PA 1: <ul style="list-style-type: none"> ■ Studio and 1-Bedroom Units: a minimum of 150 sq.ft. per unit ■ 2-Bedroom Units: a minimum of 220 sq.ft. per unit ■ 3+-Bedroom Units: a minimum of 250 sq.ft. per unit ■ All with a minimum dimension of 15 feet in any direction - For DD3: <ul style="list-style-type: none"> ■ All Units: a minimum of 300 sq.ft. per unit with a minimum dimension of 15 feet in any direction 	Prior to the issuance of a building permit/ Pre-Construction	Applicant(s) Vertical (Residential only)	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			

II. Mitigation Monitoring and Reporting Program

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
LIBRARIES							
Mitigation Measure I.5-1: Applicants for residential uses shall pay a fair-share contribution for the improvement of library facilities that are required to offset impacts of the Project, subject to approval of the County of Los Angeles Public Library.	Prior to the issuance of a building permit/ Pre-Construction	Applicant(s) Vertical (Residential only)	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
WATER SUPPLY							
Mitigation Measure J.1-1: The Building Department and the Planning Division shall review building plans to ensure that water-reducing measures are utilized, as required by Title 20 and Title 24 of the California Administrative Code. These measures include, but are not limited to, water conserving dishwashers, low-volume toilet tanks, and flow control devices for faucets.	Prior to the issuance of a building permit/ Pre-Construction	City of Carson Department of Community Development, Planning and Building and Safety Divisions	City of Carson Department of Community Development, Planning and Building and Safety Divisions	City of Carson Department of Community Development, Planning and Building and Safety Divisions			
Mitigation Measure J.1-2: The Project shall comply with the City’s landscape ordinance, “A Water Efficient Landscape Ordinance,” as required by the State Water Conservation Landscape Act.	Post-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure J.1-3: The Applicant shall provide reclaimed water for the Project’s non-potable water needs, if feasible.	Post-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
Mitigation Measure J.1-4: Landscaping of the Property shall utilize xeriscape (low-maintenance, drought-resistant) plantings.	Post-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure J.1-5: Automatic irrigation systems shall be set to ensure irrigation during early morning or evening hours to minimize water loss due to evaporation. Sprinklers must be reset to water less in cooler months and during rainfall season so that water is not wasted on excessive landscape irrigation.	Post-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure J.1-6: The Project shall be designed to recycle all water used in cooling systems to the maximum extent possible.	Pre-Construction/ Post-Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure J.1-7: To the maximum extent feasible, reclaimed water shall be used during the grading and construction phase of the Project for the following activities: (1) dust control, (2) soil compaction, and (3) concrete mixing.	Pre-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure J.1-8: Water lines and hydrants shall be sized and located so as to meet the fire flow requirements established by the Los Angeles County Fire Department.	Prior to issuance of a grading permit/Pre-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	LACoFD	LACoFD			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
WASTEWATER							
Mitigation Measure J.2-1: All required sewer improvements shall be designed and constructed according to the standards of the City of Carson and County of Los Angeles.	Pre-Construction/Construction	Applicant(s) Horizontal	City of Carson Department of Community Development, Building and Safety Division	City of Carson Department of Community Development, Building and Safety Division			
Mitigation Measure J.2-2: Fee payment is required prior to the issuance of a permit to connect to district sewer facilities.	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Building and Safety Division	City of Carson Department of Community Development, Building and Safety Division			
Mitigation Measure J.2-3: The Building and Safety and Planning Divisions of the Community Development Department shall review building plans to ensure that water-reducing measures are utilized, as required by Title 24 of the California Administrative Code. These measures include, but are not limited to, water-conserving dishwashers, low-volume toilet tanks, and flow-control devices for faucets.	Prior to issuance of a building permit/Pre-Construction	City of Carson Department of Community Development, Building and Safety and Planning Divisions	City of Carson Department of Community Development, Building and Safety and Planning Divisions	City of Carson Department of Community Development, Building and Safety and Planning Divisions			
Mitigation Measure J.2-4: When available, the proposed modified Project shall use reclaimed water for the irrigation system and for other appropriate purposes such as during construction.	Prior to issuance of a building permit/Pre-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	City of Carson Department of Community Development, Building and Safety and Planning Divisions	City of Carson Department of Community Development, Building and Safety and Planning Divisions			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
SOLID WASTE							
Mitigation Measure J.3-1: All structures constructed or uses established within any part of the Project site shall be designed to be permanently equipped with clearly marked, durable, source-sorted recycling bins at all times to facilitate the separation and deposit of recyclable materials.	Prior to the issuance of the first occupancy permit/Post-Construction	Applicant(s) Horizontal and Applicant(s) Vertical, as applicable	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure J.3-2: Primary collection bins shall be designed to facilitate mechanized collection of such recyclable wastes for transport to on- or off-site recycling facilities.	Prior to the issuance of the first occupancy permit/Post-Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure J.3-3: The Applicant shall coordinate with the City of Carson to continuously maintain in good order for the convenience of patrons, employees, and residents clearly marked, durable, and separate recycling bins on the same lot, or parcel to facilitate the deposit of recyclable or commingled waste metal, cardboard, paper, glass, and plastic therein; maintain accessibility to such bins at all times, for collection of such wastes for transport to on- or off-site recycling plants; and require waste haulers to utilize local or regional material recovery facilities as feasible and appropriate.	Prior to the issuance of the first occupancy permit/Post-Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure J.3-4: Any existing on-site roads that are torn up shall be ground on site and recycled into the new road base.	Prior to the issuance of the first occupancy permit/Post-Construction	Applicant(s)/ Construction Contractor Horizontal	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			

Mitigation Measures	Monitoring Phase	Implementing Party	Enforcement Agency	Responsible Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
Mitigation Measure J.3-5: Compaction facilities for non-recyclable materials shall be provided in every occupied building greater than 20,000 square feet in size to reduce both the total volume of solid waste produced and the number of trips required for collection, to the extent feasible.	Construction, Post-Construction	Applicant(s) Vertical	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			
Mitigation Measure J.3-6: All construction debris shall be recycled in a practical, available, accessible manner, to the extent feasible, during the construction phase.	Construction	Construction Contractor Horizontal and Construction Contractor Vertical, as applicable	City of Carson Department of Community Development, Planning Division	City of Carson Department of Community Development, Planning Division			



III. ADDITIONS AND CORRECTIONS TO THE DRAFT SEIR

III. ADDITIONS AND CORRECTIONS TO THE DRAFT SEIR

INTRODUCTION

This chapter provides a means by which the updates or clarifications to the Draft SEIR are presented in one place. Clarifications to the Draft SEIR are provided as a result of responses to public and agency comments received in response to the Draft SEIR during the public review period of October 3, 2017, through November 17, 2017, and/or new information that has become available since publication of the Draft SEIR. Comments were provided by agencies, by the general public, and during comments at a public meeting and Planning Commission workshop. The preparers of the Draft SEIR also reviewed the documents for any additional errata updates. This information, below, is presented as a correction, update, and addition to the Draft SEIR, and replaces the specified references in the Draft SEIR as noted herein. The changes described in this chapter do not result in any new or increased significant environmental impacts that would result from the proposed modified Project. The revised text does not provide new information that identifies new significant environmental impacts; does not identify mitigation measures that, if implemented, would result in significant environmental impacts; and considerably different alternatives or mitigation measures were not identified that would clearly lessen the significant environmental impacts of the proposed project but which the lead agency declines to adopt. In sum, the text changes provided below do not change any of the conclusions presented in the Draft SEIR in a manner that would require recirculation of the SEIR.

Updates in this Final SEIR are noted as either additions with a double underline, or deletions with a ~~double strikethrough~~.¹

There are three general changes applicable throughout the entire document as follows:

- References to “administrative permit” shall be changed to “appropriate permit.”
- References to “Section IV.D, Alternatives Considered but Rejected” shall be changed to “Section V.D, Alternatives Considered but Rejected.”
- References to the comparison of the proposed modified Project’s overall scope and square footage to that of the approved Project as being a reduction of “approximately 110,292 sq. ft.” shall be changed to a reduction of “approximately 160,292 sq. ft.”

¹ This is to further distinguish updates in the Final SEIR from updates to mitigation measures in the Draft SEIR, which highlighted those updates to show modifications to the mitigation measures originally adopted in the certified FEIR, and depicted those additions with either a single underline or deletions with a ~~single strike through~~.

I. SUMMARY

a. Volume I, page I-2, first full paragraph, first sentence:

“The City determined that implementation of the proposed modified Project may either by ~~in~~ itself or in conjunction with past, present, and reasonably foreseeable future development in the vicinity, have new significant effects in the following areas:

- Traffic and Circulation; and
- Air Quality, ~~and~~
- ~~Noise.~~”

b. Volume I, page I-2, second full paragraph:

“The approved FEIR determined that the Project would not have the potential to cause significant impacts in the following areas: Agricultural Resources, Biological Resources, Mineral Resources, Cultural Resources, Hazards and Hazardous Materials, Hydrology (~~Drainage and Groundwater~~ Water Quality), ~~and~~ Population and Housing, Public Services, and Recreation. The City found that the proposed modified Project would not have significant impacts in each of the foregoing areas and also found that the proposed modified Project would not have a potential to cause significant impacts in the following areas: substantial adverse effect on a scenic vista, damage scenic resources in a state scenic highway; create objectionable odors affecting a substantial number of people; expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving ~~for~~ landslides; result in substantial soil erosion or the loss of topsoil; be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse; be located on expansive soils, creating substantial risks to life or property; 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; conflict with any applicable habitat conservation plan or natural community conservation plan; project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport; a project located in the vicinity of a private airstrip; 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; substantially increase hazards due to a design feature; ~~and~~ result in inadequate emergency access; require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; and have sufficient water supplies to serve the project from existing entitlements and resources. Therefore, these areas are not examined in this SEIR. The rationale for the

finding that no significant impacts would occur for these areas is provided in the approved Project's Initial Study and subsequent analysis.”

c. Volume I, page I-4, first paragraph, second sentence:

“The FEIR contained Mitigation Measure F-1 in Section IV.F, Surface Water Quality; however, it pertained specifically to what was known as Development District 3 (DD3), which is the development that has already been ~~constructed~~ entitled for construction north of Del Amo Boulevard, and, therefore, is no longer part of the Project.”

d. Volume I, page I-8, first paragraph. Mitigation Measure I.4-1.

“**Mitigation Measure I.4-1:** Residential uses of tThe Project shall provide park and recreation facilities pursuant to Municipal Code Section 9207.19, equivalent to ~~three~~ 3 acres per 1,000 population, that would be met through the provision of park space, on-site improvements, and/or, the payment of in-lieu fees.”

e. Volume I, page 1-16, first paragraph, third sentence.

“... Landfilling occurred from April 1959 to December 1964 with an approximate closing date of February 1965. During the life of the landfill, approximately 6.2 to 6.3 million cubic yards (cy) of solid municipal waste and a total volume of approximately 7.8 million cy of waste were disposed of on the site. ...”

f. Volume I, page I-17, third paragraph, tenth line.

“... uses chart; (4) updates to lighting and signage; (5) removal of Redevelopment Agency affordable housing requirements; ...”

g. Volume I, page I-21, first paragraph, last sentence.

“... The evaluation of Alternative 1A addresses the requirements of CEQA Guidelines Section 15126.6(e)(3)~~(4)~~.”

h. Volume I, page I-34, Mitigation Measure C-1 [for ease of reading the new text changes below, the prior changes to this text have been accepted].

“**Mitigation Measure C-1:** A Construction Traffic Management Plan shall be developed by the contractor and approved by the City of Carson to alleviate construction period impacts, which may include but is not limited to the following measures:

- In the unlikely case that on-site truck staging areas are insufficient, provide off-site truck staging in a legal ~~approved~~ area (per the local jurisdiction's municipal code) furnished by the construction truck contractor. Anticipated truck access to the Project site will be off Street B and Street A.

- Schedule deliveries and pick-ups of construction materials during non-peak commute travel periods (e.g., early morning, midday) to the extent possible and coordinate to reduce the potential of trucks waiting to load or unload for protracted periods.
- As a vehicular travel lane, parking lane, bicycle lane, and/or sidewalk closures are anticipated, worksite traffic control plan(s), approved by the City of Carson, should be implemented to route vehicular traffic, bicyclists, and pedestrians around any such closures.
- Establish requirements for loading/unloading and storage of materials on the Project site, including the locations where parking spaces would be ~~encumbered affected~~, the length of time traffic travel lanes ~~can be encumbered would be blocked~~, and sidewalk ~~closings-closures~~ or pedestrian diversions to ensure the safety of the pedestrian and access to local businesses and residences.
- Ensure that access will remain unobstructed for land uses in proximity to the Project site during project construction.
- Coordinate with the City and emergency service providers to ensure adequate access is maintained to the Project site and neighboring businesses and residences.”

i. Volume I, page I-42, last paragraph

“The proposed modified Project has the same number of significant intersection impacts and one fewer significant and unavoidable intersection impact compared to the approved Project when analyzed using the same 2017 methodology. The approved Project analyzed with the 2017 state-of-practice methodology generates more trips than the proposed modified Project. The difference in number, degree, and location of significant impacts identified between the proposed modified Project and the approved Project analyzed with the 2017 state-of-practice methodology is a result of differences in the Project Description and resulting trip generation. ~~Further, as noted above, the total trip generation contribution of related projects to the study area roadway network would be less than the related project trip generation identified for the approved Project.~~ Therefore, the proposed modified Project together with all related projects would not result in any new significant ~~cumulative~~ intersection LOS impacts as compared to the approved Project. Further, as noted in this SEIR, the total trip generation contribution of related projects to the study area roadway network would be less than the related project trip generation identified for the approved Project.”

j. Volume I, page I-44, new third (full) paragraph.

“In summary, overall the proposed modified Project would have a total of seven significant and unavoidable intersection impacts and six additional significant and unavoidable intersection impacts as compared to the approved Project as assessed in the FEIR; however, overall the proposed modified Project would have the same number of significant impacts and one less significant and unavoidable impact as compared to the approved Project if the approved Project was likewise assessed under the current 2017 state-of-practice methodologies.”

k. Volume I, page I-46, fourth paragraph, second sentence and new third sentence.

“... Construction activities is anticipated to occur over 32 months beginning as early as late 2017, which is a reduction over the construction period considered in the FEIR to analyze a worst-case overlap of construction activity. Should Property-wide construction activity extend greater than 32 months resulting in delayed vertical construction on any of the planning areas, the worst-case overlap of construction equipment and emissions would not be exceeded. Construction emissions ...”

l. Volume I, page I-53, first paragraph, second sentence and new third sentence.

“... construction activities for the proposed modified Project are proposed to occur over 32 months with overlapping phases as a worst-case scenario. Should Property-wide construction activity extend greater than 32 months resulting in delayed vertical construction on any of the planning areas, the worst-case overlap of construction equipment and noise would not be exceeded.”

m. Volume I, page I-53, second paragraph, second sentence.²

“... This measure has been modified to require that all active construction work areas be enclosed by a continuous eight-foot-tall sound barrier that achieves a noise reduction of 20 dBA, or in the alternative, equivalent measures that will achieve sound level reductions of at least 20 dBA, or ~~more~~ such lesser fraction thereof, required to reach 65 dBA at the boundary of occupied residential uses, by other noise-reducing measures. ...”

n. Volume I, page I-54, first partial paragraph.

“... compared to the approved Project for Receptors R3 and R4 and would not result in a new impact related to R1. Regardless, like the approved Project, this impact would remain significant and unavoidable.”

² Note: This portion of the Summary is being clarified to reflect existing language already set discussed in greater depth in SEIR Section IV.H.

o. Volume I, page I-54, first full paragraph, last sentence.

“... Therefore, the proposed modified Project would not result in any greater impact related to DDC noise as compared to the approved Project for Receptors R3 and R4 and would not result in a new impact related to R1. Regardless, like the approved Project, this impact would remain significant and unavoidable.”

p. Volume I, page I-54, second full paragraph, second sentence.

“... Like the approved Project, impacts related to pile driving noise and concurrent DDC and pile-driving noise under the proposed modified Project would be significant and unavoidable with respect to Receptors R3 and R4, and no new impact would occur. ...”

q. Volume I, page I-54, third full paragraph, second to last sentence.

“... for multi-family residences, and would not result in a significant impact. ...”

r. Volume I, page I-55, first full paragraph, second sentence.

“... Noise level increases above ambient for the proposed modified Project would be less than the 5 dBA and 3 dBA significant thresholds and, therefore, would be less than significant. Thus ...”

s. Volume I, page I-55, Mitigation Measure H-1, first sentence.³

“**Mitigation Measure H-1:** Prior to the issuance of any grading, excavation, haul route, foundation, or building permits, the Applicant shall provide proof satisfactory to the Building and Safety and Planning Divisions of the Community Development Services Department that all construction documents require contractors to comply with City of Carson Municipal Code ~~Sections 4101(i) and (j)~~, as may be modified by variance, which requires all construction and demolition activities, including pile driving, to occur between 7:00 ~~A.M.a.m.~~ and 8:00 ~~P.M.p.m.~~ Monday through ~~Saturday~~ Friday-Saturday and that a noise management plan for compliance and verification has been prepared by a monitor retained by the Applicant. ...”

t. Volume I, page I-64, Mitigation Measure J.3-5.⁴

“**Mitigation Measure J.3-5:** Compaction facilities for non-recyclable materials shall be provided in every occupied building greater than 20,000 ~~square feet~~ square feet ~~square feet~~ in size to reduce both the total volume of solid waste produced and the number of trips required for collection, to the extent feasible.

³ Same.

⁴ Same.

II. MODIFIED PROJECT DESCRIPTION

a. Volume I, page II-15, line 6.

“... (4) updates to lighting and signage; (5) removal of Redevelopment Agency affordable housing requirements; ...”

b. Volume I, page II-15, second full paragraph, line 3.

“... out by more than one developer and to take place in phases. Phasing may include construction on one cell while another cell is operational and may include vertical phased construction on a cell. A description ...”

c. Volume I, page II-15, line 6.

“... (4) updates to lighting and signage; (5) removal of Redevelopment Agency affordable housing requirements; ...”

d. Volume I, page II-25, Figure II-8, Potential Residential Locations.

(See updated figure, below.)

e. Volume I, page II-32, second full paragraph, lines 8 through 10.

“... Project seeks to allow phased occupancy, meaning one or two planning areas, or portions of a planning area, could be open to commercial uses while the remaining area(s) are undergoing concurrent remedial and construction activities. Phasing may include construction on one cell while another cell is operational and may include vertical phased construction on a cell. No residential occupancy would be allowed until all areas of the landfill ...”

f. Volume I, page II-33, second paragraph, last sentence.

“... While several construction activities are identified,[#] it is anticipated that there would be some overlapping of activities in order to integrate remediation systems with development of the Property, as was also anticipated in the FEIR.”

[#] Sub-phasing of construction is also anticipated for the Planning Areas.



LEGEND

- Planning Area 1
- Planning Area 2
- Planning Area 3
- Development District 3
- Residential Permitted
(By Right or with Administrative Permit)



Note: This is a graphic representation of a planning concept. All graphics in this document are conceptual and should not be interpreted literally. Other solutions, locations and/or concepts may be proposed and reviewed during site plan and design review and other permit and mapping processes.

D:\REXXXX

SOURCE: ESA, 2016

The District at South Bay

Figure II-8
Potential Residential Locations



g. Volume I, page II-34, second bullet, first and new sub-bullets.

- “– ~~Conveyance~~ Conveyancing Agreement and related Agreements
- Improvement or other bonds
- Cooperation Agreement
- Conveyance of fee and easement interests in Property
- CC&RS (Covenants, Conditions and Restrictions) and other Covenants

h. Volume I, page II-34, third bullet, first sub-bullet.

- “– ~~Tax Sharing~~ Cooperation Agreement”

i. Volume I, page II-34, fourth bullet, eighth sub-bullet.

- “– ~~Tax Sharing~~ Cooperation Agreement”

j. Volume I, page II-34, fourth bullet, sixth sub-bullet.

- “– ~~Specific Plan Modifications~~”

k. Volume I, page II-34, fourth bullet, eleventh and twelfth sub-bullets.

- “– ~~Master Signage Plan~~ Program, Comprehensive Sign Program, and Sign Permits
- Modification of Existing Mello-Ross Community Facilities Districts and/or Formation of New Community Facilities Districts”

l. Volume I, page II-34, fourth bullet, eleventh sub-bullet.

- “– ~~Master Signage Plan~~ Program, Comprehensive Sign Program, and Sign Permits”

III.A OVERVIEW OF ENVIRONMENTAL SETTING

a. Volume I, page III.A-3, first paragraph, first line.

“As noted in the FEIR, the Property is fenced, vacant (with some construction trailers and equipment as anticipated by the FEIR as noted below), and covered by predominately bare soil ...”

b. Volume I, page III.A-10, second full paragraph, last sentence.

“... Regardless, DD3 is being treated as a sensitive receptor for the purposes of assessing ~~noise~~ air quality.”

III.B CUMULATIVE DEVELOPMENT LIST

There are no clarifications to this section of the Draft SEIR.

IV.A LAND USE AND PLANNING

a. Volume I, page IV.A-13, third bullet.

- “As further discussed in Section IV.B, Visual Resources, of this SEIR, signage and lighting standards are changed in the SPA and the number and size of signage along the I-405 Freeway has been changed by, among other things, increasing the number of large pylon signs, adding Project identification signage, and by removing the more cluttered series of ten monument signs along the frontage of the highway. There are two options presented for freeway pylon signs for the proposed modified Project. Under the first option (Option A), there will be four freeway pylon signs, of which two will have a two-sided LED digital display with changeable message display and color changing illumination and two will be static signs. In the second option (Option B), there will be three pylon signs, each with a two-sided LED digital display with changeable message display and color changing illumination. Under either option, there will be an 88-foot maximum height above the I-405 Freeway grade. Under the SPA, additional signage has been provided within the interior of the Property as well. **Figure IV.B-6a, Conceptual Sign Locations– Option A, and Figure IV.B-6b, Conceptual Sign Locations – Option B.** show the conceptual sign locations. Signage and lighting utilizes more recently available technology to minimize impacts of on-site light and glare and, as with the approved Specific Plan, standards have been developed to minimize impacts to sensitive neighboring uses. Regulation of signage through a comprehensive sign program approved by the City continues to be a requirement under the SPA.”

b. Volume I, page IV.A-21, Policy H-2.2, “Analysis of Project Consistency” column, second sentence.

“... In addition, a ~~Community Safety Center~~ space would be provided ~~for~~ within the proposed modified Project for use by the Property’s private security forces and the Los Angeles County Sheriff’s Department.”

c. Volume I, page IV.A-22, Policy H-3.6, “Analysis of Project Consistency” column, first line.

“The SPA designates approximately 15 acres in PA 1 and portions of PA 2 permitting multi-family residential units ...”

d. Volume I, page IV.A-22, Policy ED-1.2, “Analysis of Project Consistency” column, last three lines.

“... development of recreational opportunities for residents, ~~and interior noise level restrictions~~ that would encourage development of quality housing.”

- e. **Volume I, page IV.A-25, Policy ED-10.2, “Analysis of Project Consistency” column, fifth line.**

“... currently owned by the Carson ~~Planning~~ Reclamation Authority. ...”

IV.B VISUAL RESOURCES

- a. **Volume I, page IV.B-14, “Signage” paragraph.**

“**Signage:** The proposed modified Project will provide a hierarchy of signs similar to the approved Project, with some modifications. As further set forth in SPA Section 6.6, there are two options presented for freeway pylon signs for the proposed modified Project. Under the first option (Option A), there will be four freeway pylon signs, of which two will have a two-sided LED digital display with changeable message display and color changing illumination and two will be static signs. In the second option (Option B), there will be three pylon signs, each with a two-sided LED digital display with changeable message display and color changing illumination. Under either option, there will be an 88-foot maximum height above the I-405 Freeway grade—the proposed modified Project will feature four freeway pylon signs of which two will be static digital signs with a maximum height of 7088 feet above the I-405 Freeway, one will be of the same height but may include two-sided digital display, changeable message display, color changing illumination and electronic message display and a fourth two will be with a two-sided LED digital display with changeable message display, color changing illumination and electronic message display, and with an 88-foot maximum height above the I-405 Freeway.⁴ Up to ~~12~~nine Vertical Project Name ID signs (~~38~~15-foot maximum height) may be permitted, ~~a maximum of two of which may be constructed along the Main Street frontage.~~ Other project Entry Monument signs may be up to 38 feet in height. Other project identity signs and wall-mounted signs and billboards, ranging in height from 6 to 30 feet, may be mounted on walls or roofs per Table IV.B-1, General Sign Standards. Figure IV.B-6a, Conceptual Sign Locations—Option A, and Figure IV.B-6b, Conceptual Sign Locations—Option B, shows the conceptual sign ~~plan~~ locations.

- b. **Volume I, page IV.B-14, “Conceptual Sign Requirements as Set Forth in SPA” paragraph, third sentence.**

“... The SPA’s conceptual sign requirements also include provisions that ensure that lighting from signs shall not ~~intrude or~~ have a significant impact on adjacent residential uses. ...”

c. Volume I, page IV.B-15 through IV.B-17, Table IV.B-1, General Sign Standards.

Table IV.B-1

General Sign Standards [Revised]

Sign Type ^a	Maximum Number ^b	Maximum Sign Dimensions		Notes	Nighttime Luminance ^{bc}	
		Height	Width		Digital	Static
Freeway Icon Pylon: ^{er-d, e} Double Faced LED, Digital Display, <u>and Changeable Message</u> <u>(Options A and B)</u>	1 – PA 2 Developer	88 feet	65 feet	The supporting pylon width will be 10 to 25 feet. The 20-foot-high and 60-foot-long LED digital display board with changeable message display <u>and</u> color changing illumination and electronic message display will be attached to sign panels or a sign frame that will be a maximum of 25 feet high and 62 feet wide. The top of the reader board will be located no higher than 88 feet above measured I-405 Freeway elevation. Height is measured from the elevation of I-405 Freeway immediately adjacent to the sign location. <u>Off-site advertising may be permitted on this sign, subject to City Council approval and the obtaining of appropriate permits.</u>	<u>500 cd/m²</u>	—
Freeway Icon Pylon: ^{er-d, e} <u>Double-Faced LED, Digital Display</u> <u>Allowed, and Changeable Message</u> <u>(Options A and B)</u>	1 – City of Carson	70 88 feet	48 feet	The base width will be 10 to 25 feet. If the base is greater than 15 feet, the sign will taper up to 15 feet at top. The sign face will be a 14-foot by 48-foot LED digital or static billboard display attached to the pylon. Height is measured from the elevation of the I-405 Freeway immediately adjacent to the sign location. <u>When owned by the City, t</u> This sign would allow off-site advertising if appropriate permits are obtained.	500 cd/m ²	500 cd/m ²

Table IV.B-1

General Sign Standards [Revised]

Sign Type ^a	Maximum Number ^b	Maximum Sign Dimensions		Notes	Nighttime Luminance ^{bc}	
		Height	Width		Digital	Static
<u>Option A</u> Freeway Icon Pylon: ^{d, e} <u>Static</u>	2 – <u>PA 1 and/or PA 3 Developer</u>	70 88 feet	25 feet	The base width will be 10 to 25 feet. If the base is greater than 15 feet, the sign will taper up to 15 feet at top. Up to six <u>double-sided</u> tenant signs on two sides . Tenant signs may be 6 feet by 20 feet each. PA 3 Center ID may be placed on pylon. Height is measured from the elevation of the I-405 Freeway immediately adjacent to the sign location.	—	500 cd/m ²
<u>Option B</u> Freeway Icon Pylon: ^{d, e} <u>Static or LED, Digital Display, and Changeable Message Allowed</u>	1 – <u>PA 1 and/or PA 3 Developer (to be determined by City)</u>	88 feet	48 feet	The base width will be 10 to 25 feet. If the base is greater than 15 feet, the sign will taper up to 15 feet at top. The sign face will be a 14-foot by 48-foot LED digital or static billboard display attached to the pylon. Height is measured from the elevation of the I-405 Freeway immediately adjacent to the sign location.	500 cd/m ²	500 cd/m ²
Vertical Project Name ID	6 – PA 2 Developer	38 feet	15 feet	Sign consists of three components: 7 foot by 15 foot base, 4 foot by 5 foot by 38 foot high project tower, 2 foot by 8 foot by 18 foot high tenant sign panel with up to six tenant signs of that size on each side. Height is measured from the finished pad. Signage could alternatively, at developer's discretion, meet standards for Vertical Project Name ID established for PA 3.	—	500 cd/m²

Table IV.B-1

General Sign Standards [Revised]

Sign Type ^a	Maximum Number ^b	Maximum Sign Dimensions		Notes	Nighttime Luminance ^{bc}	
		Height	Width		Digital	Static
Vertical Project Name ID	4 – PA 3 Developer	38 feet	15 feet	While the overall height is 38 feet with tower element, the sign consists of 14 foot high by 8 foot wide base element with tenant signage up to 6 feet high by 8 feet wide. Height is measured from the finished pad. Signage could alternatively, at developer's discretion, meet standards for Vertical Project Name ID established for PA 2.	—	500 cd/m²
<u>Project Name ID</u>	<u>4 – PA 2 Developer</u>	<u>15 feet</u>	<u>45 feet</u>	<u>The design, size, and location of the sign shall be determined by the developer in the comprehensive sign program at a later date.</u>	<u>—</u>	<u>500 cd/m²</u>
<u>Project Name ID</u>	<u>5 – PA 1 and PA 3 Developer</u>	<u>15 feet</u>	<u>45 feet</u>	<u>The design, size, and location of the sign shall be determined by the developer in the comprehensive sign program at a later date.</u>	<u>—</u>	<u>500 cd/m²</u>
Main Street Entry Monument with Tower Element	1 – PA 2 Developer 1 – PA 3 Developer <u>Up to three permitted – one at Street A and Main Street, one at Del Amo Boulevard and Street B, and one at Street A and Avalon Boulevard.</u>	38 feet	15 feet	While the overall height is 38 feet with tower element, the sign consists of a 14 foot high by 8 foot wide base element with tenant signage up to 6 feet high by 8 feet wide. Height is measured from the finished pad. <u>The entry monuments are to provide identity signage for the Project as a whole and for the developments on each planning area. The design, size, and location of the signs shall be determined by the City in the Master Sign Program at a later date.</u>	—	500 cd/m²
<u>North Del Amo Entry Element</u>	<u>2 – DD3 Developer</u>	<u>8 feet</u>	<u>12 feet</u>	<u>If the signage serves residential development, the sign dimensions shall be no greater than 6 feet high by 8 feet wide. Height is measured from the finished pad.</u>	<u>—</u>	<u>500 cd/m²</u>

Table IV.B-1

General Sign Standards [Revised]

Sign Type ^a	Maximum Number ^b	Maximum Sign Dimensions		Notes	Nighttime Luminance ^{abc}	
		Height	Width		Digital	Static
Parking Garage Signage and Commercial – Elevated Podium Wall Signage	Multiple – PA 2 Developer	30 feet	300 feet	The multiple letter and graphic signs for tenant names and static billboard display shall be allowed on parking garage and commercial elevated – podium wall area facing Freeway, Street A, and site parking fields with 60 percent maximum wall coverage.	—	500 cd/m ²
Wall Mounted Project ID Exterior ^{ef}	2 – PA 2 Developer	12 feet	330 feet	Individual illuminated sign letters located on building wall.	—	500 cd/m ²
	2 – PA 2 Developer	8 feet	230 feet			
Plaza Project ID Exterior (Entry SW and NW corners)	2 – PA 2 Developer	10 feet	12 or 24 feet	Individual illuminated sign letters. Two to four letters each location at grade-level exterior plaza.	—	500 cd/m ²
Wall Billboard Exterior	4 – PA 2 Developer	20 feet	60 feet	Static billboards with external front illumination. Billboards allowed to extend above top of building wall. Billboards allowed to convert to digital LED display board in the future.	500 cd/m ²	500 cd/m ²
Wall Billboard Exterior	2 – PA 2 Developer	14 feet	48 feet	Static billboards with external front illumination. Billboards allowed to extend above top of building wall.	—	500 cd/m ²
Roof Billboard Interior	8 – PA 2 Developer	10 feet	34 feet	Static billboards with external front illumination. Billboards located on roof above top of building wall.	—	500 cd/m ²
Wall Billboard Interior	1 – PA 2 Developer	14 feet	48 feet	Static billboard with external front illumination. Billboard allowed to convert to digital LED display board in the future.	500 cd/m ²	500 cd/m ²
Integrated Identity Architectural Wall Graphic ^{fg}	6 – PA 2 Developer	(2) 27 feet	330 feet	Painted Project ID Name integrated into architectural wall vertical fin design.	—	—
		(1) 24 feet	265 feet			
		(1) 24 feet	235 feet			
		(1) 24 feet	220 feet			
		(1) 24 feet	105 feet			

Table IV.B-1

General Sign Standards [Revised]

Sign Type ^a	Maximum Number ^b	Maximum Sign Dimensions		Notes	Nighttime Luminance ^{b,c}	
		Height	Width		Digital	Static

NOTES:

cd/m² = candelas per square meter

The number, area, type, and location of wall-mounted business ID signs for all planning areas shall be determined through the approval of a comprehensive sign program, and, if applicable, a Master Sign Program.

Except where noted for freeway icon pylons for PA 2 and the City of Carson, no off-site advertising shall be permitted.

^a All free-standing signs may be double-sided. All digital LED signs may have color changing illumination.

^b For signs that are shared by PA 1 and PA 3, the Community Development Director shall determine the number of signs assigned to each planning area. The Community Development Director shall also have the authority to select Option A or Option B for the freeway icon pylon signs.

^{b,c} If any portion of the illuminated surface of the sign is visible from a residential use within 1,000 feet of said sign at night, then the proposed modified Project sign luminance shall be reduced to less than 300 cd/m² at night.

^d Signage adjacent to the freeway will comply with applicable Caltrans standards and requirements.

^e Prior to approval of any Development Plan or comprehensive sign program, the applicant requesting approval of a Development Plan or comprehensive sign program shall conduct a view analysis to determine the exact location of the freestanding freeway-oriented signs to ensure maximum visibility and maximum usability of all freestanding signs. Every effort shall be made to preserve the visibility of the freeway-oriented wall-mounted signs for PA 2.

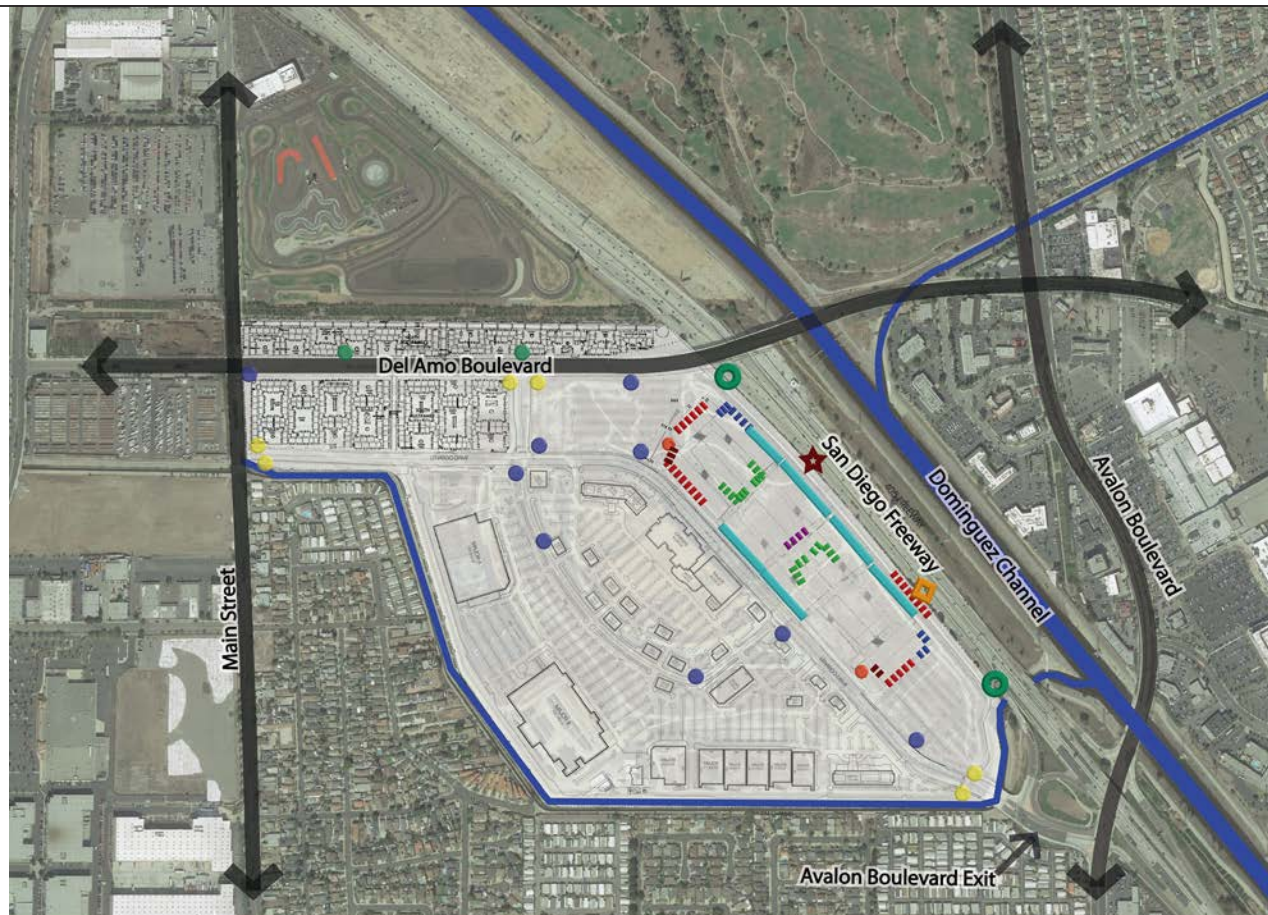
^f Wall-mounted project ID exterior signs may project above top of building wall.

^g Integrated Identity Graphics/Murals are not considered signage; they are considered as architectural features, which are excluded from permitted signage area.

a. Volume I, page IV.B-18, Figure IV.B-6, Conceptual Sign Locations.

(See updated figures, below, titled “**Figure IV.B-6a, Conceptual Sign Locations—Option A**” and “**Figure IV.B-6b, Conceptual Sign Locations—Option B,**” which together replace Figure IV.B-6.)

D:\160573.03 - The Boulevards\05 Graphics-GIS-Modeling\Illustrator



LEGEND

- | | | | | | |
|--|--|--|--|--|-----------------------------|
| | Integrated Identity Architectural Wall Graphic (informational only, not included in permitted sign area) | | Wall Billboard - Exterior (May Convert to LED) | | North Del Amo Entry Element |
| | Wall Mounted Project ID - Exterior | | Freeway Icon Pylon | | Project Name ID |
| | Wall Billboard - Exterior | | Freeway Icon Pylon, Double Faced LED, Digital Display and Changeable Message | | Entry Monument |
| | Roof Billboard - Interior | | Freeway Icon Pylon, Double Faced LED, Digital Display and Changeable Message | | Plaza Project ID - Exterior |
| | Wall Billboard - Interior | | | | |



Note: This is a graphic representation of a planning concept. All graphics in this document are conceptual and should not be interpreted literally. Other solutions, locations and/or concepts may be proposed and reviewed during site plan and design review and other permit and mapping processes

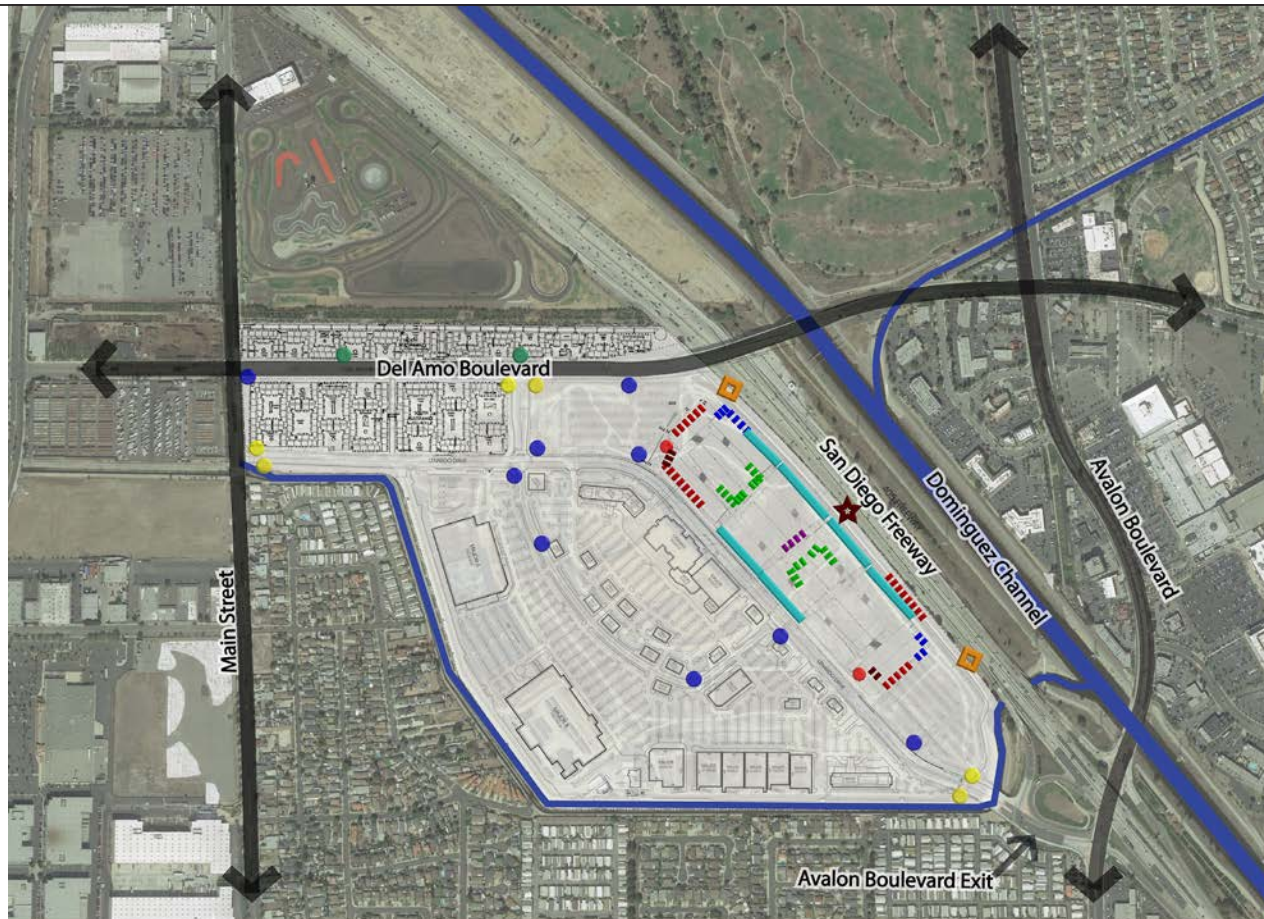
SOURCE: RE Solutions

The District at South Bay

Figure IV.B-6a
Conceptual Sign Locations – Option A



D:\160573.03 - The Boulevards\05 Graphics-GIS-Modeling\Illustrator



LEGEND

- | | | | | | |
|--|--|--|--|--|-----------------------------|
| | Integrated Identity Architectural Wall Graphic (Informational only, not included in permitted sign area) | | Wall Billboard - Exterior (May Convert to LED) | | North Del Amo Entry Element |
| | Wall Mounted Project ID - Exterior | | Freeway Icon Pylon, LED, Digital Display and Changeable Message allowed with appropriate permits from City | | Project Name ID |
| | Wall Billboard - Exterior | | | | Entry Monument |
| | Roof Billboard - Interior | | Freeway Icon Pylon, Double Faced LED, Digital Display and Changeable Message | | Plaza Project ID - Exterior |
| | Wall Billboard - Interior | | | | |



Note: This is a graphic representation of a planning concept. All graphics in this document are conceptual and should not be interpreted literally. Other solutions, locations and/or concepts may be proposed and reviewed during site plan and design review and other permit and mapping processes

SOURCE: RE Solutions

The District at South Bay

Figure IV.B-6b
Conceptual Sign Locations — Option B



b. Volume I, page IV.B-26 through IV.B-30, “Impact of Artificial Lighting.”

