RESOLUTION NO. 6536

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GARDENA, CALIFORNIA APPROVING SITE PLAN REVIEW #8-21 AND CONDITIONAL USE PERMIT #3-21 TO OPERATE A SOCCER FACILITY IN THE M-1 (INDUSTRIAL) ZONE WITH TANDEM AND STREET PARKING, REVOKING CONDITIONAL USE PERMIT #4-06 TO OPERATE A DEMOLITION AND HAULING BUSINESS, AND DIRECTING STAFF TO FILE A NOTICE OF EXEMPTION (ENVIRONMENTAL ASSESSMENT #10-21) FOR A CLASS 32 IN-FILL DEVELOPMENT

1440 WEST 139TH STREET (14000 HALLDALE AVENUE) (APN: 6102-020-021)

THE CITY COUNCIL OF THE CITY OF GARDENA, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. RECITALS.

- A. On June 1, 2021, the applicant, GS Sports, LLC, represented by Sebastien Abonnel, submitted an application to operate a 5-a-side soccer facility located at 1440 West 139th Street (14000 Halldale Avenue) (APN: 6102-020-021);
- B. The General Plan land use designation is Industrial, and the zoning is M-1 (Industrial);
- C. The subject property is bounded by legal non-conforming residential uses to the north and west in the same block and also further to the east across Brighton Avenue, and industrial uses to the north, south, southeast, and west;
- D. On October 7, 2021, a public hearing was duly noticed for a virtual Planning and Environmental Quality Commission meeting for October 19, 2021, at 7 PM;
- E. On October 19, 2021, the Planning and Environmental Quality Commission held a public hearing at which time it considered all material and evidence, whether written or oral, and at the conclusion of the public hearing, adopted Resolution No. PC 13-21 approving the proposed project;
- F. On October 26, 2021, at a regularly scheduled City Council meeting, Council Member Francis called the item for review;
- G. On November 4, 2021, a public hearing was duly noticed for a virtual City Council meeting for November 16, 2021, at 7:30 PM;
- H. On November 16, 2021, the City Council held a public hearing at which time it considered all material and evidence, whether written or oral; and
- I. In making the various findings set forth herein, the City Council has considered all of the evidence presented by staff, the applicant, and the public, whether

written or oral, and has considered the procedures and the standards required by the Gardena Municipal Code.

SECTION 2. SITE PLAN REVIEW #8-21

Site Plan Review (#8-21) for the construction of seven 50-foot by 98-foot soccer fields with netting, lighting, and other accessory structures and related improvements, is hereby approved based on the following findings and subject to the conditions attached hereto as Exhibit A. The plans being approved are those on file at the Community Development Department dated May 28, 2021, attached hereto as Exhibit B, as the same may be modified by the conditions of approval.

A. The proposed development, including the uses and physical design, is consistent with the intent and general purpose of the general plan and provisions of the municipal code.

The purpose of the project is to provide a soccer facility in the City of Gardena. The use and physical design are consistent with the intent and general purpose of the general plan and provisions of the municipal code in that it provides a much needed recreational facility that does not significantly impact the surrounding area. The facility meets or exceeds the development standards for the M-1 zone in which the property is located.

B. The proposed development will not adversely affect the orderly and harmonious development of the area and the general welfare of the city.

The proposed use is for a recreational facility that would be more compatible to the surrounding nonconforming residences than many of the industrial uses permitted in the zone. The use is also compatible with surrounding industrial uses in that its peak operation occurs after most businesses have closed.

SECTION 3. CONDITIONAL USE PERMIT #3-21

Conditional Use Permit #3-21 for: 1) the operation of a new soccer facility per Section 18.46.030.C.9 of the Gardena Municipal Code (GMC); and 2) to permit parking that utilizes tandem and street parking per Section 18.40.080 of the GMC, is hereby approved based on the following findings and subject to the conditions attached hereto as Exhibit A.

A. That the use applied for at the location set forth in the application is properly one for which a conditional use permit is authorized by this chapter;

The Zoning Ordinance of the GMC does not explicitly state whether a soccer facility such as the proposed use is allowed in any zoning district. Additionally, there are no uses listed in the M-1 (Industrial) zone which are similar to that of a soccer facility. Therefore, the proposal for a soccer facility is subject to GMC Section 18.46.030.C.9, which states, "uses which are not specifically listed which in no way are detrimental to surrounding properties or uses permitted in the zone and which are not permitted as a similar use" require a conditional use permit

- (CUP). The GMC has been amended to allow tandem and street parking to be used to satisfy parking requirements when approved by a conditional use permit.
- B. That such use is necessary or desirable for the development of the community and is compatible with the surrounding uses, is in harmony with the general plan, is not detrimental to the surrounding properties, existing uses, or to uses specifically permitted in the zone in which the proposed use is to be located, and will not be detrimental to the public health, safety, or welfare;

The General Plan land use map designates the subject property as Industrial, which covers a wide variety of land uses and is implemented by the M-1 zone. The Industrial land use category is designed to provide for a wide variety of clean and environmentally friendly industries. Due to the need for a large open area to accommodate the soccer fields, the industrial area of the City is ideal for the proposed use. Allowing the operation of the soccer facility is consistent with the following goals of the City's General Plan:

<u>Economic Development Goal 3</u> – Attract desirable businesses to locate in the City.

OS Goal 2 – Increase the City's supply and quality of parkland, open space, and recreational programs.

Noise Goal 2 – Incorporate noise considerations into land use planning decisions.

Subject to the approval of the conditional use permit and the conditions of approval, the proposed use and tandem and street parking will be consistent with the General Plan and Gardena Municipal Code, compatible with the surrounding area, and will not be detrimental to the public health, safety, or welfare.

C. That the site for the intended use is adequate in size and shape to accommodate such use and all of the yards, setbacks, walls, fences, landscaping, and other features required in order to adjust such use to those existing or permitted future uses on land in the neighborhood;

The proposed site can accommodate the soccer facility, including seven 5-a-side soccer fields, an office building with an ancillary cafe, and tandem parking. Nearby street parking is also available.

D. That the site for the proposed use relates to streets and highways properly designed and improved so as to carry the type of quantity of traffic generated or to be generated by the proposed use;

The soccer facility does not propose any changes to roadways adjacent to or within the vicinity of the project site. The project site would continue to be accessed from the driveway located on Halldale Avenue. Local streets and highways are adequate to accommodate the quantity of traffic generated by the soccer facility. No improvements to local streets and highways are necessary with implementation of the project.

E. That the conditions stated in the decisions are deemed necessary to protect the public health, safety, and general welfare.

Conditions have been included to reduce light and glare to neighbors, prevent noise impacts, provide for bicycle parking, and encourage alternative modes of transportation. Conditions will also require that barbed wire be removed from perimeter walls and that the new trash enclosure is made of solid block with a cover on top.

Additional findings relating to street parking, as summarized from the staff report:

A. There are circumstances related to the proposed use, operations, location, the surrounding uses, zone, infrastructure, or there are other factors identified that cannot be accommodated by the limitations of the parking requirements of this Title.

The parking need was determined by a parking study as there is no requirement for this type of use listed in the Gardena Municipal Code. Peak hour need exceeds the amount of parking that can be placed onsite and still have room for the seven fields. As peak use occurs after the surrounding businesses close on weekdays, and these businesses are not open on weekends, there is ample street parking that is available adjacent to the facility. It is also noted that the property is irregularly shaped.

B. That the granting of the conditional use permit will not be in conflict with the policies of the General Plan of the City.

This issue is addressed above.

C. The proposed use and off-site parking, as conditioned, will not be materially detrimental to the public health, safety, and welfare or injurious to property and improvements in the vicinity of the subject property.

Neither the use nor the off-site parking will be detrimental to surrounding properties. Conditions have been imposed to ensure compatibility of the use and there is adequate street parking that it will not interfere with parking needed for adjacent businesses or the legal non-conforming residences based on peak hour demands.

Additional findings relating to tandem parking as summarized from the staff report:

A. There are circumstances related to the proposed use, operations, location, unusual size or shape of the property, or are other factors identified that cannot be accommodated by the limitations of the parking requirements of this Title.

As set forth above, the parking need was established by a parking study as this use is not addressed in the GMC. The property is irregularly shaped. Due to the nature of the use of teams coming and going at the same time, tandem parking is appropriate.

B. Tandem parking is not being used for retail or restaurant required parking. The tandem parking is for a soccer facility, not retail or restaurant parking.

C. The intended users of the tandem parking are the customers and employees of the tenant on the site. On multi-tenant properties, the applicant has demonstrated that the tandem parking is not being used (as tandem) by retail or restaurant establishments.

The soccer facility is a stand-alone use and tandem parking will only be used by employees and players of the facility.

D. That the allowance of the tandem parking is not in conflict with the policies of the General Plan.

Tandem parking allows more on-site parking to be available which promotes Land Use Policies 3.1 and 3.5 to provide adequate parking and Open Space Policy 1.6 of providing adequate parking for recreation facilities in the City.

E. Tandem parking, as conditioned, will not be materially detrimental to the public health, safety, and welfare or injurious to property and improvements in the vicinity of the subject property.

The tandem parking will not have any impact on properties in the vicinity. A condition has been imposed to require a monitor for tandem parking if necessary.