“The conceptual locations of illuminated signs are shown in **Figure IV.B-6a, Conceptual Sign Locations—Option A,** and **Figure IV.B-6b, Conceptual Sign Locations.** A supplemental Lighting Study (included as SEIR Appendix M) evaluated the Project’s updated illuminated sign plan to identify all potential impacts on surrounding property. The supplemental Lighting Study concluded that, with the mitigations proposed, the modified sign locations, heights, and illumination types would not create a new source of light trespass at adjacent residential properties, and that impact would remain less than significant. Likewise, with regard to glare, the original Lighting Study evaluated the potential for sign lighting to create a new source of glare at adjacent residential properties. The supplemental Light Study concluded that the impact of glare would remain less than significant with the mitigation proposed. With regard to both the option with four pylon signs (Option A) depicted on Figure IV.B-6a, and the option with three pylon signs (Option B) depicted on Figure IV.B-6b, the proposed mitigation measures would ensure that glare from these signs would not create a significant impact on adjacent residential units. Mitigation Measures B-3a and B-3b would control glare and off-site light trespass from such signs by reducing either their size or luminance. Finally, the supplemental Light Study concluded that glare impacts to drivers on the I-405 Freeway would remain less than significant.

In conclusion, as with the original lighting plan, the modified signage locations, types, and heights would not substantially alter the character of the off-site surrounding property and would also not interfere with off-site activities, and the impacts of the refined lighting would remain less than significant with the same mitigation as identified in the SEIR. The refinements would not result in any new significant impacts as compared to the approved Project.”

c. Volume I, page IV.B-29, first paragraph, first three sentences.

“**Application of Light and Glare Analysis to Pylon Signs.** As noted above, the proposed modified Project includes ~~four~~ up to three pylon signs ~~of which two would be static digital signs and two that would have digital display, changeable message display, and color changing illumination, and electronic message display.~~ As shown on the conceptual sign locations (Figures IV.B-6a and IV.B-6b), ~~one of these signs (at up to 88 feet above the grade of the adjoining I-405 Freeway) is~~ are proposed to be located ~~in the middle of the Property~~ along the I-405 Freeway frontage. Under Option A, two pylon signs (comprising the digital display signs) would be located in the middle of the Property, at a distance from each other of not less than 1,000 feet, and the remaining two pylon signs, which would be static signs, would be located at either end of the Property along the I-405 frontage, with ~~one is~~ proposed to be located adjacent to the Del Amo

Boulevard overcrossing of the freeway, ~~and two others, including one of the changeable digital display signs,~~ and the other proposed to be located near the southerly boundary of the Property along the I-405 Freeway and off-ramp frontage. Under Option B, three pylon signs (all digital display signs) would be spaced out at a distance from each other of not less than 1,000 feet, with one located in the middle of the Property and the remaining two located at either end of the Property along the I-405 frontage. . . .”

IV.C TRAFFIC AND CIRCULATION

a. Volume I, page IV.C-29, third full paragraph new fourth paragraph.

While there are overlapping phases of construction, the peak construction activity day would occur during the building construction phase.[#] The maximum trip generation total is estimated at 1,584 daily PCE trips, of which 267 PCE trips would occur during each of the morning and evening peak hours.

At any given time, the peak construction activity is estimated to generate substantially fewer daily and peak hour trips than are projected for the modified Project once it is completed and occupied (57,218 daily trips, 2,775 AM peak hour trips, and 4,291 PM peak hour trips, as shown in Table IV.C-5). Therefore, construction-related traffic impacts for the duration of the construction period are expected to be less than ~~those described for~~ number of significant traffic impacts determined to be generated by the operations of the proposed modified Project operations.

The commercial use proposed for PA 2 would be developed in two sub-phases. All remedial and horizontal construction including DDC, grading, pile driving, and building pads for the entire PA 2 would be completed during the first phase along with vertical construction of approximately 60 to 70 percent of the overall commercial square footage. The second phase would consist of vertical construction of the remaining 30 to 40 percent of total PA 2 vertical development. It is likely that the first phase would be occupied and operational while the second phase is under vertical construction. Therefore, there is the potential for concurrent PA 2 operational trips (60 to 70 percent of PA 2 buildout operation trips) associated with the first phase and PA 2 vertical construction trips (30 to 40 percent of entire vertical PA 2 construction) associated with the second phase. Where the overlap of construction and operations occurs, the operational threshold applies. Potential concurrent PA 2 first phase operational and PA 2 second phase construction trips would not exceed PA 2 buildout operational trips and would not result in increased Property-wide operational trips. Therefore, impacts associated with potential sub-phasing within planning areas would be similar to proposed modified Project buildout operations.

Sub-phasing may occur in PA 2 but that sub-phasing does not affect the peak construction activity day analysis.

b. Volume I, page IV.C-29, third full paragraph, third sentence.

“At any given time, the peak construction activity as well as any overlap of construction and operations is estimated to generate fewer daily and peak hour trips than are projected for the proposed modified Project once it is completed and occupied ...”

c. Volume I, page IV.C-37, first full paragraph

~~“A comparison of intersection impacts between the approved Project and the proposed modified Project was conducted by applying the 2017 state-of-the-practice methodology and approach used in the analysis of the proposed modified Project to the approved Project. As stated previously, this included an updated trip generation analysis for the approved Project and assignment of the approved Project trips to the existing (2017) and future (2023) roadway network. Results of the trip generation, LOS, and significant impact analyses are provided in Appendix D. The approved Project, if analyzed under existing (2017) and future (2023) conditions, would have resulted in significant traffic impacts at the following 11 intersections:~~

- ~~3. Main Street & I-405 southbound on-ramp (P.M. peak hour — 2017 and 2023)~~
- ~~5. Vermont Avenue & Del Amo Boulevard (A.M. and P.M. peak hours — 2017 and 2023)~~
- ~~7. Figueroa Street & Del Amo Boulevard (A.M. and P.M. peak hours — 2017 and 2023)~~
- ~~8. Main Street & Del Amo Boulevard (P.M. peak hour — 2017 and 2023)~~
- ~~10. Avalon Boulevard & Del Amo Boulevard (A.M. and P.M. peak hours — 2017 and 2023)~~
- ~~12. Figueroa Street & I-110 northbound ramps (A.M. and P.M. peak hours — 2017 and 2023)~~
- ~~15. Figueroa Street & Torrance Boulevard (P.M. peak hour — 2017 and 2023)~~
- ~~20. Main Street & 213th Street (P.M. peak hour — 2017 and 2023)~~
- ~~22. Vermont Avenue & Carson Street (A.M. and P.M. peak hours — 2017 and 2023)~~
- ~~23. Figueroa Street & Carson Street (A.M. and P.M. peak hours — 2017 only)~~
- ~~25. Avalon Boulevard & Carson Street (P.M. peak hour — 2017 and 2023; A.M. peak hour — 2023 only)”~~

d. Volume I, page IV.C-37, last paragraph, first sentence

“For informational purposes only, a comparison of intersection impacts between the approved Project and the proposed modified Project was conducted by applying the 2017 state-of-the-practice methodology and approach used in the analysis of the proposed

modified Project to the approved Project. The proposed modified Project ~~has~~ would have the same number of significant impacts and one fewer significant and unavoidable impact compared to the approved Project when analyzed using the same 2017 methodology. ~~The difference in number, degree, and location of significant impacts identified between the proposed modified Project and the approved Project analyzed with the 2017 state-of-practice methodology is a result of differences in the Project Description.~~ A more detailed comparison of intersection impacts in the FEIR versus those identified for the proposed modified Project is provided in Appendix D.”

e. Volume I, page IV.C-43, first bulleted list

- “The I-110 Freeway
 - Southbound between Sepulveda Boulevard and Carson Street (Existing plus Project, P.M. only)
 - Northbound between Carson Street and Torrance Boulevard (Existing plus Project, P.M. only)
 - ~~– Southbound between Carson Street and Torrance Boulevard (Existing plus Project, P.M. only)~~
 - Northbound between Torrance Boulevard and I-405 (A.M. and P.M.)
 - Southbound between Torrance Boulevard and I-405 (P.M. only)
 - Northbound between the I-405 and SR-91 freeways (A.M. only)
 - Southbound between the I-405 and SR-91 freeways (A.M. and P.M.)
 - Southbound between the SR-91 Freeway and Redondo Beach Boulevard (Future plus Project, P.M. only)”

f. Volume I, page IV.C-43, first full paragraph

“The detailed results of a comparison of freeway segment impacts between those identified in the FEIR and those identified above is provided in Appendix D. In general, the proposed modified Project would result in more significant freeway segment impacts than those identified in the FEIR for the approved Project. The difference in number, degree, and location of significant freeway impacts is a result of changes in background traffic conditions, related project traffic patterns, and roadway and freeway capacity changes. If the approved Project evaluated in the FEIR were analyzed ~~under the current conditions~~ using current baseline traffic conditions and 2017 state-of-practice methodologies, ~~the traffic impacts on the majority of Caltrans freeway impacts facilities~~ would be more severe for the approved Project than for the proposed modified Project. ~~As such, the proposed modified Project would not result in any new significant Caltrans freeway impacts as compared to the approved Project.~~ As further described in

Appendix D, the approved Project would also result in significant impacts if likewise assessed under the current 2017 state-of-practice methodologies.”

g. Volume I, page IV.C-49, Mitigation Measure C-1 [for ease of reading the new text changes below, the prior changes to this text have been accepted].

“**Mitigation Measure C-1:** A Construction Traffic Management Plan shall be developed by the contractor and approved by the City of Carson to alleviate construction period impacts, which may include but is not limited to the following measures:

- ~~In the unlikely case that on-site truck staging areas are insufficient, provide~~ Provide off-site truck staging in a legal ~~approved~~ area (per the local jurisdiction’s municipal code) furnished by the construction truck contractor. Anticipated truck access to the Project site will be off Street B and Street A.
- Schedule deliveries and pick-ups of construction materials during non-peak commute travel periods (e.g., early morning, midday) to the extent possible and coordinate to reduce the potential of trucks waiting to load or unload for protracted periods.
- As a vehicular travel lane, parking lane, bicycle lane, and/or sidewalk closures are anticipated, worksite traffic control plan(s), approved by the City of Carson, should be implemented to route vehicular traffic, bicyclists, and pedestrians around any such closures.
- Establish requirements for loading/unloading and storage of materials on the Project site, including the locations where parking spaces would be encumbered affected, the length of time traffic travel lanes ~~can be encumbered~~ would be blocked, and sidewalk ~~closings~~ closures or pedestrian diversions to ensure the safety of the pedestrian and access to local businesses and residences.
- Ensure that access will remain unobstructed for land uses in proximity to the Project site during project construction.
- Coordinate with the City and emergency service providers to ensure adequate access is maintained to the Project site and neighboring businesses and residences.”

h. Volume I, page IV.C-62, second full paragraph.

“Although the approved Project identified this intersection as having a less than significant impact after mitigation, analyzing the approved Project using the current 2017 state-of-practice methodologies identified a significant impact during the P.M. peak hour under both the existing year and future year analyses. Consistent with the determination above for the proposed modified Project, the implementation of Mitigation Measure C-1 is not feasible; therefore, the approved Project ~~impact~~ would be also have a significant

and unavoidable impact if likewise assessed under the current 2017 state-of-practice methodologies.”

i. Volume I, page IV.C-68, last paragraph.

“The proposed modified Project has the same number of significant intersection impacts and one fewer significant and unavoidable intersection impact compared to the approved Project when analyzed using the same 2017 methodology. The approved Project analyzed with the 2017 state-of-practice methodology generates more trips than the proposed modified Project. The difference in number, degree, and location of significant impacts identified between the proposed modified Project and the approved Project analyzed with the 2017 state-of-practice methodology is a result of differences in the Project Description and resulting trip generation. ~~Further, as noted above, the total trip generation contribution of related projects to the study area roadway network would be less than the related project trip generation identified for the approved Project.~~ Therefore, the proposed modified Project together with all related projects would not result in any new significant ~~cumulative~~ intersection LOS impacts as compared to the approved Project. Further, as noted in this SEIR, the total trip generation contribution of related projects to the study area roadway network would be less than the related project trip generation identified for the approved Project.”

j. Volume I, page IV.C-69, last paragraph, first sentence.

“In summary, overall, as noted at page IV.C-37 of the Draft SEIR, the proposed modified Project would have seven significant and unavoidable intersection impacts, six additional significant and unavoidable intersection impacts as compared to the approved Project as assessed in the FEIR; however, overall, the proposed modified Project would not result in any new ~~have one less significant and unavoidable~~ impact as compared to the approved Project assessed in the FEIR if the approved Project was likewise assessed under the current 2017 state-of-practice methodologies. ...”

k. Volume I, page IV.C-70, carryover paragraph, last sentence.

“Since, when measured against the approved Project assessed under current 2017 state-of-practice methodologies, the proposed modified Project would have the same types of threshold of significance exceedances regarding traffic and circulation as noted above, impacts under current assessment methodologies would be similar to those of the approved Project assessed in the FEIR and no new or worsening impacts would occur in comparison with the approved Project.”

l. Volume I, page IV.C-71, second full paragraph

As stated previously, a comparison of intersection impacts between the approved Project and the proposed modified Project was conducted (for informational purposes only) by applying the 2017 state-of-the-practice methodology and approach used in the analysis of the proposed modified Project to the approved Project. The proposed modified Project ~~has~~ would have one fewer significant and unavoidable impact compared to the approved Project when analyzed using the same 2017 methodology. ~~As such, the proposed modified Project would result in fewer significant and unavoidable intersection impacts as compared to the approved Project.~~

m. Volume I, page IV.C-71, third full paragraph

“As previously noted, significant impacts would occur on three segments of the I-110 Freeway, four segments of the I-405 Freeway, and one segment of the I-710 Freeway. In addition, a significant impact would occur on the analyzed CMP-monitored freeway segment of the I-405 Freeway south of the I-110 Freeway (see Table IV.C-10). No feasible mitigation measures are available to the Applicant or any individual project to mitigate the potentially significant impacts on these freeway segments to less than significant levels. Therefore, cumulative impacts on freeway service levels would be significant and unavoidable. The approved Project’s impacts on freeway service levels were also significant and unavoidable, and impacts of the proposed modified Project would be similar to those of the approved Project assessed in the FEIR, ~~and no new or worsening impacts would occur in comparison with the approved Project.~~”

IV.E GEOLOGY AND SOILS

There are no clarifications to this section of the Draft SEIR.

IV.G AIR QUALITY**a. Volume I, page IV.G-24, New paragraph before (b) Operations.**

“In addition, the proposed modified Project would be required to comply with SCAQMD Rules 1166 and 1466, if applicable.

SCAQMD Rule 1166 (Volatile Organic Compound Emissions from Decontamination of Soil) requires SCAQMD approval of a mitigation plan prior to commencement of the handling and/or transportation of VOC-contaminated soils to control the emissions of VOCs. Site-Specific Plans shall contain the reasons for excavation and removal; cause of VOC soil contamination; estimate of the amount of contaminated soil; schedule for excavation or grading; describe mitigation measures to be implemented for dust, odors, and VOC; describe monitoring equipment and techniques; provide a map showing site

layout, property line, and surrounding area up to 2,500 feet away; and designate the person to conduct site inspection with the SCAQMD Executive Officer prior to issuance of the Plan. Pursuant to Rule 1166, the Executive Officer shall be notified at least 24 hours prior to excavation and VOC concentration shall be monitored and recorded every 15 minutes commencing at the beginning of excavation or grading. If/When VOC-contaminated soil is detected, the approved mitigation plan shall be implemented, the Executive Officer shall be notified, and VOC concentration readings shall be recorded. When handling VOC-contaminated soils, contaminated stockpiles shall be separated from non-VOC-contaminated stockpiles, sprayed with water and/or other approved vapor suppressant, and covered with plastic sheeting during periods of inactivity lasting more than 1 hour. Should the VOC concentration of excavated soil be greater than 1,000 ppm, the soil shall be sprayed with water or vapor suppressant and the soil must be placed in sealed containers, loaded into trucks, moistened, covered, and transported off site, or be stored via alternative methods approved by the Executive Officer.

SCAQMD Rule 1466 (Control of Particulate Emissions from Soils with Toxic Air Contaminants) requires the minimization of off-site fugitive dust emissions containing TACs during earth-moving activities containing certain TACs. Specifically, Rule 1466 focuses on sites containing arsenic, asbestos, cadmium, hexavalent chromium, lead, mercury, nickel, and polychlorinated biphenyls. When earth-moving occurs at applicable sites, real-time ambient monitoring of PM₁₀ concentrations in accordance with USEPA-approved methodology and pursuant to the guidelines of Rule 1466 shall be required. Implementation of dust control measures such as enclosing the active earth-moving area with fencing and windscreen, wetting soil, stabilizing the soil, and segregating contaminated stockpile from clean soil shall be required. Notification, signage, and recordkeeping requirements include notification of the Executive Officer at least 72 hours and no more than 30 days prior to earth-moving activity, maintenance of signage at project entrances listing potential TACs in dust and contact information, and maintenance of inspection, monitoring, earth-moving activities conducted, contact information for hauling companies and receiving facilities, and complaints. Any alternative methodology for monitoring, dust control, notification, signage, or recordkeeping may be applied with approval by the Executive Officer.”

b. Volume I, page IV.G-26, first paragraph, second complete sentence.

“Proposed residential uses within PA 1 would be sited at a minimum of 1,400 feet from the I-405 Freeway. Therefore, a site-specific health risk analysis is not required. Although not currently anticipated, residential use is permitted by right or with an appropriate permit within PA 2. Any residential use located within CARB’s recommended separation distance of 500 feet would be subject to FEIR Mitigation Measure G-25. ...”

c. Volume I, page IV.G-34, fourth bullet.

- “Mobile off-road construction equipment (wheeled or tracked) used during construction of the proposed modified Project shall meet the USEPA Tier 4 final standards, either as original equipment or equipment retrofitted to meet the Tier 4 final standards. In the event of specialized equipment use where Tier 4 equipment is not ~~commercially readily available in the Project vicinity~~ at the time of construction, then the Contractor shall demonstrate lack of availability of Tier 4 equipment through documentation of lack of availability of such equipment and the equipment shall, at a minimum, meet the Tier 3 standard. A copy of each unit’s certified tier specification or model year specification shall be available upon request at the time of mobilization of each applicable unit of equipment.”

d. Volume I, page IV.G-36, first paragraph, last sentence

“... A significant impact was identified with respect to ROC, CO, PM₁₀, and NO_x.”

e. Volume I, page IV.G-36, second paragraph, first sentence and new second sentence.

“Implementation of the RAP for the proposed modified Project would be the same as previously analyzed, except construction of the proposed modified Project is anticipated to occur over a compressed duration (approximately 32 months) as a worst-case analysis assuming a worst-case overlap of construction activity over the Property. Should Property-wide construction activity extend greater than 32 months resulting in delayed vertical construction on any of the planning areas, the worst-case construction-day analysis presented in this Draft SEIR would not be exceeded.”

f. Volume I, page IV.G-36, third paragraph, lines 5 through 8.

“... This is due largely to the advances in technology for off-road equipment in response to more stringent federal and local emission standards. Emissions of PM_{2.5} was not previously analyzed and has been identified as a pollutant of concern since certification of the 2006 Final EIR. Applying SCAQMD’s methodology[#] to the PM₁₀ results of the FEIR, PM_{2.5} regional construction emissions from the approved Project would be in excess of the thresholds if current PM_{2.5} thresholds had been promulgated and applied in 2006. Regional construction Emissions of PM_{2.5}, which was not previously analyzed and has been identified as a pollutant of concern since certification of the FEIR, associated with the proposed modified Project would not exceed the SCAQMD daily threshold.”

[#] South Coast Air Quality Management District, Final – Methodology to Calculate Particulate Matter (PM) 2.5 and PM_{2.5} Significance Thresholds, October 2006.

g. Volume I, page IV.G-36, fourth paragraph, new last sentences.

“... Localized emissions of PM_{2.5} were not previously analyzed and have been identified as a pollutant of concern since certification of the 2006 Final EIR. Applying SCAQMD’s methodology[#] to the PM₁₀ results of the FEIR, PM_{2.5} emissions from the approved Project would be in excess of the thresholds if current PM_{2.5} thresholds had been promulgated and applied in 2006.”

[#] South Coast Air Quality Management District, Final – Methodology to Calculate Particulate Matter (PM) 2.5 and PM_{2.5} Significance Thresholds, October 2006.

h. Volume I, page IV.G-44, last line.

“... determined that potential health ~~affects~~ effects due to air emissions relative to on-Property commercial ...”

i. Volume I, page IV.G-47, second paragraph, second sentence.

“... Future on-Property residential units within PA 1 would be sited a minimum of 1,400 feet from the I-405, well beyond the CARB’s recommended separation distance of 500 feet. ...”

j. Volume I, page IV.G-47, second paragraph, second to last sentence.

“... However, because the proposed modified Project is subject to FEIR mitigation⁵ and residential use is permitted by right or with an appropriate permit within PA 2 (although not anticipated), any residential use located within CARB’s recommended separation distance of 500 feet of the I-405 Freeway would be subject to FEIR Mitigation Measure G-25, requiring installation of MERV 12 air filtration systems on future residential units, has been included as a PDF for the proposed modified Project. ...”

k. Volume I, page IV.G-51, Mitigation Measure G-7.

“The Applicant shall utilize coatings and solvents that are ~~less than required by~~ consistent with applicable SCAQMD rules and regulations, and encourage water based coatings or other low emitting alternatives, restrict the number of gallons of coatings used per day, or where feasible, paint contractors should use hand applications instead of spray guns. Should sub-phasing within any of the Planning Areas result in the overlap of construction and operation, construction shall be coordinated and managed to ensure that Property-wide coating activities would not result in the exceedance of maximum operational ROC emissions as shown in Table IV.G-14. Construction ROC emissions can be limited through the use of pre-fabricated and pre-coated materials, limiting the amount of daily coating activities, and tenant coordination.”

l. Volume I, page IV.G-53, last paragraph. Last 2 sentences.

“Although there is new information that was not known or available at the time the FEIR was certified regarding the addition of PM_{2.5} as a pollutant of concern, the ~~modification~~ implementation of Mitigation Measure G-5 would reduce regional construction impacts to less than significant for the proposed modified Project as it would be for the approved Project. With regards to regional operational emissions ...”

m. Volume I, page IV.G-54, first paragraph, add new first sentence.

“Under the FEIR, impacts from emissions of ROC were determined to be significant and unavoidable even with mitigation. Since the certification ...”

n. Volume I, page IV.G-54, first paragraph, last sentence.

“As with the approved Project analyzed in the FEIR, regional construction ROC emissions would remain significant and unavoidable for the proposed modified Project, even with implementation of mitigation.”

o. Volume I, page IV.G-54, second paragraph, before first sentence

“The FEIR determined that even with application of mitigation measures, the approved Project would result in significant and unavoidable regional ROC, NO_x, CO, and PM₁₀ emissions during construction. Therefore, the proposed modified Project would ...”

p. Volume I, page IV.G-54, second paragraph, second sentence.

“... Emissions of NO_x and ~~CO-PM₁₀~~ from the proposed modified Project would result in less than significant regional construction impacts, whereas the FEIR reported significant and unavoidable impacts for both even with mitigation. Mitigation and project design features would mitigate emissions associated with construction equipment to the extent feasible given the current state of technology. However, like the approved Project, ROC and CO emissions would remain significant and unavoidable. ...”

q. Volume I, page IV.G-54, third paragraph

“The FEIR determined that with the application of mitigation measures, the approved Project would result in significant and unavoidable localized PM₁₀ emissions and less than significant localized NO_x, and CO emissions during construction. Localized construction emissions associated with the proposed modified Project would not exceed SCAQMD thresholds for NO_x, CO, PM₁₀, or PM_{2.5}. Implementation of the above mitigation would not reduce localized construction emissions for the proposed modified Project. ~~Therefore~~ However, the proposed modified Project still would not result in any new significant impacts as compared to the approved Project ...”

r. Volume I, page IV.G-55, fourth paragraph, fifth, sixth, and seventh sentences.

“... Therefore, PM_{2.5} impacts with respect to regional operational emissions for the proposed modified Project are substantially the same as for the approved Project if PM_{2.5} had been regulated in 2006. As shown in Table IV.G-14, PM₁₀ and PM_{2.5} emissions are driven by mobile sources. The Applicant does not have control over the vehicles used by residents, workers, consumers, or vendors. ...”

s. Volume I, page IV.G-58, New paragraph after Table IV.G-16

“The commercial use proposed for PA 2 would be developed in two sub-phases. All remedial and horizontal construction including DDC, grading, pile driving, and building pads for the entire PA 2 would be completed during the first phase along with vertical construction of approximately 60 to 70 percent of the overall commercial square footage. The second phase would consist of vertical construction of the remaining 30 to 40 percent of total PA 2 vertical development. It is likely that the first phase would be occupied and operational while the second phase is under vertical construction. Therefore, there is the potential for concurrent PA 2 operational emissions (60 to 70 percent of PA 2 buildout operation emissions) associated with the first phase and PA 2 construction emissions (30 to 40 percent of entire vertical PA 2 construction) associated with the second phase. Where the overlap of construction and operations occurs, the operational threshold applies. Potential concurrent PA 2 first phase operational and PA 2 second phase construction emissions could result in greater operational ROC emissions than was analyzed for buildout of the proposed modified Project. Therefore, Mitigation Measure G-7 has been revised to require that construction activities be managed and coordinated to ensure that Property-wide emissions of ROC do not exceed those shown in Table IV.G-14. With implementation of modified Mitigation Measure G-7, impacts associated with potential sub-phasing within planning areas would be similar to proposed modified Project buildout operations.

Further, this SEIR analyzes a worst-case construction duration of 32 months assuming a worst-case overlap of construction activity over the Property. Should Property-wide construction activity extend greater than 32 months resulting in delayed vertical construction on any of the planning areas, such as potential sub-phasing of PA 2, construction would occur over a longer period and potentially overlap with operations. The potential overlap of construction and operations would not exceed the worst-case Project buildout operational emissions analysis presented in this Draft SEIR with implementation of mitigation.”

t. Volume I, page IV.G-60, first full paragraph.

“With respect to TACs, specifically health risk, the proposed modified Project would emit TACs through the construction and operation of the proposed modified Project. SCAQMD recognizes that projects not exceeding project-level thresholds would not be cumulatively considerable. As identified in Table IV.G-13, with implementation of the construction PDF requiring Tier 4 emissions ratings for construction equipment, risk would be reduced to less than significant levels. Therefore, the proposed modified Project, like the approved Project, would not ~~result in any~~ exceed project-level health risk thresholds and would not be cumulatively considerable. No new significant cumulative impacts as compared to the approved Project would occur.”

u. Volume I, page IV.G-60, New paragraph after first full paragraph.

“With respect to CO hotspots, future plus proposed modified Project traffic volumes would not exceed SCAQMD’s daily intersection threshold of 100,000 vehicles per day. Future plus proposed modified Project traffic volumes are inherently cumulative. Therefore, like the approved Project, the proposed modified Project would not result in cumulative impacts related to CO hotspots.”

v. Volume I, page IV.G-60, new paragraph and table at end of page [for ease of reading, new Table IV.G-17 is not shown in double underline].

“A comparison of criteria pollutant impacts between the approved Project as determined by the FEIR and the proposed modified Project as analyzed in this SEIR is included in Table IV.G-17, Criteria Pollutant Impact Comparison.”

Table IV.G-17

Criteria Pollutant Impact Comparison

	<u>ROC</u>	<u>NO_x</u>	<u>CO</u>	<u>SO_x</u>	<u>PM₁₀</u>	<u>PM_{2.5}^a</u>
<u>REGIONAL CONSTRUCTION EMISSIONS</u>						
Approved Project	S	S	S	L	S	S
Proposed Modified Project	S	L	S	L	L	L
Greater/New Impact?	No	No	No	No	No	No
<u>LOCALIZED CONSTRUCTION EMISSIONS</u>						
Approved Project	N/A	L	L	N/A	S	S
Proposed Modified Project	N/A	L	L	N/A	L	L
Greater/New Impact?	N/A	No	No	N/A	No	No
<u>REGIONAL OPERATIONAL EMISSIONS</u>						
Approved Project	S	S	S	L	S	S
Proposed Modified Project	S	S	S	L	S	S
Greater/New Impact?	No	No	No	No	No	Yes ^b
<u>LOCALIZED OPERATIONAL EMISSIONS</u>						
Approved Project	N/A	—	L	N/A	—	—
Proposed Modified Project	N/A	L	L	N/A	M	M
Greater/New Impact?	N/A	No	No	N/A	No	No
<u>CONCURRENT CONSTRUCTION AND OPERATIONAL EMISSIONS</u>						
Approved Project	S	S	S	L	S	S
Proposed Modified Project	S	S	S	L	S	S
Greater/New Impact?	No	No	No	No	No	Yes ^b

NOTES:

— = Not assessed in the FEIR; N/A = Not applicable to localized emissions thresholds; L = Less than Significant Impact; M = Less than Significant Impact with Mitigation Incorporated; S = Significant and Unavoidable Impact

^a The addition of the PM_{2.5} threshold occurred since certification of the FEIR. Potential significance associated with the approved Project has been assumed by applying SCAQMD's methodology to PM₁₀ emissions to estimate PM_{2.5} emissions.

^b PM_{2.5} was not analyzed in the FEIR due to a new regulatory requirement to assess PM_{2.5} since certification of the FEIR and therefore a new significant impact has been identified. However, applying SCAQMD's methodology to calculate PM_{2.5} emissions from PM₁₀ emissions, impacts would have been found significant and unavoidable had PM_{2.5} been assessed for the approved Project.

IV.H NOISE

a. Volume I, page IV.H-11, first full paragraph, new third sentence.

“... conservative analysis. Should Property-wide construction activity extend greater than 32 months resulting in delayed vertical construction on any of the planning areas, the worst-case overlap of construction equipment noise would not be exceeded. Given the ...”

b. Volume I, page IV.H-14, second full paragraph, sixth sentence

“... Like the approved Project, these levels would be potentially significant without implementation of mitigation with respect to R3 and R4. ...”

c. Volume I, page IV.H-27, Mitigation Measure H-1.

“**Mitigation Measure H-1:** Prior to the issuance of any grading, excavation, haul route, foundation, or building permits, the Applicant shall provide proof satisfactory to the Building and Safety and Planning Divisions of the Community Development Services Department that all construction documents require contractors to comply with City of Carson Municipal Code ~~Sections 4101(i) and (j)~~, as may be modified by variance, which requires all construction and demolition activities, including pile driving, to occur between 7:00 A.M. and 8:00 P.M. Monday through Saturday...”

d. Volume I, page IV.H-33, first paragraph, sixth and seventh sentence.

“... As this noise level would be below ~~the 5-3 dBA CNEL significance threshold for “normally acceptable” land uses~~, roadway noise impacts due to cumulative traffic volumes would be less than significant along segments of Del Amo Boulevard. Furthermore, impacts from Project-related traffic noise along all other local roadway segments with sensitive receptors would be lower than ~~the significance threshold of 3 dBA CNEL for sensitive receptors exposed to or within “normally acceptable” or “clearly unacceptable” categories~~ and, thus, remain less than significant.”

e. Volume I, page IV.H-33, third paragraph.

“In summary, following imposition of Mitigation Measures H-1, H-2, H-3, and H-4 as modified in the SEIR, the proposed modified Project, as with the approved Project, would result in significant unavoidable impacts with respect to DDC with three rigs, pile driving with seven rigs, and a combination of DDC and pile driving. These significant unavoidable impacts are the same as those disclosed in the FEIR for the approved Project. As such, the proposed modified Project would not result in any new significant impacts as compared to the approved Project assessed in the FEIR ~~with the addition of the construction mitigation as set forth above~~. As compared to the approved Project, the

proposed modified Project will not require major revisions to the FEIR with respect to noise and vibration because of the involvement of new significant impacts that were not previously evaluated. Specifically, with regard to noise and vibration, (1) no substantial changes are proposed in the proposed modified Project that would require major revisions to the FEIR, ~~and~~; (2) no substantial changes arise in the circumstances of the proposed modified Project's undertaking, requiring major revisions to the FEIR; and (3) there is no new information of substantial importance that was not known or available at the time the FEIR was certified."

f. Volume I, page IV.H-37, third full paragraph, first and new second sentences.

~~"With the implementation of Mitigation Measure H-7,~~ The proposed modified Project would result in substantially the same impact (less than significant with mitigation) as the approved Project. Mitigation Measures H-5, H-6, and H-7 have been retained and are carried forward, and further reduce the impact on Property operational noise. ..."

g. Volume I, page IV.H-37, New paragraphs after third full paragraph.

"The commercial use proposed for PA 2 would be developed in two phases. All remedial and horizontal construction including DDC, grading, pile driving, and building pads for the entire PA 2 would be completed during the first phase along with vertical construction of approximately 60 to 70 percent of the overall commercial square footage nearest the Torrance Lateral Channel. The second phase would consist of vertical construction of the remaining 30 to 40 percent of total PA 2 vertical development, nearest Del Amo Boulevard. It is likely that the first phase would be occupied and operational while the second phase is completing vertical construction. Therefore, there is the potential for concurrent PA 2 operational noise associated with the first phase and PA 2 general construction noise associated with the second phase. As shown on Table IV.H-8, mitigated general construction activity would result in less than significant impacts at all studied sensitive receptors. In addition, the occupied first phase buildings would screen sensitive receptors south of the Torrance Lateral Channel from general construction activity nearest Del Amo Boulevard, which would occur greater than 1,500 feet from residential receptors south of the Torrance Lateral Channel. Therefore, given the distance of construction activity on PA2 associated with the second phase and screening provided by buildings in the first phase, concurrent construction and operation activity at PA 2 would not result in any additional impact with respect to R3 and R4.

With respect to R1, general construction activity nearest Del Amo Boulevard would occur as analyzed and would result in less than significant impacts after implementation of mitigation. Therefore, concurrent construction and operation activity at PA 2 would not result in any additional impact with respect to R1."

IV.J.2 WASTEWATER

There are no clarifications to this section of the Draft SEIR.

IV.J.3 SOLID WASTE

There are no clarifications to this section of the Draft SEIR.

V. ALTERNATIVES

a. Volume I, page V-5, first paragraph, last sentence.

“... the requirements of CEQA Guidelines Section 15126.6(e)(3)~~(4)~~.”

b. Volume I, page V-6, second paragraph, fourth line.

“... Business Park) have been superseded and amended as contemplated by the approval of the approved Project, including adoption of the FEIR and Carson Market Place ...”

c. Volume I, page V-13, Relationship of Alternative 1A to the Proposed Modified Project Objectives, first sentence.

“The No Project – No Development Alternative (Alternative 1A) would continue to implement the RAP as consistent with the FEIR and would meet the basic objective of the proposed modified Project to achieve remediation of the environmental conditions on the Project site; however, without development, there would be no long-term source of revenues for that remediation.”

d. Volume I, page V-13, after last paragraph.

“In summary, while this Alternative would continue to implement the RAP as consistent with the FEIR and would meet one of the Project objectives by achieving remediation of the environmental conditions on the Project site, this Alternative would not achieve most of Project objectives including (1) enhancement and diversification of the City’s economic base, (2) increase new employment opportunities and additional housing units within the city, (3) provide the development of a signature project that would maximize the advantages of the site’s location and provide an enhanced urban center within the central portion of the city while taking advantage of the site’s proximity to the I-405 Freeway, (4) promote the economic success of the City (since it would not redevelop a brownfield that is currently unused), (5) maximize shopping and entertainment opportunities, (6) maintain a sustainable balance of residential and non-residential uses; and (7) generate tax revenues for the City of Carson.”

e. Volume I, page V-17, first full paragraph.

“In regards to impacts to freeway segments, the approved Project would significantly impact seven freeway segments while the proposed modified Project would significantly impact ~~would eight~~ ten bi-directional freeway segments under the Existing plus Project analysis and nine bi-directional freeway segments under the Future plus Project analysis. However, while the approved Project impacts to freeway segments would be slightly reduced compared to the proposed modified Project, impacts would remain significant and unavoidable, similar to the proposed modified Project. The difference in number, degree, and location of significant freeway impacts is a result of changes in background traffic conditions, related project traffic patterns, and roadway and freeway capacity changes. If the approved Project evaluated in the FEIR were analyzed under the current conditions, the Caltrans freeway impacts would be more severe for the approved Project than for the proposed modified Project.”

f. Volume I, page V-18, first full paragraph, new fourth sentence.

“... Although PM_{2.5} was not analyzed in the FEIR, applying SCAQMD’s methodology to calculate PM_{2.5} to the PM₁₀ results of the FEIR, the approved Project would have resulted in significant and unavoidable impacts while the proposed modified Project would result in less than significant impacts related to PM_{2.5}. ...”

g. Volume I, page V-18, fourth full paragraph, new third sentence.

“... Although PM_{2.5} was not analyzed in the FEIR, applying SCAQMD’s methodology to calculate PM_{2.5} to the PM₁₀ results of the FEIR, the approved Project, like the proposed modified Project, would have resulted in significant and unavoidable impacts related to PM_{2.5}. ...”

h. Volume I, page V-19, third full paragraph.

“Because the type of construction associated with the approved Project would be similar to the proposed modified Project, daily construction-related noise levels experienced both within the Property and the immediate vicinity would be similar to the proposed modified Project and are considered significant and unavoidable even with implementation of mitigation as set forth in the FEIR.”

Volume I, page V-31, third full paragraph, first sentence.

“Because the type of construction associated with Alternative 2 would be similar to the proposed modified Project, maximum daily construction-related noise levels experienced both within the Property and the immediate vicinity would be similar to the proposed

modified Project and are considered significant and unavoidable even with implementation of modified mitigation as set forth in Section IV.H, Noise, of this SEIR. ...”

i. Volume I, page V-35, Relationship of Reduced Modified Project Alternative to the Proposed Modified Project Objectives, lines 10 and 11.

“... the revenue necessary to pay for and effectuate remediation of the environmental conditions on the Project site as the proportional financial burden would be greater ~~than~~ for Alternative 2 than for the proposed modified Project and the financial return would be less likely to support such development and remediation of the Property and may make remediation infeasible.”

j. Volume I, page V-35, Relationship of Reduced Modified Project Alternative to the Proposed Modified Project Objectives, first full paragraph, after last sentence.

“In summary, Alternative 2 would not achieve productive reuse of a large brownfield site as the reduced density project, would not be capable of generating the revenue necessary to pay for and effectuate remediation of the environmental conditions on the Property site, would not achieve the same level of enhancement of the City’s economic base, and would create fewer jobs and fewer housing units within the city than would the proposed modified Project.”

k. Volume I, page V-37, Table V-7.