SECTION 4. REVOCATION OF CONDITIONAL USE PERMIT #4-06

Pursuant to Section 18.46.050 of the GMC, a conditional use permit may be revoked for cause once written notice of the intention to revoke is delivered to the permittee at least 10 days before the hearing and written findings are made. The City Council finds that revocation is necessary because the conditionally permitted use for demotion and hauling no longer occurs on the subject property, and there cannot be two conditional use permits for different uses on the same property. As such, CUP #4-06 IS HEREBY REVOKED.

SECTION 5. CALIFORNIA ENVIROMENTAL QUALITY ACT FINDINGS.

The project is exempt from the provisions of the California Environmental Quality Act (CEQA), pursuant to a Class 32 In-fill Development Projects exemption. As set forth in the attached Categorical Exemption Report, the project meets all of the criteria and is not subject to any of the exemptions to the exceptions.

Staff is hereby directed to file a Notice of Exemption for a Class 32 infill exemption.

SECTION 6. RECORD.

Each and every one of the findings and determinations in this Resolution are based on the competent and substantial evidence, both oral and written, contained in the entire record relating to the Project. All summaries of information in the findings which precede this section are based on the entire record. The absence of any particular fact from any such summary is not an indication that a particular finding is not based in part on that fact.

SECTION 7. CUSTODIAN OF RECORD.

The Custodian of Record for the proceedings relating to the Project is Greg Tsujiuchi, Community Development Director, City of Gardena, 1700 West 162nd Street, Gardena, California 90247. Mr. Tsujiuchi's email is gtsujiuchi@cityofgardena.org and his phone number is (310) 217-9530.

SECTION 8. EFFECTIVE DATE.

This Resolution shall take effect immediately.

SECTION 9. CERTIFICATION.

The Secretary shall certify the passage of this resolution.

PASSED, APPROVED, AND ADOPTED this 16th day of November 2021.

ATTEST:

MINA SEMENZA, City Clerk

APPROVED AS TO FORM:

CARMEN VASQUEZ, City Attorney

Attachments:

- Exhibit A: Conditions of Approval
- Exhibit B: Development Plans
- Exhibit C: CEQA Class 32 Categorical Exemption Report

STATE OF CALIFORNIA COUNTY OF LOS ANGELES) SS: CITY OF GARDENA

I, MINA SEMENZA, City Clerk of the City of Gardena, do hereby certify that the whole number of members of the City Council of said City is five; that the foregoing Resolution, being **Resolution No. 6536** duly passed and adopted by the City Council of said City of Gardena, approved and signed by the Mayor of said City, and attested by the City Clerk, all at a regular meeting of said City Council held on the 16th day of November, 2021, and that the same was so passed and adopted by the following roll call vote:

AYES:

MAYOR CERDA, COUNCIL MEMBER FRANCIS, MAYOR PRO TEM TANAKA,

COUNCIL MEMBERS HENDERSON AND KASKANIAN

NOES:

NONE

ABSENT: NONE

City Clerk of the City of Gardena, California

(SEAL)

EXHIBIT A

CITY OF GARDENA

CONDITIONS OF APPROVAL FOR SITE PLAN REVIEW #8-21 AND CONDITIONAL USE PERMIT #3-21

GENERAL CONDITIONS

- GC 1. The applicant accepts all of the conditions of approval set forth in this document and shall sign the acknowledgement.
- GC 2. Applicant shall comply with all applicable written policies, resolutions, ordinances, and laws in effect at time of approval, or at time of permit applications. These conditions of approval shall supersede all conflicting notations, specifications, and dimensions which may be shown on the project development plans.
- GC 3. The approved resolution, including these conditions contained herein and the signed acknowledgement of acceptance, shall be copied in their entirety and placed directly onto a separate plan sheet behind the cover sheet of the development plans prior to building plan check submittal. Said copies shall be included in all development plan submittals, including revisions and the final working drawings.
- GC 4. The site layout and physical appearance of the courts and existing structure shall be in accordance with the plans presented to and approved by the Planning and Environmental Quality Commission on October 19, 2021 and modified by these conditions of approval. Minor modifications or alterations to the design, style, colors, and materials shall be subject to the review and approval of the Community Development Director. Substantial modifications will require review and approval by the Planning Commission.
- GC 5. The applicant shall reimburse the City for all attorney's fees spent in processing the project application, including review of all documents required by these conditions of approval prior to issuance of a final building permit.
- GC 6. Applicant/developer shall defend, indemnify, and hold harmless the City, its agents, officers, and employees from any claim, action, or proceeding, damages, costs (including, without limitation, attorney's fees), injuries, or liability against the City or its agents, officers, or employees arising out of the City's approval of Site Plan Review #8-21 and Conditional Use Permit #3-21. The City shall promptly notify the applicant/developer of any claim, action, or proceeding and the City shall cooperate fully in the defense. If the City fails to promptly notify the applicant/developer of any claim, action, or proceeding, or if the City fails to cooperate fully in the defense, the applicant/developer shall not thereafter be responsible to defend, indemnify, or hold harmless the City. Although the applicant/developer is the real party in interest in an action, the City may, at its sole discretion, participate in the defense of any action with the attorneys of its own choosing, but such participation shall not relieve the

applicant/developer of any obligation under this condition, including the payment of attorney's fees.

CONDITIONAL USE PERMIT

- CUP1. Conditional Use Permit #3-21 shall be utilized within a period not to exceed 12 months from the date of approval, unless an extension is granted in accordance with Section 18.46.040 of the Gardena Municipal Code. Utilization shall mean the issuance of a building permit.
- CUP2. The hours of operation of the soccer center facility shall be limited to 9 a.m. until 11 p.m. daily.
- CUP3. The parking lot shall remain open at all times during operating hours. A parking monitor shall be available as necessary to direct vehicles to park in tandem and assist with maneuvering. All onsite spaces shall be utilized to the extent feasible before vehicles are turned away from the parking lot. In the event the parking lot is full, vehicles shall be directed to park on the street where parking is available.
- CUP4. Exterior lighting of all entrances, exits, and parking lot area shall be maintained during hours of operation and darkness. Parking lot lighting fixtures shall be sufficient (minimum one foot-candle, average of two foot-candles) to illuminate the parking lot to monitor activity as well as be fully shielded and directed to confine illumination entirely on parking areas of the subject site. Field lighting shall be directed downward and inward to prevent impacts to adjacent residential uses. Lighting standards shall be a maximum of 23 feet in height.
- CUP5. The cafe shall be incidental to the soccer center use and used for patrons and employees only. It shall not be open to the general public.
- CUP6. No special events, or other temporary uses, shall be held at the project site without the applicant obtaining a special permit or temporary use permit (TUP) from the City, and paying all appropriate fees. Temporary uses are those that meet the intent and purpose of GMC Section 18.60.010. Special events are those exempt from a TUP and require City Council approval as listed in GMC Section 18.60.060.
- CUP7. During hours of operation, pedestrian access from Brighton and Halldale Avenues shall be made available.
- CUP8. In the event noise, lighting or traffic nuisances or other public safety issues are brought to the attention of the City, the Community Development Director may impose further conditions or restrictions on the site operations to ensure land use compatibility.

- CUP9. A minimum of eleven bike spaces shall be provided onsite in a permanent location.
- CUP10. The applicant shall encourage alternative methods of transportation such as buses, biking, and ridesharing by providing a program for discounts or other incentives. The program shall include a 10% discount for those who participate during peak hours (6 p.m. to 8 p.m.). The program shall be advertised on the website and within the premises.
- CUP11. Information shall also be provided on the website and within the premises displaying transportation information in a conspicuous location available to the public. Information may include bus maps, routes and schedules, telephone numbers for ridesharing, bicycle route and facility information.

PLANNING

- PL1. The applicant shall stripe the parking spaces in accordance with the size and dimension specifications in GMC Section 18.40.050. Locations shall be in accordance with the approved site plan.
- PL2. The Applicant/developer shall maintain landscaping in a healthy and well-kept manner at all times. All landscape areas shall be provided with automatic irrigation. Dead or damaged landscape material and vegetation shall be replaced immediately. The irrigation system shall be maintained at all times. Trees shall be permitted to grow to their maximum height.
- PL3. The Applicant/developer shall maintain the property in a clean and orderly condition at all times and remove any graffiti from the site within 48 hours of its discovery in matching colors to the underlying surfaces.
- PL4. A refuse enclosure shall be provided and shall have minimum inside dimensions as specific in GMC Section 18.42.130 and Chapter 8.20. The trash enclosure shall be made of concrete block walls with solid doors and in a location that is not visible from the public right of way. A refuse bin shall be stored in the enclosure at all times, and the bin cover closed at all times, except when the bin is being used. A decorative roof or trellis shall be provided over the enclosure.
- PL5. Trash cans shall be provided throughout the site as necessary to prevent litter. Trash cans shall be emptied regularly to prevent overflow.
- PL6. Outdoor equipment and activities shall not generate noise greater than 75 dB(A) as measured from any site perimeter lines. In no event shall noise exceed the requirements specified in GMC Chapter 8.36.
- PL7. All signs must be consistent with GMC Section 18.58.

- PL8. Prior to issuance of a building permit, barbed wire shall be removed from atop the perimeter walls.
- PL9. Fields, 5, 6 and 7 shall not be utilized after 10:00 p.m. and field lighting shall be turned off on those fields at that time.

BUILDING & SAFETY

- BS1. The Applicant/developer shall provide storm water management plan study prepared by a qualified engineer acceptable to the Building Official and the Engineering Division.
- BS2. The Applicant/developer shall submit a site lighting plan, with photometrics, for review and approval by the Building Official and the Director of Community Development prior to the issuance of building permits. The plan shall ensure that all exterior lighting (i.e., parking areas, building areas, and entries) shall employ illumination in a manner that meets the approval of the Building Official and the Director of Community Development. All light fixtures shall be designed and located in a manner that does not allow spillover onto adjacent properties.
- BS3. The Applicant/developer shall maintain a 26-foot minimum backup distance from the parking stalls.
- BS4. Address shall be posted on the outside gate and on the curb per CA Building and Fire codes.

PUBLIC WORKS – ENGINEERING DIVISION

- PW1. Applicant shall pay the appropriate sewer fee (TBD).
- PW2. Applicant shall secure industrial waste clearance.
- PW3. Applicant shall remove and replace approximately 300 SF of damaged sidewalk (to be marked) fronting the property to the satisfaction of the Public Works Department.
- PW4. Applicant shall re-paint existing curbs and install traffic signs fronting the property as required per the Public Works Department.
- PW5. Requirements based upon preliminary review only. Additional requirements may be imposed upon full plan submittal and review.
- PW6. Applicant shall obtain Public Works Encroachment/Excavation permit for any work done in the public right-of-way.

LOS ANGELES COUNTY FIRE DEPARTMENT

FD1. The applicant shall ensure that vehicles are not stored in a manner as to block, encroach into or otherwise impede the existing approved Fire Department Access.

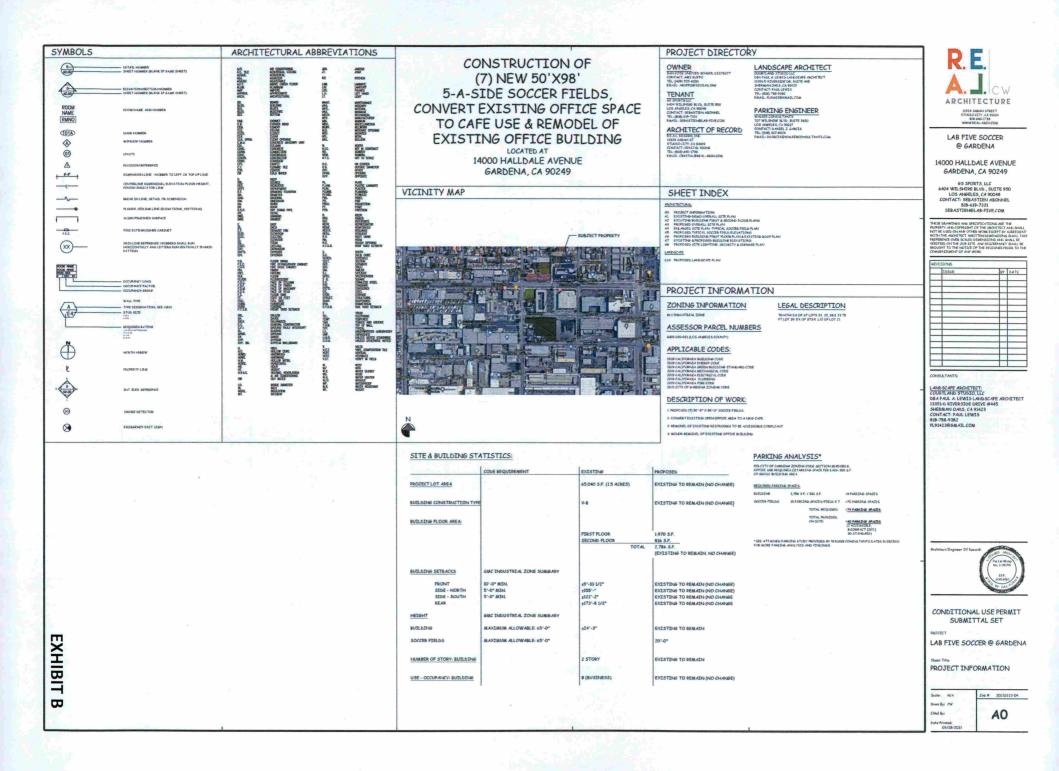
LOS ANGELES COUNTY SANITATION DISTRICTS

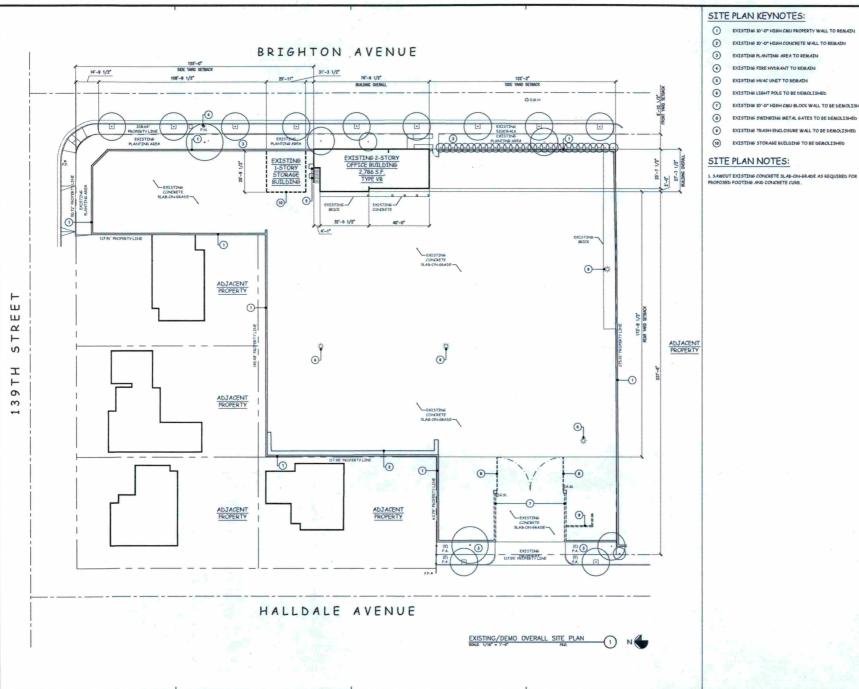
RESO NO. 6536; SPR #8-21; CUP #3-21 November 16, 2021 Page 5 of 5

Property Owner (APN:6102-020-021) 14000 Halldale Avenue, LLC

SD1.	The applicant shall pay a connection fee before a permit to connect to the sewe is issued. For more specific information regarding the connection fee application procedure and fees, please contact the Connection Fee Counter at (562) 908		
! :	4288, extension 2727.	* 1	
		. ;	
	en Abonnel, GS Sports, l roject conditions listed he		read, understood, and agrees
		•	•
	en Abonnel orts, LLC	,	Date
- %			

Date





- EXISTING 10'-0" HIGH CMU PROPERTY WALL TO REMAIN

- EXISTING 10'-0" HIGH CMU BLOCK WALL TO BE DEMOLISHED
- EXISTING TRASH ENCLOSURE WALL TO BE DEMOLISHED



12924 SARAH STREET STUDIO CITY, CA 91/04 819-640-1738 WWW.REAL-ARCH.COM

LAB FIVE SOCCER @ GARDENA

14000 HALLDALE AVENUE GARDENA, CA 90249

GS SPORTS, LLC
6404 WILSHIDE BLVD., SUITE 950
LOS ANGELES, CA 90048
CONTACT: SEBASTIEN ABONNEL
BIB-619-7331
SEBASTIEN@LAB-FIVE.COM

TSSUE	av.	DATE
19906	187	DATE
The second second		
		-
		_
		-
_		-
		_
		-
_		-

CONSULTANTS

LAND SCAPE ARCHITECT:
COURTLAND STUDIO, LLC
BAR PAUL, A LEWIS LAND SCAPE ARCHITECT
13351-D RIVERSIDE BUTVE \$1445
SHERNAN DANS, CA 91423
CONTACT PAUL LEWIS
BIS-788-932
PL91423@GMAIL.COM



CONDITIONAL USE PERMIT SUBMITTAL SET

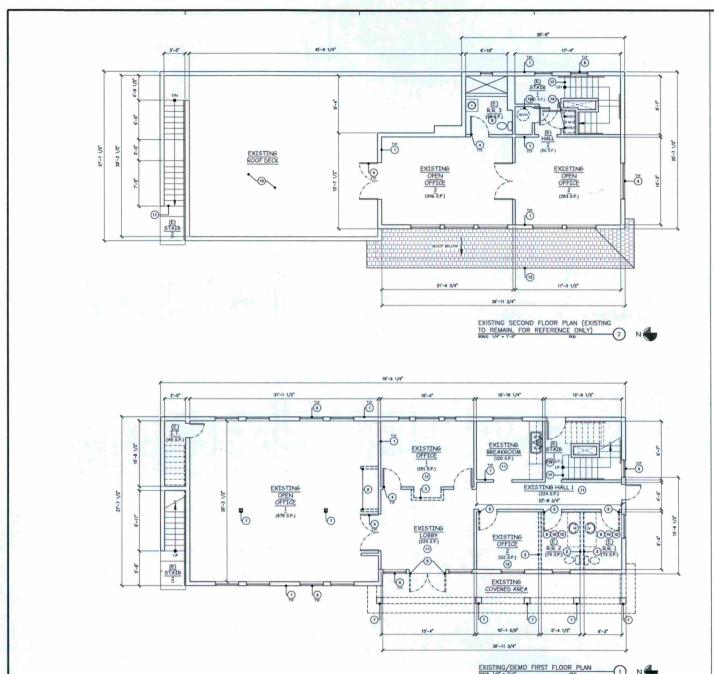
LAB FIVE SOCCER @ GARDENA

EXISTING/DEMO SITE PLAN

Scale: 1/16" = 1"-0 Down But CW Chled By:

Job# 20210223-04

A1



PLAN LEGEND:

CTTTTTT EXISTING WALL TO BE DEMOLISHED

EXISTING WALL TO REMAIN

PLAN KEYNOTES:

- (1) EXISTING WALL TO REMAIN
- EXISTING WALL TO BE REMOVED
- EXISTING WALL TO BE REMOVED TO 32" A.F.F.
- (1) EXISTING DOOR TO REMAIN
- (3) EXISTING DOOR TO BE REMOVED
- (6) EXISTING WINDOW TO REMAIN
- (7) EXISTING COLUMN TO REMAIN
- (1) EXISTING PLUMBING FIXTURES TO REMAIN
- EXISTING PLUMBING FIXTURES TO BE REMOVED, CAP 0 EXISTING PIPES AS NEEDED
- (10) EXISTING GRANITE WAINSCOTING TO BE REMOVED
- (11) EXISTING TILE PLOOR TO REMAIN
- (12) EXISTING TILE PLOOR TO BE REMOVED
- (13) EXISTING WATER HEATER TO REMAIN
- 14 EXISTING AIR HANDLING UNITS TO REMAIN
- (15) EXISTING ROOF TO REMAIN AS-IS
- (16) EXISTING ROOF DECK TO REMAIN AS-IS
- (17) EXISTING STAIRS TO REMAIN



LAB FIVE SOCCER @ GARDENA

14000 HALLDALE AVENUE GARDENA, CA 90249

GS SPORTS, LLC 6404 WILSHIRE BLVD., SUITE 950 LOS ANGELES, CA 90048 CONTACT: SEBASTIEN ABONNEL BIB-619-7331 SEBASTIENGLAB-FIVE.COM

THESE DALWINSS AND SPECIFICATIONS ARE THE PROPREY AND COPPAIRM OF THE ARCHITECT AND AND THE USED ON HAN OTHER WORD (MOST P). AND WITH THE ARCHITECT WITH THE HORSE SOONS DA-REFERENCE ON SEALED DIMENSIONS AND SHALL WIRPIED ON THE JOB SITE ANY DESCRIPANCY SHA BROUGHT TO THE HOTICE OF THE SHAPE OF THE PROPERTY OF T

ISSUE	0.0	DATE
13306	BY	DAIL
	_	
-		-
		-
		-
		_
		-

CONSULTANTS:

LANDSCAPE ARCHITECTI
COURTLAND STUDIO, LLC
DAB APAULA, LEWIS LANDSCAPE ARCHITECT
13351-D RIVERSIDE DRIVE #445
SHERMAN DANS: CA 91423
CONTACT PAUL LEWIS
B18-788-982
PL91423@GMAIL COM



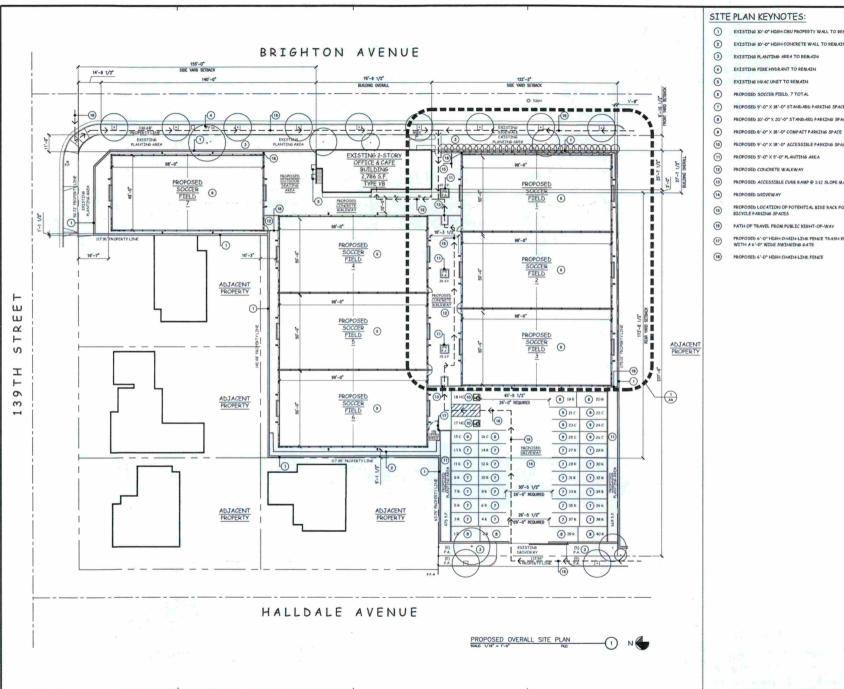
CONDITIONAL USE PERMIT SUBMITTAL SET

LAB FIVE SOCCER @ GARDENA

EXISTING/DEMO FIRST FLOOR PLAN & EXISTING SECOND FLOOR PLAN (FOR REFERENCE ONLY)

Down By: CW Chied liv:

Job# 20210223-04 A2



SITE PLAN KEYNOTES:

- EXISTING 10'-0" HIGH CMU PROPERTY WALL TO REMAIN
- EXISTING 10'-0" HIGH CONCRETE WALL TO REMAIN
- EXISTING PLANTING AREA TO REMAIN
- EXISTING FIRE HYDRANT TO REMAIN
- PROPOSED SOCCER FIELD, 7 TOTAL
- PROPOSED 9'-0" X 18'-0" STANDARD PARKING SPACE
- PROPOSED 10'-0" X 20'-0" STANDARD PARKING SPACE
- PROPOSED 9'-0" X 18'-0" ACCESSIBLE PARKING SPACE
- PROPOSED 5'-0" X 5'-0" PLANTING AREA
- PROPOSED CONCRETE WALKWAY
- PROPOSED ACCESSIBLE CURB RAMP @ 1:12 SLOPE MAX.
- PROPOSED DRIVEWAY
- PROPOSED LOCATION OF POTENTIAL BIKE BACK FOR (11)
- PATH OF TRAVEL FROM PUBLIC RIGHT-OF-WAY
- PROPOSED 6'-0" HIGH CHAIN-LINK FENCE TRASH ENCLOSURE WITH A 6'-0" WIDE SWINGING GATE
- PROPOSED 6'-0" HIGH CHAIN-LINK FENCE



LAB FIVE SOCCER @ GARDENA

14000 HALLDALE AVENUE GARDENA, CA 90249

G5 SPORTS, LLC
6404 WILSHIDE BLVD., SUITE 950
LOS ANGELES, CA 9004B
CONTACT: SEBASTIEN ABONNEL
BIB-619-7331
SEBASTIEN@LAB-FIVE.COM

	TSSUE	av	DATE
_	E-STATE	107	UMIE
_			-
_		_	_
_			
_			_
			_
		_	_
_			_

CONSULTANTS:

LAND SCAPE ARCHITECT.
COURTLAND STUDIO, LLC
BAP ANUA. LEWIS LAND SCAPE ARCHITECT
13351-D RIVERSIDE DRIVE #445
SHERBAND AUSS. CA 91423
CONTACT PAUL LEWIS
BIR-788-982
PL9142366MAIL COM



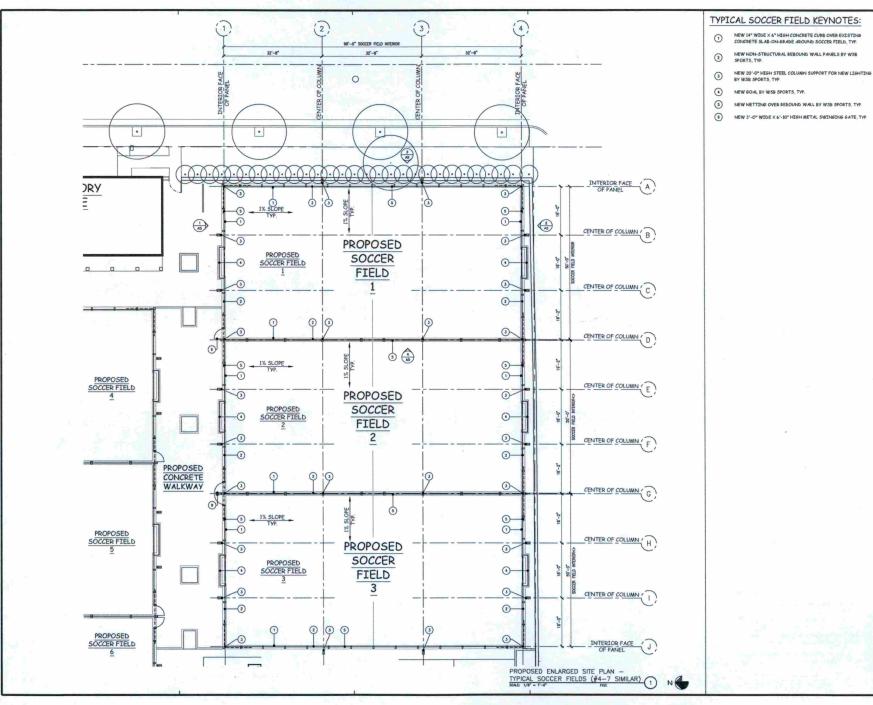
CONDITIONAL USE PERMIT SUBMITTAL SET

LAB FIVE SOCCER @ GARDENA

PROPOSED OVERALL SITE PLAN

Down By: CW Chied By:

Job# 20210223-04 A3



ARCHITECTURE

LAB FIVE SOCCER @ GARDENA

14000 HALLDALE AVENUE GARDENA, CA 90249

65 SPORTS, LLC 6404 WILSHIRE BLVD., SUITE 950 LOS ANGELES, CA 90048 CONTACT: SEBASTIEN ABONNEL BIB-619-7331 SEBASTIENGLAB-FIVE.COM

THESE DRAWINGS AND SPECIFICATIONS, ARE THE RESERVE AND COPRESENT OF THE ASSECTION AND THE USES ON OWNERS OF THE ASSECTION AND THE USES ON OWNERS OF THE ASSECTION AND THE WITH THE ARCHITECT WRITTEND MINISTORS OF ASSECTION AND ASSECTION ASSECTI

TSSUE	nu.	DATE
19906	BY	DATE
		-
		-
_	_	_
		_
		-
		-
-	_	_
		_
		_
		_

LANDSCAPE ARCHITECT:
GOURTLAND STUDIO, LLC
BAR PAUR, LEWIS LANDSCAPE ARCHITECT
13351-D RIVERSIDE DELVE #445
SHERBAND AUSS, CA 91423
CONTACT: PAUL LEWIS
BIB-788-982
PL91423@GMAIL.COM



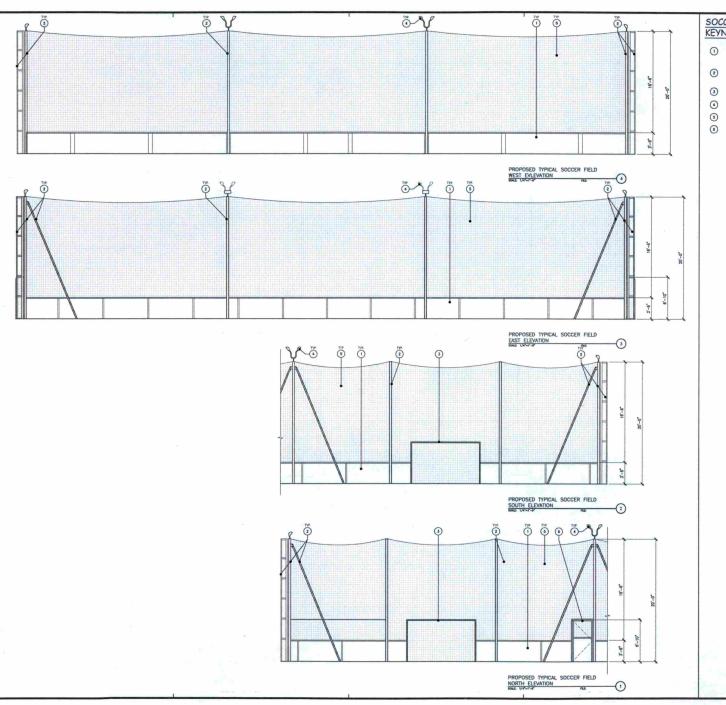
CONDITIONAL USE PERMIT SUBMITTAL SET

LAB FIVE SOCCER @ GARDENA

PROPOSED ENLARGED SITE PLAN - TYPICAL SOCCER FIELD (FIELDS #4-7 SIMILAR)

Drwn By: CW Chkd By:

Job# 20210223-04



SOCCER FIELD ELEVATION KEYNOTES:

NEW NON-STRUCTURAL REBOUND WALL PANELS WITH METAL SUPPORTS ANCHORED TO CONCRETE CURB BY WSB

NEW STEEL COLUMN SUPPORT BY WSB FOR NEW LIGHTING. ANCHORED TO CONCRETE CURB, SEE STRUCT, DWGS, FOR FOUNDATION DESIGN

- NEW GOAL
- NEW LED FLOOD LIGHT, (8) PER SOCCER FIELD, TYP.
- NEW NETTING
 - NEW 3'-4" WIDE X 6'-10" METAL SWINGING GATE



12324 SARAH STREET STUDIO CITY, CA 91604 818-640-1738 WWW.REAL-ARCH.COM

LAB FIVE SOCCER @ GARDENA

14000 HALLDALE AVENUE GARDENA, CA 90249

GS SPORTS, LLC
6404 WILSHIDE BLVD., SUITE 950
LOS ANGELES, CA 90048
CONTACT: SEBASTIEN ABONNEL
BIB-619-7331
SEBASTIEN@LAB-FIVE.COM

TSSUE	ev	DATE
19000	07	UALI
	_	-
	_	-
		_
	_	_
	_	-
		_
		-

CONSILTANTS:

LANDSCAPE ARCHITECTI
COURTLAND STUDIO, LLC

BAR PAUR. A LEWIS LANDSCAPE ARCHITECT
13351-D RIVERSIDE DELIVE #445
SHERBAND AUSS. CA 91423
CONTACT PAUL LEWIS
BIB-788-988
PL91423@GMAIL COM



CONDITIONAL USE PERMIT SUBMITTAL SET

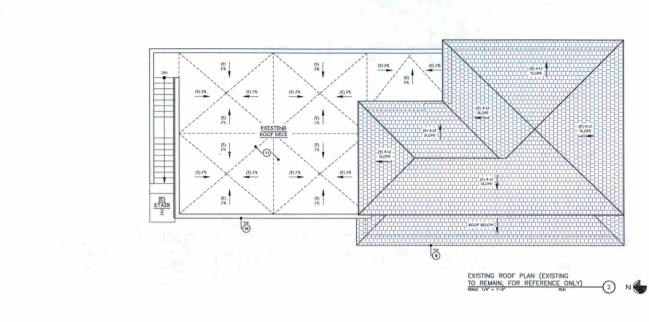
LAB FIVE SOCCER @ GARDENA

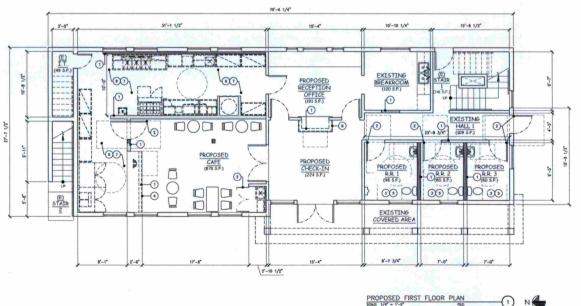
PROPOSED TYPICAL SOCCER

FIELD ELEVATIONS

Scale: 1/4*11-0* Down By: CW Chied Bys

Job# 20210223-04 A5





PLAN LEGEND:

EXISTING WALL

PROPOSED INFILL WALL TO MATCH EXTSTING

PROPOSED 8' -0" HIGH FULL HEIGHT NON-LOAD

BEARING WALL

PROPOSED 6'-0" HIGH PARTIAL HEIGHT WALL

(9)

PROPOSED LOW WALL @ 32" A F.F.

PLAN KEYNOTES:

- 1 PROPOSED WALL PER WALL LEGEND
- (2) PROPOSED DOOR
- 3 PROPOSED ACCESSIBLE PLUMBING FIXTURE
- 0 PROPOSED ACCESSIBLE CHECK-IN COUNTER @ 34" A.F.F.
- (3) PROPOSED CERAMIC FLOOR TILE
- 6 PROPOSED QUARRY FLOOR TILE
- 7 PROPOSED KITCHEN EQUIPMENT
- 0 PROPOSED CASHTER COUNTER @ 34" A.F.F. EXISTING ROOF TO REMAIN
- (10) EXISTING 42° HIGH ROOF PARAPET TO REMAIN 1 EXISTING ROOF DECK TO REMAIN

ARCHITECTURE

LAB FIVE SOCCER @ GARDENA

14000 HALLDALE AVENUE GARDENA, CA 90249

65 SPORTS, LLC
6404 WILSHIRE BLVD., SUITE 950
LOS ANGELES, CA 90048
CONTACT: SEBASTIEN ABONNEL
BIB-619-7331
SEBASTIEN®LAB-FIVE.COM

155UE	ev.	DATE
10000	0.7	DATE
		_
		-
_	_	-
		_
		_
_	_	-
		_
		-

COURT.AND STUDIO, LLC
DBA PAUL A. LEWIS LANDSCAPE ARCHITECT
13351-D RIVERSIDE DRIVE #445
SHERMAN DAKS, CA 91423
CONTACT. PAUL LEWIS
B16-788-9382
PL914238-0MAIL.COM