Regarding Table V-7, “LTS” refers to “Less than significant impact,” and “SU” refers to “Significant and unavoidable impact.”

VI. EFFECTS FOUND NOT TO BE SIGNIFICANT

a. Volume I, page VI-4, first full paragraph, first line.

“The ~~approved Project remains~~ Property and as with the Project site at the time the approved Project was approved, is located with an urbanized setting ...”

b. Volume I, page VI-24, Mitigation Measure I.4-1.

“Mitigation Measure I.4-1: Residential uses of tThe Project shall provide park and recreation facilities pursuant to Municipal Code Section 9207.19, equivalent to ~~three~~ 3 acres per 1,000 population, that would be met through the provision of park space, on-site improvements, and/or, the payment of in-lieu fees.”

c. Volume I, page VI-9, new paragraph, immediately following Mitigation Measure D-4.

“The RAP contemplates phased remediation of the Cells comprising the former landfill. The proposed modified Project retains phased remediation of the Property and the subsequent development of urban uses, although development is now proposed to be carried out by more than one developer and to take place on each Cell on a phased basis. To accommodate the phased development of the Property, the proposed modified Project seeks to allow phased occupancy of cells (meaning one or two planning areas could be open to commercial uses while the remaining area(s) are undergoing concurrent remediation and construction activities). Vertical construction also could take place in phases, provided that 1) the exposure risk to construction workers from such phased construction of any cell is within acceptable levels as determined by DTSC; 2) all remedial work within a cell is carried out prior to initial occupancy of any portion of that cell, and 3) the risk of exposure from such occupancy of any cell is within acceptable levels as determined by DTSC. No residential occupancy would be allowed until all areas of the landfill are capped, and all necessary remedial actions completed for the entire Property. Mitigation Measure D-4 shall ensure that phased occupancy will not exceed the risk of exposure determined acceptable by DTSC and with implementation of mitigation, no significant impact will occur as a result of phased development, construction or occupancy.”

d. Volume I, page VI-11, first full paragraph, commencing with sixth sentence.

“... The SUSMP permit requirements were approved in 2009 and therefore represent newer regulatory requirements than those discussed and analyzed in the 2006 Final EIR. Discharges associated with the groundwater treatment program are permitted under the Los Angeles County Sanitization Industrial Wastewater Discharge Permit. All groundwater treatment effluent is required to adhere to discharge requirements of the Groundwater Extraction and Treatment System permit. Therefore, considering that the proposed changes in the details of the site improvements are consistent with the stormwater drainage approach and the more stringent regulatory requirements that have occurred since the 2006 Final EIR, the proposed modified Project would not result in a substantial significant impact relative to water quality or water quality standards. As such, impacts related to discharge associated with the proposed modified Project would be substantially similar to those of the approved Project, no mitigation measures were previously applied, no new mitigation measures would be necessary and, as with the approved Project, impacts would be less than significant.”

e. Volume I, page VI-26, second full paragraph, following threshold c.

~~“Due to~~ The Property is not located within a known air traffic flight path. The closest airport to the project site is Compton Airport, which is located approximately 3.25 miles north of the Property and has a landing pattern configuration in an east-west direction, therefore development of the project would not result in a safety hazard for people residing or working in the project area or for air traffic patterns. The FEIR found no significant impact with respect to changes in air traffic patterns, and concluded that with the type of uses and height of structures proposed under the proposed modified Project, as with for the approved Project, which had a maximum height of 75 feet, the approved Project would not result in changes to air traffic patterns. The proposed modified Project, which has a maximum height of 85 feet and similar types of uses, would not increase risks associated with air traffic or result in a change in air traffic patterns or create a safety risk. Therefore, as with the approved Project, no significant impact would occur.”

f. Volume I, page VI-27, “Comparison to FEIR Findings” paragraph, last sentence.

~~“... With Implementation of Mitigation Measures I.4-1 through I.4-3 J.1-8, Impacts Would Be Less than Significant.”~~

VII. OTHER ENVIRONMENTAL CONSIDERATIONS

a. Volume I, page VII-10, second paragraph, last sentence.

“To the extent that sensitive noise receptors are located within proximity of these intersection improvements, the construction of these improvements may cause significant short-term noise impacts. Such impacts would be short term and mitigated via standard work management procedures for reducing noise proximate to sensitive receptors.”

VIII. REFERENCES

There are no clarifications to this section of the Draft SEIR.


IX. LIST OF PREPARERS

There are no clarifications to this section of the Draft SEIR.

APPENDICES

Supplemental Lighting Study prepared by Francis Khrae.

[THIS PAGE INTENTIONALLY LEFT BLANK]



IV. RESPONSES TO WRITTEN COMMENTS

IV. RESPONSES TO WRITTEN COMMENTS

A. INTRODUCTION

CEQA Guidelines Section 15088(a) states that “The lead agency shall evaluate comments on environmental issues received from persons who reviewed the draft EIR and shall prepare a written response. The lead agency shall respond to comments that were received during the noticed comment period.” In accordance with these requirements, this chapter of the Final SEIR provides responses to each of the written comment received regarding the Draft SEIR. Responses are also provided for comments presented at the Planning Commission meeting of November 8, 2017. **Table IV-1, Written Comments Summary**, provides a summary of the issues raised in response to the Draft SEIR.

[THIS PAGE INTENTIONALLY LEFT BLANK]

**Table IV-1
Written Comments Summary**

Letter No.	Summary of Written Comment	I. Summary	II. Modified Proposed Project	III.A Overview of Environmental Setting	III.B Cumulative Development	IV.A Land Use and Planning	IV.B Visual Resources	IV.C Traffic and Circulation	IV.E Geology and Soils	IV.G Air Quality	IV.H Noise	IV.J2 Wastewater	IV.J3 Solid Waste	V. Alternatives	VI. Effects Found Not to Be Significant	VII. Other Environmental Considerations	VIII. References	IX. List of Preparers	Appendices
AGENCIES																			
1	Office of Planning and Research																		
2	California Department of Transportation (Caltrans)		•					•							•				
3	South Coast Air Quality Management District (SCQAMD)									•									
4	Division of Oil, Gas, and Geothermal Resources (DOGGR)		•																
5	County of Los Angeles Department of Public Health (11/9/17)		•												•				
6	County of Los Angeles Department of Public Health (11/17/17)		•		•														
INDIVIDUALS																			
7	Karen Bolin		•							•	•								
8	Harriet and Tim Albin		•							•	•								
9	Anna Jean Challender and Jack Baker		•							•	•								
10	Teresita B. Bautista		•							•	•								
11	Liza Bruner		•							•	•								
12	Ron Doughty		•							•	•								
13	Victoria M. Lopez		•							•	•								
14	Imelda and Raul Samia		•							•	•								
15	Shogo and Yuko Kariya Sato		•							•	•								
16	Glenn Vicencio		•							•	•								
17	Velma J. Vigil		•							•	•								

[THIS PAGE INTENTIONALLY LEFT BLANK]

IV. RESPONSES TO WRITTEN COMMENTS
B. COMMENTS RECEIVED ON THE DRAFT SEIR



EDMUND G. BROWN JR.
GOVERNOR

November 17, 2017

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX
DIRECTOR

Ethan Edwards
City of Carson
701 E. Carson Street
Carson, CA 90745

Subject: The District at South Bay
SCH#: 2005051059

Dear Ethan Edwards:

The State Clearinghouse submitted the above named Supplemental EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on November 16, 2017, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1-1

**Document Details Report
State Clearinghouse Data Base**

SCH# 2005051059
Project Title The District at South Bay
Lead Agency Carson, City of

Type SIR Supplemental EIR
Description The City of Carson will considering an amendment to the Boulevards at South Bay Specific Plan adopted by the City (to be renamed "The District at South Bay Specific Plan") and related improvements. Specifically, the revised project would modify or otherwise reduce the scope of the original project to ultimately consist of approx. 1,601,500 sq. ft. of regional commercial, general commercial and related uses, including outlet and entertainment uses, no more than 1,250 residential units, and 350 rooms total in two hotels. The 2006 EIR previously assessed proposed remediation of the project site. The proposed revised project retains the phased remediation of the project site and the subsequent development of urban uses, although clarifications are provided as to how development will be proposed to take place in phases.

Lead Agency Contact

Name Ethan Edwards
Agency City of Carson
Phone 310-952-1761 **Fax**
email
Address 701 E. Carson Street
City Carson **State** CA **Zip** 90745

Project Location

County Los Angeles
City Carson
Region
Lat / Long 33° 50' 35.5" N / 118° 16' 18.6" W
Cross Streets South Main St., East Del Amo Blvd., Stamps Dr., I-405
Parcel No. 7336-010-903 and 7336-010-904
Township 3S **Range** 12W **Section** 5-8 **Base** SBM

Proximity to:

Highways I-405, I-110
Airports
Railways
Waterways Torrance Lateral Drainage canal
Schools Golden Wings Academy
Land Use Mixed Use - Residential, Specific Plan - Blvds at South Bay Specific Plan

Project Issues Aesthetic/Visual; Air Quality; Drainage/Absorption; Geologic/Seismic; Noise; Public Services; Recreation/Parks; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Water Quality; Growth Inducing; Landuse; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 7; Office of Emergency Services, California; Department of Housing and Community Development; Air Resources Board, Major Industrial Projects; Resources, Recycling and Recovery; State Water Resources Control Board, Division of Drinking Water; Regional Water Quality Control Board, Region 4; Department of Toxic Substances Control; Native American Heritage Commission

Date Received 10/03/2017 **Start of Review** 10/03/2017 **End of Review** 11/16/2017

DEPARTMENT OF TRANSPORTATION

DISTRICT 7
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-8391
FAX (213) 897-1337
TTY 711
www.dot.ca.gov

CEQA
11-16-17
E



Serious Drought.
Making Conservation
a California Way of Life.

November 16, 2017

Mr. Ethan Edwards, Planner
Community Development Department
Planning Division
City of Carson
701 E. Carson Street
Carson, CA 90745

Governor's Office of Planning & Research

NOV 16 2017

STATE CLEARINGHOUSE

RE: The District at South Bay
SCH # 2005051059
Ref. GTS # LA-2017-01062AL-NOP
GTS # LA-2016-01178AL-DEIR
Vic. LA-10, LA-101, LA-05, LA-60

Dear Mr. Edwards:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed revised project would retain the wide range of land uses adopted by the City under the Boulevards at South Bay specific plan (Specific Plan), now proposed to be renamed The District at South Bay, including the following uses: neighborhood commercial, regional commercial (including outlet commercial), commercial recreation/entertainment, restaurant, hotel, and residential. Specifically, the revised project would modify or otherwise reduce the scope of the original project to ultimately consist of approximately 1,601,500 square feet of regional commercial general commercial and related uses, including outlet and entertainment uses, no more than 1,250 residential units, and 350 rooms total in two hotels.

Senate Bill 743 (2013) mandated that CEQA review of transportation impacts of proposed development be modified by using Vehicle Miles Traveled (VMT) as the primary metric in identifying transportation impacts for all future development projects. However, the City may use the Level of Service (LOS) methodology until The Governor's Office of Planning and Research (OPR) complete its CEQA Guideline to implement SB743 (https://www.opr.ca.gov/s_sb743.php).

Caltrans is aware of challenges that the region faces in identifying viable solutions to alleviating congestion on State and Local facilities. With limited room to expand vehicular capacity, this development should incorporate multi-modal and complete streets transportation elements that will actively promote alternatives to car use and better manage existing parking assets. Prioritizing and allocating space to efficient modes of travel such as bicycling and public transit can allow streets to transport more people in a fixed amount of right-of-way.

Mr. Ethan Edwards, Planner
November 16, 2017
Page 2 of 3

Caltrans supports the implementation of complete streets and pedestrian safety measures such as road diets and other traffic calming measures. Please note the Federal Highway Administration (FHWA) recognizes the road diet treatment as a proven safety countermeasure, and the cost of a road diet can be significantly reduced if implemented in tandem with routine street resurfacing.

It should be noted, Caltrans sent a letter dated December 14, 2005 expressing traffic concerns the Project may have on the State facilities and invited the City to meet. In our letter dated August 31, Caltrans reiterated those traffic concerns and reached out to discuss potential multimodal mitigation measures with the City. On November 15, 2017, both agencies agreed during a phone conversation to meet in the near future to discuss Caltrans traffic concerns.

After reviewing the environmental document based on LOS, we have the following comments:

1. The project claimed to generate 57,218 daily trips and 2,775/4,219 AM/PM peak hour trips. The project alternative would also generate 44,360 daily trips and 2,112/3,331 AM/PM peak hour trips. There are 27 related projects in the project vicinity generating 17,860 daily trips and 1,300/1,536 AM/PM peak hour trips. Many of the project and related trips would be traveling on the State facilities once the projects are built. Therefore, significant cumulative traffic impacts on the State facilities would occur. As a reminder, the decision makers should be aware of this issue and be prepared to mitigate significant cumulative traffic impacts.
2. Caltrans' traffic concerns is that the potential traffic conflict may occur at the following locations.
 - a. Study location # 2 Figueroa St & I-405 NB off-rampⁱ
 - b. Study location # 3 Main Street & I-405 southbound on-rampⁱⁱ
 - c. Study location # 11 Hamilton Avenue & I-110 southbound rampsⁱⁱⁱ
 - d. Study location # 12 Figueroa Street & I-110 northbound ramps
3. Both Study locations # 22 and 23 will have significant traffic impact^{iv}. With additional traffic trips assigning to the off-ramp at I-110 SB and W. Carson St. We have traffic conflict and speed differential concerns at this off-ramp.
4. For the freeway mainlines, with additional traffic trips, many of the freeway segments are overflowing in Existing with Project condition and Future with Project Condition (Year 2023)^v. A spillover of vehicles has the potential to create significant speed differentials and increase the number of conflicts. This may cause potential traffic conflict at the access points such as weaving, diverging, and merging areas within the project vicinity. As a reminder, CEQA does not exempt these type of operational concerns from evaluation. Potential traffic mitigation

ⁱ Referenced to Draft Transportation Impact Analysis, September 2017, page 41, Table 7.

ⁱⁱ Referenced to Draft Transportation Impact Analysis, September 2017, page 55. This applies to Location # 12.

ⁱⁱⁱ Referenced to Draft Transportation Impact Analysis, September 2017, page 46, Table 8 Peak Hour Signal Warrant Analysis.

^{iv} Referenced to Draft Transportation Impact Analysis, September 2017, page 38, Table 6 Existing Plus Project Intersection LOS and Impact Analysis and Mitigation.

^v Referenced to Draft Transportation Impact Analysis, September 2017, page 65, 66, Table 10A/10B Freeway Segment Impact Analysis AM/PM Peak Hour, page 86, Table 16B Regional CMP and Caltrans Freeway Impact Comparison

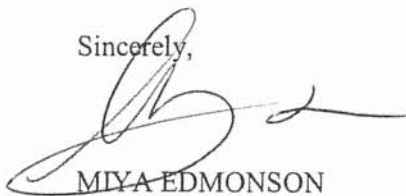
Mr. Ethan Edwards, Planner
November 16, 2017
Page 3 of 3

should be considered. We would like the City to work with Caltrans in identifying feasible mitigations or provide more effective Transportation Demand Management (TDM) for the cumulative traffic impact.

5. Normally, potential improvements/mitigations may include restriping, striping with additional lane, signal upgrade, signal timing adjustment, right-of-way acquisition, reconstruct/add deceleration/acceleration lane (auxiliary lanes), interchange improvements, off-ramp expansion, freeway widening, install an overhead sign structure, cold plane and apply friction surface treatment, remove and replace pavement delineation, install pavement markers, upgrade ADA curb ramps, maintain traffic control system, remove and replace the raised island, install LED lighting system, overhead signs, fair share contribution to Caltrans planned projects and etc. to resolve any potential traffic conflict issues. Any feasible mitigation selection should also include Intersection Control Evaluation (ICE) when necessary. Any of these fore mentioned mitigation measure options should be considered for this project.
6. Once potential improvements are identified, we would like the City to consider to condition the developer to make a fair share contribution toward future improvements on the State facility; we would like the developer to sign a Traffic Mitigation Agreement with Caltrans prior to circulation of the FEIR.
7. Storm water run-off is a sensitive issue for Los Angeles and Ventura counties. Please be mindful that projects should be designed to discharge clean run-off water. Additionally, discharge of storm water run-off is not permitted onto State highway facilities without any storm water management plan.
8. Transportation of heavy construction equipment and/or materials, which requires the use of oversized-transport vehicles on State highways, will require a transportation permit from Caltrans. It is recommended that large size truck trips be limited to off-peak commute periods.

Caltrans will continue to work with the Lead Agency and/or traffic consultant closely in an effort to evaluate traffic impacts, identify potential improvements, and complete a Traffic Mitigation Agreement before the FEIR release. If you have any questions, please feel free to contact Alan Lin the project coordinator at (213) 897-8391 and refer to GTS # 07-LA-2017-01178AL-DEIR.

Sincerely,



MIYA EDMONSON
IGR/CEQA Acting Branch Chief

cc: Scott Morgan, State Clearinghouse



State of California • Natural Resources Agency
Department of Conservation
Division of Oil, Gas, and Geothermal Resources – District 1
5816 Corporate Avenue • Suite 100
Cypress, CA 90630
(714) 816-6847 • FAX (714) 816-6853

Edmund G. Brown Jr., Governor

CLEAR
11-16-17
E

November 16, 2017

VIA EMAIL

Mr. Ethan Edwards, Planner
City of Carson
Community Development Department
Planning Division
701 East Carson Street
Carson, CA 90745
Email: eedwards@carson.ca.us

Governor's Office of Planning & Research
NOV 16 2017
STATE CLEARINGHOUSE

Dear Mr. Edwards:

**DRAFT SEIR – DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT
THE DISTRICT AT SOUTH BAY SPECIFIC PLAN
SCH: 2005051059**

The Department of Conservation's Division of Oil, Gas, and Geothermal Resources (Division) has reviewed the above referenced project for impacts with Division jurisdictional authority. The Division supervises the drilling, maintenance, and plugging and abandonment of oil, gas, and geothermal wells in California. The Division offers the following comments for your consideration.

The project area is in Los Angeles County and is not within an administrative field boundary. Division records indicate that there are two plugged and abandoned oil wells located within the project boundary as identified in the application. Division information can be found at: www.conservation.ca.gov. Individual well records are also available on the Division's web site, or by making an appointment with our Records Clerk.

The scope and content of information that is germane to Division's responsibility are contained in Section 3000 et seq. of the Public Resources Code, and administrative regulations under Title 14, Division 2, Chapters 2, 3 and 4 of the California Code of Regulations.

If any wells, including any plugged, abandoned or unrecorded wells, are damaged or uncovered during excavation or grading, remedial plugging operations may be required. If such damage or discovery occurs, the Division's district office must be contacted to obtain information on the requirements and approval to perform remedial operations.

The possibility for future problems from oil and gas wells that have been plugged and abandoned, or reabandoned, to the Division's current specifications are remote. However, the Division recommends that a diligent effort be made to avoid building over any plugged and abandoned well.

To ensure proper review of this project, please contact our Construction Well Site Review Program for a well consultation. The Division has available an informational packet entitled, "Construction-Site Plan Review Program". This document is available on the Division's website at http://www.conservation.ca.gov/dog/for_operators/Pages/construction_site_review.aspx.

Mr. Ethan Edwards
November 16, 2017
Page 2

Questions regarding the Division's Construction Site Well Review Program can be addressed to the local Division's office in Cypress by emailing DOGDIST1@conservation.ca.gov or by calling (714) 816-6847.

Sincerely,



Digitally signed by Grace Brandt
DN: cn=Grace Brandt, o=DOGGR, ou=Construction Site Well
Review, email=grace.brandt@conservation.ca.gov, c=US
Date: 2017.11.16 13:10:25 -08'00'

Grace P. Brandt
Associate Oil and Gas Engineer

cc: The State Clearinghouse in the Office of Planning and Research
Tim Shular, DOC OGER
Crina Chan, DOC OGER
Jan Perez, DOGGR CEQA Unit
Chris McCullough, Facilities and Environmental Supervisor
Environmental CEQA File

LETTER NO. 1 – OFFICE OF PLANNING AND RESEARCH (OPR)

Scott Morgan
Director
State Clearinghouse
1400 10th Street, P.O. Box 3044
Sacramento CA, 95812

RESPONSE 1-1

The comment states that the lead agency has complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act and provides the comment letters submitted to OPR by state agencies for the project. The letter includes a comment letter submitted by the Department of Transportation (Caltrans) for which responses are provided below in Responses 2-1 through 2-13. Responses to a comment letter submitted by the Division of Oil, Gas, and Geothermal Resources (DOGGR) are provided below in Responses 4-1 through 4-3.

DEPARTMENT OF TRANSPORTATION

DISTRICT 7
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-8391
FAX (213) 897-1337
TTY 711
www.dot.ca.gov



Serious Drought.
Making Conservation
a California Way of Life.

November 16, 2017

Mr. Ethan Edwards, Planner
Community Development Department
Planning Division
City of Carson
701 E. Carson Street
Carson, CA 90745

RE: The District at South Bay
SCH # 2005051059
Ref. GTS # LA-2017-01062AL-NOP
GTS # LA-2016-01178AL-DEIR
Vic. LA-10, LA-101, LA-05, LA-60

Dear Mr. Edwards:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed revised project would retain the wide range of land uses adopted by the City under the Boulevards at South Bay specific plan (Specific Plan), now proposed to be renamed The District at South Bay, including the following uses: neighborhood commercial, regional commercial (including outlet commercial), commercial recreation/entertainment, restaurant, hotel, and residential. Specifically, the revised project would modify or otherwise reduce the scope of the original project to ultimately consist of approximately 1,601,500 square feet of regional commercial general commercial and related uses, including outlet and entertainment uses, no more than 1,250 residential units, and 350 rooms total in two hotels.

2-1

Senate Bill 743 (2013) mandated that CEQA review of transportation impacts of proposed development be modified by using Vehicle Miles Traveled (VMT) as the primary metric in identifying transportation impacts for all future development projects. However, the City may use the Level of Service (LOS) methodology until The Governor’s Office of Planning and Research (OPR) complete its CEQA Guideline to implement SB743 (https://www.opr.ca.gov/s_sb743.php).

2-2

Caltrans is aware of challenges that the region faces in identifying viable solutions to alleviating congestion on State and Local facilities. With limited room to expand vehicular capacity, this development should incorporate multi-modal and complete streets transportation elements that will actively promote alternatives to car use and better manage existing parking assets. Prioritizing and allocating space to efficient modes of travel such as bicycling and public transit can allow streets to transport more people in a fixed amount of right-of-way.

2-3

Mr. Ethan Edwards, Planner
 November 16, 2017
 Page 2 of 3

Caltrans supports the implementation of complete streets and pedestrian safety measures such as road diets and other traffic calming measures. Please note the Federal Highway Administration (FHWA) recognizes the road diet treatment as a proven safety countermeasure, and the cost of a road diet can be significantly reduced if implemented in tandem with routine street resurfacing.

2-3

It should be noted, Caltrans sent a letter dated December 14, 2005 expressing traffic concerns the Project may have on the State facilities and invited the City to meet. In our letter dated August 31, Caltrans reiterated those traffic concerns and reached out to discuss potential multimodal mitigation measures with the City. On November 15, 2017, both agencies agreed during a phone conversation to meet in the near future to discuss Caltrans traffic concerns.

2-4

After reviewing the environmental document based on LOS, we have the following comments:

1. The project claimed to generate 57,218 daily trips and 2,775/4,219 AM/PM peak hour trips. The project alternative would also generate 44,360 daily trips and 2,112/3,331 AM/PM peak hour trips. There are 27 related projects in the project vicinity generating 17,860 daily trips and 1,300/1,536 AM/PM peak hour trips. Many of the project and related trips would be traveling on the State facilities once the projects are built. Therefore, significant cumulative traffic impacts on the State facilities would occur. As a reminder, the decision makers should be aware of this issue and be prepared to mitigate significant cumulative traffic impacts.

2-5

2. Caltrans' traffic concerns is that the potential traffic conflict may occur at the following locations.

- a. Study location # 2 Figueroa St & I-405 NB off-rampⁱ
- b. Study location # 3 Main Street & I-405 southbound on-rampⁱⁱ
- c. Study location # 11 Hamilton Avenue & I-110 southbound rampsⁱⁱⁱ
- d. Study location # 12 Figueroa Street & I-110 northbound ramps

2-6

3. Both Study locations # 22 and 23 will have significant traffic impact^{iv}. With additional traffic trips assigning to the off-ramp at I-110 SB and W. Carson St. We have traffic conflict and speed differential concerns at this off-ramp.

2-7

4. For the freeway mainlines, with additional traffic trips, many of the freeway segments are overflowing in Existing with Project condition and Future with Project Condition (Year 2023)^v. A spillover of vehicles has the potential to create significant speed differentials and increase the number of conflicts. This may cause potential traffic conflict at the access points such as weaving, diverging, and merging areas within the project vicinity. As a reminder, CEQA does not exempt these type of operational concerns from evaluation. Potential traffic mitigation

2-8

ⁱ Referenced to Draft Transportation Impact Analysis, September 2017, page 41, Table 7.

ⁱⁱ Referenced to Draft Transportation Impact Analysis, September 2017, page 55. This applies to Location # 12.

ⁱⁱⁱ Referenced to Draft Transportation Impact Analysis, September 2017, page 46, Table 8 Peak Hour Signal Warrant Analysis.

^{iv} Referenced to Draft Transportation Impact Analysis, September 2017, page 38, Table 6 Existing Plus Project Intersection LOS and Impact Analysis and Mitigation.

^v Referenced to Draft Transportation Impact Analysis, September 2017, page 65, 66, Table 10A/10B Freeway Segment Impact Analysis AM/PM Peak Hour, page 86, Table 16B Regional CMP and Caltrans Freeway Impact Comparison

Mr. Ethan Edwards, Planner
November 16, 2017
Page 3 of 3

should be considered. We would like the City to work with Caltrans in identifying feasible mitigations or provide more effective Transportation Demand Management (TDM) for the cumulative traffic impact.

↑
2-8

5. Normally, potential improvements/mitigations may include restriping, striping with additional lane, signal upgrade, signal timing adjustment, right-of-way acquisition, reconstruct/add deceleration/acceleration lane (auxiliary lanes), interchange improvements, off-ramp expansion, freeway widening, install an overhead sign structure, cold plane and apply friction surface treatment, remove and replace pavement delineation, install pavement markers, upgrade ADA curb ramps, maintain traffic control system, remove and replace the raised island, install LED lighting system, overhead signs, fair share contribution to Caltrans planned projects and etc. to resolve any potential traffic conflict issues. Any feasible mitigation selection should also include Intersection Control Evaluation (ICE) when necessary. Any of these fore mentioned mitigation measure options should be considered for this project.

2-9

6. Once potential improvements are identified, we would like the City to consider to condition the developer to make a fair share contribution toward future improvements on the State facility; we would like the developer to sign a Traffic Mitigation Agreement with Caltrans prior to circulation of the FEIR.

2-10

7. Storm water run-off is a sensitive issue for Los Angeles and Ventura counties. Please be mindful that projects should be designed to discharge clean run-off water. Additionally, discharge of storm water run-off is not permitted onto State highway facilities without any storm water management plan.

2-11

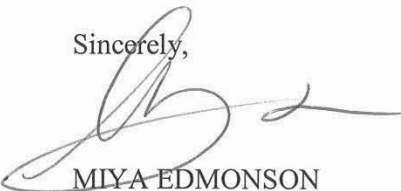
8. Transportation of heavy construction equipment and/or materials, which requires the use of oversized-transport vehicles on State highways, will require a transportation permit from Caltrans. It is recommended that large size truck trips be limited to off-peak commute periods.

2-12

Caltrans will continue to work with the Lead Agency and/or traffic consultant closely in an effort to evaluate traffic impacts, identify potential improvements, and complete a Traffic Mitigation Agreement before the FEIR release. If you have any questions, please feel free to contact Alan Lin the project coordinator at (213) 897-8391 and refer to GTS # 07-LA-2017-01178AL-DEIR.

2-13

Sincerely,



MIYA EDMONSON
IGR/CEQA Acting Branch Chief

cc: Scott Morgan, State Clearinghouse

LETTER NO. 2 – CALTRANS

Miya Edmonson
IGR/CEQA Acting Branch Chief
Department of Transportation
District 7
100 S. Main Street, MS 16
Los Angeles CA, 90012

RESPONSE 2-1

The commenter appreciates the opportunity to comment on the Draft SEIR and to be involved in the environmental review process. The comment summarizes the project description of the proposed modified Project provided in the Draft SEIR. The City appreciates the commenter for participating in this process and will include this comment in the public record for the proposed modified Project.

RESPONSE 2-2

The comment states that while Senate Bill (SB) 743 mandates the use of Vehicle Miles Traveled (VMT) as the primary metric in identifying transportation impacts for future development projects, the City may use the Level of Service (LOS) methodology until the Office of Planning and Research completes its CEQA Guideline to implement SB 743. As discussed in the Traffic Impact Analysis and Draft SEIR Section IV.C, Transportation and Traffic, the LOS methodology was utilized to identify any potential impacts associated with development and operation of the proposed modified Project. Therefore, the analyses included in the SEIR were prepared in compliance with the commenter's recommended methodologies as stated within this comment.

RESPONSE 2-3

The commenter acknowledges the challenges the Southern California region faces in identifying feasible solutions to alleviate congestion on State and Local facilities and recommends that multi-modal and complete streets transportation elements be incorporated into projects to reduce reliance on vehicle transportation and increase use of alternative transportation. The Draft SEIR addressed traffic in Section IV.C, Transportation and Traffic, with supporting data provided in Draft SEIR Appendix D. The proposed modified project includes design features to accommodate pedestrians, bicyclists, and transit users. The proposed modified Project proposes a combination of Class I Multi Use Paths and Class II Bike Lanes throughout the Property that connect directly to bicycle facilities proposed in the Carson Master Plan of Bikeways (2013) as well as the County of Los Angeles Bicycle Master Plan (2012). The proposed modified Project also provides a pedestrian network connecting the Property to the existing pedestrian network within the City of Carson. Mitigation Measure C-16 on Draft SEIR

page IV.C-65 states that the applicant shall coordinate with local the local transit providers including Carson Circuit, Metro, Torrance Transit, and Los Angeles Department of Transportation (LADOT) to request extensions of existing bus routes to the Property, request additional buses to be deployed on extended routes to increase frequency and capacity, and the provide transit stops potentially including benches and shelters in and adjacent to the Property. See also Mitigation Measure G-21, which provides for fair-share contribution for low-emission shuttle service between the Property and other major activity centers within the vicinity.

RESPONSE 2-4

The comment states that Caltrans submitted a comment letter on the Carson Market Place Draft EIR on December 14, 2005, which expressed traffic concerns and requested to meet with the City. The comment also states that Caltrans submitted a comment letter on the NOP for the proposed modified Project on August 31, 2017, which reiterated those traffic concerns and suggested coordinating with the City to discuss potential multimodal mitigation measures. These same concerns are reflected in this comment letter (dated November 16, 2017). Both agencies have been communicating, including a phone conversation on November 15, 2017, to discuss Caltrans traffic concerns. The City looks forward to continued communication with Caltrans to discuss any concerns and will include this comment in the public record for the proposed modified Project.

RESPONSE 2-5

The comment summarizes traffic data presented in the Draft SEIR and states that a significant cumulative traffic impact would occur on State facilities once the proposed modified Project is developed. Further, the comment states that the decision makers at the City should be aware of this issue and be prepared to mitigate significant cumulative traffic impacts. The Draft SEIR addressed traffic in Section IV.C, Transportation and Traffic, with supporting data provided in Draft SEIR Appendix D. Under CEQA, mitigation measures must be identified in the Draft EIR supported with substantial evidence. If Caltrans would like the City or developer to sign a Traffic Mitigation Agreement (TMA) in advance of the Final SEIR, Caltrans would need to substantiate the reasonableness of mitigation measures to reduce the identified significant impact with substantial evidence. Generally, for a mitigation fee to be considered mitigation for cumulative impacts, that fee would need to be legally enforceable and part of an adopted fee scheme to make sure funds are available to pay for improvements necessary to mitigate the specific significant impacts. To the City's knowledge, Caltrans has not prepared any such necessary fee study or adopted a fee program to make fees under a TMA legally enforceable. Without the evidence that a TMA is part of a reasonably and legally enforceable plan for mitigation of a project's impacts, the City could not include a TMA in the SEIR or condition the proposed modified Project with a TMA. (See *Anderson First Coalition v. City of Anderson* [2005] 130 Cal.App.4th 1173, 1189; *Tracy First v. City of Tracy, et al.*, [2009] 177 Cal.App.4th 912.)

The City suggests that Caltrans consider a Freeway System Nexus Study in order to develop a plan for improving freeway operations within the context of new development. Such a study could identify the nexus between proposed development projects and regional freeway impacts, propose specific physical or operational improvements, and define a legally enforceable fee program to collect and implement fair share method of collecting mitigation fees, as required by CEQA (Id.). There is no evidence that such a plan or program exists today. If such a study were conducted and a legally sound fee program were developed, the City would coordinate with Caltrans, as appropriate.

Moreover, in parallel to conducting the environmental review in the FEIR for the approved Project, the City of Carson invested \$18,948,173.00 in substantial improvements to the I-405 interchange at Avalon Boulevard, increasing capacity, improving operations, and providing direct access to the Project site. These interchange improvements were analyzed as a separate set of planned improvements for the approved Project. In anticipation of the approved Project, the City of Carson completed the interchange improvements between 2006 and 2017 (refer to Figure RTC-1, Avalon I-405 Interchange 2006, and Figure RTC-2, Avalon I-405 Interchange 2017, which show before [2006] and after [2017] improvements at that location). These improvements were included as part of the existing conditions analysis for the modified proposed Project. The improvements increase the overall capacity and operations of the interchange by improving the on- and off-ramps in both the northbound and southbound directions. Specific improvement features are listed below:

- Widening the northbound off-ramp from one lane to three lanes and provided the opportunity to turn left onto Avalon
- Installing a traffic signal at the intersection of Avalon and the northbound off-ramp
- Installing a new southbound on-ramp
- Reconfiguring and widening the northbound on-ramp
- Reconfiguring and widening the southbound off-ramp
- Modifying/upgrading the traffic signal at the intersection of Avalon Boulevard and the southbound ramps
- Constructing a new access road to connect I-405 and Avalon Boulevard to the development area.



D:\160573.03 - The Boulevards\05 Graphics-GIS-Modeling\Illustrator

SOURCE: ESA, 2006

The District at South Bay

Figure RTC-1
Avalon I-405 Interchange 2006





D:\160573.03 - The Boulevards\05 Graphics-GIS- Modeling\Illustrator

SOURCE: ESA, 2017

The District at South Bay

Figure RTC-2
Avalon I-405 Interchange 2017



RESPONSE 2-6

The commenter expresses concern and listed the intersections which could have potential traffic conflicts in the commenter's opinion. As indicated on pages IV.C-30 through IV.C-38, in Draft SEIR Section IV.C, Transportation and Traffic, under the headings *Existing Conditions with the Proposed Modified Project* and *Future Year (2023) Conditions with the Proposed Modified Project*, the transportation impact analysis studied each of the intersections listed. The results are summarized below.

Study Location #2, Figueroa & I-405 NB off-ramps, is an unsignalized intersection within City of Carson and was projected to operate at LOS F without the proposed modified Project. After applying City of Carson impact criteria, the intersection was not determined to be significantly impacted under the existing plus project and future plus project scenarios. An off-ramp queuing analysis was also conducted for the I-405 NB off-ramp at this location and the queuing analysis indicated that sufficient storage capacity exists to accommodate 95th percentile queues. The commenter did not identify a specific impact at this location. As noted, no significant impact was identified, and CEQA does not require mitigation of less-than-significant impacts.

Study Location #3, Main Street & I-405 southbound on-ramp, is a signalized intersection within the City of Carson. The analysis identified significant and unavoidable impacts at this location during both the existing plus project and future plus project scenarios. Although Mitigation Measure C-2.1 would fully mitigate this impact, the impact was determined to be significant and unavoidable as jurisdiction over the intersection is not controlled by the City and it is uncertain whether this measure could be implemented.

Study Location #11, Hamilton Avenue & I-110 southbound ramps, is an unsignalized intersection within Los Angeles County. Per Los Angeles County guidelines, a signal warrant analysis was conducted. The intersection met the signal warrant under all scenarios including existing, existing plus project, cumulative base, and cumulative plus project. An off-ramp queuing analysis was also conducted for the I-110 SB off-ramp at this location and the queuing analysis indicated that the sufficient storage capacity exists to accommodate 95th percentile queues. The commenter did not identify a specific impact at this location. As indicated in the Draft SEIR, should the County of Los Angeles prefer to install traffic signals at either of this location, the proposed modified Project would be responsible for a fair share contribution to the costs of signal installation.

Study Location #12, Figueroa Street & I-110 northbound ramp, is a signalized intersection. The analysis identified significant and unavoidable impacts at this location during both the existing plus project and cumulative plus project scenarios. An off-ramp queuing analysis was also conducted for the I-110 NB off-ramps at this location and the queuing analysis indicated that the sufficient storage capacity exists to accommodate 95th percentile queues. Although Mitigation Measure C-8 would fully mitigate this impact, the impact was determined to be significant and

unavoidable as jurisdiction over the intersection would conflict with existing City policies and, as it is not controlled by the City, it is uncertain whether this measure could be implemented.

The comment related to potential traffic conflict is noted and will be provided to the decision makers for consideration prior to approval of the proposed modified Project.

RESPONSE 2-7

The commenter expresses concern for a traffic conflict and speed differential concerns at the intersection of W. Carson Street and I-110 southbound off-ramps with the assignment of additional traffic trips from the proposed modified Project. The Draft SEIR addressed traffic in Section IV.C, Transportation and Traffic, with supporting data provided in Draft SEIR Appendix D. Minimal to no project trips are expected to use the Carson Street I-110 southbound off-ramp as the off-ramp is located over a mile past the Property and more direct freeway access is provided to both I-110 as well as I-405 within 0.5 mile. As such, the off-ramp was determined to be out of the scope of the freeway off-ramp analysis.

As indicated on pages IV.C-34 through IV.C-38, in Draft SEIR Section IV.C, Transportation and Traffic, under the headings *Existing Conditions with the Proposed Modified Project* and *Future Year (2023) Conditions with the Proposed Modified Project*, access to State facilities from the proposed modified Project was analyzed at the following eleven locations:

- Study Location #1 – Figueroa Street & I-405 SB On-Ramp
- Study Location #2 – Figueroa Street & I-405 NB Off-Ramp
- Study Location #3 – Main Street & I-405 SB On-Ramp
- Study Location #4 – Main Street & I-405 NB Off-Ramp
- Study Location #11 – Hamilton Avenue & I-110 SB Ramps
- Study Location #12 – Figueroa Street & I-110 NB Ramps
- Study Location #17 – Lenardo Drive (Street A) & I-405 SB Ramps
- Study Location #18 – Avalon Boulevard & I-405 SB Ramps
- Study Location #19 – Avalon Boulevard & I-405 NB Ramps
- Study Location #26 – I-405 SB Ramps & Carson Street
- Study Location #27 – I-405 NB Ramps & Carson Street

As indicated on page 64 of Draft SEIR Appendix D, Traffic Impact Analysis, and referred to on page IV.C-44, in Draft SEIR Section IV.C, Transportation and Traffic, under the heading *Caltrans Freeways and Freeway Ramps*, sufficient storage capacity for 95th percentile queues was provided under all scenarios at all study locations.

The comment expressing concern for traffic conflict and speed differential at the off-ramp is noted and will be provided to the decision makers for consideration prior to approval of the proposed modified Project.

RESPONSE 2-8

The comment states that all types of cumulative traffic impacts, including but not limited to, spillover of vehicles resulting in speed differentials and increased number of conflicts, should be evaluated and mitigated if necessary. In addition, the commenter requests the coordination of the City to identify feasible mitigation or provide more-effective Transportation Demand Management (TDM) for the cumulative traffic impact. As indicated on page IV.C-43 in Draft SEIR Section IV.C, Transportation and Traffic, under the heading *Caltrans Freeways and Freeway Ramps*, impact analysis along State facilities was conducted according to national standard using Highway Capacity Methodology. Impacts were identified at a total of six bi-directional mainline segments during the AM peak hour and 11 bi-directional mainline segments during the PM peak hour. No feasible physical mitigations were identified as within the scope of the proposed modified Project.

As indicated on pages IV.C-66 and IV.C-67, in Draft EIR Section IV.C, Transportation and Traffic, under the heading *Transportation Demand Management*, a Transportation Demand Management Program (TDM) was developed with TDM strategies to be required of Property employers/tenants with over 75 employees. Further, the proposed outlet center on Planning Area 2 expects some patrons/customers to arrive via charter buses as opposed to single-occupancy vehicles. This effect is accounted for with a lower trip generation rate for outlet centers compared to regional shopping center trip rate provided in the Institute of Transportation Engineers (ITE) Trip Generation (9th Edition) book. This effect will contribute to reducing single-occupancy vehicles travelling to/from the Property.

The City will continue to work with applicants to find ways to enhance TDM program. The City will also engage with Caltrans outside of this SEIR to further evaluate State facilities such as I-405 and I-110 within the City of Carson to enhance safety and operational efficiencies.