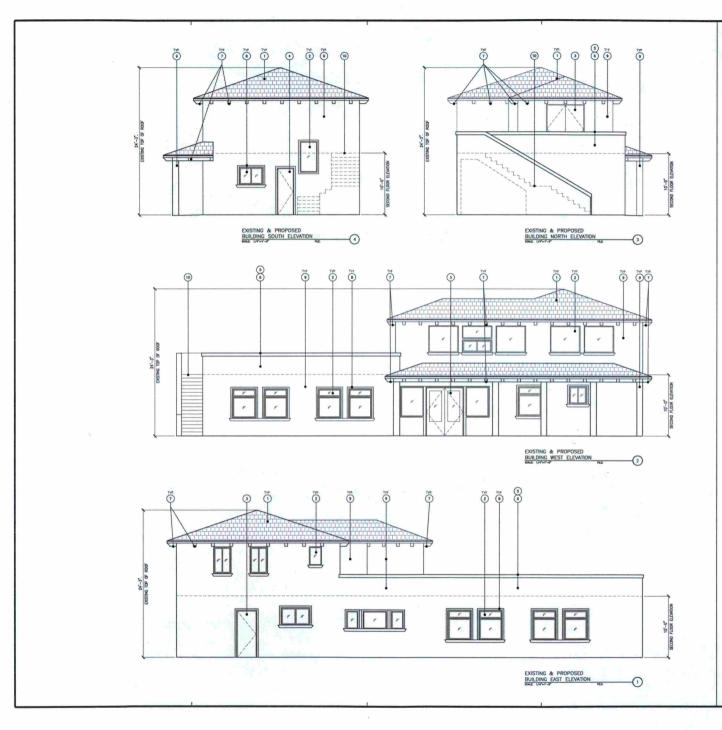
CONDITIONAL USE PERMIT SUBMITTAL SET

LAB FIVE SOCCER @ GARDENA

PROPOSED FIRST FLOOR PLAN & EXISTING ROOF PLAN (FOR REFERENCE ONLY)

Down By: CW Chied By:

Job# 20210223-04 A6



BUILDING ELEVATION KEYNOTES:

- (1) EXISTING ROOF TO REMAIN
- (2) EXISTING WINDOW TO REMAIN
- 3 EXISTING DOOR TO REMAIN
- EXISTING DOOR TO BE REMOVED AND REPLACED WITH NEW PER FLOOR PLAN ON SHEET A6
- 3 EXISTING 42" HIGH ROOF PARAPET TO BEMAIN
- (8) EXISTING ROOF COPING TO REMAIN
- 0 EXISTING ROOF JOISTS TO REMAIN PAINTED BLACK
- EXISTING WINDOW & DOOR MOULDING TO REMAIN, PAINTED IN DUNN EDWARDS DE6336 STARGAZING COLOR
- EXISTING STUCCOED WALL TO REMAIN, PAINTED IN DUNN EDWARDS DEW379 IGLOO COLOR 0
- EXISTING STAIRS TO REMAIN



12324 SARAH STREET STUDIO CITY, CA 91604 818-640-1738 WWW.REAL-ARCH.COM

LAB FIVE SOCCER @ GARDENA

14000 HALLDALE AVENUE GARDENA, CA 90249

GS SPORTS, LLC 6404 WILSHIRE BLVD., SUITE 950 LOS ANGELES, CA 90048 CONTACT: SEBASTIEN ABONNIEL BIB-619-7331 SEBASTIEN®LAB-FIVE.COM

TSSUE	to a	DATE
19906	HY	DATE
	_	_
		-
		_
		-
		_
	_	
		_

CONSIA TANTS

LANDSCAPE ARCHITECT.
COURTLAND STUDIO, LLC
BA PAUL A. LEWIS LANDSCAPE ARCHITECT
13351-0 RIVERSIDE DEVIVE #445
SHERMAN DAKS, CA 91423
CONTACT: PAUL LEWIS
BIO-788-9382
PL9142396MAIL.COM

CONDITIONAL USE PERMIT SUBMITTAL SET

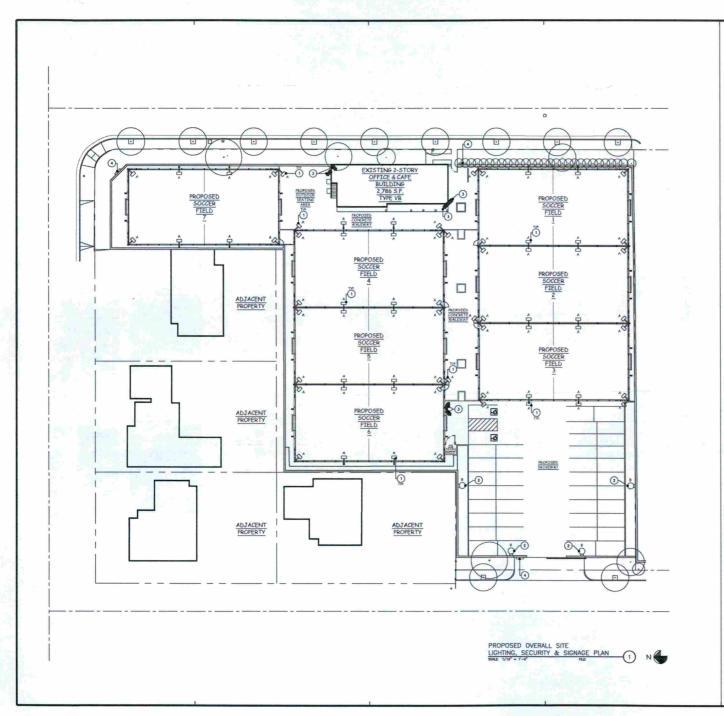
LAB FIVE SOCCER @ GARDENA

EXISTING & PROPOSED BUILDING ELEVATIONS

Scole: 1/4"=1"-0" Down But CW

A5 Chied Bys

Job# 20210223-04



PLAN KEYNOTES:

- PROPOSED LED FLOOD LIGHT BY WESTGATE LF4-150CW-SF, (B) PER SOCCER FIELDS, (69) TOTAL
- PROPOSED LED SECURITY LIGHT BY LITHOMIA LIGHT
 BARNGUARD SERIES, (4) TOTAL
- PROPOSED DOUBLE SIDED SECURITY CAMERAS, (6) TOTAL
- PROPOSED 5'-0" SQ. WALL PANEL SIGNAGE



12324 SARAH STREET STUDIO CITY, CA 91604 818-640-1738

LAB FIVE SOCCER
@ GARDENA

14000 HALLDALE AVENUE GARDENA, CA 90249

65 SPORTS, LLC 6404 WILSHIRE BLVD., SUITE 950 LOS ANGELES, CA 90048 CONTACT: SEBASTIEN ABONNEL BIB-619-7331 SEBASTIENGLAB-FIVE.COM

HESE DRAWTINGS AND SPECIFICATIONS ARE THE
LOPERY AND COPRIGHT OF THE ARCHITECT AND SHALL
LOPERY AND COPRIGHT OF THE ARCHITECT AND SHALL
PROPERTY OF THE PROPERTY OF THE THE PROPERTY OF THE
REPRESENCE OVER SCALED DIMENSIONS AND SHALL BE
REPRESENCE OVER SCALED DIMENSIONS AND SHALL BE
REPRESENCED AND STEEL AND SIGURDAY AND SHALL BE
ROUGHT TO THE MOTTECT OF THE DESIGNAR FEIGR TO THE
OMMINISCREMENT OF ANY WORK.

REVI	VISIONS		
	TSSUE	BY	DATE
_			
_			

ONSULTANTS:

LANDSCAPE ARCHITECT.
COURTLAND STUDIO, LLC
BA PAUL A. LEWIS LANDSCAPE ARCHITECT
13351-D RIVERSIDE DRIVE #7445
SHERMAN DANS. CA 91423
CONTACT: PAUL LEWIS
BIN-788-9382
PL91423@GMAIL.COM



CONDITIONAL USE PERMIT SUBMITTAL SET

ROJECT

LAB FIVE SOCCER @ GARDENA

Sheet Title

PROPOSED SITE LIGHTING, SECURITY & SIGNAGE PLAN

Scole: 1/26" z Drwn By: CW Child By: Job# 20210223-04

ARCHITECTURE

12324 SARAH STREET STUDIO CITY, CA 91604 818-640-1738 WWW.REAL-ARCH.COM LAB FIVE SOCCER

@ GARDENA 14000 HALLDALE AVENUE GARDENA, CA 90249

G5 SPORTS, LLC
6404 WTLSHTRE BLVD., SUITE 950
LOS ANGELES, CA 90048
CONTACT: SEBASTIEN ABONNEL
BIB-619-7331
SEBASTIEN@LAB-FIVE.COM

REVISIONS		
ISSUE		DATE
_	_	
		-
		-
		-
		_
		-

CONSULTANTS

LAND SCAPE ARCHITECT:
COURTLAND STUDIO, LLC
BAR PAUR. A LEWIS LANDS CAPE ARCHITECT
13351-0 RIVERSIDE DEIVE #445
SHERBAND ANS. CA 91423
CONTACT PAUR LEWIS
BIR-788-938
PL914230-6MAIL.COM