RESPONSE 2-9

The comment lists potential feasible mitigation measures and improvements that the commenter suggests should be considered for the proposed modified Project and states that these mitigation measures and improvements should include Intersection Control Evaluation when necessary. The Draft SEIR addressed traffic in Section IV.C, Transportation and Traffic, with supporting data provided in Draft SEIR Appendix D. The transportation analysis for the proposed modified Project considered many potential mitigations to address significant impacts including restriping and construction of additional lanes. Mitigations were determined to be feasible or infeasible depending on the possibility of a mitigation generating unacceptable secondary impacts, right-of-way availability, jurisdictional control, and consistency with existing plans and policies.

Mitigations involving additional lanes on the mainline freeway segment, and expansion to off-ramp vehicular capacity were determined to be outside the jurisdiction of the City.

Infrastructure and operational improvements that do not add vehicular capacity were determined to not mitigate significant traffic impacts related to the proposed modified Project. Improvements such as installing overhead sign structure, applying cold plan and friction surface treatments, removing and replacing pavement delineation, installing pavement markers, upgrading ADA curb ramps, maintaining traffic control systems, removing and replacing raised islands, and installing LED lighting systems and overhead signs may enhance safety and operational efficiencies. However, these improvements are not likely to reduce auto trips or increase capacity and therefore, are not considered to mitigate significant traffic impacts related to the proposed modified Project.

The City will also engage with Caltrans outside of this SEIR to further evaluate State facilities such as I-405 and I-110 within the City of Carson to enhance safety and operational efficiencies.

RESPONSE 2-10

The comment states that the commenter would like the City to condition the developer to make a fair share contribution toward future improvements on the State facility and would like the developer to sign a TMA with Caltrans prior to circulation of the Final SEIR.

Further, the comment states that the decision makers at the City should be aware of this issue and be prepared to mitigate significant cumulative traffic impacts. The Draft SEIR addressed traffic in Section IV.C, Transportation and Traffic, with supporting data provided in Draft SEIR Appendix D. Under CEQA, mitigation measures must be identified in the Draft EIR supported with substantial evidence. If Caltrans would like the City or developer to sign a Traffic Mitigation Agreement (TMA) in advance of the Final SEIR, Caltrans would need to substantiate the reasonableness of mitigation measures to reduce the identified significant impact with substantial evidence. Generally, for a mitigation fee to be considered mitigation for cumulative impacts, that fee would need to be legally enforceable and part of an adopted fee scheme to make sure funds are available to pay for improvements necessary to mitigate the specific significant impacts. To the City's knowledge, Caltrans has not prepared any such necessary fee study or adopted a fee program to make fees under a TMA legally enforceable. Without the evidence that a TMA is part of a reasonably and legally enforceable plan for mitigation of a project's impacts, the City could not include a TMA in the SEIR or condition the proposed modified Project with a TMA. (See *Anderson First Coalition v. City of Anderson* [2005] 130 Cal.App.4th 1173, 1189; *Tracy First v. City of Tracy, et al.*, [2009] 177 Cal.App.4th 912.)

The City suggests that Caltrans consider a Freeway System Nexus Study in order to develop a plan for improving freeway operations within the context of new development. Such a study could

identify the nexus between proposed development projects and regional freeway impacts, propose specific physical or operational improvements, and define a legally enforceable fee program to collect and implement fair share method of collecting mitigation fees, as required by CEQA (Id.). There is no evidence that such a plan or program exists today. If such a study were conducted and a legally sound fee program were developed, the City would coordinate with Caltrans, as appropriate.

RESPONSE 2-11

The comment states that projects should be designed to discharge clean run-off, where discharge of storm water run-off is not permitted onto State highway facilities without any storm water management plan. The City is mindful of potential stormwater impacts related to construction activities which could affect State facilities. Currently, a Stormwater Pollution Prevention Plan (SWPPP), which utilizes Best Management Practices (BMPs) as water quality control features, is being implemented on the Property and will continue to be maintained throughout the construction phases for the proposed modified Project. In addition, the Property is covered under a Standard Urban Stormwater Mitigation Plan (SUSMP) approval by the City of Carson and Los Angeles County for post-construction storm water management. The commenter is referred to Draft SEIR page VI-11, which discusses compliance with the SUSMP. As such, the appropriate measures are in place to ensure that the proposed modified Project would discharge storm water run-off in accordance with the required water quality requirements established in the SWPPP and SUSMP. Further, based on the design of the proposed modified Project, and stormwater runoff would not be discharged onto any adjacent State highway facilities.

RESPONSE 2-12

The comment states that a transportation permit from Caltrans will be required for oversize-transport vehicles on State highways used during construction of the proposed modified Project. If such a permit is legally required, the Project will comply with such requirements. The comment also recommends that large-size trucks trips be limited to off-peak commute period. This issue is addressed by the Construction Management Plan. Refer to Mitigation Measure C-1. While the comment does not raise a substantive issue on the content of the Draft SEIR, it will be provided to the decision makers for consideration prior to approval of the proposed modified Project.

RESPONSE 2-13

The comment provides a conclusion to the comment letter and reiterates Caltrans' desire to continue to work with the City to evaluate traffic impacts, identify potential improvements, and complete a Traffic Mitigation Agreement before the release of the Final SEIR. The City appreciates Caltrans involvement in the environmental review process and will continue to coordinate with Caltrans for the proposed modified Project.



SENT VIA E-MAIL AND USPS:

November 16, 2017

eedwards@carson.ca.us

Ethan Edwards, Planner

City of Carson – Community Development Department, Planning Division

701 East Carson Street,

Carson, CA 90745

Draft Supplemental Environmental Impact Report (Draft SEIR) (SCH No. 2005051059) for the Proposed District at South Bay Specific Plan

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final Supplemental EIR.

SCAQMD Staff’s Summary of Project Description and Air Quality Analysis

The Lead Agency proposes to develop 1.6 million square feet (s.f.) of commercial space, 1,250 residential units, and two hotels (Proposed Project). The Proposed Project is sited on a former landfill/brownfield site with VOC contaminated soil and groundwater. In the Air Quality Section, the Lead Agency quantified the Proposed Project’s construction and operational emissions and compared those emissions to SCAQMD’s regional and localized air quality CEQA significance thresholds to determine the significance of air quality impacts. Based on the analyses, the Lead Agency found that the Proposed Project’s construction and operational air quality impacts from NOx, ROG, CO, PM10, and PM2.5 emissions would be significant and unavoidable after mitigation¹.

3-1

General Comments

On March 3, 2017, the SCAQMD’s Governing Board adopted the 2016 Air Quality Management Plan (2016 AQMP)², which was later approved by the California Air Resources Board on March 23, 2017. Built upon the progress in implementing the 2007 and 2012 AQMPs, the 2016 AQMP provides a regional perspective on air quality and the challenges facing the South Coast Air Basin. The most significant air quality challenge in the Basin is to achieve an additional 45 percent reduction in nitrogen oxide (NOx) emissions in 2023 and an additional 55 percent NOx reduction beyond 2031 levels for ozone attainment.

3-2

The Proposed Project plays a role in contributing to Basin-wide NOx emissions. As described above, achieving NOx emission reductions in a timely manner is critical to attaining the National Ambient Air Quality Standard (NAAQS) for ozone before the 2023 and 2031 deadlines. SCAQMD is committed to attaining the ozone NAAQS as expeditiously as practicable. To further reduce NOx, ROG, and Particulate Matter emissions during construction and operation, the attachment includes additional mitigation measures which the Lead Agency should include in the Final SEIR. The attachment also includes comments on SCAQMD rules.

Pursuant to Public Resources Code Section 21092.5 and CEQA Guidelines Section 15088, SCAQMD staff requests that the Lead Agency provide SCAQMD with written responses to all comments contained herein prior to the certification of the Final SEIR. Further, when the Lead Agency makes the finding that

3-3

¹ Draft SEIR. Section IV.G – Air Quality.

² South Coast Air Quality Management District. March 3, 2017. *2016 Air Quality Management Plan*. Accessed at: <http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan>.

Ethan Edwards

Comment Letter 3

November 16, 2017

the recommended mitigation measures are not feasible, the Lead Agency shall describe the specific reasons for rejecting them in the Final SEIR (CEQA Guidelines Section 15091).

SCAQMD staff is available to work with the Lead Agency to address these issues and any other questions that may arise. Please contact Jack Cheng, Air Quality Specialist, CEQA IGR Section, at (909) 396-2448, if you have any questions regarding the enclosed comments.



3-3

Sincerely,

Lijin Sun

Lijin Sun, J.D.

Program Supervisor, CEQA IGR

Planning, Rule Development & Area Sources

Attachment

LS:JC

LAC171017-06

Control Number

ATTACHMENT

Additional Mitigation Measures to Further Reduce Construction and Operational Emissions

- 1. CEQA requires that all feasible mitigation measures go beyond what is required by law to minimize any significant impacts. To further reduce the significant construction and operational emissions, particular from NOx, VOCs, and Particulate Matters, SCAQMD staff recommends the following mitigation measures that the Lead Agency should include in the Final SEIR. Additional information on potential mitigation measures as guidance to the Lead Agency is available on the SCAQMD CEQA Air Quality Handbook website³.

3-4

Mitigation Measures for Construction Activities

- 2. All off-road diesel-powered construction equipment shall meet or exceed Tier 4 off-road emissions standards. A copy of the fleet’s tier compliance documentation, and CARB or SCAQMD operating permit shall be provided to the Lead Agency at the time of mobilization of each applicable unit of equipment. In the event that all construction equipment cannot meet the Tier 4 engine certification, the applicant must demonstrate through future study with written findings supported by substantial evidence that is approved by the Lead Agency before using other technologies/strategies. Alternative measures may include, but would not be limited to, reduction in the number and/or horsepower rating of construction equipment, limiting the number of daily construction haul truck trips to and from the Proposed Project, using cleaner vehicle fuel, and/or limiting the number of individual construction project phases occurring simultaneously.

3-5

- 3. Require the use of 2010 model year diesel haul trucks that conform to 2010 EPA truck standards or newer diesel haul trucks (e.g., material delivery trucks and soil import/export), and if the Lead Agency determines that 2010 model year or newer diesel haul trucks are not feasible, the Lead Agency shall use trucks that meet EPA 20017 model year NOx emissions requirements, at a minimum.

3-6

- 4. Require additional particulate matter mitigation measures such as those identified in Tables 2 and 3 from SCAQMD Rule 403- Fugitive Dust⁴.

3-7

Mitigation Measures for Operational Activities

- 5. The Lead Agency should incorporate the following mitigation measures to further reduce the Proposed Project’s significant operational air quality impacts.

- a) Limit parking supply and unbundle parking costs.
- b) Require that 240-Volt electrical outlets or Level 2 chargers be installed in residential garages on-site that would enable charging of NEVs and/or battery powered vehicles.

3-8

Compliance with SCAQMD Rule 1166

- 6. As described above, the Proposed Project is sited on a former landfill/brownfield site with VOC contaminated soil and groundwater. In the event that VOC contaminated soil is encountered, SCAQMD staff recommends that the Lead Agency include a discussion to demonstrate compliance with the requirements of SCAQMD Rule 1166 – Volatile Organic Compound Emissions from Decontamination of Soil in the Final SEIR.

3-9

³ South Coast Air Quality Management District. <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook>.

⁴ SCAQMD Rule 403 – Fugitive Dust. <http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf>.

LETTER 3 – SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD)

Lijin Sun
Program Supervisor, CEQA/IGR
Planning Rule Development and Area Sources
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

RESPONSE 3-1

This comment provides a summary of the proposed modified Project as analyzed in Draft SEIR Section IV.G, Air Quality. For clarification, the lead agency found that the proposed modified Project results in significant and unavoidable regional construction impacts for only ROC and CO, and localized construction impacts were found to be less than significant. For operations, localized impacts were found to be less than significant. No further response is required.

RESPONSE 3-2

This comment provides a summary of the SCAQMD's commitment to achieving NO_x emissions reductions in a timely manner to attain the National Ambient Air Quality Standard (NAAQS) for ozone before the 2023 and 2031 deadlines and references an attachment including additional mitigation measures. A discussion on SCAQMD's recommended additional mitigation is addressed on a measure by measure basis in Responses 3-4 through 3-9 below.

RESPONSE 3-3

This comment cites Public Resources Code Section 21092.5 and CEQA Guideline Section 15088 in requesting that written responses to all comments be provided to SCAQMD prior to certification of the Final SEIR. Additionally, citing CEQA Guidelines section 15091, the commenter requests that specific reasons for rejecting recommended mitigation measures based on infeasibility be described in the Final SEIR. All written responses to SCAQMD's comments will be provided prior to Final SEIR certification. A discussion on SCAQMD's recommended additional mitigation is addressed on a measure by measure basis in Responses 3-4 through 3-9 below. Pursuant to CEQA Guidelines Section 15091(f), the commenter is referred to the Statement of Overriding Considerations for an explanation of feasibility as required by CEQA Guidelines Section 15093.

RESPONSE 3-4

This comment states that mitigation measures that go beyond what is required by law to minimize significant impacts should be implemented. The proposed modified Project would be developed under regulations, standards, and guidelines established in the Specific Plan and would

comply with all regulatory requirements as set forth in the Draft SEIR (see pages IV.G-1 through IV.G-9). In order to further reduce construction and operation emissions, the Draft SEIR incorporates Mitigation Measures G-1 through G-29. Feasible measures that go beyond what is required by law include the use of electricity to power generators, use of alternatively fueled heavy-duty construction equipment, exceeding 2016 Title 24 Energy Efficiency standards by a minimum of 5 percent, fair-share funding of a low-emission shuttle service, prohibition of any residential hearths, and the incorporation of outdoor electrical outlets to power landscaping equipment.

RESPONSE 3-5

The commenter recommends meeting or exceeding Tier 4 off-road emissions standards for off-road diesel-powered construction equipment. In the event that Tier 4 equipment is not available, the commenter recommends requiring demonstration through future study with written findings supported by substantial evidence that is approved by the lead agency prior to using other technologies or strategies. Pages IV.G-34 and IV.G-35 list Project Design Features (PDFs) that are incorporated into the project design that would result in reductions in emissions. The use of off-road construction equipment meeting USEPA Tier 4 Final standards, either as original equipment or retrofitted equipment, has been incorporated into the Project's construction work plan where readily available in the Project vicinity. In the event that specific construction equipment meeting Tier 4 standards are not available, the Project would, at a minimum, use equipment meeting the Tier 3 standard. This PDF has been modified to require that the Contractor demonstrate the unavailability of Tier 4 equipment through documentation of the lack of availability of such equipment before using other technologies or strategies (see Chapter III, Corrections and Additions to the Draft SEIR, of this Final SEIR).

RESPONSE 3-6

The commenter recommends that on-road diesel haul and delivery trucks conform to 2010 EPA truck standards. The import or export of soil is not anticipated as part of proposed modified Project construction activities. However, should the export of soil be required, that soil would likely be impacted, and the handling and transport of impacted soil would require the use of licensed haulers. Other heavy duty truck trips during construction would consist of vendor trucks delivering building materials. The type, make, model, and model year of vendor trucks would not be under control of the Project contractors. According to the Diesel Technology Forum, approximately 23 percent of heavy-duty diesel trucks in California meet the EPA 2010 standards.¹ With less than one-quarter of the State's heavy-duty truck fleet currently meeting EPA 2010 standards, the number of local licensed haulers and vendors with compliant trucks

¹ *Diesel Technology Forum, Clean Diesel Powers California, <https://www.dieselforum.org/california>, accessed November 2017.*

would be limited, if available at all. To the extent reasonably feasible, the contractor will use subcontractors that use hauling and vendor trucks that meet the EPA 2010 standards.

RESPONSE 3-7

The commenter recommends requiring additional particulate matter measures such as those listed in SCAQMD Rule 403 Tables 2 and 3. The proposed modified Project consists of the development of approximately 157 acres, which is a large operation. It is recognized that the preparation and construction of the proposed modified Project would involve ground-disturbing activities such as grading and deep dynamic compaction (DDC) that could generate particulate matter emissions. In order to address particulate matter generation during construction activity, the Draft SEIR incorporates Mitigation Measures G-1 and G-11, which would reduce particulate matter emissions to less-than-significant levels. Consistent with the commenter's request, Mitigation Measure G-1 requires the implementation of a fugitive dust control program pursuant to SCAQMD Rule 403. In addition, Mitigation Measure G-11 requires that intensive dust-generating activity be controlled to the greatest extent feasible. The contractor, when developing a fugitive dust control program would consult Tables 2 and 3 of Rule 403 and identify feasible measures to control the emission of fugitive dust. Recommended dust control measures listed in Table 2 that would be considered for inclusion in the dust control program includes maintaining soil moisture at a minimum of 12 percent, conducting watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction, application of chemical stabilizers, and establishing vegetative ground cover after active operations have ceased. The dust control program will also consider additional contingency control measures listed in Table 3 of Rule 403 such as ceasing active earth-moving operations, installation of temporary coverings, and stopping vehicular traffic on unpaved roadways. Implementation of recommended dust control measures as listed in Tables 2 and 3 of Rule 403 in addition to any other dust control techniques proposed by the contractor would ensure that particulate matter emissions are minimized and remain less than significant.

RESPONSE 3-8

The commenter recommends additional operational mitigation related to limiting and unbundling parking costs and installation of electrical charging outlets in residential garages to enable charging of electric vehicles. The majority of the proposed modified Project consists of locally serving retail and commercial use. Parking spaces would be provided in accordance with Specific Plan guidelines in order to adequately serve patrons and employees of the Project uses. Limiting parking or implementing a fee for parking (unbundling parking) would not be consistent with the practices of similar types of retail and commercial uses in the vicinity, and as such, could be counterproductive to achieving the Project objectives, which generally provide for a fiscally sound project, which provides for the remediation of the site. To address operational emissions related to operational trips, Mitigation Measures G-19 through G-24 (as listed on Draft

SEIR page IV-G.52) requiring coordination with local bus and rail service providers, incorporation of bus stop locations within the Property, fair-share contribution for a low-emission shuttle service, and incorporation of bike racks and pedestrian access have been incorporated. The number of parking spaces to be provided on the Property would meet the requirements of the Specific Plan; however, Mitigation Measures G-19 through G-24 ensure that alternative forms of accessing the site, including transit and biking, are encouraged.

All elements of the proposed modified Project would adhere to CALGreen Code requirements. Pursuant to Section 4.106.4.1 of the Code, for one- and two-family dwellings and/or townhouses with attached private garages, a raceway to accommodate a dedicated 208/240-volt branch circuit for each dwelling unit shall be installed. Pursuant to Section 4.106.4.2 of the Code, sites with 17 or more multifamily units shall provide electric vehicle charging spaces totaling at least 3 percent of the total number of parking spaces provided. Because the residential development within Planning Area 1 is not yet known, the number of resident and guest parking spaces and electric vehicle charging spaces required is yet to be determined. Regardless of the unit type and number of required parking spaces, the residential component of the proposed modified Project would provide electric vehicle charging spaces pursuant to Code requirements. Additionally, bundled parking can be effective in high density, mixed-use, urbanized areas with access to multiple transit options. However, the unbundling of residential parking for the proposed modified Project would not be appropriate as the Property is not located in a transit rich area with access to a high density mix of uses.

RESPONSE 3-9

This comment states that discussion of SCAQMD Rule 1166 (Volatile Organic Compound Emissions) be included in the Final SEIR. As discussed in on pages IV.G-22 and IV.G-23, VOCs have been identified in the soils on the Property. Construction activity includes the potential handling of VOC-contaminated soils. SCAQMD Rule 1166 (Volatile Organic Compound Emissions from Decontamination of Soil) requires SCAQMD approval of a mitigation plan prior to the handling and/or transportation of VOC-contaminated soils to control the emissions of VOCs. Discussion of Rule 1166 has been incorporated into Section IV.G, Air Quality (see Chapter III, Corrections and Additions to the Draft SEIR, of this Final SEIR).



State of California • Natural Resources Agency
 Department of Conservation
Division of Oil, Gas, and Geothermal Resources – District 1
 5816 Corporate Avenue • Suite 100
 Cypress, CA 90630
 (714) 816-6847 • FAX (714) 816-6853

Edmund G. Brown Jr., Governor

November 16, 2017

VIA EMAIL

Mr. Ethan Edwards, Planner
 City of Carson
 Community Development Department
 Planning Division
 701 East Carson Street
 Carson, CA 90745
 Email: eedwards@carson.ca.us

Dear Mr. Edwards:

**DRAFT SEIR – DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT
 THE DISTRICT AT SOUTH BAY SPECIFIC PLAN
 SCH: 2005051059**

The Department of Conservation’s Division of Oil, Gas, and Geothermal Resources (Division) has reviewed the above referenced project for impacts with Division jurisdictional authority. The Division supervises the drilling, maintenance, and plugging and abandonment of oil, gas, and geothermal wells in California. The Division offers the following comments for your consideration.

The project area is in Los Angeles County and is not within an administrative field boundary. Division records indicate that there are two plugged and abandoned oil wells located within the project boundary as identified in the application. Division information can be found at: www.conservation.ca.gov. Individual well records are also available on the Division’s web site, or by making an appointment with our Records Clerk.

4-1

The scope and content of information that is germane to Division's responsibility are contained in Section 3000 et seq. of the Public Resources Code, and administrative regulations under Title 14, Division 2, Chapters 2, 3 and 4 of the California Code of Regulations.

If any wells, including any plugged, abandoned or unrecorded wells, are damaged or uncovered during excavation or grading, remedial plugging operations may be required. If such damage or discovery occurs, the Division’s district office must be contacted to obtain information on the requirements and approval to perform remedial operations.

4-2

The possibility for future problems from oil and gas wells that have been plugged and abandoned, or reabandoned, to the Division’s current specifications are remote. However, the Division recommends that a diligent effort be made to avoid building over any plugged and abandoned well.

To ensure proper review of this project, please contact our Construction Well Site Review Program for a well consultation. The Division has available an informational packet entitled, “Construction-Site Plan Review Program”. This document is available on the Division’s website at http://www.conservation.ca.gov/dog/for_operators/Pages/construction_site_review.aspx.

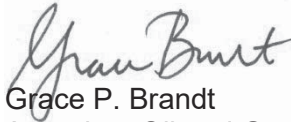
4-3

Mr. Ethan Edwards
November 16, 2017
Page 2

Questions regarding the Division's Construction Site Well Review Program can be addressed to the local Division's office in Cypress by emailing DOGDIST1@conservation.ca.gov or by calling (714) 816-6847.

↑
4-3

Sincerely,



Digitally signed by Grace Brandt
DN: cn=Grace Brandt, o=DOGGR, ou=Construction Site Well
Review, email=grace.brandt@conservation.ca.gov, c=US
Date: 2017.11.16 13:10:25 -08'00'

Grace P. Brandt
Associate Oil and Gas Engineer

cc: The State Clearinghouse in the Office of Planning and Research
Tim Shular, DOC OGER
Crina Chan, DOC OGER
Jan Perez, DOGGR CEQA Unit
Chris McCullough, Facilities and Environmental Supervisor
Environmental CEQA File

**LETTER 4 – DEPARTMENT OF OIL, GAS, AND GEOTHERMAL RESOURCES
(DOGGR)**

Grace P. Brandt
Associate Oil and Gas Engineer
Department of Conservation
Division of Oil, Gas, and Geothermal Resources
District 11
5816 Corporate Avenue, Suite 100
Cypress, CA 90630

RESPONSE 4-1

The comment states that DOGGR supervises the drilling, maintenance, and plugging and abandonment of oil, gas, and geothermal wells in California and identifies that DOGGR records indicate there are two plugged and abandoned oil wells within the Property boundary. In addition, the comment states that the scope and content of information that is germane to DOGGR's responsibility are contained in Sections 3000 et seq. of the Public Resources Code and administrative regulations under California Code of Regulations (CCR) Title 14, Division 2, Chapters 2 through 4. While the comment does not raise a substantive issue on the content of the Draft SEIR, the comment is noted and will be included in the public record for the proposed modified Project.

RESPONSE 4-2

The comment states that if any plugged, abandoned, or unrecorded wells are damaged or uncovered during excavation or grading, remedial plugging operations may be required, and if damage does occur, the DOGGR district office must be contacted. Further, while the potential to encounter an oil well is remote, the DOGGR recommends that a diligent effort be made to avoid building over any plugged and abandoned well. Although DOGGR records appear to show a couple of abandoned oil wells on site, attempts have been made by previous consultants and owners/operators of the Property to locate historic oil and gas wells, which were previously abandoned, but none has been found on site to date (see **Table IV-2, Summary of Prior Environmental Documents Associated with Oil/Water Well Activities**).²

² *Arcadis, Oil/Water Well Investigation Final Report, Carson Marketplace, LLC, Carson, California, July 9, 2008, Table 2-1, Summary of Prior Environmental Documents Associated with Oil/Water Well Activities; also see Draft SEIR p. VI-9.*

Table IV-2

Summary of Prior Environmental Documents Associated with Oil/Water Well Activities

Date	Document Title	Author
01.17.91	Remedial Investigation Report, Cal Compact Landfill	McLaren Hart
12.20.91	Draft Integrated Remedial Investigation Report, Cal Compact Landfill	McLaren Hart
07.23.92	Supplement to letter report of a geophysical survey of the Cal Compact Landfill	Subsurface Surveys
08.17.92	Revised Integrated Remedial Investigation Report, Cal Compact Landfill	McLaren Hart
07.95	Remedial Investigation for Cal Compact Landfill, Carson, California, Volume 1 of 8	Brown & Root Environmental
12.03.98	Workplan for Oil and Water Well Closure at LA Metromall, LLC	Allwest Geoscience
05.21.07	Oil/Water Well Investigation Work Plan	Arcadis

SOURCE: Arcadis, 2008.

If an unknown well is encountered during grading or remedial construction activities, the Applicant's construction contractor will notify DOGGR as required, and will implement Mitigation Measure D-6, as identified in the Draft SEIR. Mitigation Measure D-6 requires that the Applicant's construction contractor incorporate the contingency plan recommended under the July 9, 2008, Oil/Water Well Investigation report by Arcadis into construction specifications. The contingency plan shall be physically on site during any earthwork activities and implemented in the event that a previously unknown well is encountered at the Property.

RESPONSE 4-3

The comment request that the City contacts the Construction Well Site Review Program for a well consultation to ensure proper review of the proposed modified Project and provides additional resources related to safe construction activities for plugged, abandoned, or unrecorded wells. If wells are encountered, the proposed modified Project will implement Mitigation Measure D-6, as noted above, and consult DOGGR as appropriate. While the comment does not raise a substantive issue on the content of the Draft SEIR, the comment will be included in the public record for the proposed modified Project.

From: Kumari Gossai [mailto:kgossai@ph.lacounty.gov]
Sent: Thursday, November 09, 2017 12:08 PM
To: Saied Naaseh
Subject: The District at South Bay

Good Afternoon,

I very recently became aware of the Plan. Please let me know if waste will be removed from the site.

5-1

Sincerely,

Kumari Gossai

Env. Health Specialist III
Solid Waste Management Program
Local Enforcement Agency (LEA)
5050 Commerce Dr. 1st Floor
Baldwin Park, CA 91706
(626) 430-5540 Main Line
(626) 813-4839 Fax
kgossai@ph.lacounty.gov
www.publichealth.lacounty.gov/eh/

Our Mission: *To protect health, prevent disease, and promote health and well-being*

**LETTER 5 – COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC HEALTH
(11/9/17)**

Kumari Gossai
Environmental Health Specialist III
Solid Waste Management Program
Local Enforcement Agency (LEA)
Los Angeles County
Department of Public Health
5050 Commerce Drive, 1st Floor
Baldwin Park, CA 91706

RESPONSE 5-1

The comment asks if waste will be removed from the Property as part of the proposed modified Project. It is not anticipated that earthwork and landfill consolidation activities performed as part of the installation of the remedial systems required by the Remedial Action Plan will require the removal of material from the site. As stated in the Draft SEIR and FEIR, “removal of hazardous materials, if required, would be limited, would occur in accordance with all regulations and would be hauled over designated routes to avoid routing within 0.25 mile of an existing or proposed school.” If a waste is generated as part of the development of the proposed modified Project, it will be characterized and disposed of off site in compliance with all appropriate federal and state regulations.



BARBARA FERRER, Ph.D., M.P.H., M.Ed.
Director

JEFFREY D. GUNZENHAUSER, M.D., M.P.H.
Interim Health Officer

CYNTHIA A. HARDING, M.P.H.
Chief Deputy Director

ANGELO J. BELLOMO, REHS, QEP
Deputy Director for Health Protection

TERRI S. WILLIAMS, REHS
Director of Environmental Health

BRENDA J. LOPEZ, REHS
Assistant Director of Environmental Health

5050 Commerce Drive
Baldwin Park, California 91706
TEL (626) 430-5374 • FAX (626) 813-3000

BOARD OF SUPERVISORS

- Hilda L. Solis**
First District
- Mark Ridley-Thomas**
Second District
- Sheila Kuehl**
Third District
- Janice Hahn**
Fourth District
- Kathryn Barger**
Fifth District

November 17, 2017

Ethan Edwards, Planner
Planning Department
City of Carson
701 E Carson Street
Carson CA 90745

SUBJECT: Comments on the Supplemental Environmental Impact Report for the District at South Bay Project Specific Project. (State Clearing House #2005051059)

Dear Mr. Edwards:

The Los Angeles County Department of Public Health, Solid Waste Management Program, acting as the Local Enforcement Agency (LEA) for solid waste sites in Los Angeles County, is responsible for the enforcement, inspection and permitting of solid waste facilities and for closed, abandoned, and illegal sites.

The California Code of Regulation (CCR), Title 27, Chapter 3, Subchapter 5, Article 2, Section 21190 sets forth the requirements for postclosure land use for the protection of Public Health and Safety, and the Environment.

Comment #1

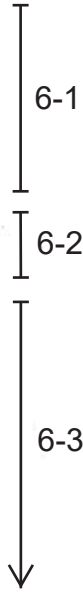
Please include CalRecycle and the LEA of any environmental documents, Notices of Determination, grading plans, work plans, etc., for the proposed Project.

Comment #2

The residential apartments (north of Del Amo Blvd) are within 1000 feet of landfills. Pursuant to Section 21190 (g), construction within 1000 feet of the boundary of any disposal area shall be designed and constructed in accordance with any equivalent design which will prevent gas migration into buildings.

The following sections starting from (g) apply: Per Section 21190. CIWMB - Postclosure Land Use. (T14: Section 17796)

(a) Proposed postclosure land uses shall be designed and maintained to:



Mr. Edwards
11/17/2017

(1) Protect public health and safety and prevent damage to structures, roads, utilities and gas monitoring and control systems;

(2) Prevent public contact with waste, landfill gas and leachate; and

(3) Prevent landfill gas explosion;

(b) The site design shall consider one or more proposed uses of the site toward which the operator will direct its efforts, or shall show development as open space, graded to harmonize with the setting and landscaped with native shrubbery or low maintenance ground cover.

(c) All proposed postclosure land uses, other than non-irrigated open space, on sites implementing closure or on closed sites shall be submitted to the EA, RWQCB, local air district and local land use agency. The EA shall review and approve proposed postclosure land uses if the project involves structures within 1,000 feet of the disposal area, structures on top of waste, modification of the low permeability layer, or irrigation over waste.

(d) Construction on the site shall maintain the integrity of the final cover, drainage and erosion control systems, and gas monitoring and control systems. The owner or operator shall demonstrate to the satisfaction of the EA that the activities will not pose a threat to public health and safety and the environment. Any proposed modification or replacement of the low permeability layer of the final cover shall begin upon approval by the EA, and the RWQCB.

(e) Construction of structural improvements on top of landfilled areas during the postclosure period shall meet the following conditions:

(1) Automatic methane gas sensors, designed to trigger an audible alarm when methane concentrations are detected, shall be installed in all buildings;

(2) Enclosed basement construction is prohibited;

(3) Buildings shall be constructed to mitigate the effects of gas accumulation, which may include an active gas collection or passive vent systems;

(4) Buildings and utilities shall be constructed to mitigate the effects of differential settlement. All utility connections shall be designed with flexible connections and utility collars;

(5) Utilities shall not be installed in or below any low permeability layer of final cover;

(6) Pilings shall not be installed in or through any bottom liner unless approved by the RWQCB;

(7) If pilings are installed in or through the low permeability layer of final cover, then the low permeability layer must be replaced or repaired; and

(8) Periodic methane gas monitoring shall be conducted inside all buildings and underground utilities in accordance with section 20933 of Article 6, of Subchapter 4 of this Chapter.

(f) The EA may require that an additional soil layer or building pad be placed on the final cover prior to construction to protect the integrity and function of the various layers of final cover.



Mr. Edwards
11/17/2017

(g) All on site construction within 1,000 feet of the boundary of any disposal area shall be designed and constructed in accordance with the following, or in accordance with an equivalent design which will prevent gas migration into the building, unless an exemption has been issued:

- (1) A geomembrane or equivalent system with low permeability to landfill gas shall be installed between the concrete floor slab of the building and subgrade;
- (2) A permeable layer of open graded material of clean aggregate with a minimum thickness of 12 inches shall be installed between the geomembrane and the subgrade or slab;
- (3) A geotextile filter shall be utilized to prevent the introduction of fines into the permeable layer;
- (4) Perforated venting pipes shall be installed within the permeable layer, and shall be designed to operate without clogging;
- (5) The venting pipe shall be constructed with the ability to be connected to an induced draft exhaust system;
- (6) Automatic methane gas sensors shall be installed within the permeable gas layer, and inside the building to trigger an audible alarm when methane gas concentrations are detected; and
- (7) Periodic methane gas monitoring shall be conducted inside all buildings and underground utilities in accordance with Article 6, of Subchapter 4 of this chapter (section 20920 et seq.).

6-3

Comment #3

The structures at Cal Compact Landfill (20400 Main Street) will be on top or within 1000 feet of waste. Therefore all of Section 21190 CIWMB - Postclosure Land Use. (T14: Section 17796) shall apply.

6-4

Comment #4

There are existing boundary probes at Cal Compact (which was a former landfill). Care and caution must be taken so as not to disturb the probes. The operator requires approval before installation, decommission or removal of any probes. The LEA must have access to the probes.

Section 20931. CIWMB - Structure Monitoring.

- (a) To ensure that the requirements of Section 20923(a)(1) are met, the monitoring network design shall include provisions for monitoring all structures within the disposal site permitted facility boundary, including but not limited to, buildings, subsurface vaults, utilities, or any other areas where potential landfill gas buildup may cause adverse impacts to the public health or safety or the environment.
- (b) Methods for monitoring on-site structures may include, but are not limited to: periodic monitoring, utilizing either permanently installed monitoring probes or gas surveys, and continuous monitoring systems.
- (c) Structures located on top of the waste disposal footprint shall be monitored on a continuous basis.
- (d) When practical, structures shall be monitored after they have been closed overnight or for the weekend to allow for an accurate assessment of gas accumulation. Areas of the structure where gas may accumulate shall be monitored and may include, but are not limited to, areas in, under, beneath and around basements; crawl spaces; floor seams or cracks; and subsurface utility connections.

6-5

Mr. Edwards
11/17/2017

Section 20919. CIWMB - Gas Control.

Where the EA, the local fire control authority, the local building authority, or the CIWMB has sufficient relevant information to believe a hazard or nuisance is being or may be created by landfill gas, it shall so notify the operator. The local fire control authority and the local building authority shall also notify the EA and the CIWMB. Thereafter, as directed by the EA, the local fire control authority, the local building authority, or the CIWMB, the site operator shall cause the site to be monitored for presence and movement of landfill gas, and shall take necessary action to control such gas. The monitoring program shall be developed pursuant to the specifications of the above agencies. The monitoring program shall not be discontinued until authorized to do so in writing by the requiring agency. Results of the monitoring shall be submitted to the appropriate agencies. If monitoring indicates landfill gas movement away from the site, the operator shall, within a period of time specified by the requiring agency, construct a gas control system approved by that agency. The agency may waive this requirement if satisfactory evidence is presented demonstrating that adjacent properties are safe from hazard or nuisance caused by landfill gas movement. The operator shall duly inform the EA of possible landfill gas problems.

6-5

Comment #5

The operator shall notify the LL of possible landfill gas problems.

Section 20937. CIWMB - Reporting and Control of Excessive Gas Concentrations.

(a) When the results of landfill gas monitoring indicate concentrations of methane or trace gases in excess of the compliance requirements specified in Section 20921(a), the operator shall:

- (1) Immediately take all steps necessary to protect public health and safety and the environment and notify the EA by telephone or electronic means.
- (2) Within seven (7) days of detection of excessive landfill gas concentrations.
 - (A) Verify validity of results by reviewing the following:
 - (i) probe readings;
 - (ii) possible liquid interference;
 - (iii) control well influence; and
 - (iv) barometric pressure effect.
 - (B) Place in the operating record a description of and submit a letter to the EA that describes:
 - (i) the levels of methane and trace gas detected;
 - (ii) a brief description of the nature and extent of the problem based on information currently available;
 - (iii) the steps the operator has taken to protect public health and safety and the environment; and
 - (iv) a brief description of any further corrective actions that the operator or others need to take to adequately protect public health and safety and the environment prior to the implementation of the remediation plan described in subdivision (a)(3) below.
- (3) Within 60 days of detection, implement a remediation plan approved by the EA and CIWMB for the methane gas releases, place a copy of the plan in the operating record, forward a copy of the plan to the EA

6-6

Mr. Edwards
11/17/2017

and CIWMB, and notify the EA that the plan has been implemented. The plan shall describe the nature and extent of the problem and the proposed remedy.

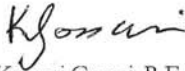
(4) Construct a gas control system that meets the criteria of Section 20939, designed by a registered civil or mechanical engineer, within a period of time specified by the EA. Installation of the system shall be in accordance with a design and in a manner approved for construction by the EA in coordination, if applicable, with the RWQCB.

(b) The EA, with concurrence by the CIWMB, may establish an alternative schedule for demonstrating compliance with subdivisions (a)(2) and (3) pursuant to 40 CFR 258.23(c)(4).

(c) The EA shall forward notifications and approvals made pursuant to §§(a)(1), (2) and (3) to the CIWMB.

The LEA thanks the Lead Agency for the opportunity to review and comment on the environmental document. If you have any questions regarding these comments, please contact me at 626-430-5540 or via email at kgossai@ph.lacounty.gov

Sincerely,



Kumari Gossai, R.E.H.S.
Environmental Health Specialist III
Solid Waste Management Program, LEA

- c: Ethan Edwards, City of Carson (Electronic copy)
- Naaseh Saied, City of Carson (Electronic copy)
- Dawn Plantz, CalRecycle (Electronic copy)
- Daniel Zogaib, Department of Toxic Control (Electronic copy)
- File

↑
6-6
6-7

**LETTER 6 – COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC HEALTH
(11/17/17)**

Kumari Gossai
Environmental Health Specialist III
Solid Waste Management Program
Local Enforcement Agency (LEA)
Los Angeles County
Department of Public Health
5050 Commerce Drive, 1st Floor
Baldwin Park, CA 91706

RESPONSE 6-1

The comment summarizes the commenter’s responsibility as the enforcement, inspection, and permitting agency for solid waste facilities and for closed, abandoned, and illegal sites in Los Angeles County. However, DTSC is the designated administering agency for the Cal Compact Landfill (CCLF) comprising the Property upon which the proposed modified Project is located. As to the 11 acres immediately north of Del Amo Boulevard, that property is not part of the proposed modified Project. While the comment does not raise a substantive issue on the content of the Draft SEIR, the comment is noted and will be included in the public record for the proposed modified Project.

RESPONSE 6-2

The comment requests that all environmental documents, including the Notice of Determination, grading plans, and work plans, be submitted to CalRecycle and the LEA for the proposed modified Project. LEA is included in the project distribution list for the proposed modified Project and to ensure all notices, environmental documents, and future plans will be submitted to the LEA as the proposed modified Project progresses, the City will use the LEA address and commenter for future notices. Additionally, the City has published all environmental documents and notices for the proposed modified Project on the City’s website at <http://ci.carson.ca.us/CommunityDevelopment/marketplace.aspx>.

RESPONSE 6-3

The comment states that since the residential apartments north of Del Amo Boulevard are within 1,000 feet of the former landfill, the residential apartments should be designed and constructed in accordance with CCR Section 21190 to prevent gas migration into the buildings. Refer to Response 6-1. The 11 acres immediately north of Del Amo Boulevard upon which the referenced apartments would be constructed is not part of the proposed modified Project analyzed in the SEIR. Refer to Response 6-1.

RESPONSE 6-4

The comment states the structures at CCLF (the Property) will be on top or within 1,000 feet of waste; therefore, compliance with CCR Section 21190 is required. Closure and post-closure care of the CCLF site is under the jurisdiction of the Department of Toxic Substances Control (DTSC), which is the designated administering agency in accordance with Resolution 05-05 of the Site Designation Committee under the authority of Assembly Bill 2061. The Applicant(s) will comply with all relevant CIWMB requirements for post closure land use, protection of structures, methane monitoring, landfill gas control, and reporting, as are being administered by DTSC.

RESPONSE 6-5

The comment states there are existing boundary probes along the former landfill site and should not be disturbed during construction of the proposed modified Project. Further, approval from the LEA is required prior to the installation, decommission, or removal of any existing probes. The comment also provides the requirement of CCR Section 20931, which establishes the requirements of structure monitoring. Response 6-4 is incorporated by reference to respond this comment.

RESPONSE 6-6

The comment states the operator shall notify the LEA of possible landfill gas problems and provides the requirements of CCR Section 20937, which establishes the requirements of reporting and control of excessive gas concentrations and following specified testing and notification procedures. Response 6-4 is incorporated by reference to respond this comment.

RESPONSE 6-7

The commenter thanks the City for the opportunity to review and comment on the Draft SEIR and provides contact information. The City appreciates the commenter's input and participation in the environmental review process for the proposed modified Project.



October 4, 2017

City of Carson Planning Commission Manager
701 E. Carson Street
Carson CA 90745
Re: Outlet Mall Construction

Dear City of Carson Planning Commission Manager:

The last project in Carson caused damage to homes surrounding the construction site. We need to eliminate a repeat of the same issues, problems, damage, and angst of the Carson community, especially Imperial Avalon Mobile Estates where I live. For example, there was airborne debris, damaging vibrations caused by the driving of piles into the ground, significant noise caused by driving the support piles.

7-1

Please require the Developer to submit a documented plan to address problems.

- What will be the process for residents to report issues and damages?
- What is the damage assessment process and timeframe?
- What is the process to receive reparations/restitution and potential timeframes that can be based on various scenarios?
- Will the above items be published before construction begins? If not, then when?
- What damages will be covered?
- In what form will damages be compensated, e.g. cash?
- What single entity and person will be responsible to interface for all activities from reporting a problem to tracking the problem to closure?

7-2

In addition, please have Developer operate noisy and pile driving Monday through Friday and not on the weekends. Given the fact that we have creative and intelligent engineers and scientist, surely there are solutions to dramatically reduce negative impact.

7-3

Thank you for your attention to this serious matter.

Karen Bolin
Karen Bolin

21207 Avalon Blvd., Spc. 157
Carson, CA 90745

LETTER 7 – KAREN BOLIN

Karen Bolin
 21207 Avalon Boulevard, Space 157
 Carson, CA 90745

RESPONSE 7-1

The comment provides background information about previous damage caused to homes surrounding the Property and states that construction of the proposed modified Project should not repeat those same issues, which included airborne debris, damaging vibration levels during pile driving, and significant noise levels caused by pile driving. The City understands the commenter’s concerns and has extensively addressed air quality, noise, and vibration in the Draft SEIR and has recommended for adoption various project design features and feasible mitigation measures to address these potential impacts (refer to the Air Quality PDFs, page IV.G-34; Air Quality mitigation measures, pages IV.G-50 to IV.G-53; and Noise mitigation measures, pages IV.H-27 to IV.H-30). In particular, the City requires a 24-hour hotline for the community to address Project concerns (see Mitigation Measure H-4 on pages IV.H-30-31). In addition, the project applicant will continue to engage the community as to the status of Project construction and community concerns.

A summary of worst-case construction noise and vibration impacts to residential uses located across the Torrance Lateral Channel is provided in **Table IV-3, Summary of Worst-Case Impacts to Residential across the Torrance Lateral Channel**.

Table IV-3
Summary of Worst-Case Impacts to Residential across the Torrance Lateral Channel

	<u>Construction Noise</u>		<u>Construction Vibration</u>
	<u>Exceed Allowable Noise Level</u>	<u>Significant Increase in Ambient Noise</u>	<u>Potential Structural Damage</u>
Proposed Modified Project	No	Yes	No
Approved (2006) Project	Yes	Yes	No
New Impact?	No	No	No

Construction Noise

The Draft SEIR analyzed construction noise impacts utilizing two different thresholds.

Daytime construction activities exceeding 65 dBA at single-family residences and 70 dBA at multifamily residences would result in significant impacts. With mitigation incorporated, construction noise would not exceed 65 dBA at single-family residences across the Torrance Lateral Channel (R3 and R4) or 70 dBA at future multifamily uses north of Del Amo Boulevard (R1). Impacts would be less than significant with mitigation incorporated.

Temporary increases in ambient noise of 5 dBA during construction would result in significant impacts. Worst-case increases in ambient noise during various construction activities would occur at single-family residences south of the Property (R3), exceeding the 5 dBA threshold even with mitigation incorporated. Therefore, these temporary impacts would be significant and unavoidable. Increases in ambient noise associated various construction activities would also exceed 5 dBA with mitigation incorporated at the single-family residential uses to the south and west of the Property (R4) and would, therefore, be significant and unavoidable.

Construction Vibration

A vibration level of 0.2 in/s PPV or more for residential structures located across the Torrance Lateral Channel and a vibration level of 2.0 in/s PPV or more for new future residential structures located north of Del Amo Boulevard would potentially result in structural damage. In particular, Mitigation Measures H-2 and H-3 requiring a new pilot program, continuous vibration monitoring, and adjustment of DDC and pile-driving activity when needed would ensure that structural damage thresholds would not be reached. Therefore, impacts related to vibration from DDC and pile driving would be less than significant with incorporation of mitigation.

RESPONSE 7-2

The comment requests that the developer submits a documented plan to address potential problems during construction of the proposed modified Project and outlines specific questions regarding how to report damage and claim compensation for any damage caused as a result of construction activities. The comments addressed herein are addressed by Response 7-1. To the extent the comment relates to damages, these are outside the scope of the SEIR, consistent with the mandates of CEQA. However, these comments are noted and will be provided to the decision makers for consideration prior to approval of the proposed modified Project.

RESPONSE 7-3

The comment requests that pile driving and other noisy construction work be conducted Monday through Friday and not during the weekends. The City of Carson Municipal Code allows construction to occur Monday through Friday from 7:00 a.m. to 7:00 p.m. and on Saturday and Sunday from 7:00 a.m. to 5:00 p.m. Additionally, there is an approved variance addressing permissible construction noise levels for the proposed modified Project. As noted in Mitigation Measure H-1, no construction work would be conducted on Sundays as part of the proposed modified Project. Furthermore, the City requires a 24-hour hotline for the community to address Project concerns (see Mitigation Measure H-4 on page IV.H-30). Finally, the project applicant will continue to engage the community as to the status of Project construction and community concerns.



Dear City Officials,

The last project caused damage to homes surrounding the constructions site. We need to eliminate a repeat of the issues, problems, damage, and angst of the Carson community.

8-1

- Airborne debris
- Damaging vibrations caused by the “deep dynamic impaction”.
- Vibrations caused by driving the support piles.
- Significant noise caused by driving the support piles.

8-2

- Please require the Developer submit a documented plan to address problems.
 - What is the process for residence report issues and damages?
 - What is the damage assessment process and timeframe?
 - What is the process to receive reparations / restitution and potential timeframes that can be based on various scenarios?
 - Will the above items be published before construction begins? If not then when?
 - What damages will be covered?
 - What damages will not be covered?
 - In what form will damages be compensated (e.g. cash)?
 - What single entity and person is responsible to interface for all activities from reporting to problem to tracking the problem to closure?

8-3

- Operate noisy and impactful construction Monday – Friday and not on the weekend.
- Given the fact that we have extremely creative and intelligent engineers and scientist, surely there is a solution to dramatically reduce negative impacts.

Thank you very much for being advocates to the citizens!

Signed,

Harriet M. Albin
H M Albin

<Your Name and Address>

MR. AND MRS. M. T. ALBIN
21207 S. AVALON BLVD. SP 4
CARSON, CA 90745

LETTER 8 – HARRIET AND TIM ALBIN

Harriet and Tim Albin
21207 Avalon Boulevard, Space 4
Carson, CA 90745

RESPONSES 8-1 THROUGH 8-3

Comments 8-1 through 8-3 provided in the comment letter above are identical to Comments 7-1 through 7-3 from Comment Letter 7 – Karen Bolin. Responses 7-1 through 7-3 are incorporated by reference to respond to Comments 8-1 through 8-3.

Dear City Officials,

The last project caused damage to homes surrounding the constructions site. We need to eliminate a repeat of the issues, problems, damage, and angst of the Carson community.

9-1

- Airborne debris
- Damaging vibrations caused by the "deep dynamic impaction".
- Vibrations caused by driving the support piles.
- Significant noise caused by driving the support piles.

9-2

- Please require the Developer submit a documented plan to address problems.
 - What is the process for residence report issues and damages?
 - What is the damage assessment process and timeframe?
 - What is the process to receive reparations / restitution and potential timeframes that can be based on various scenarios?
 - Will the above items be published before construction begins? If not then when?
 - What damages will be covered?
 - What damages will not be covered?
 - In what form will damages be compensated (e.g. cash)?
 - What single entity and person is responsible to interface for all activities from reporting to problem to tracking the problem to closure?

9-3

- Operate noisy and impactful construction Monday – Friday and not on the weekend.
- Given the fact that we have extremely creative and intelligent engineers and scientist, surely there is a solution to dramatically reduce negative impacts.

Thank you very much for being advocates to the citizens!

Signed,

Anna Jean Challenger
Jack Baker

<Your Name and Address>

Space 80

LETTER 9 – ANNA JEAN CHALLENGER AND JACK BAKER

Anna Jean Challenger and Jack Baker
21207 Avalon Boulevard, Space 80
Carson, CA 90745

RESPONSES 9-1 THROUGH 9-3

Comments 9-1 through 9-3 provided in the comment letter above are identical to Comments 7-1 through 7-3 from Comment Letter 7 – Karen Bolin. Responses 7-1 through 7-3 are incorporated by reference to respond to Comments 9-1 through 9-3.

Sept. 9. 2017

Dear City Officials,

The last project caused damage to homes surrounding the constructions site. We need to eliminate a repeat of the issues, problems, damage, and angst of the Carson community.

- Airborne debris
 - Damaging vibrations caused by the "deep dynamic impactation".
 - Vibrations caused by driving the support piles.
 - Significant noise caused by driving the support piles.
- 10-1
- Please require the Developer submit a documented plan to address problems.
 - What is the process for residence report issues and damages?
 - What is the damage assessment process and timeframe?
 - What is the process to receive reparations / restitution and potential timeframes that can be based on various scenarios?
 - Will the above items be published before construction begins? If not then when?
 - What damages will be covered?
 - What damages will not be covered?
 - In what form will damages be compensated (e.g. cash)?
 - What single entity and person is responsible to interface for all activities from reporting to problem to tracking the problem to closure?
- 10-2
- Operate noisy and impactful construction Monday – Friday and not on the weekend.
 - Given the fact that we have extremely creative and intelligent engineers and scientist, surely there is a solution to dramatically reduce negative impacts.
- 10-3

Thank you very much for being advocates to the citizens!

Signed,

T. Bautista

<Your Name and Address>

TERESITA B. BAUTISTA
21207 Avalon Blvd.
SPC. 188
Carson, CA 90745

LETTER 10 – TERESITA B. BAUTISTA

Teresita B. Bautista
21207 Avalon Boulevard, Space 188
Carson, CA 90745

RESPONSES 10-1 THROUGH 10-3


Comments 10-1 through 10-3 provided in the comment letter above are identical to Comments 7-1 through 7-3 from Comment Letter 7 – Karen Bolin. Responses 7-1 through 7-3 are incorporated by reference to respond to Comments 10-1 through 10-3.

Dear City Officials,

The last project caused damage to homes surrounding the constructions site. We need to eliminate a repeat of the issues, problems, damage, and angst of the Carson community.

- Airborne debris
 - Damaging vibrations caused by the "deep dynamic impactation".
 - Vibrations caused by driving the support piles.
 - Significant noise caused by driving the support piles.
- 11-1
- Please require the Developer submit a documented plan to address problems.
 - What is the process for residence report issues and damages?
 - What is the damage assessment process and timeframe?
 - What is the process to receive reparations / restitution and potential timeframes that can be based on various scenarios?
 - Will the above items be published before construction begins? If not then when?
 - What damages will be covered?
 - What damages will not be covered?
 - In what form will damages be compensated (e.g. cash)?
 - What single entity and person is responsible to interface for all activities from reporting to problem to tracking the problem to closure?
- 11-2
- Operate noisy and impactful construction Monday – Friday and not on the weekend.
 - Given the fact that we have extremely creative and intelligent engineers and scientist, surely there is a solution to dramatically reduce negative impacts.
- 11-3

Thank you very much for being advocates to the citizens!


Signed,
21207 AVALON Blvd. Sp #48
CARSON, CA 90745
<Your Name and Address>

LETTER 11 – LIZA BRUNER

Liza Bruner
21207 Avalon Boulevard, Space 48
Carson, CA 90745

RESPONSES 11-1 THROUGH 11-3

Comments 11-1 through 11-3 provided in the comment letter above are identical to Comments 7-1 through 7-3 from Comment Letter 7 – Karen Bolin. Responses 7-1 through 7-3 are incorporated by reference to respond to Comments 11-1 through 11-3.

Oct 12-17

Dear City Officials,

The last project caused damage to homes surrounding the constructions site. We need to eliminate a repeat of the issues, problems, damage, and angst of the Carson community.

- Airborne debris
 - Damaging vibrations caused by the "deep dynamic impactation".
 - Vibrations caused by driving the support piles.
 - Significant noise caused by driving the support piles.
- 12-1
- Please require the Developer submit a documented plan to address problems.
 - What is the process for residence report issues and damages?
 - What is the damage assessment process and timeframe?
 - What is the process to receive reparations / restitution and potential timeframes that can be based on various scenarios?
 - Will the above items be published before construction begins? If not then when?
 - What damages will be covered?
 - What damages will not be covered?
 - In what form will damages be compensated (e.g. cash)?
 - What single entity and person is responsible to interface for all activities from reporting to problem to tracking the problem to closure?
- 12-2
- Operate noisy and impactful construction Monday – Friday and not on the weekend.
 - Given the fact that we have extremely creative and intelligent engineers and scientist, surely there is a solution to dramatically reduce negative impacts.
- 12-3

Thank you very much for being advocates to the citizens!

Signed,

Rosa Sloughly

<Your Name and Address>

21207 Avalon Blvd. Spc. 189
Carson CA 90745

LETTER 12 – RON DOUGHTY

Ron Doughty
21207 Avalon Boulevard, Space 189
Carson, CA 90745

RESPONSES 12-1 THROUGH 12-3

Comments 12-1 through 12-3 provided in the comment letter above are identical to Comments 7-1 through 7-3 from Comment Letter 7 – Karen Bolin. Responses 7-1 through 7-3 are incorporated by reference to respond to Comments 12-1 through 12-3.

Dear City Officials,

The last project caused damage to homes surrounding the constructions site. We need to eliminate a repeat of the issues, problems, damage, and angst of the Carson community.

- Airborne debris
 - Damaging vibrations caused by the “deep dynamic impaction”.
 - Vibrations caused by driving the support piles.
 - Significant noise caused by driving the support piles.
-
- Please require the Developer submit a documented plan to address problems.
 - What is the process for residence report issues and damages?
 - What is the damage assessment process and timeframe?
 - What is the process to receive reparations / restitution and potential timeframes that can be based on various scenarios?
 - Will the above items be published before construction begins? If not then when?
 - What damages will be covered?
 - What damages will not be covered?
 - In what form will damages be compensated (e.g. cash)?
 - What single entity and person is responsible to interface for all activities from reporting to problem to tracking the problem to closure?
 - Operate noisy and impactful construction Monday – Friday and not on the weekend.
 - Given the fact that we have extremely creative and intelligent engineers and scientist, surely there is a solution to dramatically reduce negative impacts.

13-1

13-2

13-3

Thank you very much for being advocates to the citizens!

Signed,



<Your Name and Address>

VICTORIA M. LOPEZ
21207 AVALON BWD. SPACE #121
CARSON, CA 90745

LETTER 13 – VICTORIA M. LOPEZ

Victoria M. Lopez
21207 Avalon Boulevard, Space 121
Carson, CA 90745

RESPONSES 13-1 THROUGH 13-3

Comments 13-1 through 13-3 provided in the comment letter above are identical to Comments 7-1 through 7-3 from Comment Letter 7 – Karen Bolin. Responses 7-1 through 7-3 are incorporated by reference to respond to Comments 13-1 through 13-3.

Dear City Officials,

The last project caused damage to homes surrounding the constructions site. We need to eliminate a repeat of the issues, problems, damage, and angst of the Carson community.

14-1

- Airborne debris
- Damaging vibrations caused by the "deep dynamic impaction".
- Vibrations caused by driving the support piles.
- Significant noise caused by driving the support piles.

14-2

- Please require the Developer submit a documented plan to address problems.
 - What is the process for residence report issues and damages?
 - What is the damage assessment process and timeframe?
 - What is the process to receive reparations / restitution and potential timeframes that can be based on various scenarios?
 - Will the above items be published before construction begins? If not then when?
 - What damages will be covered?
 - What damages will not be covered?
 - In what form will damages be compensated (e.g. cash)?
 - What single entity and person is responsible to interface for all activities from reporting to problem to tracking the problem to closure?

- Operate noisy and impactful construction Monday – Friday and not on the weekend.
- Given the fact that we have extremely creative and intelligent engineers and scientist, surely there is a solution to dramatically reduce negative impacts.

14-3

Thank you very much for being advocates to the citizens!

Signed,



<Your Name and Address>

IMELDA + RAUL SAMIA
21207 AVARON BLVD. CARSON 90745
3rd floor 51

LETTER 14 – IMELDA AND RAUL SAMIA

Imelda and Raul Samia
21207 Avalon Boulevard, Space 51
Carson, CA 90745

RESPONSES 14-1 THROUGH 14-3

Comments 14-1 through 14-3 provided in the comment letter above are identical to Comments 7-1 through 7-3 from Comment Letter 7 – Karen Bolin. Responses 7-1 through 7-3 are incorporated by reference to respond to Comments 14-1 through 14-3.

Dear City Officials,

The last project caused damage to homes surrounding the constructions site. We need to eliminate a repeat of the issues, problems, damage, and angst of the Carson community.

- Airborne debris
 - Damaging vibrations caused by the "deep dynamic impaction".
 - Vibrations caused by driving the support piles.
 - Significant noise caused by driving the support piles.
-
- Please require the Developer submit a documented plan to address problems.
 - What is the process for residence report issues and damages?
 - What is the damage assessment process and timeframe?
 - What is the process to receive reparations / restitution and potential timeframes that can be based on various scenarios?
 - Will the above items be published before construction begins? If not then when?
 - What damages will be covered?
 - What damages will not be covered?
 - In what form will damages be compensated (e.g. cash)?
 - What single entity and person is responsible to interface for all activities from reporting to problem to tracking the problem to closure?
 - Operate noisy and impactful construction Monday – Friday and not on the weekend.
 - Given the fact that we have extremely creative and intelligent engineers and scientist, surely there is a solution to dramatically reduce negative impacts.

15-1

15-2

15-3

Thank you very much for being advocates to the citizens!

Signed,



<Your Name and Address>

SHOGO & YUKO KARIYA SATO
 21207 S. AVALON BLVD. #36
 CARSON, CA 90745

LETTER 15 – SHOGO AND YUKO KARIYA SATO

Shogo and Yuko Kariya Sato
21207 Avalon Boulevard, Space 36
Carson, CA 90745

RESPONSES 15-1 THROUGH 15-3

Comments 15-1 through 15-3 provided in the comment letter above are identical to Comments 7-1 through 7-3 from Comment Letter 7 – Karen Bolin. Responses 7-1 through 7-3 are incorporated by reference to respond to Comments 15-1 through 15-3.

Dear City Officials,

The last project caused damage to homes surrounding the constructions site. We need to eliminate a repeat of the issues, problems, damage, and angst of the Carson community.

- Airborne debris
 - Damaging vibrations caused by the “deep dynamic impaction”.
 - Vibrations caused by driving the support piles.
 - Significant noise caused by driving the support piles.
-
- Please require the Developer submit a documented plan to address problems.
 - What is the process for residence report issues and damages?
 - What is the damage assessment process and timeframe?
 - What is the process to receive reparations / restitution and potential timeframes that can be based on various scenarios?
 - Will the above items be published before construction begins? If not then when?
 - What damages will be covered?
 - What damages will not be covered?
 - In what form will damages be compensated (e.g. cash)?
 - What single entity and person is responsible to interface for all activities from reporting to problem to tracking the problem to closure?
 - Operate noisy and impactful construction Monday – Friday and not on the weekend.
 - Given the fact that we have extremely creative and intelligent engineers and scientist, surely there is a solution to dramatically reduce negative impacts.

16-1

16-2

16-3

Thank you very much for being advocates to the citizens!

Signed,



Glenn Vicencio
<Your Name and Address>

LETTER 16 – GLENN VICENCIO

Glenn Vicencio

RESPONSES 16-1 THROUGH 16-3

Comments 16-1 through 16-3 provided in the comment letter above are identical to Comments 7-1 through 7-3 from Comment Letter 7 – Karen Bolin. Responses 7-1 through 7-3 are incorporated by reference to respond to Comments 16-1 through 16-3.

Dear City Officials,

Imperial Avalon Mobile Estates

The last project caused damage to homes surrounding the constructions site. We need to eliminate a repeat of the issues, problems, damage, and angst of the Carson community.

- Airborne debris
 - Damaging vibrations caused by the "deep dynamic impaction".
 - Vibrations caused by driving the support piles.
 - Significant noise caused by driving the support piles.
-
- Please require the Developer submit a documented plan to address problems.
 - What is the process for residence report issues and damages?
 - What is the damage assessment process and timeframe?
 - What is the process to receive reparations / restitution and potential timeframes that can be based on various scenarios?
 - Will the above items be published before construction begins? If not then when?
 - What damages will be covered?
 - What damages will not be covered?
 - In what form will damages be compensated (e.g. cash)?
 - What single entity and person is responsible to interface for all activities from reporting to problem to tracking the problem to closure?
 - Operate noisy and impactful construction Monday – Friday and not on the weekend.
 - Given the fact that we have extremely creative and intelligent engineers and scientist, surely there is a solution to dramatically reduce negative impacts.

17-1

17-2

17-3

Thank you very much for being advocates to the citizens!

Signed,

Velma J. Vigil

<Your Name and Address>

*Velma J. Vigil
21207 S. Avalon Blvd
space 130
Carson, Calif. 90745*

*Wed
11/8/2017*

LETTER 17 – VELMA J. VIGIL

Velma J. Vigil
21207 Avalon Boulevard, Space 130
Carson, CA 90745

RESPONSES 17-1 THROUGH 17-3

Comments 17-1 through 17-3 provided in the comment letter above are identical to Comments 7-1 through 7-3 from Comment Letter 7 – Karen Bolin. Responses 7-1 through 7-3 are incorporated by reference to respond to Comments 17-1 through 17-3.

[THIS PAGE INTENTIONALLY LEFT BLANK]

Appendix M

Supplemental Lighting Study





304 South Broadway, Suite 500
Los Angeles, CA 90013

+1 213 617 0477
fkaid.com

DISTRICT AT SOUTH BAY LIGHTING STUDY

REVISED SIGN PLAN

January 16, 2018

Table of Contents

8.	The Project Analysis.....	3
8.1	Project Sign Light Trespass Illuminance Analysis.....	4
8.2	Project Sign Glare Analysis.....	8
8.3	Sign Luminance Mitigation Measures	8
8.4	Project Sign Glare Analysis for Roadways.....	9
9.	Conclusions	9
APPENDIX A:	Project Specific Plan Amendment, Sections 6.6 Signage and 6.7 Lighting.....	11
APPENDIX B:	Sign Concept Plan PA2.....	29
APPENDIX I:	Sign Lighting Illuminance Calculation (fc).....	42

List of Tables

Table 4:	Sign Illuminance (fc) – Calculated at vertical planes where lighting is under review	5
Table 4R-A Revised:	Sign Illuminance (fc) Scheme A – Calculated at vertical planes where lighting is under review	5
Table 4R-A1 Revised:	Sign Illuminance (fc) Scheme A1 – Calculated at vertical planes where lighting is under review	6
Table 4R-B Revised:	Sign Illuminance (fc) Scheme A – Calculated at vertical planes where lighting is under review	7
Table 4R-B1 Revised:	Sign Illuminance (fc) Scheme B1 – Calculated at vertical planes where lighting is under review	8

This memo summarizes revisions to the District at South Bay Lighting Study (Study) by Francis Krahe & Associate Inc. dated September 29, 2017 resulting from the analysis of revised illuminated sign locations and dimensions within the District at South Bay (Project). The revised Project Signs are as summarized in the attached Appendix A: Project Specific Plan Amendment, Sections 6.6, and Appendix B: Sign Concept Plan PA2.

The revised Project Signs are analyzed with respect to the Significance Thresholds identified in Study Section 5 by way of the procedures identified in Study Section 6 Methodology.

Modifications to Study Sections 8.0 Project Analysis and Section 8.1 Project Sign Light Trespass Illuminance Analysis are presented below. The analysis and conclusions for Study Section 8.2 Project Sign Glare Analysis through Study Section 8.6, were considered with respect to the revised Project Sign proposal. Although no new impacts are identified for the areas under the review with respect to the revised Project Sign proposal, more detail with regard to the analysis for each of these evaluations is set forth in Sections 8.2, 8.3 and 8.4 below. Study Sections 8.5 and 8.6 pertain to Building Lighting and are not affected by or changes as a result of the revised Signs.

Revised Appendix I, Sign Lighting Illuminance Calculations (fc) is attached herein.

8. The Project Analysis

The Project includes sign lighting improvements as described in Study Appendix A and B. Study Appendix A and Appendix B are revised as per the attached Appendix A and B, which includes the following revisions:

The Project Sign Lighting includes two alternatives, Scheme A and Scheme B:

Scheme A:

The maximum quantity of freeway pylon signs adjacent to US405 South is four.

The maximum height of the freeway pylon signs is increased to 88 ft above grade from 70 ft above grade in Study.

The locations of the freeway pylon signs are as follows: adjacent to US405 South all pylon signs are no less than 1000 feet apart; the north freeway pylon sign is no less than 215 feet south of the Del Amo Boulevard overcrossing; the south freeway pylon sign is no less than 50 feet north of the Avalon Boulevard exit ramp from US405 South.

Locations of Entry Monument signs are revised as per Figure 6.6a.

Locations of Project Name ID signs are revised as per Figure 6.6a.

Project Entry Monuments and Project ID signs are evaluated at a distance no less than 50 feet from the Project Site Property line and with maximum sign luminance of 100 cd/m².

Scheme B:

The maximum quantity of freeway pylon signs adjacent to US405 South is three.

The maximum height of the freeway pylon signs is increased to 88 ft above grade from 70 ft above grade in Study.

The center freeway pylon sign includes 2 LED/DD/EMB signs which were located at the south pylon adjacent to Avalon Boulevard exit ramp from US405 South in Study.

The locations of the freeway pylon signs are as follows: adjacent to US405 South all pylon signs are no less than 1000 feet apart; the north freeway pylon sign is no less than 215 feet south of the Del Amo Boulevard overcrossing; the south freeway pylon sign is no less than 50 feet north of the Avalon Boulevard exit ramp from US405 South.

Locations of Entry Monument signs are revised as per Figure 6.6b.

Locations of Project Name ID signs are revised as per Figure 6.6b.

Sign area dimensions, and or setback dimensions from the Project property line, or precise orientation to the Project Property line are not defined by the SPA for Project Entry Monuments and Project ID signs. This Study evaluates compliance with the light trespass illuminance threshold of 0.74 fc at the Project property line for Project Entry Monuments and Project ID signs by testing an example sign with sign dimensions of 38 ft high by 6 ft wide located a distance approximately 50 feet from the Project Site Property line. To comply with the light trespass criteria of 0.74 fc, the luminance of this test sign must be 100 cd/m² or less. Increased set back dimensions and or reduced sign area will allow higher luminance. Likewise, reduced set back dimensions and or increased sign area will reduce allowable luminance in order to remain within significance threshold criteria and avoid a significant impact.

Future proposed Project may cause Light Trespass or Glare with respect to the following variables:

- The light source (LED or other technology) projects light toward an adjacent property, and is close enough (immediately adjacent to or less than 500 feet away) to create substantial illuminance at a residential property line.
- The light source surface area is large enough to create substantial illuminance at an adjacent residential property line.
- The light source surface is bright enough to create Glare, or high contrast conditions, when the light fixture surface luminance is compared to the surrounding surface luminance.

The following criteria are used to evaluate the Light Trespass and Glare impacts of the Project:

- Light Trespass illuminance must be less than the LZ3 value of 0.74 fc at adjacent residential zoned property lines.
- Light fixture luminance visible from residential properties must be less than 300 candelas/m² to reduce Glare to below high contrast conditions.

8.1 Project Sign Light Trespass Illuminance Analysis

The Project Sign Light Trespass analysis evaluates the illuminance (fc) at the property line with respect to light leaving the Property toward adjacent properties from the Project Signs at the four vertical plane locations identified in Study Figure 3 (VP-1 through VP-4). The Project Signs include building mounted and freestanding signs as defined in the SPA (Appendix A herein) and as illustrated in the Project Concept Sign Plan in Appendix B herein.

The attached Appendix A and B identify revised Project Sign dimensions, luminance (cd/m²), and locations, in comparison to the Project Sign data utilized in the Study. The most significant revisions to the Sign data are summarized above on page 3. The Sign Light Trespass Illuminance Analysis includes revised calculations prepared with the revised sign data from Appendix A and B.

Table 4 from the Study is presented for reference. Table 4 summarizes the Calculated Sign Illuminance at Vertical Planes VP1, VP2, VP3, and VP4 from the Study. The Study concluded there was no significant impact at the Vertical Planes for the Project Signs analyzed at 1000 cd/m².

Table 4: Sign Illuminance (fc) – Calculated at vertical planes where lighting is under review

Vertical Plane	Description	Illuminance			Analysis
		Vertical fc			
		Max	Min	Average	
VP1	North of the Property at the centerline of Del Amo Boulevard	0.70	0.00	0.25	Below Threshold
VP2	Northeast Project Property Line I-405 Freeway	99.00	0.00	2.49	Above Threshold
VP3	East Project Property Line Avalon Blvd Ramp	6.10	0.20	0.90	Above Threshold
VP4	South Project Property Line	0.40	0.00	0.13	Below Threshold

8.1a Light Trespass Illuminance Analysis – Scheme A

The revised analysis of Sign Light Trespass Illuminance for Scheme A, calculated at maximum luminance of 500 cd/m² for all Project Signs for the areas listed in Appendix A and B is presented below in Table 4R-A. Table 4R-A identifies the calculated Project Sign light trespass illuminance for the revised Project Signs locations and dimensions and with maximum luminance of 500 cd/m², which is the maximum permitted luminance per the SPA. Per Table 4R-A the calculated maximum light trespass illuminance is greater than 0.74 fc at VP1 (1.03 fc) and VP2 (28.80 fc) and less than 0.74 fc at VP3 (0.30 fc), and VP4 (0.30 fc).

Table 4R-A: Sign Illuminance (fc) Scheme A – Calculated at vertical planes where lighting is under review

Vertical Plane	Description	Illuminance			Analysis
		Vertical fc			
		Max	Min	Average	
VP1	North Project Property Line Del Amo Boulevard	1.03	0.00	0.2	Above Threshold
VP2	Northeast Project Property Line 405 Freeway	28.80	0.00	1.2	Above Threshold
VP3	East Project Property Line Avalon Blvd Ramp	0.30	0.60	0.0	Below Threshold
VP4	South Project Property Line	0.30	0.00	0.1	Below Threshold

Vertical Plane VP1 at the North Project Property line is adjacent to potential residential use, and the Project Sign illuminance at VP1 is above the threshold of 0.74 fc at 1.03 fc. Therefore, to comply with the requirements of the SPA mitigation measures, the maximum Sign luminance must be reduced to less than 300 cd/m² for the adjacent freeway icon pylon Sign along US405 South Freeway. Table 4R-A1 below summarizes the revised calculations with the Sign illuminance for the freeway icon pylon sign reduced to a maximum Sign luminance of 300 cd/m². Sign areas listed in Appendix A and B remain consistent as per the analysis in Table 4A above.

The reduced Sign luminance (300 cd/m² at freeway icon pylon sign) results in light trespass illuminance less than 0.74 fc at VP1. This maximum illuminance is below the threshold, therefore there is no significant light trespass at VP1.

The illuminance at Vertical Plane VP2 is also reduced to 15.1 fc from 28.8 fc, but remains above the threshold. However, VP2 is adjacent to the US405 South Freeway, which is not a residential use. Therefore, there is no significant light trespass at VP2.

Vertical Plane VP3 is below the threshold. VP3 is adjacent to the Avalon Boulevard off ramp, which is not a residential use property. Therefore, there is no significant light trespass at VP3.

Vertical Plane VP4 at the South Project Property line is adjacent to residential use, and is below the threshold at 0.30 fc. Therefore, there is no significant light trespass at VP4.

Entry Monument Signs and Project ID Signs are included in the calculations of light trespass illuminance above.

Table 4R-A1: Sign Illuminance (fc) Scheme A, at 300 cd/m²– Calculated at vertical planes where lighting is under review

Vertical Plane	Description	Illuminance			Analysis
		Vertical fc			
		Max	Min	Average	
VP1	North Project Property Line Del Amo Boulevard	0.73	0.00	0.2	Below Threshold
VP2	Northeast Project Property Line 405 Freeway	15.1	0.00	0.8	Above Threshold
VP3	East Project Property Line Avalon Blvd Ramp	0.30	0.60	0.0	Below Threshold
VP4	South Project Property Line	0.30	0.00	0.1	Below Threshold

8.1b Light Trespass Illuminance Analysis – Scheme B

The revised analysis of Sign Light Trespass Illuminance for Scheme B is presented below in Table 4R-B below. Table 4R-B identifies the calculated Project Sign light trespass illuminance for the revised Project Signs locations and dimensions and with maximum luminance of 500 cd/m², which is the maximum permitted luminance per the SPA. Per Table 4R-B the calculated maximum light trespass illuminance is greater than 0.74 fc at VP1 (0.90 fc), at VP2 (26.2 fc), and VP3 (0.80 fc), and less than 0.74 fc at VP4 (0.30 fc).

Vertical Plane VP1 at the North Project Property line is adjacent to residential use, and is above the threshold at 0.90 fc. Therefore, to comply with the requirements of the SPA, the maximum luminance must be reduced to less than 300 cd/m² for the adjacent freeway icon pylon LED digital display Sign along US405 South Freeway. Table 4R-B1 below summarizes the revised calculations with the Sign illuminance for the freeway icon pylon sign reduced to a maximum Sign luminance of 300 cd/m². Sign areas listed in Appendix A and B remain consistent as per the analysis above.

Table 4R-B: Sign Illuminance (fc) Scheme B, Calculated at vertical planes where lighting is under review

Vertical Plane	Description	Illuminance			Analysis
		Vertical fc			
		Max	Min	Average	
VP1	North Project Property Line Del Amo Boulevard	0.90	0.00	0.20	Above Threshold
VP2	Northeast Project Property Line 405 Freeway	26.2	0.00	1.10	Above Threshold
VP3	East Project Property Line Avalon Blvd Ramp	0.80	0.20	0.40	Above Threshold
VP4	South Project Property Line	0.30	0.00	0.10	Below Threshold

The reduced Sign Luminance (300 cd/m² at freeway icon pylon LED digital display Sign) results in maximum illuminance at VP1 of 0.70 fc. This maximum illuminance is below the threshold of 0.74 fc, therefore there is no significant light trespass at VP1.

The maximum illuminance at Vertical Plane VP2 is reduced from 26.2 fc to 18.8 fc. The maximum illuminance at VP2 is above the threshold of 0.74 fc. However, VP2 is adjacent to the US405 South Freeway, which is not a residential use. Therefore, there is no significant light trespass at VP2.

The maximum illuminance at Vertical Plane VP3 is 0.80 fc, which is above the threshold of 0.74 fc. However, VP3 is adjacent to the US405 South Freeway Avalon Boulevard Exit Ramp, which is not a residential use property. Therefore, there is no significant light trespass at VP3.

The maximum illuminance at Vertical Plane VP4 is 0.30 fc, and is below the threshold of 0.74 fc. Therefore, there is no significant light trespass at VP4.

Entry Monument Signs and Project ID Signs are included in the calculations of light trespass illuminance above.

Table 4R-B1: Sign Illuminance (fc) Scheme B (300 cd/m²) – Calculated at vertical planes where lighting is under review

Vertical Plane	Description	Illuminance			Analysis
		Vertical fc			
		Max	Min	Average	
VP1	North Project Property Line Del Amo Boulevard	0.70	0.00	0.20	Above Threshold
VP2	Northeast Project Property Line 405 Freeway	18.8	0.00	0.90	Above Threshold
VP3	East Project Property Line Avalon Blvd Ramp	0.80	0.20	0.40	Above Threshold
VP4	South Project Property Line	0.30	0.00	0.10	Below Threshold

Complete calculated data for Schemes A, A-1, B, and B-1 is presented in Appendix I herein.

The Project illuminated signs are designed and located to not exceed 0.74 fc at the nearest residential property line. In comparison to the Sign locations analyzed in the Study, the revised Project Signs produce lower light trespass illuminance at or near the north Project site property line and lower light trespass illuminance near the south Project property line. Therefore, the Project illuminated signs will not create a new source of light trespass illuminance.

8.2 Project Sign Glare Analysis

Glare from Sign lighting occurs when the light source is visible against a dark background, such as a dark sky. The maximum source brightness is determined by the rated source luminance. The Study analyzed Sign Glare with a maximum night time luminance at 1000 cd/m². The maximum luminance permitted by the SPA is 500 cd/m² as per attached revised Appendix A. Therefore, the Study remains a conservative analysis. The alternative Project Sign locations and mounting height will not affect the analysis of Project Sign Glare presented in the Study.

8.3 Sign Luminance Mitigation Measures

The Mitigation measures identified in the Study are not revised by this analysis and remain as stated in the Study.

Mitigation measures which will reduce any high contrast, glare condition from the Project Signs to a medium contrast, non-glare condition may include the following:

- **Mitigation Measure B-2:** The distribution, placement, and orientation of signs along the I-405 Freeway shall be in substantial compliance with the signage concepts and in compliance with the sign standards in the SPA.
- **Mitigation Measure B-3:** If any portion of the illuminated surface of the sign is visible from a residential use within 1,000 feet of said sign at night, then the proposed modified Project Sign luminance shall be reduced to less than 300 cd/m² at night.
- **Mitigation Measure B-5:** If any portion of the illuminated surface of the sign is visible from a residential use within 1,000 feet of said sign, sign area and/or sign luminance shall be limited so that the light trespass illuminance is less than 0.74 fc at residential property line.

8.4 Project Sign Glare Analysis for Roadways

The lighting impact to driver's visibility from the Project Signs evaluated within the Study is not affected by the revised sign locations. Sign luminance is evaluated in the Study at both 1000 cd/m² and 500 cd/m². Therefore, the Study conclusions regarding Project Sign Glare for roadways is not changed.

9. Conclusions

The SPA provides adequate illumination for the Project while minimizing light trespass and glare to neighboring residential properties through the following steps:

- Sign Lighting luminance is limited to 500 cd/m² and includes Mitigation Measures to limit visible Sign Lighting at sensitive residential properties.
- Employs state of the art, shielded, and focused lighting technology compliant with CALGreen.
- Directs light down to the Property with maximum 40 ft. tall light poles
- Moves the light poles away from adjacent residential properties.
- Light trespass illuminance is less than 0.74 fc
- Mitigation measures which will reduce any high contrast, glare condition from the Project Signs to a medium contrast, non-glare condition may include the following:
 - **Mitigation Measure B-2:** The distribution, placement, and orientation of signs along the I-405 Freeway shall be in substantial compliance with the signage concepts and in compliance with the sign standards in the SPA.
 - **Mitigation Measure B-3:** If any portion of the illuminated surface of the sign is visible from a residential use within 1,000 feet of said sign at night, then the proposed modified Project sign luminance shall be reduced to less than 300 cd/m² at night.
 - **Mitigation Measure B-5:** If any portion of the illuminated surface of the sign is visible from a residential use within 1000 ft. of said sign, sign area and/or sign luminance shall be limited so that the light trespass illuminance is less than 0.74 fc at residential property line.

The analysis summarized within the Study and as revised by this memo confirms the Light Trespass and Glare from the Project Sign Lighting and Building Lighting will not create a new source of light trespass and glare at adjacent residential properties.

While the details of the Sign Lighting within Planning Area 1 and 3 are not known today, this analysis accurately evaluates the potential for Project Sign Lighting to create a new source of light trespass and or glare at adjacent residential properties. The sign types, dimensions, and maximum luminance are defined by the SPA. The Project Sign locations within Planning Area 2 are identified in detail within the Sign Concept Plan (included herein as Appendix B), and are evaluated with all signs operating simultaneously at maximum luminance of 1,000 cd/m², all white.

The Project Signs will not operate in this manner in practice, and the SPA limits maximum night time luminance to 500 cd/m². As such, this analysis represents a conservative evaluation of the proposed Project's Signs potential for off-site light trespass, and glare. Therefore, the results of this analysis may be applied to the future conditions within PA 1 and PA 3.

The conclusions of the analysis indicate Project Signs must include mitigation measures to reduce visibility from the adjacent sensitive uses or reduce luminance to below a 30:1 contrast ratio. All Signs which exceed the luminance limits defined by the SPA require separate analysis.

Although the Project Building lighting elements within Planning Area 1 and 3 are not known today, all projects within California must comply with the requirements of the provisions of the 2016 California Energy Code - California Code of Regulations, Title 24, Part 6 and Part 11 (CEC), listed above. Therefore, the analysis presented

for Planning Areas 2 is consistent with the analysis of any future lighting proposed for Planning Area 1 and 3, and the conclusions stated within this Study apply for all Building and Site Lighting within the Project.