CONDITIONAL USE PERMIT SUBMITTAL SET

LAB FIVE SOCCER @ GARDENA

PROPOSED LANDSCAPE PLAN

Drwn By: MT Child By:

L1.0

Job# 20210223-04

BRIGHTON AVENUE

PLANTING LEGEND Symbol Botanical Name/Common Name Quantity Size WUCOLS Remarks Syagrus romanzoffiana / Queen palm 16' min, clear trunk 0 GROUND COVER Baccharis pilutaris 'Pigeon Point' / Dwart Coyote Bush 559 st @ 36" o.c. = 61 plants

PROPOSED LANDSCAPE EXISTING LANGSCAPE TO REMAIN

TREE



SHRUB



GROUND COVER

ш ш α -

S

I

 \vdash

0

3

AREA SUMMARY

LANDSCAPE SHALL NOT BE LESS THAN 5% OF TOTAL PAVED AREA UTILIZED FOR DRIVENAYS AND OPEN PARKING AREAS. REQUIRED LANDSCAPE = 10,365 F + 5% => 510,45 F

PROVIDED LANDSCAPE = 1,112 SF (10%)

REQUIRED - (1) 24" BOX TREE/10 PARKING SPACES
40 SPACES / 10 = 4 TREES
PROVIDED - (7) 36" BOX TREES (175% OF REQUIRED)

O SAU EXISTING 2-STORY OFFICE BUILDING 2,696 S.F. PROPOSED SOCCER SOCCER 18'-5 1/2" 98'-0" FIELD SOCCER -98'-0" 45'-5 1/2" PROPOSED 0 117 95' PROPERTY LINE 29 8 31 R 1 26'-0" REQUIRED 1 35 R 1 26'-0" REQUIRED 1 37 R 117.95' PROPERTY LINE

HALLDALE AVENUE

PROPOSED OVERALL LANDSCAPE PLAN

EXHIBIT C



LAB FIVE SOCCER CENTER PROJECT

CEQA Class 32 Categorical Exemption Report

LEAD AGENCY: CITY OF GARDENA

1700 West 162nd Street Gardena, California 90247 Contact: John Signo, AICP, Senior Planner jsigno@cityofgardena.org (310) 217-9530

PREPARED BY: DE NOVO PLANNING GROUP

180 E. Main Street, Suite 108 Tustin, California 92780 Contact: Starla Barker, AICP sbarker@denovoplanning.com (949) 396-8193

September 2021

Table of Contents

1.0	INTRODUCTION	1
2.0	PROJECT DESCRIPTION	1
2.1	Project Location	1
2.2	Existing Setting	1
2.3	Project Characteristics	2
3.0	CLASS 32 CATEGORICAL EXEMPTION CRITERIA ANALYSIS	11
4.0	EXCEPTIONS TO CATEGORICAL EXEMPTIONS ANALYSIS	28
5.0	CONCLUSION	30
6.0	REFERENCES	31

Appendices

Appendix A, Transportation Analysis

Appendix B, Noise Study

Appendix C, Air Quality Modeling

List of Exhibits

Exhibit 1	Regional Vicinity	4
Exhibit 2	Project Location	5
Exhibit 3	Proposed Site Plan	6
Exhibit 4	Proposed Typical Soccer Field Elevations	7
Exhibit 5	Proposed First Floor Plan	8
Exhibit 6	Existing and Proposed Building Elevations	9
Exhibit 7	Proposed Landscape Plan	10
List of Tak	ples	3
Table 1	Construction Noise Level by Phase (dBA, Leq)	15
Table 2	Worst-Case Predicted Operational Daytime Noise Levels (dBA, Leq)	16
Table 3	Worst-Case Predicted Operational Nighttime Noise Levels (dBA, Leq)	17
Table 4	Construction-Related Emissions	
Table 5	Operational-Related Emissions	21
Table 6	Localized Significance of Construction Emissions	23
Table 7	Localized Significance of Operational Emissions	23

This report serves as the technical documentation of the environmental analysis for the proposed Lab Five Soccer Center Project (Project) in the City of Gardena. The analysis is intended to document whether the Project is eligible for a Class 32 Categorical Exemption (CE) under the California Environmental Quality Act (CEQA).

1.0 INTRODUCTION

CEQA Guidelines Section 15332, In-fill Development Projects, states a Class 32 consists of projects characterized as in-fill development meeting the following conditions:

- (a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.
- (b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.
- (c) The project site has no value as habitat for endangered, rare or threatened species.
- (d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.
- (e) The site can be adequately served by all required utilities and public services.

2.0 PROJECT DESCRIPTION

2.1 Project Location

The Lab Five Soccer Center Project (Project) site is located in the City of Gardena within the County of Los Angeles; refer to Exhibit 1, Regional Vicinity. The Project site is approximately 1.5 acres located at 14000 Halldale Avenue (APN 6102-020-021); refer to Exhibit 2, Project Location.

Regional access to the site is provided via the Harbor Freeway (Interstate [I] 110) to the east, the Artesia Freeway (SR-91) to the south, and the Glen Anderson Freeway (I-105) to the north of the site. Local access to the site is provided directly from Halldale Avenue. Within the project area, Halldale Avenue is accessed from West 139th Street to the north and 141st Street to the south. Both 139th and 141st Streets are accessed by Normandie Avenue on the east and Western Avenue on the west. There is one driveway along Halldale Avenue at the southwest corner of the Project site.

2.2 Existing Setting

On-Site Land Uses

The Project site was recently occupied by a hauling and demolition business. The Project site is primarily paved with a concrete slab and contains one two-story office structure and a single-story storage building situated adjacent to Brighton Avenue. A 10-foot high block wall surrounds the perimeter of the Project site. Swinging metal gates are located across the site's driveway. A sidewalk and landscape planter are located adjacent to the Project site along Brighton Avenue and a portion of Halldale Avenue.

General Plan and Zoning

According to the City of Gardena Land Use Map (General Plan Land Use Element Figure LU-2), the Project site is designated Industrial. The Industrial land use designation allows for a wide variety of clean and environmentally friendly industries, technology-related uses and supporting facilities, and business parks. The maximum floor area ratio (FAR) is 1.0 in general; up to 2.0 for specific uses described in the Zoning Code. The City of Gardena Zoning Map identifies the zoning for the Project site as M-1 (Industrial).

Surrounding Uses

Uses surrounding the Project site include:

- North and West: Directly north and west of the Project site are four single-family residences fronting 139th Street and Halldale Avenue zoned M-1. North of 139th Street are commercial/industrial uses zoned M-1. West of Halldale Avenue are commercial/industrial uses zoned M-2.
- <u>East</u>: The Project site is bounded on the east by Brighton Avenue. East of Brighton Avenue are a single-family residence and multi-family residential (Poinsettia Gardens) uses, as well as commercial/industrial uses. Areas to the east of the Project site are zoned M-1.
- South: Directly south of the Project site is a refuse container storage yard, zoned M-1.

2.3 Project Characteristics

The Applicant proposes to construct a 5-a-side soccer center facility at the approximately 1.5-acre site. The proposed Lab Five Soccer Center would consist of seven 50-feet by 98-feet soccer fields with low rebound walls, netting, and 20-foot high light poles illuminated by LED down lights; refer to Exhibit 3, Proposed Site Plan and Exhibit 4, Proposed Typical Soccer Field Elevations. The center would be open 9:00 AM to 11:00 PM seven days a week. However, three of the soccer fields (fields 5, 6, and 7) would only be available for use from 9:00 AM to 10:00 PM.

The existing office building (2,786 square feet) would be retained and the storage building (200 square feet) would be removed to allow for an outdoor seating area. Minor interior improvements would be made to the existing office building and approximately 878 square feet of the existing 2,786-square-foot office would be converted to an incidental café use for patrons of the Lab Five Soccer center; refer to Exhibit 5, Proposed First Floor Plan. The existing restroom facilities would also be reconstructed to provide three new single-use occupancy accessible restrooms. The exterior of the existing office structure would primarily remain unchanged; the existing door would be replaced and the structure would be painted; refer to Exhibit 6, Existing and Proposed Building Elevations.

The perimeter concrete wall would be retained. The portion of the wall extending adjacent to the existing driveway, within the interior of the site, and the swinging metal gates that extend across the driveway would be removed. The driveway would be extended within the interior of the site to provide access to the proposed parking area. The Project would include 40 parking spaces. A proposed concrete walkway would extend from the northwestern corner of the parking area between the proposed soccer fields to the office and café building. A pedestrian gate would provide access to the Project site from Brighton Avenue. Bicycle racks would be provided adjacent to the office and café building.

Existing landscaping adjacent to the Project site and Brighton and Halldale Avenues would remain. New landscaping, including trees, groundcover and shrubs would be installed adjacent to the proposed parking area and trees would be provided within the proposed concrete walkway; refer to Exhibit 7, Proposed Landscape Plan.