APPENDIX A: Project Specific Plan Amendment, Sections 6.6 Signage and 6.7 Lighting

6. DEVELOPMENT STANDARDS

6.6 Signage

Because of their high visibility, signs are prominent elements of the physical environment of Specific Plan area. Signs announce the presence of The District at South Bay, welcome visitors and residents, and help users navigate the Project Site. The sign development standards set forth below are intended to maximize the identification of The District at South Bay as a distinct location in a manner that complements the overall image of the City of Carson.

All signs proposed for the Project Site will be governed by a comprehensive sign program for each proposed development or Planning Area that will provide internal consistency in design style and direction for placement and size of signs, including a standardized way-finding program. The comprehensive sign program shall also include provisions that ensure that lighting from signs shall not significantly intrude upon or impact adjacent residential uses. The comprehensive sign program may be submitted and approved as part of any Site Plan and Design Review application pursuant to Section 8.1.6 or if submitted under separate cover, shall be reviewed and approved pursuant to the applicable procedures and findings for Site Plan and Design Review set forth in Section 8.1.6 of this Specific Plan. The City may adopt a Master Sign Program for the Project Site, which if adopted subsequent to the adoption of a comprehensive sign program for any development or Planning Area, shall be consistent with any previously approved comprehensive sign program for such development or Planning Area. Comprehensive sign programs adopted following adoption of a Master Sign Program shall be consistent with the Master Sign Program.

General sign standards are provided in Table 6.6, while a conceptual map of sign locations is shown in Figure 6.6a. Final sign designs, including designs for any digital signage, may vary and will be provided as part of a comprehensive sign program that shall be reviewed and approved by the Community Development Director.

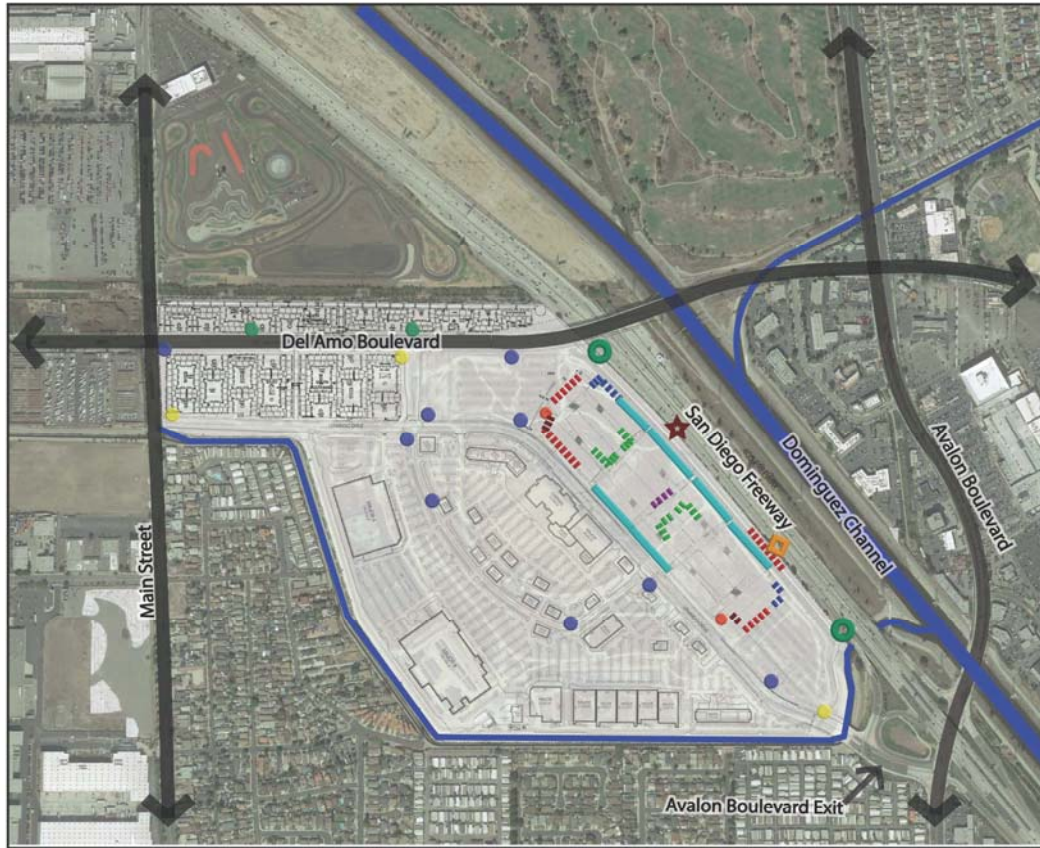
SIGN TYPE ²	MAXIMUM NUMBER ³	MAXIMUM SIGN DIMENSIONS		NOTES	MAX. NIGHTTIME LUMINANCE ⁴	
		Height	Width		Digital	Static
Freeway Icon Pylon: ^{5,6} Double Faced LED, Digital Display and Changeable Message (Options A and B)	1 - PA 2 Developer	88 feet	65 feet	The supporting pylon width will be 10 to 25 feet. The 20 foot high and 60 foot long LED digital display board with Changeable Message Display and Color Changing Illumination will be attached to sign panels or a sign frame that will be a maximum of 25 feet high and 62 feet wide. The top of the reader board will be located no higher than 88 feet above measured I-405 Freeway elevation. Height is measured from the elevation of I-405 Freeway immediately adjacent to the sign location. Off-site advertising may be permitted on this sign, subject to City Council approval and the obtaining of appropriate permits.	500 cd/m ²	-

**Table 6.6
Sign Standards¹**

SIGN TYPE ²	MAXIMUM NUMBER ³	MAXIMUM SIGN DIMENSIONS		NOTES	MAX. NIGHTTIME LUMINANCE ⁴	
		Height	Width		Digital	Static
Freeway Icon Pylon: ^{5,6} Double Faced LED, Digital Display and Changeable Message (Options A and B)	1 – City of Carson	88 feet	48 feet	The base width will be 10 feet to 25 feet. If the base is greater than 15 feet, the sign will taper up to 15 feet at top. The sign face will be 14 feet by 48 feet LED digital or static billboard display attached to the pylon. Height is measured from the elevation of the I-405 Freeway immediately adjacent to the sign location. When owned by the City, this sign would allow off-site advertising if appropriate permits are obtained.	500 cd/m ²	500 cd/m ²
Option A Freeway Icon Pylon ^{5,6} Static	2 – PA 1 and/or PA 3 Developer	88 feet	25 feet	The base width will be 10-25 feet. If the base is greater than 15 feet, the sign will taper up to 15 feet at top. Up to 6 double-sided tenant signs. Tenant signs may be 6 feet by 20 feet each. PA 3 Center ID may be placed on pylon. Height is measured from the elevation of I-405 Freeway immediately adjacent to the sign location.	-	500 cd/m ²
Option B Freeway Icon Pylon ^{5,6} Static or LED, Digital Display and Changeable Message Allowed	1 - PA 1 and/or PA 3 Developer (to be determined by City)	88 feet	48 feet	The base width will be 10 feet to 25 feet. If the base is greater than 15 feet, the sign will taper up to 15 feet at top. The sign face will be 14 feet by 48 feet LED digital or static billboard display attached to the pylon. Height is measured from the elevation of the I-405 Freeway immediately adjacent to the sign location.	500 cd/m ²	500 cd/m ²
Project Name ID	4- PA 2 Developer	15 feet	45 feet	The design, size, and location of the sign shall be determined by the developer in the comprehensive sign program at a later date.	-	500 cd/m ²
Project Name ID	5 – PA 1 and PA 3 Developer	15 feet	45 feet	The design, size, and location of the sign shall be determined by the developer in the comprehensive sign program at a later date.	-	500 cd/m ²
Entry Monument	Up to 3 permitted - 1 at Street A and Main St, 1 at Del Amo Blvd and Street B, and 1 at Street A and Avalon Blvd	38 feet	15 feet	The entry monuments are to provide identity signage for the Project as a whole and for the developments on each Planning Area. The design, size, and location of the signs shall be determined by the City in the Master Sign Program at a later date.	-	500 cd/m ²
North Del Amo Entry Element	2 - DD3 Developer	8 feet	12 feet	If the signage serves residential development, the sign dimensions shall be no greater than 6 feet high by 8 feet wide. Height is measured from the finished pad.	-	500 cd/m ²

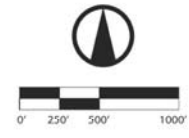
Table 6.6
Sign Standards¹

SIGN TYPE ²	MAXIMUM NUMBER ³	MAXIMUM SIGN DIMENSIONS		NOTES	MAX. NIGHTTIME LUMINANCE ⁴	
		Height	Width		Digital	Static
Parking Garage Signage and Commercial – Elevated Podium Wall Signage	Multiple – PA 2 Developer	30 feet	300 feet	The multiple letter and graphic signs for tenant names, and static billboard display shall be allowed on parking garage and commercial elevated - podium wall area facing Freeway, Street A, and site parking fields with 60 percent maximum wall coverage.	-	500 cd/m ²
Wall Mounted Project ID Exterior ⁷	2 – PA 2 Developer 2 – PA 2 Developer	12 feet 8 feet	330 feet 230 feet	Individual illuminated sign letters located on building wall.	-	500 cd/m ²
Plaza Project ID Exterior (Entry SW and NW corners)	2 – PA 2 Developer	10 feet	12 or 24 feet	Individual illuminated sign letters. 2 to 4 letters each location at grade level exterior plaza.	-	500 cd/m ²
Wall Billboard Exterior	4 – PA 2 Developer	20 feet	60 feet	Static billboards with external front illumination. Billboards allowed to extend above top of building wall. Billboards allowed to convert to digital LED display board in the future.	500 cd/m ²	500 cd/m ²
Wall Billboard Exterior	2 – PA 2 Developer	14 feet	48 feet	Static billboards with external front illumination. Billboards allowed to extend above top of building wall.	-	500 cd/m ²
Roof Billboard Interior	8 – PA 2 Developer	10 feet	34 feet	Static billboards with external front illumination. Billboards located on roof above top of building wall.	-	500 cd/m ²
Wall Billboard Interior	1 – PA 2 Developer	14 feet	48 feet	Static billboard with external front illumination. Billboard allowed to convert to digital LED display board in the future.	500 cd/m ²	500 cd/m ²
Integrated Identity Architectural Wall Graphic ⁸	6 – PA 2 Developer	(2) 27 feet (1) 24 feet (1) 24 feet (1) 24 feet (1) 24 feet	330 feet 265 feet 235 feet 220 feet 105 feet	Painted Project ID Name integrated into architectural wall vertical fin design	-	-
The number, area, type and location of wall mounted business ID signs for all Planning Areas shall be determined through the approval of a comprehensive sign program, and, if applicable, a Master Sign Program.						
<ol style="list-style-type: none"> Except where noted for Freeway Icon Pylons for PA 2 and the City of Carson, no off-site advertising shall be permitted. All free-standing signs may be double-sided. All digital LED signs may have color changing illumination. For signs that are shared by PA 1 and PA 3, the Community Development Director shall determine the number of signs assigned to each Planning Area. The Community Development Director shall also have the authority to select Option A or Option B for the Freeway Icon Pylon Signs. If any portion of the illuminated surface of the sign is visible from a residential use within 1,000 feet of said sign at night, then the sign luminance shall be reduced to less than 300 cd/m² at night. Signage adjacent to the freeway will comply with applicable Caltrans standards and requirements. Prior to approval of any Development Plan or comprehensive sign program, the applicant requesting approval of a Development Plan or comprehensive sign program shall conduct a view analysis to determine the exact location of the freestanding freeway oriented signs to ensure maximum visibility and maximum usability of all freestanding signs. Every effort shall be made to preserve the visibility of the freeway oriented wall mounted signs for PA2. Wall mounted project ID exterior signs may project above top of building wall. Integrated Identity Graphics/Murals are not considered signage; they are considered as architectural features, which are excluded from permitted signage area. 						



LEGEND

- Integrated Identity Architectural Wall Graphic (informational only, not included in permitted sign area)
- - - - - Wall Mounted Project ID - Exterior
- - - - - Wall Billboard - Exterior
- - - - - Roof Billboard - Interior
- - - - - Wall Billboard - Interior
- - - - - Wall Billboard - Exterior (May Convert to LED)
- Freeway Icon Pylon
- ★ Freeway Icon Pylon, Double Faced LED, Digital Display and Changeable Message
- Freeway Icon Pylon, Double Faced LED, Digital Display and Changeable Message
- North Del Amo Entry Element
- Project Name ID
- Entry Monument
- Plaza Project ID - Exterior



Note: This is a graphic representation of a planning concept. All graphics in this document are conceptual and should not be interpreted literally. Other solutions, locations and/or concepts may be proposed and reviewed during site plan and design review and other permit and mapping processes

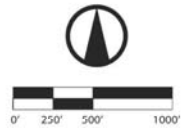
Source: RE|Solutions LLC, 2017

Figure 6.6a Conceptual Sign Locations: Option A



LEGEND

- ▬ Integrated Identity Architectural Wall Graphic (informational only, not included in permitted sign area)
- ▬ Wall Mounted Project ID - Exterior
- ▬ Wall Billboard - Exterior
- ▬ Roof Billboard - Interior
- ▬ Wall Billboard - Interior
- ▬ Wall Billboard - Exterior (May Convert to LED)
- Freeway Icon Pylon, LED, Digital Display and Changeable Message allowed with appropriate permits from City
- ★ Freeway Icon Pylon, Double Faced LED, Digital Display and Changeable Message
- North Del Amo Entry Element
- Project Name ID
- Entry Monument
- Plaza Project ID - Exterior



Note: This is a graphic representation of a planning concept. All graphics in this document are conceptual and should not be interpreted literally. Other solutions, locations and/or concepts may be proposed and reviewed during site plan and design review and other permit and mapping processes

Source: RE|Solutions LLC, 2017

Figure 6.6b Conceptual Sign Locations: Option B

6.7 Lighting

The District at South Bay lighting standards establish a design framework to guide all future lighting improvements and meet specific lighting standards for each particular application and type of use anticipated within the proposed development options. These standards define the scale, brightness, direction, and shielding for all lighting installations within the Project Site and are intended to restrict light intensity, minimize off-site impacts, proscribe light control methods, and limit light pole heights. Design of lighting is focused on providing comfortable spaces for people to walk and ensuring the safety of residents, visitors, shoppers and employees. A Lighting Guideline Palette, consisting of various lighting styles, is included in Appendix B.

The lighting standards and the resulting lighting improvements establish the basis for evaluation of the proposed lighting impact of this development on the surrounding community. The information presented within the lighting standards establish criteria based upon standard practices established by the Illuminating Engineering Society of North America (IESNA) for measurement and design of light sources, illuminated surfaces, and lighting systems.

Generally, all light sources will be shielded to prevent direct view of high brightness light sources from adjacent properties. The lighting standards provide for specific control of the direction of light so as to limit glare and any off-site view of glare. This control limits the light distribution angle so that light is primarily directed down to the ground or up to a vertical surface. Special Event Lighting, Entertainment Lighting, and Construction Lighting are exempt from these angular criteria if the light is focused to restrict any direct illumination of adjacent residential properties.

To provide for safe illumination for vehicles and pedestrians within Project Site, pole-mounted lights will be required for roads and sidewalks. To prevent direct view of these pole-mounted light sources off-site and to reduce the overall brightness of the Specific Plan area, the standards establish maximum heights for street and pedestrian lighting fixtures, maximum horizontal illuminance (foot-candles) at the ground plane, and average to minimum uniformity ratios for light at the ground plane. The lighting standards define special lighting criteria for parking areas to prevent direct view of lighting fixtures. The recommended criteria are summarized below as a table of measurable numerical criteria based on the various options for at-grade commercial, Commercial-Elevated Podium commercial, residential, and mixed-use development within the Project Site.

Lighting conditions and narrative prototypical solutions are presented for the following: Perimeter Roadways, Interior Roadways, Retail Exterior, Office Exterior, Residential Exterior, At-Grade Parking, Parking Structures, Parking under Raised Podium, Pedestrian Sidewalks and Walkways, and Landscape Illumination. Design performance standards are established for each of the above-mentioned project components by the following issues and their listed measurable criteria:

Light Level Requirements: Task Illuminance (foot candles)

Light Control Methods: Glare/Light Distribution (luminaire photometrics)

Visibility: Pole Height Limits (section diagram)

Design Style or Character: Luminaire and pole characteristics, pattern of light, and color of light

6.7.1 Light Level Requirements

The commercial and social use of The District at South Bay is dependent upon activities at night, which will require illumination for vehicular and pedestrian access, advertising, and on-site tasks or functions. Each of these activities has a defined light level requirement (illuminance, measured in foot-candles) as well as unique color, brightness, pattern, and architectural features. Low-pressure and high-pressure sodium lamps will not be considered for design purposes within these standards. To provide for more aesthetically pleasing environmental conditions, the use of low-pressure and high-pressure sodium lamps is not permitted due to their low correlated color temperature (CCT), particularly less than 2,100K.

Table 6.7 summarized light intensity levels (illuminance, foot-candles) recommended by the IESNA for safe operation of vehicles and pedestrian security. Future lighting improvements should meet or exceed these minimum standards to provide adequate light for the Project Site for public access. These standards are the recommended average maintained horizontal illuminance values for each specified use within the Project Site. As used below, “entrances” refers to entrance areas where lighting is required for entrance identification and “egress lighting” applies to areas where lighting is required for safe path of travel.

SPECIFIC USE/AREA	LOCATION OF FOOT-CANDLES	FOOT-CANDLES AVERAGE	UNIFORM RATIO (MIN TO MAX fc)
PERIMETER AND INTERIOR ROADWAYS			
On-Site Circulation Roads	Pavement	1.0	5:1
Entrance Roads	Pavement	2.0	5:1
RETAIL EXTERIOR			
Entrances	Doorway	5.0	-
Facade Floodlighting	Building	3.0 to 15	-
Elevated Podium Building Façade Lighting	Building	3.0 to 15	-
OFFICE EXTERIOR			
Entrances	Doorway	3.0	-
Façade Lighting	Building	3.0	-
RESIDENTIAL ROADWAYS			
Roadway	Pavement	0.6	5:1
ON-GRADE PARKING			
Parking	Parking Surface	1.0	15:1
PARKING STRUCTURES/PARKING UNDER RAISED PODIUMS			
Parking	Parking Surface	5.0	10:1
SIDEWALKS			
Residential	Pavement	0.6	-
Commercial	Pavement	1.0	-
LANDSCAPE			
Tree Up-Lighting	Foliage	1.0	-
1. Light Intensity Requirements are minimum standards except where range is shown.			

Perimeter Roadways

The lighting for perimeter roadways shall provide adequate illumination for safe and efficient vehicular travel. Roadway lighting fixtures shall either be equipped with glare shields or be of a full cutoff type reflector system. On-site circulation roads will conform to an “Intermediate” classification characterized by medium-sized residential and business developments with frequent moderately heavy nighttime pedestrian activity. The entrance roads will be designed to conform to a “Commercial” classification characterized by dense business developments with heavy nighttime vehicular and pedestrian traffic.

Interior Roadways

The lighting for interior roadways shall provide adequate illumination for safe and efficient vehicular travel. Roadway lighting fixtures shall either be equipped with glare shields or be of a full cutoff type reflector system. Lighting of roadways categorized as Scenic Byways shall be of a minimal level, with fixtures being shielded to prevent glare. Circulation roads within the mixed-use/residential sites will be designed to conform to an “Intermediate” classification defined by medium-sized residential and business developments with frequent moderately heavy nighttime pedestrian activity. Entrance roads to the Project Site will be designed to conform to a “Commercial” classification defined by dense business developments with heavy nighttime vehicular and pedestrian traffic.

Retail Exterior

The lighting for the exterior of retail buildings and spaces shall be safe and attractive to customers. This can be achieved mainly with entrance accent lighting and façade floodlighting. “Entrances” and “Façade Lighting,” as listed in Table 6.7, refer to entrances of dense retail developments with heavy nighttime vehicular and pedestrian traffic.

Office Exterior

The lighting for the exterior of office buildings and spaces shall be to a level that provides security and egress. If the office use is part of a mixed-use building, then the retail criteria can override the values shown in Table 6.7. “Entrances,” as shown in Table 6.7, refer to entrances that are unoccupied at nighttime, requiring lighting for entrance identification. Egress lighting shall be provided at a level that provides security and safe egress.

Residential Exterior

The lighting for the exterior of residential buildings and spaces shall be to a level that provides security and safe egress. If part of a mixed-use building, then the retail criteria can override the lower values.

At-Grade Parking

The lighting for at-grade parking lots shall be to a level that provides safe movement of vehicles and pedestrians, and the security and safety of customers and employees, as approved by the Sheriff’s Department. Lighting fixtures for parking lots shall either be equipped with spill control and/or with full cutoff capability at light poles at property perimeter with no cut-off at parking field interior poles. Lighting fixture standard height shall not be in excess of what is necessary to meet with recommended minimum illuminance levels identified in Table 6.7.

Parking Structures/Parking Under Raised Podiums

The lighting for parking structures and parking under raised podiums shall be provided at a level that enhances pedestrian safety and visibility. These recommended values should apply to those parking

structures used by apartment building and/or commercial developments.

Pedestrian Sidewalks and Walkways

The lighting for pedestrian sidewalks and bikeways shall be to a level that increases pathway visibility and safety of pedestrians. For the purposes of these standards and guidelines, “Intermediate” refers to medium-sized residential and business developments with frequent moderately heavy nighttime pedestrian activity, and “Commercial” refers to dense business developments with heavy nighttime vehicular and pedestrian traffic. Pedestrian scale lighting should be provided along interior streets, as deemed appropriate by the Community Development Director.

Landscape Illumination

In vertical landscape, i.e., palm and decorative trees with foliage, up-lighting illumination is encouraged.

6.7.2 Light Control Methods

- A. Glare/Light Distribution: Offensive or unattractive lighting results from excessive contrast, or glare. Glare conditions usually result from highly visible lamps (light bulbs) within landscape, streetlights, parking, security, or entertainment lighting. Proper design and selection of light fixtures, mounting heights, and placement will control the visibility and perceived brightness of light sources from outside or within the Project Site, and therefore limit the perception of glare. The lighting standards establish criteria to control the light output, mounting height, and placement of fixtures to reduce glare.
- B. All Parking and Roadway light poles from 12 ft. high to 40 ft. high shall be in accordance with Section 5.106.8 of the CALGreen Code which limits light fixture brightness adjacent to the property line of the Project Site.
- C. Pole Height Limits: Light pole height limits are established to prevent light trespass from the Project Site onto adjacent properties. These height restrictions will not eliminate complete visibility of the pole itself. Height restrictions in combination with the shielding and glare control restrictions will decrease visibility of the high brightness lamps within the pole fixtures and will prevent stray light from extending over the property line of the Project Site. Lighting shall be constructed, shielded and directed so that adjacent residences are not impacted by light or glare coming from the Project Site.

6.7.3 Site Lighting Exhibits

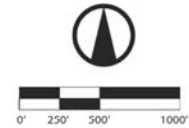
Lighting design exhibits as shown on Figures 6.7a through 6.7g demonstrate conceptual lighting design for each area with intended pole locations and heights, and luminaire head orientations. Location of streetlights is subject to the approval of the City Engineer and the Community Development Director, and may be placed in either the parkway or the medians.



LEGEND

- A. Del Amo Entrance
- B. Del Amo Boulevard
- C. Typical Street A
- D. Typical Street B
- E. Freeway Edge (I-405 Freeway/Commercial Interface)
- F. Typical Residential/Commercial Interface

Note: This is a graphic representation of a planning concept. All graphics in this document are conceptual and should not be interpreted literally. Other solutions, locations and/or concepts may be proposed and reviewed during site plan and design review and other permit and mapping processes.

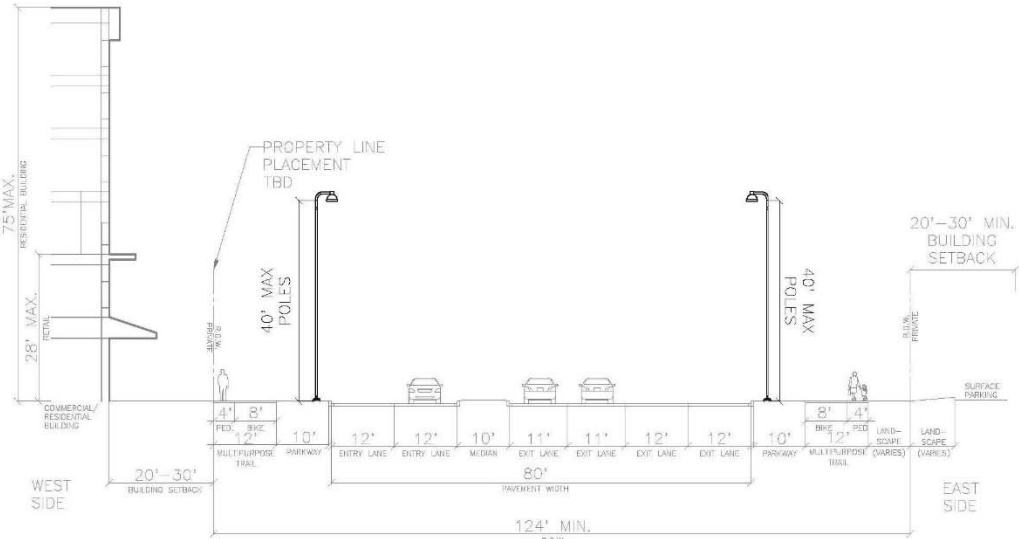


Source: RE|Solutions LLC, 2017

Figure 6.7a Conceptual Site Lighting Exhibit Key Map

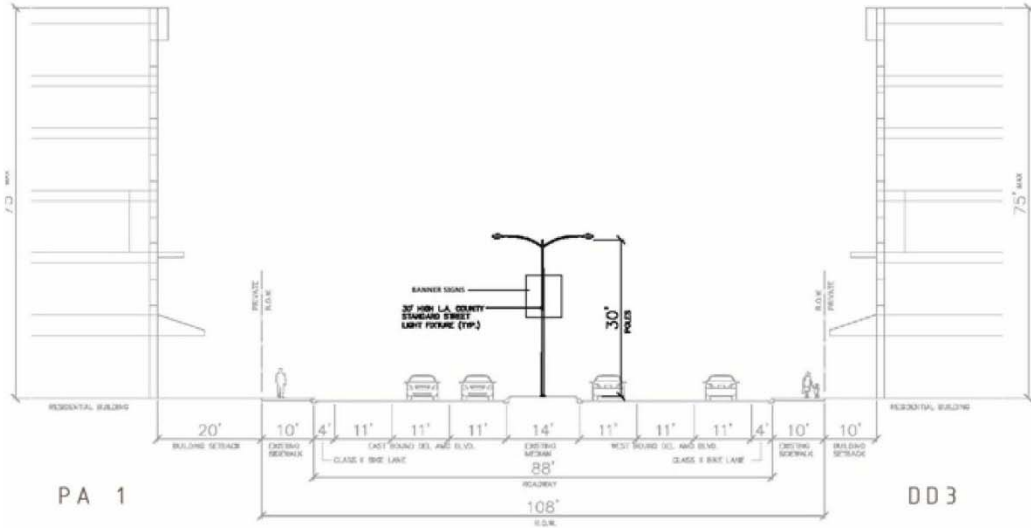
Note: All light fixture poles, fixture heads, and lamps shall be coordinated between developer(s) and the City for consistent design

Figure 6.7b Section A - Del Amo Entrance



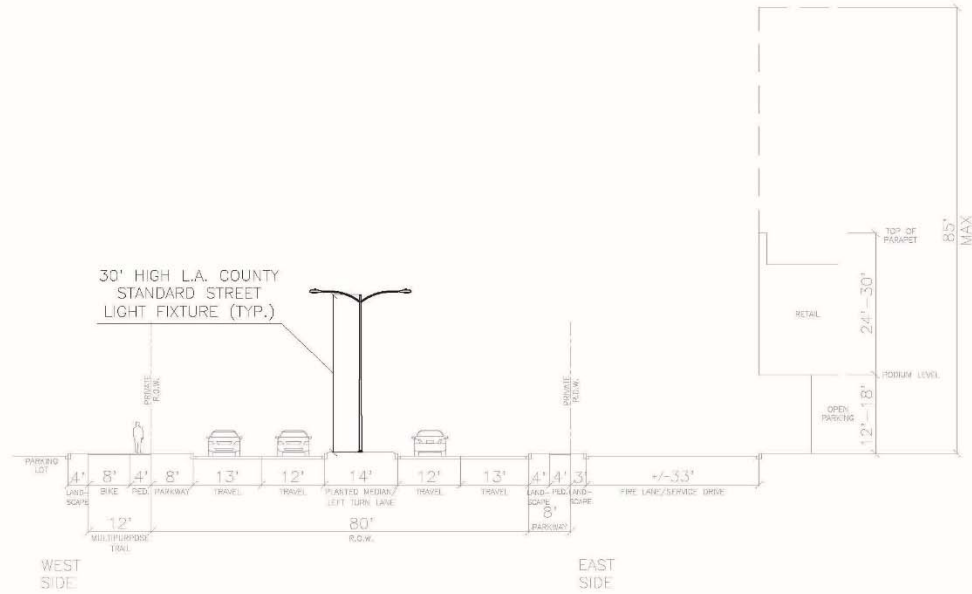
Source: RE|Solutions LLC, 2017

Figure 6.7c Section B - Del Amo Boulevard



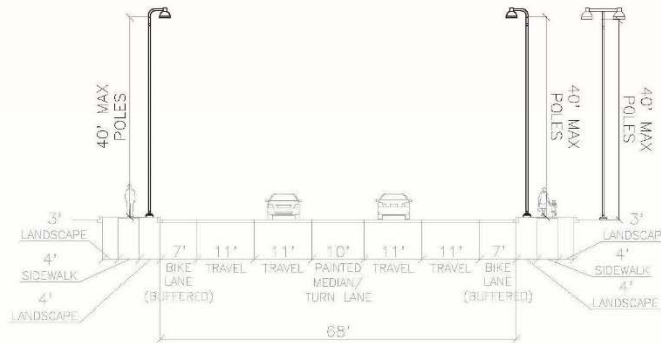
Source: RE|Solutions LLC, 2017

Figure 6.7d Section C - Typical Street A



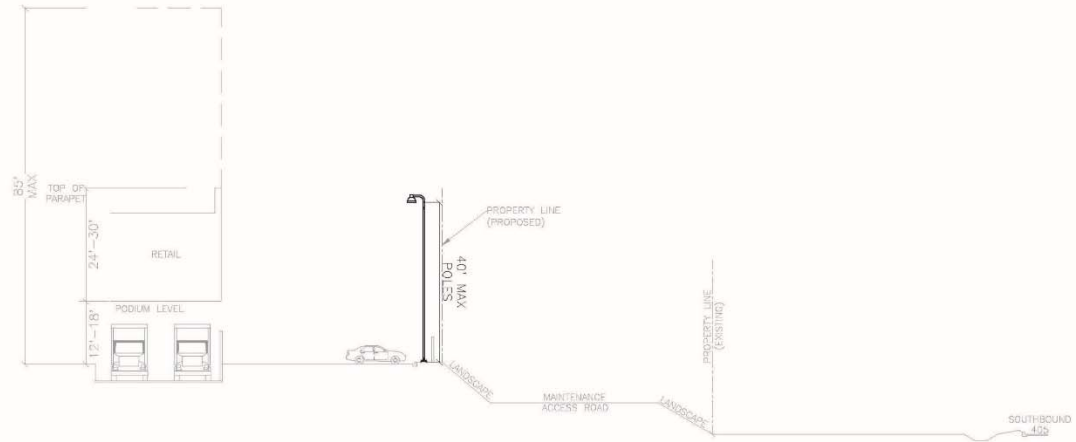
Source: RE|Solutions LLC, 2017

Figure 6.7e Section D - Street B (Private)



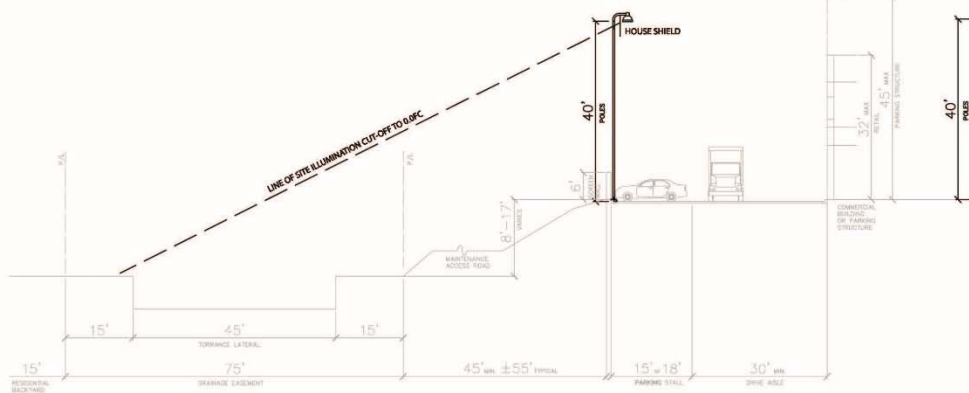
Source: RE|Solutions LLC, 2017

Figure 6.7f Section E - Freeway Edge (I-405/Project Interface)



Source: RE|Solutions LLC, 2017

Figure 6.7g Section F - Channel-Adjacent Slope (Residential/Project Interface)



Source: The Planning Center, 2010.

APPENDICES

**APPENDIX B
LIGHTING PALETTE**

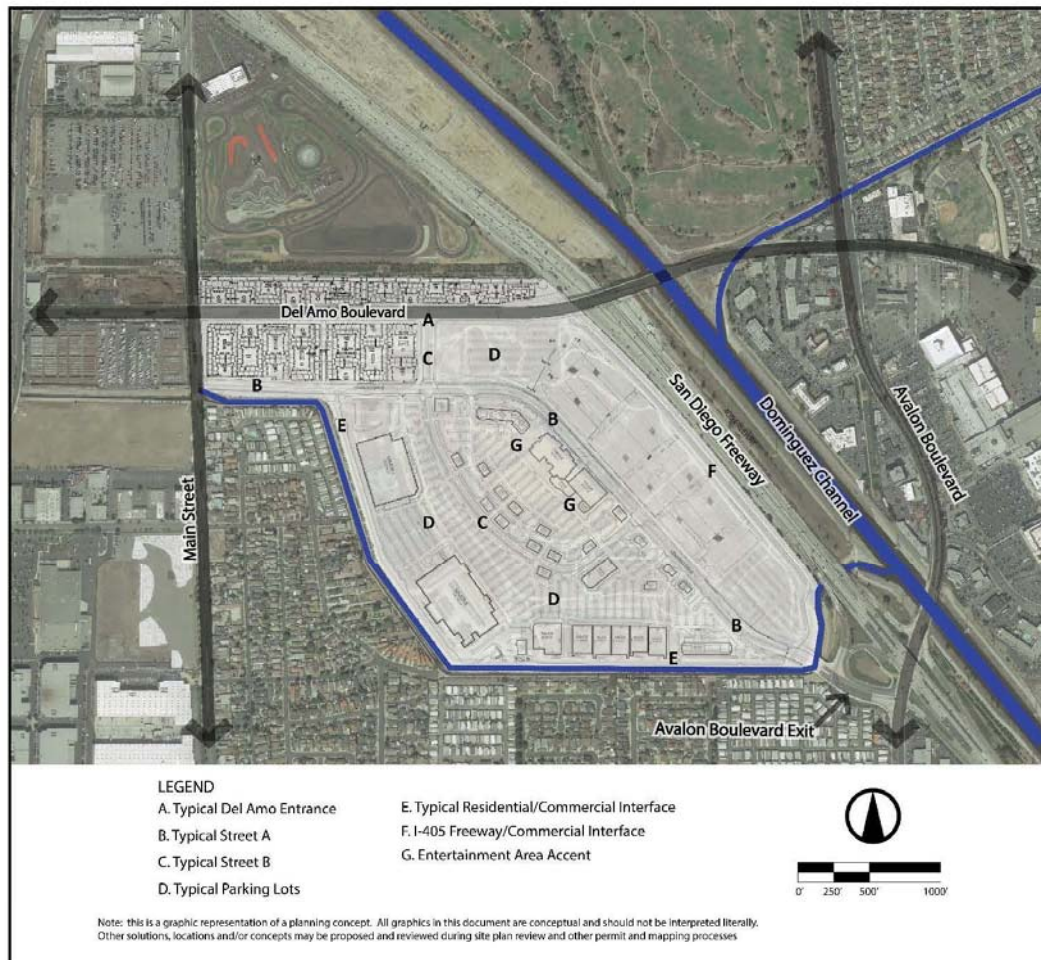


APPENDICES

This page intentionally left blank.

THE DISTRICT AT SOUTH BAY LIGHTING PALETTE

The proposed palette of lighting fixtures, presented below, demonstrates examples of systems that would be in compliance with the design guidelines and to provide examples of the architectural scale and quality of these materials. These fixtures selections should meet the performance criteria of the guidelines while providing an attractive complement to the building and landscape. For each building-type and roadway component within the proposed development, examples of fixture types that would be applicable are illustrated below. These fixtures represent examples of lighting products that will satisfy the guidelines criteria and legal requirements for task illuminance, light trespass, and glare.



APPENDICES

The following example is applicable to:

Section A - Typical Del Amo Entry

Section E - Typical Residential/Project Interface



The following example is applicable to:

- Section B – Typical Street A
- Section C – Typical Street B
- Section D - Typical Parking Lots
- Section F – 405 Freeway Edge/Commercial Interface



The following example is applicable to:

- Section G - Entertainment Driveway Accent



APPENDIX B: Sign Concept Plan PA2



FASHION OUTLETS LOS ANGELES

COMPREHENSIVE SIGNAGE PLAN CITY OF CARSON, CA



ISSUE DATE: 15 SEPTEMBER, 2017

Prepared by:
SLS Design Inc
1589 Walnut Street, Suite 102 • Boulder, Colorado 80502
770-666-6100

TABLE OF CONTENTS COMPREHENSIVE SIGN PLAN

TABLE OF CONTENTS

SECTION 1. SIGN LOCATIONS		SECTION 3. SIGN ELEVATIONS AND AREA CALCULATIONS	
SITE PLAN: PROJECT IDENTITY SIGN LOCATIONS	1.1	SIGN TYPE 1.1 - HWY PYLON	3.1
SITE PLAN: AD PANEL SIGN LOCATIONS	1.2	SIGN TYPE 1.2/1.2A - WALL MOUNTED PROJECT ID	3.2-3.4
SITE PLAN: TENANT SIGN LOCATIONS	1.3	SIGN TYPE 1.3 CORNER PROJECT ID	3.5
NORTHWEST PERSPECTIVE VIEW	1.4	SIGN TYPE 1.4 ENTRY PLAZA PROJECT ID	3.6
SOUTHEAST PERSPECTIVE VIEW	1.5	SENSORY INTERACTIVE ITEMS	3.7
SITE PLANS - GROUND LEVEL WAYFINDING SIGN LOCATIONS	1.6		
SECTION 2. ELEVATIONS AND AREA CALCULATIONS		SECTION 4. APPENDIX	
EAST ELEVATION - 405 FRONTAGE	2.1	APPROVED ORDINANCE NO: 11-1469	4.1
EAST ELEVATION - 405 FRONTAGE	2.2	LOS ANGELES COUNTY ASSESSOR INFORMATION	4.2
EAST ELEVATION - 405 FRONTAGE	2.3	REGULATORY INFORMATION - L.A. COUNTY	4.3
EAST ELEVATION - 405 FRONTAGE	2.4	REGULATORY INFORMATION - CALTRANS	4.4
NORTH ELEVATION	2.5		
SOUTH ELEVATION	2.6		
WEST ELEVATION - LEONARDO FRONTAGE	2.7		
WEST ELEVATION - LEONARDO FRONTAGE	2.8		
WEST ELEVATION - LEONARDO FRONTAGE	2.9		
WEST ELEVATION - LEONARDO FRONTAGE	2.10		
CUMULATIVE SIGN TYPE AREA TABULATION	2.11		

PREPARED BY: SLS DESIGN, INC

MACERICH

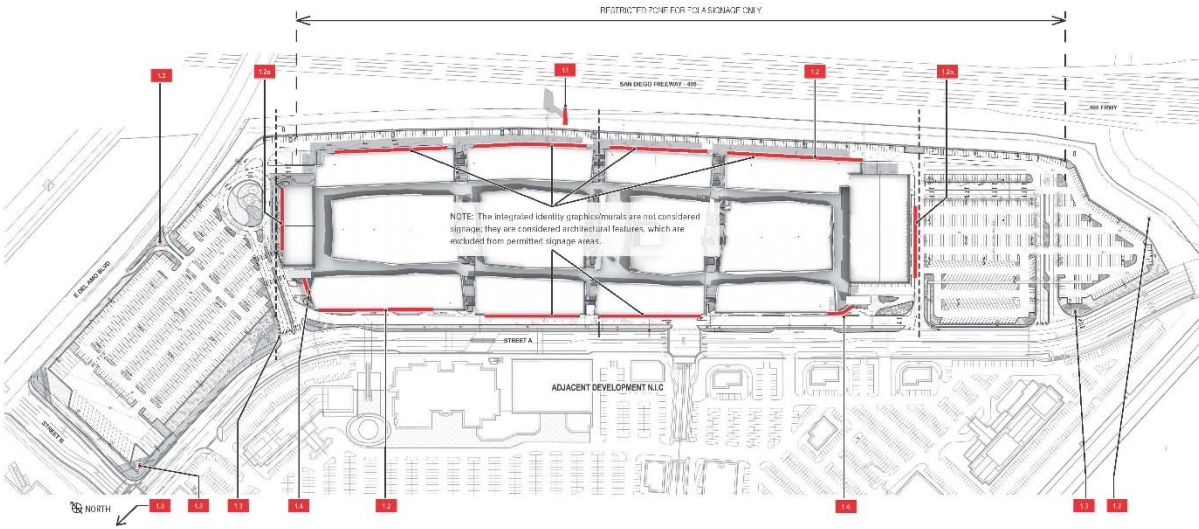
FASHION OUTLETS LOS ANGELES :: CARSON, CALIFORNIA

DATE: 09/15/17

11

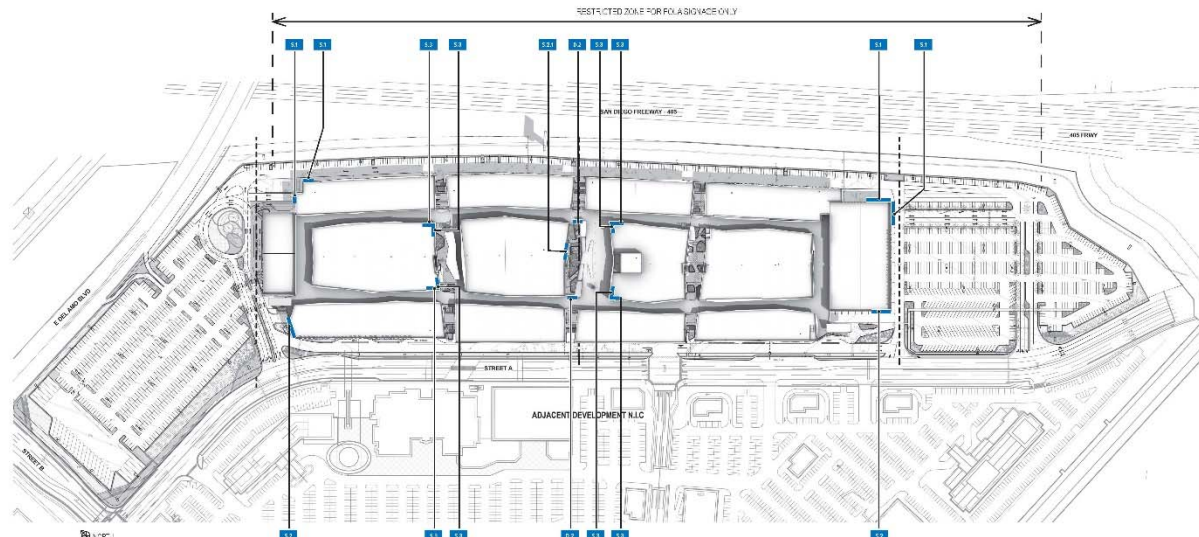
PROJECT IDENTITY - SITE & BUILDING SIGNAGE

- Sign Type 1.1 - HWY Pylon
- Sign Type 1.2 - Wall Mounted ID East/West
- Sign Type 1.2a - Wall Mounted ID North/South
- Sign Type 1.3 - Corner Project ID Vertical Totem
- Sign Type 1.4 - Entry Plaza Project ID "Fashion Outlets LA"



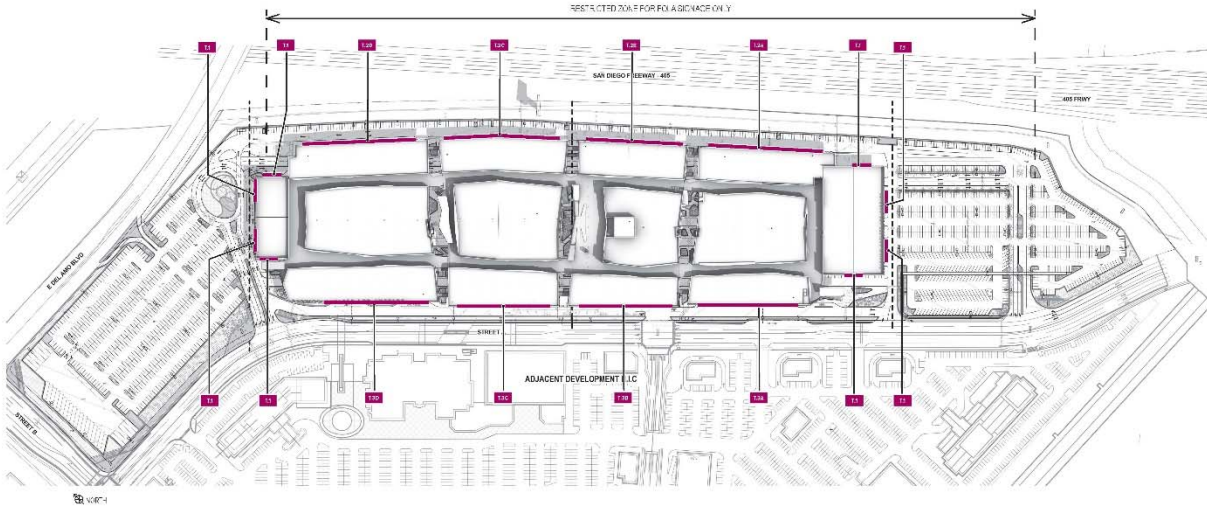
PROJECT AD PANELS

- Sign Type S.1 - Static AD (20x60) (Future conversion to LED digital)
- Sign Type S.2 - Static AD (14x48)
- Sign Type S.2.1 - Static AD (14x48) (Future conversion to LED digital)
- Sign Type S.3 - Static AD (10x34)
- Sign Type D.2 - Digital Bulkhead AD (8x12)



BUILDING MOUNTED-EXTERIOR FACING TENANT SIGNS

- Sign Type T.1 - PRIMARY ANCHOR SIGN
- Sign Type T.2A - EAST FRONTAGE TENANT SIGNS-BLOCK A
- Sign Type T.2B - EAST FRONTAGE TENANT SIGNS-BLOCK B
- Sign Type T.2C - EAST FRONTAGE TENANT SIGNS-BLOCK C
- Sign Type T.2D - EAST FRONTAGE TENANT SIGNS-BLOCK D
- Sign Type T.3A - WEST FRONTAGE TENANT SIGNS-BLOCK A
- Sign Type T.3B - WEST FRONTAGE TENANT SIGNS-BLOCK B
- Sign Type T.3C - WEST FRONTAGE TENANT SIGNS-BLOCK C
- Sign Type T.3D - WEST FRONTAGE TENANT SIGNS-BLOCK D



PROJECT IDENTITY - SITE & BUILDING SIGNAGE

- Sign Type I.1 - HWY Pylon
- Sign Type I.2 - Wall Mounted ID - East/West
- Sign Type I.2a - Wall Mounted ID - North/South
- Sign Type I.3 - Corner Project ID - Vertical Toism
- Sign Type I.4 - Entry Plaza Project ID "Fashion Outlets LA"

PROJECT AD PANELS

- Sign Type S.1 - Static AD (20x60)
- Sign Type S.2 - Static AD (14x48)
- Sign Type S.3 - Static AD (10x34)
- Sign Type D.2 - Digital Bulkhead AD (8x12)

BUILDING MOUNTED-EXTERIOR FACING TENANT SIGNS

- Sign Type T.1 - PRIMARY ANCHOR SIGN
- Sign Type T.2A - EAST FRONTAGE TENANT SIGNS-BLOCK A
- Sign Type T.2B - EAST FRONTAGE TENANT SIGNS-BLOCK B
- Sign Type T.2C - EAST FRONTAGE TENANT SIGNS-BLOCK C
- Sign Type T.2D - EAST FRONTAGE TENANT SIGNS-BLOCK D

NOTE: The integrated identity graphics/entrals are not considered signage, they are considered architectural features, which are excluded from permitted signage areas.



PROJECT IDENTITY - SITE & BUILDING SIGNAGE

- Sign Type 1.1 - HWY Pylon
- Sign Type 1.2 - Wall Mounted ID East/West
- Sign Type 1.2a - Wall Mounted ID North/South
- Sign Type 1.3 - Corner Project ID: Vertical Totem
- Sign Type 1.4 - Entry Plaza Project ID "Fashion Outlets LA"

PROJECT AD PANELS

- Sign Type S.1 - Static AD (20x60)
- Sign Type S.2 - Static AD (10x48)
- Sign Type S.3 - Static AD (10x34)
- Sign Type D.2 - Digital Bulkhead AD (8x12)

BUILDING MOUNTED-EXTERIOR FACING TENANT SIGNS

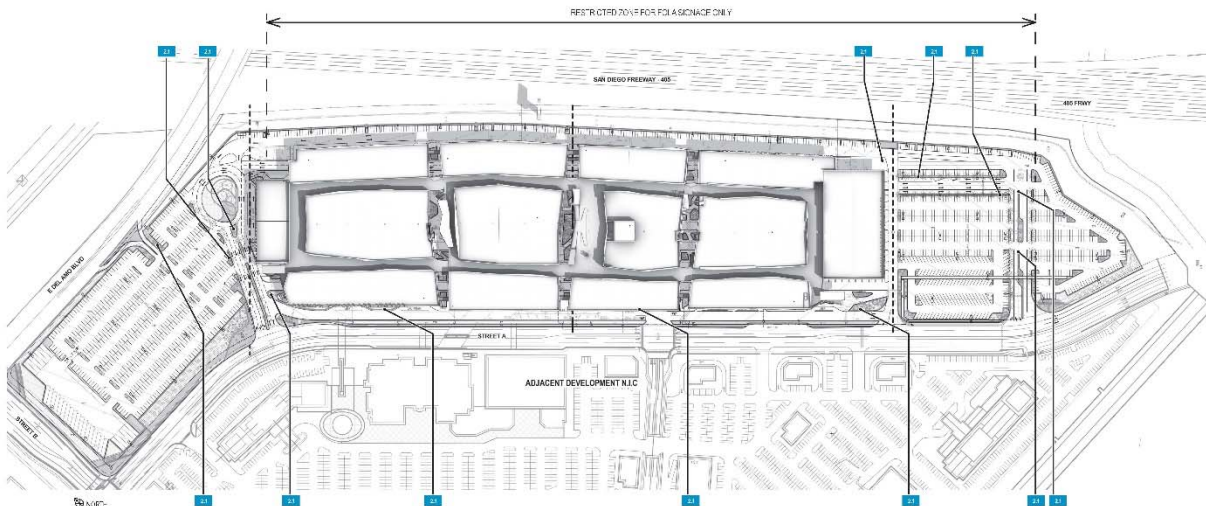
- Sign Type T.1 - PRIMARY ANCHOR SIGN
- Sign Type T.3A - WEST FRONTAGE TENANT SIGNS-BLOCK A
- Sign Type T.3B - WEST FRONTAGE TENANT SIGNS-BLOCK B
- Sign Type T.3C - WEST FRONTAGE TENANT SIGNS-BLOCK C
- Sign Type T.3D - WEST FRONTAGE TENANT SIGNS-BLOCK D

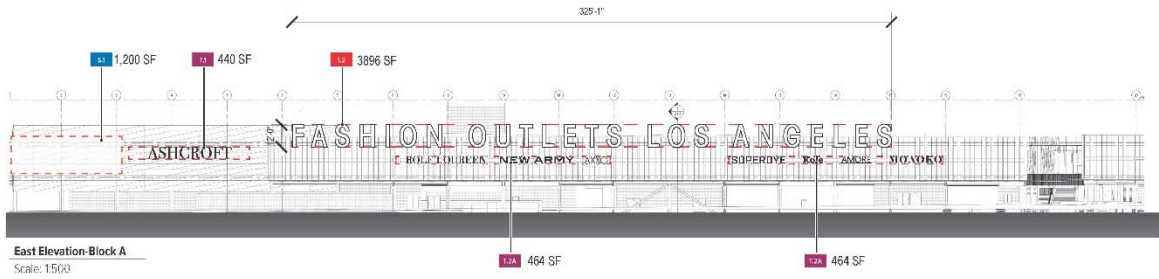
NOTE: The integrated identity graphics/murals are not considered signage; they are considered architectural features, which are excluded from permitted signage areas.



SITE VEHICULAR DIRECTIONAL SIGNS

Sign Type 2.1 - SHOWN FOR REFERENCE ONLY - FINAL POSITIONS TBD





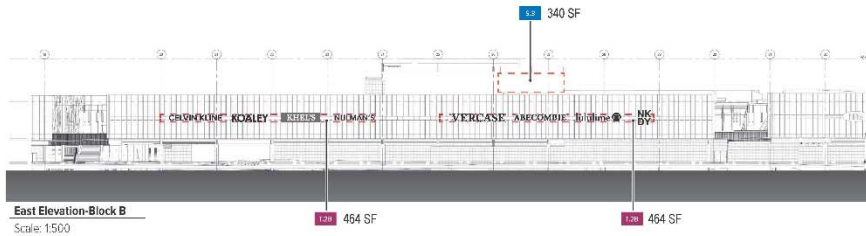
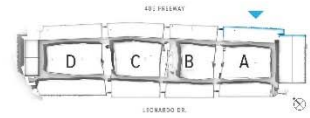
East Elevation-Block A
Scale: 1/500

405 FREEWAY FACING: AREA TABULATIONS

OVERALL PROPERTY LENGTH: 2,544 FT - OVERALL LENGTH: WALL +/- 540 FT

All signage shown is for allowable area and not a representation of the final signage by tenant

SIGN TYPE	DESCRIPTION	QTY	AREA	SUB-TOTAL	SPECIFIC PLAN ALLOWABLE AREA
1.2	WALL MOUNTED BUILDING ID SIGN	1	3,896	3,896	3,960
T.1	PRIMARY ANCHOR SIGN	1	440	440	7,776
T.2A	EAST FRONTAGE TENANT SIGNS	2	464	928	INCLUDED ABOVE
S.1	STATIC AD (20X60)	1	1,200	1,200	1,200
			SUB TOTAL:	6,464	12,936



East Elevation-Block B
Scale: 1/500

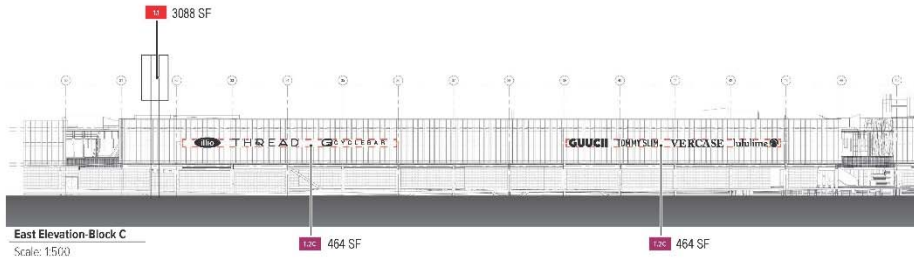
405 FREEWAY FACING: AREA TABULATIONS

OVERALL PROPERTY LENGTH: 2,544 FT - WALL LENGTH: +/- 330 FT

All signage shown is for allowable area and not a representation of the final signage by tenant

SIGN TYPE	DESCRIPTION	QTY	AREA	SUB-TOTAL	SPECIFIC PLAN ALLOWABLE AREA
S.3	STATIC AD (10X34)	2	340	680	680
T.2B	EAST FRONTAGE TENANT SIGNS	2	464	928	4,752
			SUB TOTAL:	1,608	5,432





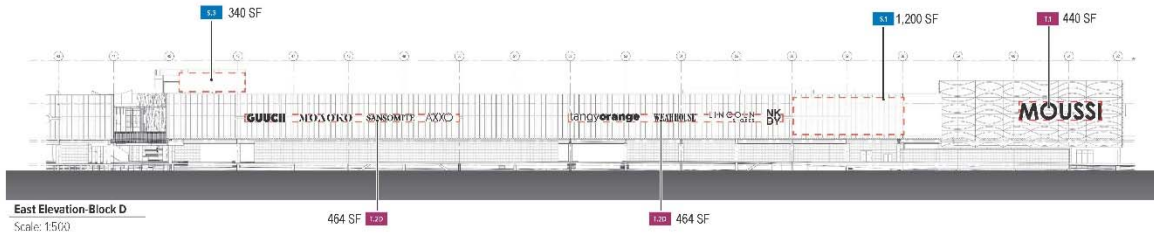
East Elevation Block C
Scale: 1:500

405 FREEWAY FACING: AREA TABULATIONS

OVERALL PROPERTY LENGTH: 2,544 FT - WALL LENGTH: +/- 390 FT

All signage shown is for allowable area and not a representation of the final signage by tenant

SIGN TYPE	DESCRIPTION	QTY	AREA	SUB-TOTAL	SPECIFIC PLAN ALLOWABLE AREA
T.2C	EAST FRONTAGE TENANT SIGNS	2	464	928	5,616
11	405 FREEWAY PYLON-20 X 60 DIGITAL DISPLAYS	DOUBLE SIDED	1544	3088	3,188
			SUB TOTAL:	4016	8,804



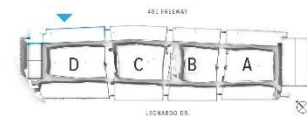
East Elevation Block D
Scale: 1:500

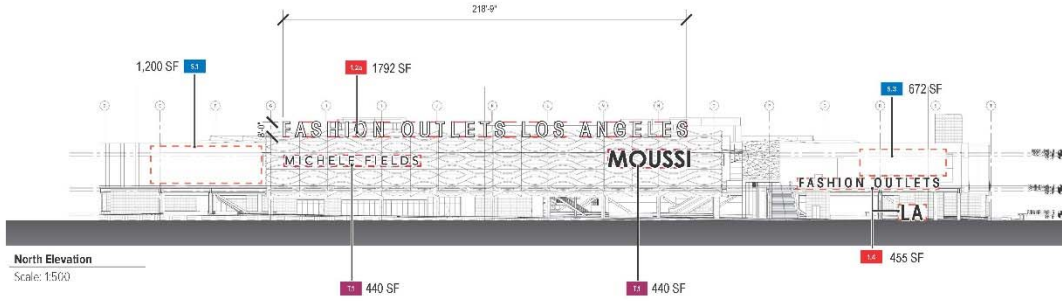
405 FREEWAY FACING: AREA TABULATIONS

OVERALL PROPERTY LENGTH: 2,544 FT - WALL LENGTH: +/- 510 FT

All signage shown is for allowable area and not a representation of the final signage by tenant

SIGN TYPE	DESCRIPTION	QTY	AREA	SUB-TOTAL	SPECIFIC PLAN ALLOWABLE AREA
S.3	STATIC AD (10X34)	2	340	680	680
T.2D	EAST FRONTAGE TENANT SIGNS	2	464	928	7,344
T.1	PRIMARY ANCHOR SIGN	1	440	440	INCLUDED ABOVE
S.1	STATIC AD (20X60)	1	1,200	1,200	1,200
			SUB TOTAL:	3,248	9,224





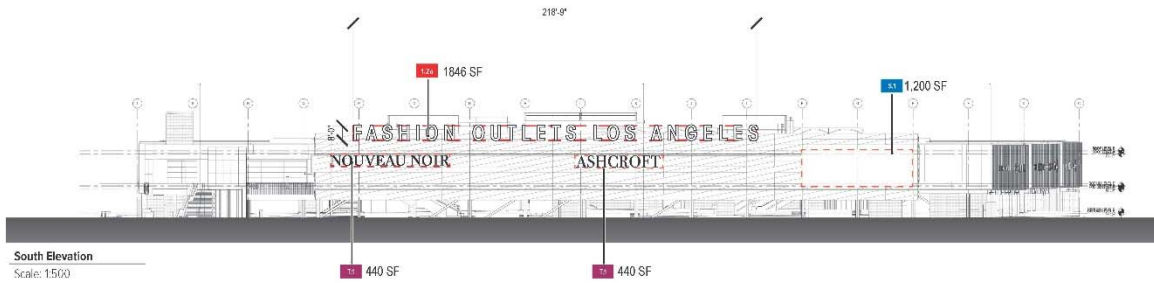
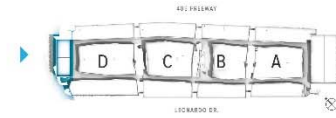
North Elevation
Scale: 1/500

NORTH FACING: AREA TABULATIONS

OVERALL PROPERTY LENGTH: 880 FT - WALL LENGTH: +/- 490 FT

All signage shown is for allowable area and not a representation of the final signage by tenant.

SIGN TYPE	DESCRIPTION	QTY	AREA	SUB-TOTAL	SPECIFIC PLAN ALLOWABLE AREA
1.2a	WALL MOUNTED BUILDING ID SIGN	1	1,792	1,792	1,840
1.4	ENTRY PLAZA PROJECT ID "FASHION OUTLETS LA"	1	456	456	455
T.1	PRIMARY ANCHOR SIGN	2	440	880	7,056
S.3	STATIC AD (4X48)	1	672	672	672
S.1	STATIC AD (20X60)	1	1,200	1,200	1,200
			SUB TOTAL:	4,999	11,223



South Elevation
Scale: 1/500

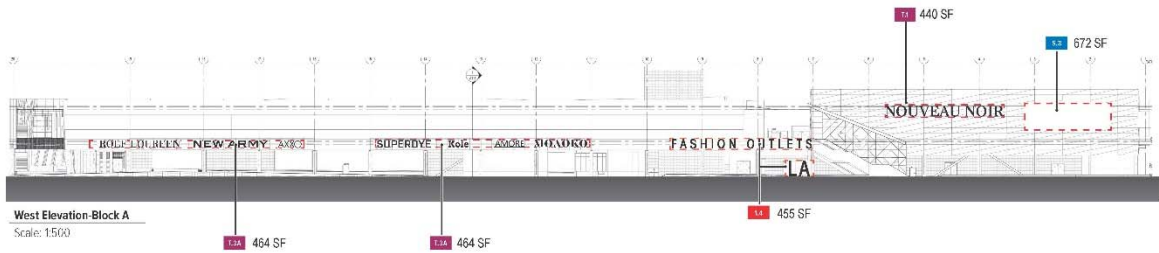
SOUTH FACING: AREA TABULATIONS

OVERALL PROPERTY LENGTH: 536 FT - OVERALL BUILDING LENGTH: 450 FT

All signage shown is for allowable area and not a representation of the final signage by tenant.

SIGN TYPE	DESCRIPTION	QTY	AREA	SUB-TOTAL	SPECIFIC PLAN ALLOWABLE AREA
1.2a	WALL MOUNTED BUILDING ID SIGN	1	1,792	1,792	1,840
T.1	PRIMARY ANCHOR SIGN	2	440	880	6,480
S.1	STATIC AD (20X60)	1	1,200	1,200	1,200
			SUB TOTAL:	3,872	9,520



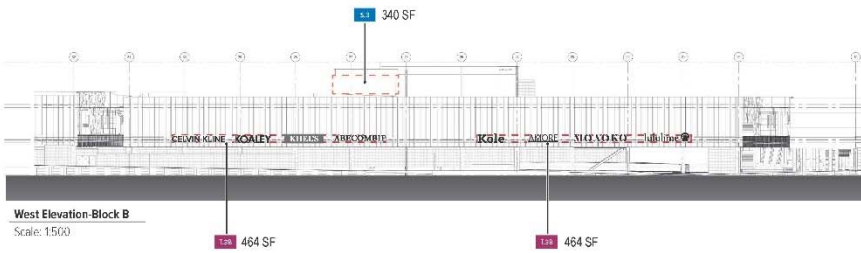
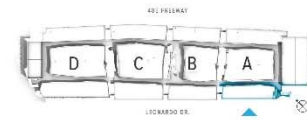


LEONARDO FACING: AREA TABULATIONS

OVERALL PROPERTY LENGTH: 2985 FT - WALL LENGTH: +/- 570 FT

All signage shown is for allowable area and not a representation of the final signage by content

SIGN TYPE	DESCRIPTION	QTY	AREA	SUB-TOTAL	SPECIFIC PLAN ALLOWABLE AREA
I.4	ENTRY PLAZA PROJECT ID "FASHION OUTLETS LA"	1	455	455	455
T.1	PRIMARY ANCHOR SIGN	1	440	440	8,208
T.3A	WEST FACING TENANT SIGNAGE	2	464	928	INCLUDED ABOVE
S.3	STATIC AD (14X48)	1	672	672	672
			SUB TOTAL:	2,495	9,335

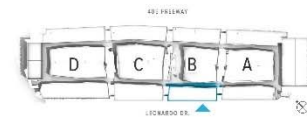


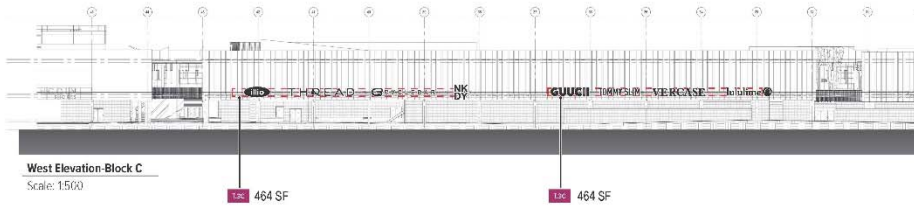
LEONARDO FACING: AREA TABULATIONS

OVERALL PROPERTY LENGTH: 2985 FT - WALL LENGTH: +/- 330 FT

All signage shown is for allowable area and not a representation of the final signage by content

SIGN TYPE	DESCRIPTION	QTY	AREA	SUB-TOTAL	SPECIFIC PLAN ALLOWABLE AREA
T.3A	WEST FACING TENANT SIGNAGE	2	464	928	4,752
S.3	STATIC AD (10X34)	2	340	680	680
			SUB TOTAL:	1,608	5,432





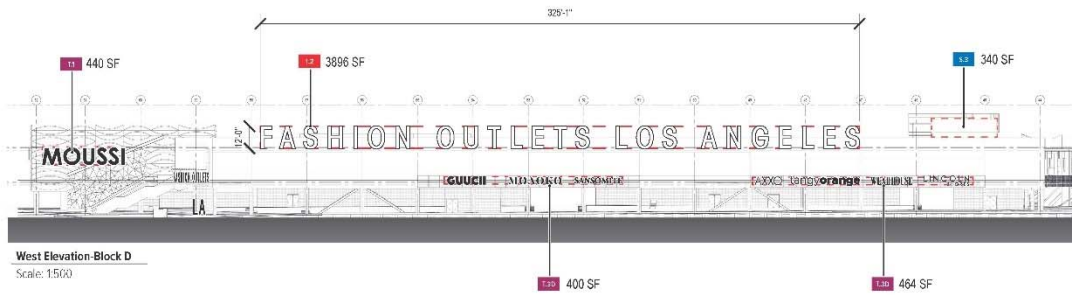
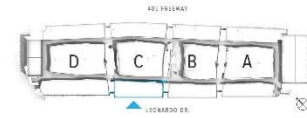
West Elevation-Block C
Scale: 1:500

LEONARDO FACING: AREA TABULATIONS

OVERALL PROPERTY LENGTH: 2985 FT - WALL LENGTH: +/- 330 FT

All signage shown is for allowable area and not a representation of the final signage by tenant

SIGN TYPE	DESCRIPTION	QTY	AREA	SUB-TOTAL	SPECIFIC PLAN ALLOWABLE AREA
T.3A	WEST FACING TENANT SIGNAGE	2	464	928	4,752
SUB TOTAL:				928	4,752



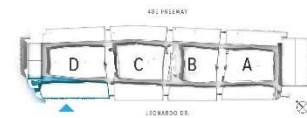
West Elevation-Block D
Scale: 1:500

LEONARDO FACING: AREA TABULATIONS

OVERALL PROPERTY LENGTH: 2985 FT - WALL LENGTH: +/- 540 FT

All signage shown is for allowable area and not a representation of the final signage by tenant

SIGN TYPE	DESCRIPTION	QTY	AREA	SUB-TOTAL	SPECIFIC PLAN ALLOWABLE AREA
1.2	WALL MOUNTED BUILDING ID SIGN	1	3,896	3,896	3,960
T.1	PRIMARY ANCHOR SIGN	1	440	440	7,776
T.3D	WEST FACING TENANT SIGNAGE	2	464	928	INCLUDED ABOVE
S.3	STATIC AD (10X34)	2	340	680	680
SUB TOTAL:				5,944	12,416



CUMULATIVE SIGN TYPE AREA TABULATION

SIGNS NOT SHOWN IN ELEVATION SHEETS:

SIGN TYPE	DESCRIPTION	QTY	AREA	SUB TOTAL	SPECIFIC PLAN ALLOWABLE AREA
1.3	FREE STANDING PYLON SIGN WITH TENANT NAMES	6	206	1,236	1,236
			SUB TOTAL:	1,236	1,236

SHEET	AREA DESCRIPTION	SIGNAGE AREA	SPECIFIC PLAN ALLOWABLE AREA
2.1	405 FACING EAST-BLOCK A	6,464	12,936
2.2	405 FACING EAST-BLOCK B	1,608	5,432
2.3	405 FACING EAST-BLOCK C	4,016	8,004
2.4	405 FACING EAST-BLOCK D	3,248	9,224
2.5	NORTH FACING DEL AMO	4,999	11,223
2.6	SOUTH FACING 405 OFF RAMP	3,872	9,520
2.7	LEONARDO FACING WEST-BLOCK A	2,495	9,335
2.8	LEONARDO FACING WEST-BLOCK B	1,608	5,432
2.9	LEONARDO FACING WEST-BLOCK C	928	4,752
2.10	LEONARDO FACING WEST-BLOCK D	5,944	12,416
		SUB TOTAL:	89,074
		PROPOSED TOTAL (SUBTOTAL ABOVE + 1,236)	90,310
		(ORDINANCE NO. 11-1469, APRIL 5, 2010) APPROVED SIGN AREA	21,004
		PROPOSED EXCESS SIGN AREA	15,414
			90,310

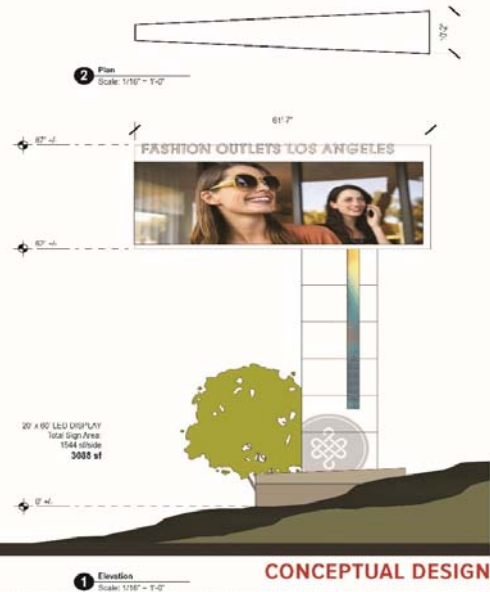
PREPARED BY SOSDESIGN, INC

MACERICH

FASHION OUTLETS LOS ANGELES :: CARSON, CALIFORNIA

DATE: 20/09/18

2.11



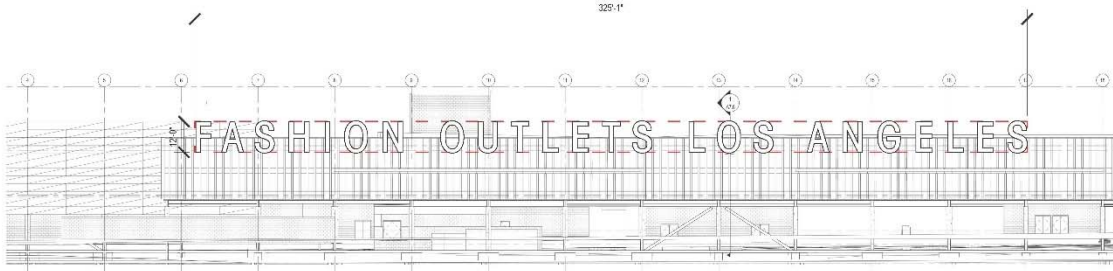
PREPARED BY SOSDESIGN, INC

MACERICH

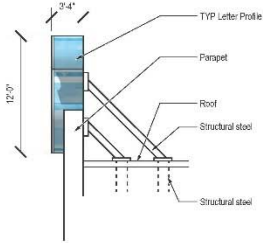
FASHION OUTLETS LOS ANGELES :: CARSON, CALIFORNIA

DATE: 22/03/15

3.1

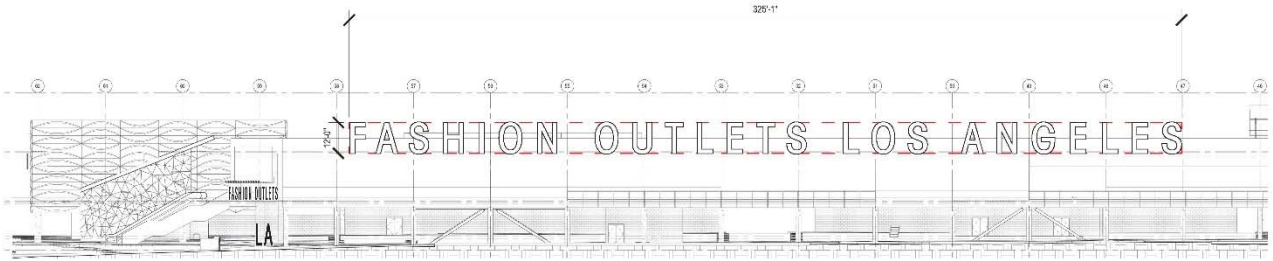


3 East Elevation-Block A
Scale: 1" = 30'

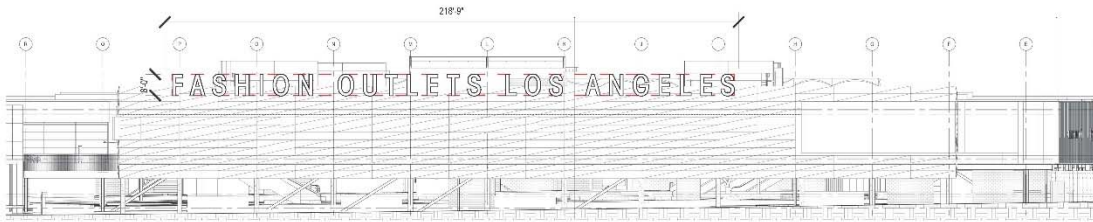


1 Perspective
Scale: NTS

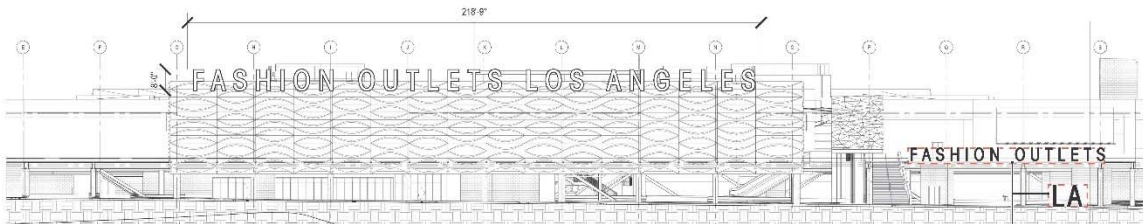
2 End View
Scale: 1/8" = 1'-0"



3 West Elevation-Block D
Scale: 1" = 30'



2 South Elevation
Scale: 1" = 30'



1 North Elevation
Scale: 1" = 30'

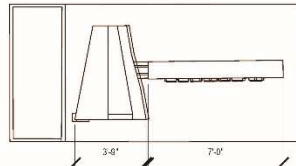
PREPARED BY SUGDESIGN, INC.

MACERICH

FASHION OUTLETS LOS ANGELES | CARSON, CALIFORNIA

DATE: 12/20/15

3.4

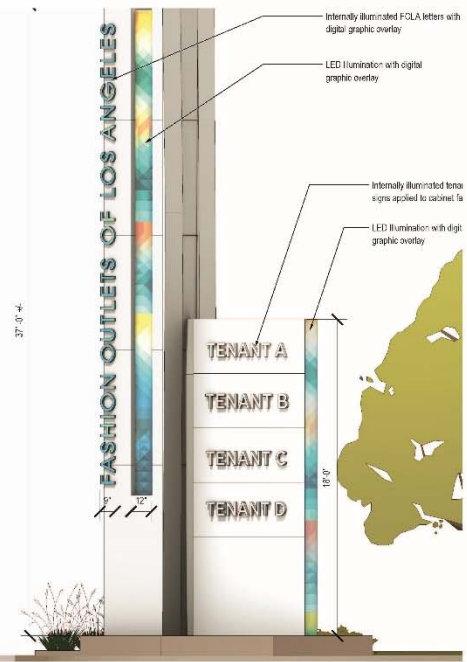


2 Plan View
Scale: 1/4" = 1'-0"

CONCEPTUAL DESIGN

SIGN TYPE AREA TABULATION

SIGN TYPE	DESCRIPTION	QTY	AREA	SUB-TOTAL	SPECIFIC PLAN ALLOWABLE AREA
1.3	FREE STANDING PYLON SIGN WITH TENANT NAMES	6	206	618	1,236
			SUB TOTAL:	618	1,236



1 Elevation
Scale: 1/4" = 1'-0"

TOTAL AREA: 206 sq'

PREPARED BY SUGDESIGN, INC.

MACERICH

FASHION OUTLETS LOS ANGELES | CARSON, CALIFORNIA

DATE: 12/20/15

3.5

Registered identity graphics/murals are not considered signage; they are considered architectural features, which are excluded from permitted signage areas.

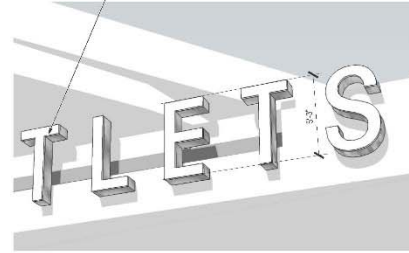


1 Concept View: South Entry Sign
NTS

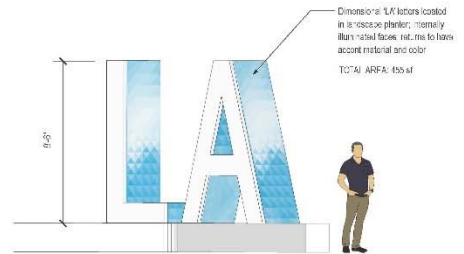
SIGN TYPE AREA TABULATION

SIGN TYPE	DESCRIPTION	QTY	AREA	SUB TOTAL	SPECIFIC PLAN ALLOWABLE AREA
1.4	BUILDING MOUNTED AND FREE STANDING LETTERS	2 SETS	455	910	910
SUB TOTAL:				910	910

Dimensional project name letters mounted to face of building. Internally illuminated faces. 'FASHION' letters mounted west elevation. 'OUTLETS' letters mounted in corner, south west elevation surface.



2 Building Mounted Letters: Detail View
NTS



3 Freestanding Mounted Letters: Detail View
NTS

CONCEPTUAL DESIGN

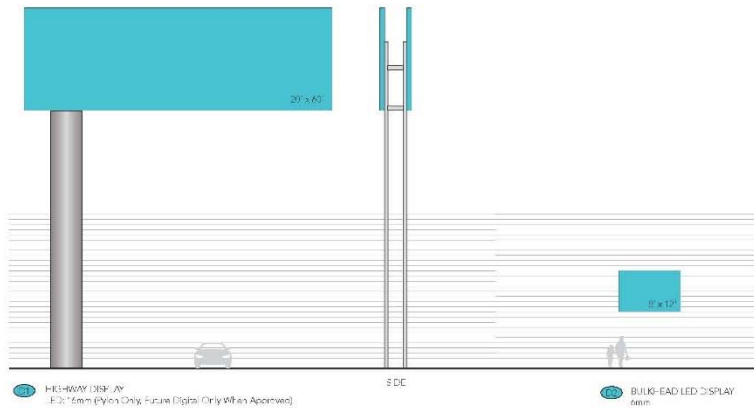
NOTE:
REFER TO MACERICH STANDARD 2-SIDED EXTERIOR VERTICAL



SDC
DOUBLE-SIDED EXTERIOR VERTICAL (2,45" LCD)



MHD MEDIA HYDRANT



SDC
STANDARD EXTERIOR VERTICAL (2,45" LCD)



SDC
STATIC DISPLAY (Front-Lit) (Use Future 8m Digital - See Asset List)



SDC
ROOF MOUNTED STATIC DISPLAY (Front-Lit)



SDC
STATIC PARKING DISPLAY (Front-Lit)

APPENDIX I: Sign Lighting Illuminance Calculation (fc)

Sign Lighting illuminance data presented below is derived from the lighting illuminance calculations prepared as per the methods described in Section 6.2 above. Illuminance data is presented in the following tables with location coordinates defined relative to the elevation and horizontal distance from lower left, viewing from the Property to the vertical plane where light trespass is under review. Grid data is displayed at ten feet on center, vertical and horizontal.

**Option A:
Vertical Plane 1
HORIZONTAL (ft)**

	0	10	20	30	40	50	60	70	80	90	100
95	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
65	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
55	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
45	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
35	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
25	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Option A:
Vertical Plane 1
HORIZONTAL (ft)**

	110	120	130	140	150	160	170	180	190	200	210
95	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Option A:
Vertical Plane 1
HORIZONTAL (ft)**

	220	230	240	250	260	270	280	290	300	310	320
95	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option A:
Vertical Plane 1
HORIZONTAL (ft)

	330	340	350	360	370	380	390	400	410	420	430
95	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
85	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2
75	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option A:
Vertical Plane 1
HORIZONTAL (ft)

	440	450	460	470	480	490	500	510	520	530	540
95	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
85	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4
75	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4
65	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4
55	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5
45	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5
35	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5
25	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4
15	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1

Option A:
Vertical Plane 1
HORIZONTAL (ft)

	550	560	570	580	590	600	610	620	630	640	650
95	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
85	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
75	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3
65	0.5	0.5	0.6	0.5	0.5	0.4	0.3	0.3	0.3	0.2	0.2
55	0.5	0.6	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.2
45	0.5	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.2
35	0.5	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.2
25	0.5	0.6	0.6	0.6	0.5	0.4	0.4	0.3	0.2	0.2	0.2
15	0.4	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2
5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0

Option A:
Vertical Plane 1
HORIZONTAL (ft)

	660	670	680	690	700	710	720	730	740	750	760
95	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2
85	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
75	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
65	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
55	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
45	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
35	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
15	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option A:
Vertical Plane 1
HORIZONTAL (ft)

VERTICAL (ft)

	770	780	790	800	810	820	830	840	850	860	870
95	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
85	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
75	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
65	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
55	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
45	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2
15	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2
5	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Option A:
Vertical Plane 1
HORIZONTAL (ft)

VERTICAL (ft)

	880	890	900	910	920	930	940	950	960	970	980
95	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4
85	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5
75	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4
65	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
55	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4
45	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4
35	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4
25	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4
15	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
5	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3

Option A:
Vertical Plane 1
HORIZONTAL (ft)

VERTICAL (ft)

	990	1000	1010	1020	1030	1040
95	0.5	0.5	0.6	0.6	0.7	0.7
85	0.5	0.5	0.6	0.6	0.7	0.7
75	0.4	0.5	0.6	0.6	0.7	0.7
65	0.5	0.5	0.6	0.6	0.7	0.7
55	0.4	0.4	0.5	0.6	0.6	0.7
45	0.4	0.4	0.5	0.6	0.6	0.7
35	0.4	0.4	0.5	0.6	0.6	0.6
25	0.4	0.4	0.5	0.5	0.6	0.6
15	0.4	0.4	0.5	0.5	0.6	0.6
5	0.3	0.4	0.4	0.5	0.5	0.5

Option A:
Vertical Plane 2
HORIZONTAL (ft)

VERTICAL (ft)

	0	10	20	30	40	50	60	70	80	90	100
95	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.9	1.1
85	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.9	1.2
75	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.8	0.9	1.2
65	0.2	0.3	0.3	0.3	0.4	0.5	0.5	0.7	0.8	1.0	1.2
55	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.9	1.2
45	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.6	0.7	0.9	1.1
35	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.6	0.7	0.8	1.0
25	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.8	0.9
15	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.8
5	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.7

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	110	120	130	140	150	160	170	180	190	200	210
95	1.4	1.9	2.5	3.5	4.8	6.5	7.5	4.0	1.8	6.0	5.3
85	1.5	2.0	2.8	4.1	6.1	9.3	13.4	10.5	4.7	10.8	7.6
75	1.6	2.2	2.9	4.4	6.5	10.0	15.1	12.4	5.5	12.1	8.2
65	1.6	2.1	2.9	4.1	5.9	8.2	10.3	6.5	3.1	8.2	6.7
55	1.5	1.9	2.6	3.5	4.6	5.5	5.4	2.4	1.3	4.2	4.4
45	1.4	1.7	2.2	2.8	3.4	3.6	3.0	1.2	0.8	2.4	2.9
35	1.2	1.5	1.9	2.2	2.5	2.5	2.0	0.9	0.6	1.5	2.0
25	1.1	1.3	1.5	1.8	1.9	1.8	1.3	0.6	0.5	1.1	1.4
15	1.0	1.1	1.3	1.4	1.5	1.3	1.0	0.5	0.4	0.8	1.0
5	0.9	1.0	1.1	1.1	1.1	1.0	0.7	0.3	0.3	0.6	0.8

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	220	230	240	250	260	270	280	290	300	310	320
95	4.0	2.9	2.1	1.6	1.3	1.0	0.8	0.7	0.6	0.5	0.5
85	5.0	3.4	2.4	1.8	1.3	1.0	0.9	0.7	0.6	0.6	0.5
75	5.3	3.6	2.5	1.8	1.4	1.1	0.9	0.7	0.7	0.6	0.5
65	4.7	3.4	2.4	1.8	1.4	1.1	0.9	0.7	0.7	0.6	0.5
55	3.7	2.8	2.1	1.6	1.2	1.0	0.8	0.6	0.6	0.5	0.4
45	2.6	2.2	1.8	1.4	1.1	0.9	0.7	0.6	0.5	0.5	0.4
35	2.0	1.8	1.5	1.2	1.0	0.8	0.7	0.6	0.5	0.5	0.4
25	1.4	1.4	1.2	1.1	0.9	0.8	0.6	0.5	0.5	0.4	0.4
15	1.1	1.1	1.1	0.9	0.8	0.7	0.6	0.5	0.5	0.4	0.4
5	0.9	0.9	0.9	0.8	0.7	0.6	0.5	0.5	0.4	0.4	0.3

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	330	340	350	360	370	380	390	400	410	420	430
95	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
85	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
75	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
65	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
55	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
45	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
35	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
25	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
15	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
5	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	440	450	460	470	480	490	500	510	520	530	540
95	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
85	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
75	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
65	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	550	560	570	580	590	600	610	620	630	640	650
95	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
85	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4
75	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
65	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	660	670	680	690	700	710	720	730	740	750	760
95	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
85	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3
75	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
65	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
55	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	770	780	790	800	810	820	830	840	850	860	870
95	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4
85	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
75	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4
65	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	880	890	900	910	920	930	940	950	960	970	980
95	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6
85	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
75	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
65	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
55	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4
45	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4
35	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4
25	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4
15	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4
5	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	990	1000	1010	1020	1030	1040	1050	1060	1070	1080	1090
95	0.6	0.7	0.8	0.8	0.9	1.0	1.2	1.3	1.5	1.7	2.1
85	0.7	0.7	0.8	0.9	0.9	1.1	1.2	1.4	1.6	1.8	2.2
75	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.4	1.6	1.9	2.2
65	0.7	0.7	0.8	0.9	0.9	1.1	1.2	1.4	1.6	1.9	2.2
55	0.5	0.6	0.6	0.7	0.8	0.9	1.1	1.2	1.4	1.7	2.1
45	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.1	1.3	1.5	1.9
35	0.4	0.4	0.5	0.6	0.7	0.8	0.9	1.1	1.3	1.5	1.7
25	0.4	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.4	1.7
15	0.4	0.4	0.5	0.6	0.6	0.7	0.8	1.0	1.1	1.3	1.5
5	0.4	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.4

VERTICAL (ft)

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	1100	1110	1120	1130	1140	1150	1160	1170	1180	1190	1200
95	2.4	2.9	3.6	4.5	5.6	7.0	8.5	9.6	8.2	1.5	5.8
85	2.6	3.2	3.9	5.0	6.5	8.5	11.3	14.8	17.1	5.9	16.3
75	2.7	3.3	4.1	5.3	6.9	9.3	12.8	18.3	25.3	12.1	29.1
65	2.7	3.3	4.1	5.2	6.8	9.0	12.3	16.8	21.4	9.3	23.2
55	2.5	3.0	3.8	4.8	6.1	7.8	9.9	11.8	11.3	2.4	8.8
45	2.2	2.7	3.3	4.1	5.1	6.2	7.2	7.4	5.7	1.0	3.8
35	2.1	2.5	3.0	3.6	4.3	4.9	5.2	4.8	3.3	0.7	2.2
25	2.0	2.3	2.7	3.1	3.5	3.8	3.8	3.4	2.2	0.7	1.5
15	1.8	2.1	2.4	2.7	2.9	3.0	2.9	2.5	1.7	0.6	1.1
5	1.6	1.8	2.0	2.3	2.4	2.4	2.3	1.9	1.2	0.4	0.8

VERTICAL (ft)

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	1210	1220	1230	1240	1250	1260	1270	1280	1290	1300	1310
95	10.0	9.9	8.3	6.6	5.3	4.2	3.4	2.7	2.3	1.9	1.6
85	18.2	14.3	10.7	8.0	6.1	4.7	3.7	2.9	2.4	1.9	1.6
75	24.8	17.1	12.0	8.7	6.5	4.9	3.8	3.0	2.4	2.0	1.6
65	21.8	15.9	11.5	8.5	6.4	4.8	3.8	3.0	2.4	2.0	1.6
55	13.3	12.0	9.6	7.5	5.8	4.5	3.6	2.8	2.3	1.9	1.6
45	7.3	8.0	7.2	6.1	4.9	4.0	3.2	2.6	2.1	1.7	1.4
35	4.4	5.3	5.3	4.8	4.1	3.5	2.9	2.4	2.0	1.7	1.4
25	2.9	3.7	3.9	3.8	3.5	3.0	2.6	2.2	1.9	1.6	1.3
15	2.1	2.7	3.0	3.1	2.9	2.6	2.3	2.0	1.7	1.5	1.3
5	1.5	2.1	2.4	2.5	2.4	2.2	2.0	1.8	1.5	1.3	1.2

VERTICAL (ft)

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	1320	1330	1340	1350	1360	1370	1380	1390	1400	1410	1420
95	1.4	1.2	1.0	0.9	0.8	0.7	0.6	0.6	0.5	0.5	0.4
85	1.4	1.2	1.0	0.9	0.8	0.7	0.6	0.6	0.5	0.4	0.4
75	1.4	1.2	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.4	0.4
65	1.4	1.2	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.4	0.4
55	1.3	1.1	0.9	0.8	0.7	0.6	0.5	0.5	0.4	0.4	0.3
45	1.2	1.0	0.9	0.7	0.6	0.6	0.5	0.4	0.4	0.3	0.3
35	1.2	1.0	0.9	0.7	0.6	0.6	0.5	0.4	0.4	0.3	0.3
25	1.1	1.0	0.8	0.7	0.6	0.6	0.5	0.4	0.4	0.3	0.3
15	1.1	1.0	0.8	0.7	0.6	0.6	0.5	0.4	0.4	0.4	0.3
5	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.4	0.3	0.3	0.3

VERTICAL (ft)

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	1430	1440	1450	1460	1470	1480	1490	1500	1510	1520	1530
95	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
85	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
75	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
65	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
55	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
45	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
35	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
25	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
15	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
5	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	1540	1550	1560	1570	1580	1590	1600	1610	1620	1630	1640
95	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	1650	1660	1670	1680	1690	1700	1710	1720	1730	1740	1750
95	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	1760	1770	1780	1790	1800	1810	1820	1830	1840	1850	1860
95	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	1870	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970
95	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3
85	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3
75	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
65	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
55	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2

VERTICAL (ft)

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	1980	1990	2000	2010	2020	2030	2040	2050	2060	2070	2080
95	0.3	0.4	0.5	0.5	0.6	0.8	0.8	1.0	1.1	1.2	1.4
85	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.4
75	0.3	0.3	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.3	1.4
65	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.3	1.5
55	0.2	0.3	0.4	0.6	0.7	0.8	0.9	1.0	1.1	1.3	1.4
45	0.2	0.3	0.4	0.5	0.7	0.8	0.9	1.0	1.1	1.2	1.4
35	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.2	1.3
25	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2
15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2
5	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1

VERTICAL (ft)

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	2090	2100	2110	2120	2130	2140	2150	2160	2170	2180	2190
95	1.5	1.8	2.1	2.5	3.2	4.1	5.3	7.0	8.0	5.7	0.8
85	1.6	1.9	2.2	2.7	3.4	4.8	6.6	9.4	13.6	15.5	1.4
75	1.6	1.9	2.2	2.8	3.7	5.1	7.2	10.7	16.7	24.5	2.4
65	1.7	1.9	2.3	2.8	3.6	4.9	6.7	9.3	12.6	12.9	1.4
55	1.6	1.9	2.2	2.6	3.4	4.4	5.5	6.9	7.4	5.2	1.1
45	1.6	1.8	2.0	2.4	3.0	3.6	4.3	4.9	4.5	2.8	1.1
35	1.5	1.7	1.9	2.2	2.6	3.0	3.3	3.4	3.0	1.9	1.1
25	1.4	1.5	1.8	2.0	2.2	2.5	2.6	2.6	2.2	1.5	1.0
15	1.3	1.4	1.6	1.8	2.0	2.1	2.1	2.1	1.7	1.2	1.0
5	1.2	1.3	1.5	1.6	1.7	1.8	1.8	1.7	1.4	1.0	0.8

VERTICAL (ft)

Option A:
Vertical Plane 2
HORIZONTAL (ft)

	2200	2210	2220	2230	2240	2250	2260	2270	2280	2290	2300
95	7.4	8.4	7.1	5.4	4.1	3.4	2.7	2.4	2.2	2.0	2.0
85	17.5	13.4	9.3	6.5	4.7	3.8	3.0	2.6	2.3	2.2	2.1
75	25.7	16.0	10.3	7.0	5.0	3.9	3.2	2.7	2.4	2.2	2.1
65	15.4	13.0	9.4	6.7	4.8	3.9	3.2	2.7	2.4	2.2	2.2
55	6.9	8.2	7.2	5.6	4.3	3.6	3.0	2.6	2.3	2.2	2.1
45	3.8	5.1	5.2	4.5	3.6	3.1	2.8	2.4	2.2	2.1	2.0
35	2.6	3.6	3.8	3.5	3.0	2.7	2.5	2.3	2.1	2.0	1.9
25	1.9	2.6	2.9	2.7	2.5	2.3	2.2	2.1	2.0	1.9	1.8
15	1.5	2.0	2.3	2.2	2.0	2.0	1.9	1.9	1.8	1.7	1.7
5	1.2	1.6	1.6	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6

VERTICAL (ft)

Option A:
Vertical Plane 2
HORIZONTAL (ft)

		2310	2320	2330	2340	2350	2360	2370	2380	2390	2400	2410
VERTICAL (ft)	95	2.1	2.2	2.6	3.2	4.1	5.5	7.6	10.2	10.0	0.4	12.1
	85	2.2	2.4	2.8	3.5	4.7	6.6	10.0	15.8	23.6	0.4	32.9
	75	2.2	2.4	2.9	3.6	4.8	6.9	10.6	17.3	27.5	0.4	38.8
	65	2.2	2.4	2.8	3.5	4.6	6.3	9.1	13.0	15.3	0.6	19.8
	55	2.2	2.3	2.7	3.2	4.0	5.2	6.7	7.8	6.1	0.7	6.9
	45	2.1	2.2	2.5	2.9	3.4	4.1	4.7	4.7	3.2	0.7	3.4
	35	2.0	2.1	2.3	2.5	2.8	3.2	3.4	3.1	2.1	0.7	2.1
	25	1.8	1.9	2.0	2.2	2.4	2.5	2.5	2.2	1.5	0.7	1.5
	15	1.7	1.8	1.8	2.0	2.0	2.1	2.0	1.7	1.1	0.6	1.1
	5	1.6	1.6	1.7	1.7	1.8	1.7	1.7	1.4	0.9	0.5	0.8

Option A:
Vertical Plane 2
HORIZONTAL (ft)

		2420	2430	2440	2450	2460	2470	2480	2490	2500	2510	2520	2530
VERTICAL (ft)	95	13.0	9.7	6.8	4.7	3.3	2.4	1.8	1.3	1.1	0.9	0.7	0.6
	85	21.8	13.3	8.3	5.3	3.6	2.5	1.8	1.4	1.1	0.9	0.7	0.6
	75	24.2	14.2	8.8	5.6	3.8	2.6	1.9	1.4	1.1	0.9	0.7	0.6
	65	17.2	11.9	8.0	5.4	3.8	2.7	1.9	1.4	1.1	0.9	0.8	0.6
	55	9.4	8.2	6.2	4.6	3.4	2.5	1.8	1.4	1.1	0.9	0.8	0.7
	45	5.2	5.4	4.6	3.7	2.9	2.2	1.7	1.3	1.1	0.9	0.8	0.6
	35	3.3	3.6	3.3	2.9	2.4	1.9	1.5	1.2	1.0	0.8	0.7	0.6
	25	2.2	2.5	2.5	2.3	2.0	1.6	1.4	1.1	1.0	0.8	0.7	0.6
	15	1.6	1.9	1.9	1.9	1.7	1.5	1.2	1.0	0.9	0.8	0.7	0.6
	5	1.2	1.5	1.6	1.5	1.4	1.2	1.1	0.9	0.8	0.7	0.6	0.5

Option A:
Vertical Plane 3
HORIZONTAL (ft)

		0	10	20	30	40	50	60	70	80	90	100	110
VERTICAL (ft)	85	1.8	1.6	1.4	1.3	1.1	1.0	0.9	0.8	0.7	0.7	0.6	0.6
	75	1.8	1.6	1.4	1.3	1.1	1.0	0.9	0.8	0.7	0.7	0.6	0.6
	65	1.8	1.6	1.4	1.2	1.1	1.0	0.9	0.8	0.7	0.7	0.6	0.6
	55	1.9	1.6	1.4	1.3	1.1	1.0	0.9	0.8	0.7	0.7	0.6	0.6
	45	1.9	1.7	1.5	1.3	1.1	1.0	0.9	0.8	0.7	0.6	0.6	0.5
	35	1.9	1.7	1.5	1.2	1.0	0.9	0.8	0.8	0.6	0.6	0.6	0.6
	25	1.7	1.6	1.4	1.2	1.0	0.9	0.8	0.7	0.7	0.6	0.6	0.5
	15	1.6	1.5	1.3	1.1	1.0	0.9	0.8	0.7	0.7	0.6	0.6	0.5
	5	1.5	1.4	1.2	1.1	0.9	0.8	0.7	0.7	0.6	0.6	0.6	0.5

Option A:
Vertical Plane 3
HORIZONTAL (ft)

		120	130	140	150	160	170	180	190	200	210	220	230
VERTICAL (ft)	85	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	75	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3
	65	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	55	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
	45	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3
	35	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
	25	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
	15	0.5	0.5	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3
	5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3

Option A:
Vertical Plane 3
HORIZONTAL (ft)

		240	250	260	270	280	290	300	310	320	330	340	350
VERTICAL (ft)	85	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
	75	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.5
	65	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
	55	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.6
	45	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
	35	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
	25	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
	15	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6
	5	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5

Option A:
Vertical Plane 3
HORIZONTAL (ft)

		360	370	380	390	400	410	420	430	440
VERTICAL (ft)	85	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	75	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.6
	65	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	55	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	45	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7
	35	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.7
	25	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.7
	15	0.6	0.6	0.7	0.7	0.7	0.8	0.7	0.7	0.7
	5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7

Option A:
Vertical Plane 4
HORIZONTAL (ft)

		0	10	20	30	40	50	60	70	80	90	100
VERTICAL (ft)	85	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
	75	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
	65	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2
	55	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2
	45	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2
	35	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2
	25	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1
	15	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
	5	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1

Option A:
Vertical Plane 4
HORIZONTAL (ft)

		110	120	130	140	150	160	170	180	190	200	210
VERTICAL (ft)	85	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	75	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	65	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	55	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	45	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
	35	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Option A:
Vertical Plane 4
HORIZONTAL (ft)

	220	230	240	250	260	270	280	290	300	310	320
85	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
75	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
65	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
55	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
45	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
35	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1
25	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1

VERTICAL (ft)

Option A:
Vertical Plane 4
HORIZONTAL (ft)

	330	340	350	360	370	380	390	400	410	420	430
85	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
55	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

VERTICAL (ft)

Option A:
Vertical Plane 4
HORIZONTAL (ft)

	440	450	460	470	480	490	500	510	520	530	540
85	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

VERTICAL (ft)

Option A:
Vertical Plane 4
HORIZONTAL (ft)

	550	560	570	580	590	600	610	620	630	640	650
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option A:
Vertical Plane 4
HORIZONTAL (ft)

	660	670	680	690	700	710	720	730	740	750	760
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option A:
Vertical Plane 4
HORIZONTAL (ft)

	770	780	790	800	810	820	830	840	850	860	870
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option A:
Vertical Plane 4
HORIZONTAL (ft)

	880	890	900	910	920	930	940	950	960	970	980
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option A:
Vertical Plane 4
HORIZONTAL (ft)

	990	1000	1010	1020	1030	1040	1050	1060	1070	1080	1090
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option A:
Vertical Plane 4
HORIZONTAL (ft)

	1100	1110	1120	1130	1140	1150	1160	1170	1180	1190	1200
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.0
25	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option A:
Vertical Plane 4
HORIZONTAL (ft)

	1210	1220	1230	1240	1250	1260	1270	1280	1290	1300	1310
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option A:
Vertical Plane 4
HORIZONTAL (ft)

	1320	1330	1340	1350	1360	1370	1380	1390	1400	1410	1420
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option A:
Vertical Plane 4
HORIZONTAL (ft)

	1430	1440	1450	1460	1470	1480	1490	1500	1510	1520	1530
85	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0
75	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option A:
Vertical Plane 4
HORIZONTAL (ft)

		1540	1550	1560	1570	1580	1590	1600	1610	1620	1630	1640
VERTICAL (ft)	85	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	65	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
	55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option A:
Vertical Plane 4
HORIZONTAL (ft)

		1650	1660	1670	1680	1690	1700	1710	1720	1730	1740	1750
VERTICAL (ft)	85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option A:
Vertical Plane 4
HORIZONTAL (ft)

		1760	1770	1780	1790	1800	1810	1820	1830	1840	1850	1860
VERTICAL (ft)	85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option A:
Vertical Plane 4
HORIZONTAL (ft)

		1870	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970
VERTICAL (ft)	85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option A:
Vertical Plane 4
HORIZONTAL (ft)

	1980	1990	2000	2010	2020	2030	2040	2050	2060	2070	2080
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option A:
Vertical Plane 4
HORIZONTAL (ft)

	2090	2100	2110	2120	2130	2140	2150	2160	2170	2180	2190
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option A:
Vertical Plane 4
HORIZONTAL (ft)

	2200	2210	2220	2230	2240	2250	2260	2270	2280	2290	2300
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option A:
Vertical Plane 4
HORIZONTAL (ft)

	2310	2320	2330	2340	2350	2360	2370	2380	2390	2400	2410
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option A:
Vertical Plane 4
HORIZONTAL (ft)

VERTICAL (ft)

	2420	2430	2440	2450	2460
85	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0

Option B:
Vertical Plane 1
HORIZONTAL (ft)

VERTICAL (ft)

	0	10	20	30	40	50	60	70	80	90	100
95	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1
55	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1
45	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
35	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
25	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option B:
Vertical Plane 1
HORIZONTAL (ft)

VERTICAL (ft)

	110	120	130	140	150	160	170	180	190	200	210
95	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option B:
Vertical Plane 1
HORIZONTAL (ft)

VERTICAL (ft)

	220	230	240	250	260	270	280	290	300	310	320
95	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option B:
Vertical Plane 1
HORIZONTAL (ft)

VERTICAL (ft)

	330	340	350	360	370	380	390	400	410	420	430
95	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
85	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2
75	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option B:
Vertical Plane 1
HORIZONTAL (ft)

VERTICAL (ft)

	440	450	460	470	480	490	500	510	520	530	540
95	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
85	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
75	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4
65	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4
55	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4
45	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5
35	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5
25	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5
15	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option B:
Vertical Plane 1
HORIZONTAL (ft)

VERTICAL (ft)

	550	560	570	580	590	600	610	620	630	640	650
95	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
85	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
75	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
65	0.4	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2
55	0.5	0.6	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.2
45	0.5	0.6	0.6	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.2
35	0.5	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.2
25	0.5	0.6	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.2	0.2
15	0.4	0.5	0.5	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.2
5	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0

Option B:
Vertical Plane 1
HORIZONTAL (ft)

VERTICAL (ft)

	660	670	680	690	700	710	720	730	740	750	760
95	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
85	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
75	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
65	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
55	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
45	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
35	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
15	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option B:
Vertical Plane 1
HORIZONTAL (ft)

VERTICAL (ft)

	770	780	790	800	810	820	830	840	850	860	870
95	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
85	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
75	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
65	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2
55	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
15	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1

Option B:
Vertical Plane 1
HORIZONTAL (ft)

VERTICAL (ft)

	880	890	900	910	920	930	940	950	960	970	980
95	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4
85	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4
75	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4
65	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
55	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4
45	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4
35	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4
25	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4
15	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
5	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3

Option B:
Vertical Plane 1
HORIZONTAL (ft)

VERTICAL (ft)

	990	1000	1010	1020	1030	1040
95	0.5	0.5	0.5	0.6	0.6	0.7
85	0.5	0.5	0.5	0.6	0.6	0.7
75	0.5	0.5	0.5	0.6	0.6	0.7
65	0.5	0.5	0.6	0.6	0.6	0.7
55	0.4	0.4	0.4	0.6	0.6	0.6
45	0.4	0.4	0.4	0.5	0.5	0.6
35	0.4	0.4	0.5	0.5	0.6	0.6
25	0.4	0.4	0.4	0.5	0.5	0.6
15	0.4	0.4	0.4	0.5	0.5	0.6
5	0.3	0.3	0.4	0.4	0.4	0.5

Option B:
Vertical Plane 2
HORIZONTAL (ft)

VERTICAL (ft)

	0	10	20	30	40	50	60	70	80	90	100
95	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.7	0.8	1.0	1.2
85	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.7	0.8	1.0	1.3
75	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.4
65	0.2	0.3	0.3	0.3	0.4	0.5	0.6	0.7	0.8	1.1	1.3
55	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.7	0.8	1.0	1.3
45	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.8	0.9	1.2
35	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.9	1.1
25	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.6	0.7	0.8	1.0
15	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.6	0.6	0.7	0.9
5	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.6	0.7	0.8

Option B:
Vertical Plane 2
HORIZONTAL (ft)

VERTICAL (ft)

	110	120	130	140	150	160	170	180	190	200	210
95	1.5	1.9	2.7	3.7	4.9	6.2	6.5	3.4	1.2	5.2	5.3
85	1.7	2.2	3.1	4.4	6.4	9.2	12.8	11.1	4.0	10.8	8.1
75	1.7	2.3	3.3	4.8	7.0	10.6	16.6	18.8	7.2	14.4	9.3
65	1.8	2.3	3.2	4.6	6.5	9.0	11.7	8.9	3.3	9.7	7.8
55	1.6	2.1	2.9	3.9	5.1	6.2	6.1	3.1	1.3	4.9	5.2
45	1.5	1.9	2.5	3.1	3.7	4.0	3.4	1.5	0.8	2.7	3.4
35	1.3	1.6	2.0	2.4	2.7	2.6	2.2	1.0	0.7	1.8	2.4
25	1.2	1.4	1.6	1.9	1.9	1.8	1.5	0.7	0.5	1.3	1.7
15	1.0	1.2	1.4	1.5	1.5	1.3	1.0	0.5	0.4	0.9	1.2
5	0.9	1.0	1.1	1.2	1.1	1.0	0.7	0.4	0.3	0.7	0.9

Option B:
Vertical Plane 2
HORIZONTAL (ft)

VERTICAL (ft)

	220	230	240	250	260	270	280	290	300	310	320
95	4.3	3.3	2.5	1.9	1.5	1.2	1.0	0.8	0.8	0.7	0.6
85	5.6	4.0	2.9	2.2	1.7	1.3	1.1	0.9	0.8	0.7	0.6
75	6.1	4.2	3.0	2.2	1.7	1.3	1.1	0.9	0.8	0.7	0.6
65	5.6	4.0	2.9	2.2	1.7	1.3	1.1	0.9	0.8	0.7	0.6
55	4.4	3.4	2.6	2.0	1.5	1.2	1.0	0.8	0.7	0.6	0.5
45	3.2	2.8	2.2	1.8	1.4	1.1	0.9	0.7	0.7	0.6	0.5
35	2.4	2.2	1.8	1.5	1.3	1.1	0.9	0.7	0.7	0.6	0.5
25	1.8	1.7	1.5	1.3	1.1	1.0	0.8	0.7	0.6	0.5	0.5
15	1.4	1.4	1.3	1.2	1.0	0.9	0.8	0.6	0.6	0.5	0.4
5	1.1	1.1	1.1	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.4

Option B:
Vertical Plane 2
HORIZONTAL (ft)

VERTICAL (ft)

	330	340	350	360	370	380	390	400	410	420	430
95	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
85	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
75	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
65	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
55	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1
45	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1
35	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1
25	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1
15	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1
5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1

Option B:
Vertical Plane 2
HORIZONTAL (ft)

VERTICAL (ft)

	440	450	460	470	480	490	500	510	520	530	540
95	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
85	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
75	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
65	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Option B:
Vertical Plane 2
HORIZONTAL (ft)

VERTICAL (ft)

	550	560	570	580	590	600	610	620	630	640	650
95	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
85	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4
75	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
65	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
45	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1

Option B:
Vertical Plane 2
HORIZONTAL (ft)

	660	670	680	690	700	710	720	730	740	750	760
95	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
85	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.3
75	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
65	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
55	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1

Option B:
Vertical Plane 2
HORIZONTAL (ft)

	770	780	790	800	810	820	830	840	850	860	870
95	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4
85	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
75	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4
65	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Option B:
Vertical Plane 2
HORIZONTAL (ft)

	880	890	900	910	920	930	940	950	960	970	980
95	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6
85	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6
75	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
65	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
55	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5
45	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4
35	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4
25	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4
15	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4
5	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3

Option B:
Vertical Plane 2
HORIZONTAL (ft)

	990	1000	1010	1020	1030	1040	1050	1060	1070	1080	1090
95	0.7	0.7	0.8	0.9	0.9	1.1	1.2	1.4	1.6	1.9	2.2
85	0.7	0.7	0.8	0.9	1.0	1.1	1.3	1.4	1.7	2.0	2.3
75	0.7	0.7	0.8	0.9	1.0	1.1	1.3	1.5	1.7	2.0	2.4
65	0.7	0.7	0.8	0.9	1.0	1.1	1.3	1.5	1.7	2.1	2.4
55	0.5	0.6	0.6	0.7	0.8	1.0	1.1	1.3	1.5	1.8	2.2
45	0.4	0.5	0.5	0.6	0.7	0.8	1.0	1.2	1.4	1.7	2.0
35	0.4	0.5	0.5	0.6	0.7	0.8	1.0	1.1	1.3	1.6	1.9
25	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.1	1.3	1.5	1.8
15	0.4	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.4	1.6
5	0.4	0.4	0.5	0.6	0.6	0.7	0.8	1.0	1.1	1.3	1.5

Option B:
Vertical Plane 2
HORIZONTAL (ft)

VERTICAL (ft)

	1100	1110	1120	1130	1140	1150	1160	1170	1180	1190	1200
95	2.6	3.2	4.0	5.0	6.3	7.9	9.5	9.6	5.0	2.8	9.4
85	2.8	3.5	4.4	5.8	7.6	10.2	13.8	18.2	16.4	11.4	20.9
75	2.9	3.7	4.6	6.1	8.2	11.4	16.6	25.3	32.2	25.6	32.5
65	2.9	3.7	4.6	6.0	8.0	11.0	15.4	21.9	24.8	19.8	27.1
55	2.7	3.4	4.2	5.4	7.0	9.1	11.5	12.8	7.9	4.6	13.4
45	2.4	3.0	3.7	4.7	5.7	6.9	7.7	6.9	3.2	1.8	6.4
35	2.2	2.7	3.3	3.9	4.6	5.1	5.2	4.2	1.8	1.2	3.6
25	2.1	2.4	2.8	3.3	3.7	3.8	3.7	2.8	1.3	0.9	2.4
15	1.9	2.2	2.5	2.8	3.0	3.0	2.8	2.0	1.0	0.8	1.7
5	1.7	1.9	2.1	2.4	2.4	2.4	2.1	1.5	0.7	0.6	1.2

Option B:
Vertical Plane 2
HORIZONTAL (ft)

VERTICAL (ft)

	1210	1220	1230	1240	1250	1260	1270	1280	1290	1300	1310
95	10.5	9.0	7.3	5.8	4.5	3.6	2.9	2.4	2.0	1.6	1.4
85	16.6	12.2	9.0	6.7	5.1	4.0	3.1	2.5	2.0	1.7	1.4
75	21.0	14.1	9.9	7.2	5.4	4.1	3.2	2.5	2.1	1.7	1.4
65	19.1	13.4	9.7	7.1	5.3	4.1	3.2	2.5	2.1	1.7	1.4
55	13.2	10.8	8.4	6.4	4.9	3.9	3.0	2.4	2.0	1.6	1.4
45	8.1	7.7	6.6	5.3	4.3	3.4	2.7	2.2	1.8	1.5	1.2
35	5.1	5.4	5.1	4.4	3.7	3.0	2.5	2.1	1.7	1.4	1.2
25	3.5	3.9	3.9	3.5	3.1	2.7	2.3	1.9	1.6	1.4	1.2
15	2.5	2.9	3.1	3.0	2.7	2.4	2.1	1.8	1.5	1.3	1.1
5	1.9	2.3	2.5	2.4	2.3	2.0	1.8	1.6	1.4	1.2	1.0

Option B:
Vertical Plane 2
HORIZONTAL (ft)

VERTICAL (ft)

	1320	1330	1340	1350	1360	1370	1380	1390	1400	1410	1420
95	1.2	1.1	0.9	0.8	0.7	0.6	0.6	0.5	0.5	0.4	0.4
85	1.2	1.1	0.9	0.8	0.7	0.7	0.6	0.5	0.5	0.4	0.4
75	1.2	1.0	0.9	0.8	0.7	0.6	0.6	0.5	0.5	0.4	0.4
65	1.2	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.4	0.4	0.3
55	1.1	1.0	0.8	0.7	0.6	0.5	0.5	0.4	0.4	0.3	0.3
45	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.4	0.3	0.3	0.3
35	1.0	0.9	0.7	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.3
25	1.0	0.9	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.3
15	1.0	0.9	0.7	0.7	0.6	0.5	0.4	0.4	0.4	0.3	0.3
5	0.9	0.8	0.7	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.2

Option B:
Vertical Plane 2
HORIZONTAL (ft)

VERTICAL (ft)

	1430	1440	1450	1460	1470	1480	1490	1500	1510	1520	1530
95	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
85	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
75	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
65	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
55	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
45	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
35	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
25	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
15	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
5	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Option B:
Vertical Plane 2
HORIZONTAL (ft)

	1540	1550	1560	1570	1580	1590	1600	1610	1620	1630	1640
95	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0

VERTICAL (ft)

Option B:
Vertical Plane 2
HORIZONTAL (ft)

	1650	1660	1670	1680	1690	1700	1710	1720	1730	1740	1750
95	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option B:
Vertical Plane 2
HORIZONTAL (ft)

	1760	1770	1780	1790	1800	1810	1820	1830	1840	1850	1860
95	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

VERTICAL (ft)

Option B:
Vertical Plane 2
HORIZONTAL (ft)

	1870	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970
95	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
85	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
75	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
65	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

VERTICAL (ft)

Option B:
Vertical Plane 2
HORIZONTAL (ft)

VERTICAL (ft)

	1980	1990	2000	2010	2020	2030	2040	2050	2060	2070	2080
95	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.1	1.2	1.3
85	0.3	0.4	0.3	0.5	0.7	0.8	0.8	1.0	1.1	1.2	1.4
75	0.3	0.3	0.3	0.5	0.7	0.8	0.9	1.0	1.1	1.3	1.4
65	0.2	0.4	0.4	0.5	0.7	0.8	0.9	1.0	1.1	1.3	1.4
55	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.2	1.4
45	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.1	1.2	1.3
35	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.3
25	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2
15	0.2	0.3	0.4	0.4	0.6	0.6	0.7	0.8	0.9	1.0	1.1
5	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1

Option B:
Vertical Plane 2
HORIZONTAL (ft)

VERTICAL (ft)

	2090	2100	2110	2120	2130	2140	2150	2160	2170	2180	2190
95	1.5	1.7	2.1	2.6	3.3	4.1	5.5	7.1	7.8	4.7	1.7
85	1.6	1.9	2.2	2.9	3.5	4.9	6.9	10.0	14.4	14.7	6.0
75	1.7	1.9	2.3	2.9	3.9	5.2	7.5	11.2	18.1	25.2	12.1
65	1.6	1.9	2.4	3.0	3.7	5.1	6.9	9.7	13.2	11.7	4.6
55	1.6	1.9	2.3	2.7	3.5	4.4	5.6	6.9	7.2	4.2	1.8
45	1.5	1.8	2.1	2.5	3.0	3.6	4.3	4.7	4.3	2.2	1.3
35	1.5	1.6	1.9	2.2	2.6	3.0	3.3	3.3	2.8	1.5	1.1
25	1.4	1.5	1.7	2.0	2.2	2.4	2.5	2.5	1.9	1.2	0.9
15	1.3	1.4	1.6	1.8	1.9	2.0	2.0	1.9	1.5	1.0	0.8
5	1.2	1.3	1.4	1.6	1.7	1.7	1.7	1.5	1.2	0.8	0.6

Option B:
Vertical Plane 2
HORIZONTAL (ft)

VERTICAL (ft)

	2200	2210	2220	2230	2240	2250	2260	2270	2280	2290	2300
95	7.7	8.0	6.5	4.8	3.5	2.9	2.3	1.8	1.6	1.3	1.1
85	17.3	12.4	8.4	5.8	4.1	3.3	2.5	2.0	1.6	1.4	1.1
75	24.4	14.7	9.3	6.2	4.3	3.5	2.6	2.1	1.7	1.4	1.1
65	15.5	12.2	8.6	6.0	4.2	3.3	2.7	2.1	1.7	1.4	1.2
55	7.1	7.9	6.6	5.0	3.7	3.1	2.5	2.0	1.7	1.4	1.1
45	3.9	5.0	4.7	3.9	3.1	2.7	2.3	1.9	1.6	1.3	1.1
35	2.5	3.3	3.4	3.0	2.5	2.3	2.0	1.7	1.5	1.2	1.0
25	1.8	2.4	2.5	2.3	2.0	1.9	1.8	1.6	1.4	1.2	1.0
15	1.4	1.8	2.0	1.8	1.6	1.6	1.5	1.4	1.2	1.1	0.9
5	1.1	1.3	1.3	1.4	1.3	1.3	1.2	1.2	1.1	1.0	0.9

Option B:
Vertical Plane 3
HORIZONTAL (ft)

VERTICAL (ft)

	0	10	20	30	40	50	60	70	80	90	100
85	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
75	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
65	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
55	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
45	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
35	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
25	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2
15	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2
5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3

Option B:
Vertical Plane 3
HORIZONTAL (ft)

VERTICAL (ft)

	110	120	130	140	150	160	170	180	190	200	210
85	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3
75	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.3
65	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3
55	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
45	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
35	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
15	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Option B:
Vertical Plane 3
HORIZONTAL (ft)

VERTICAL (ft)

	220	230	240	250	260	270	280	290	300	310	320
85	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4
75	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4
65	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
55	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5
45	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
35	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4
25	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4
15	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
5	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4

Option B:
Vertical Plane 3
HORIZONTAL (ft)

VERTICAL (ft)

	330	340	350	360	370	380	390	400	410	420	430	440
85	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6
75	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6
65	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7
55	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
45	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
35	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
25	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.7	0.7
15	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
5	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	0	10	20	30	40	50	60	70	80	90	100
85	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
75	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
65	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
55	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
45	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
35	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1
15	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1

VERTICAL (ft)

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	110	120	130	140	150	160	170	180	190	200	210
85	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
75	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
65	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

VERTICAL (ft)

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	220	230	240	250	260	270	280	290	300	310	320
85	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
75	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
65	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
55	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

VERTICAL (ft)

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	330	340	350	360	370	380	390	400	410	420	430
85	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

VERTICAL (ft)

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	440	450	460	470	480	490	500	510	520	530	540
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

VERTICAL (ft)

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	550	560	570	580	590	600	610	620	630	640	650
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	660	670	680	690	700	710	720	730	740	750	760
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	770	780	790	800	810	820	830	840	850	860	870
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option B:
Vertical Plane 4
HORIZONTAL (ft)

		880	890	900	910	920	930	940	950	960	970	980
VERTICAL (ft)	85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option B:
Vertical Plane 4
HORIZONTAL (ft)

		990	1000	1010	1020	1030	1040	1050	1060	1070	1080	1090
VERTICAL (ft)	85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	35	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	25	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0
	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option B:
Vertical Plane 4
HORIZONTAL (ft)

		1100	1110	1120	1130	1140	1150	1160	1170	1180	1190	1200
VERTICAL (ft)	85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	35	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
	25	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option B:
Vertical Plane 4
HORIZONTAL (ft)

		1210	1220	1230	1240	1250	1260	1270	1280	1290	1300	1310
VERTICAL (ft)	85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	55	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	45	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	1320	1330	1340	1350	1360	1370	1380	1390	1400	1410	1420
85	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	1430	1440	1450	1460	1470	1480	1490	1500	1510	1520	1530
85	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0
75	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
65	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	1540	1550	1560	1570	1580	1590	1600	1610	1620	1630	1640
85	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	1650	1660	1670	1680	1690	1700	1710	1720	1730	1740	1750
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	1760	1770	1780	1790	1800	1810	1820	1830	1840	1850	1860
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	1870	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	1980	1990	2000	2010	2020	2030	2040	2050	2060	2070	2080
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	2090	2100	2110	2120	2130	2140	2150	2160	2170	2180	2190
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

VERTICAL (ft)

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	2200	2210	2220	2230	2240	2250	2260	2270	2280	2290	2300
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Option B:
Vertical Plane 4
HORIZONTAL (ft)

	2310	2320	2330	2340	2350	2360	2370	2380	2390	2400	2410
85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0