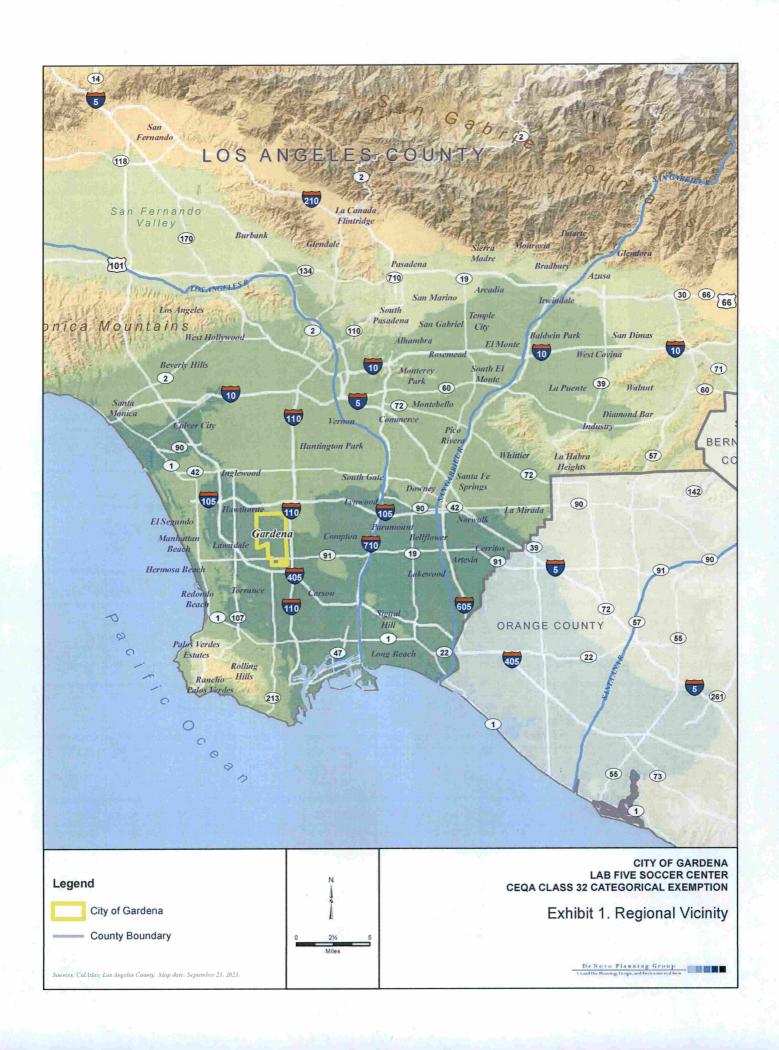
The proposed Project would continue to be served by existing utilities within the Project area that serve the Project site.

The Project is proposed to be constructed in a single phase with construction anticipated to begin in late 2021 and be completed in early 2022.

Discretionary Approvals

The Project is consistent with the General Plan land use and zoning designations for the site and would require the following discretionary approvals:

- Conditional Use Permit to allow for the proposed use and alternative parking
- Site Plan Review





Legend

Project Boundary (APN 6102-020-021)



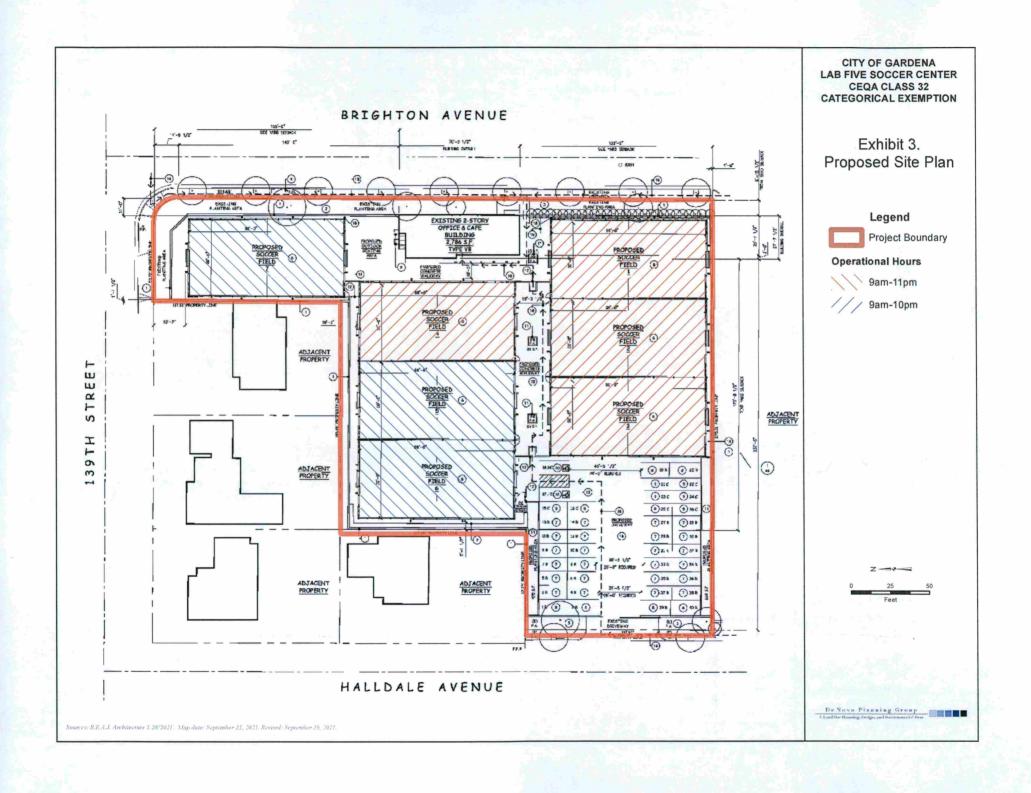
CITY OF GARDENA LAB FIVE SOCCER CENTER CEQA CLASS 32 CATEGORICAL EXEMPTION

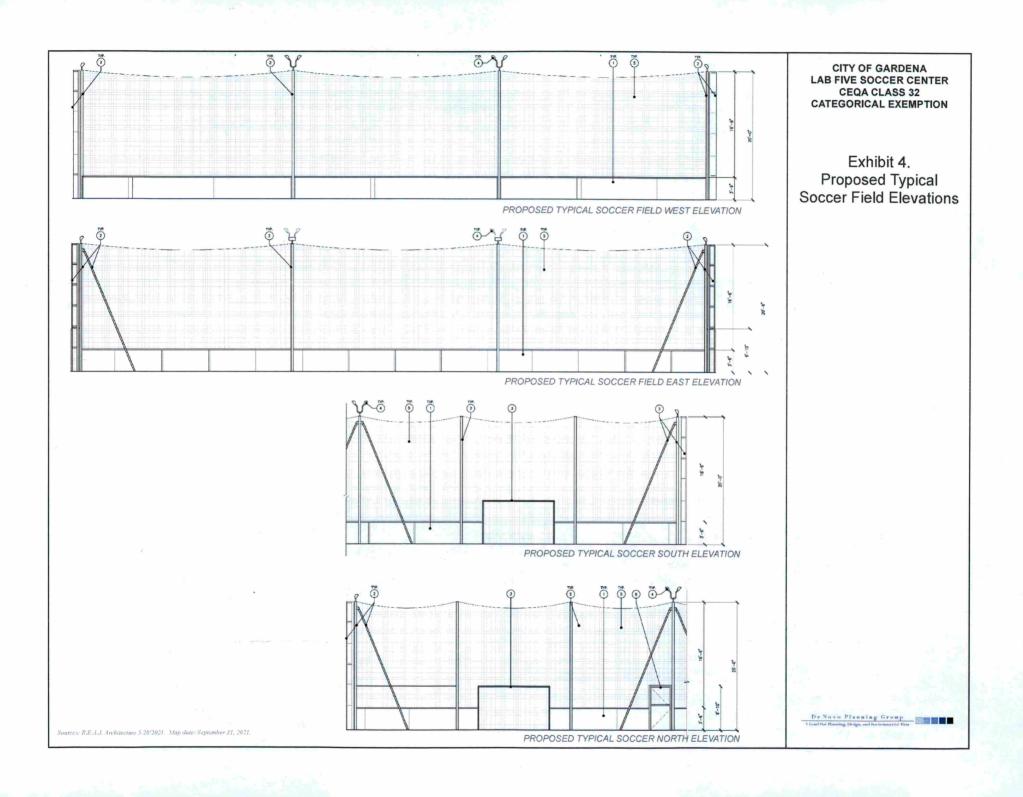
Exhibit 2. Project Location

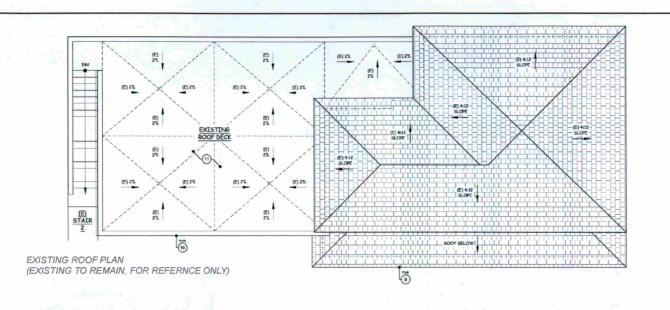
De Nevo Planning Group

A Land Use Planning, Design, and Invironmental biras

Sources: ArcGlS Online World Imagery Map Service, 4/15/2020; Los Angeles County. Map date: September 21, 2021.



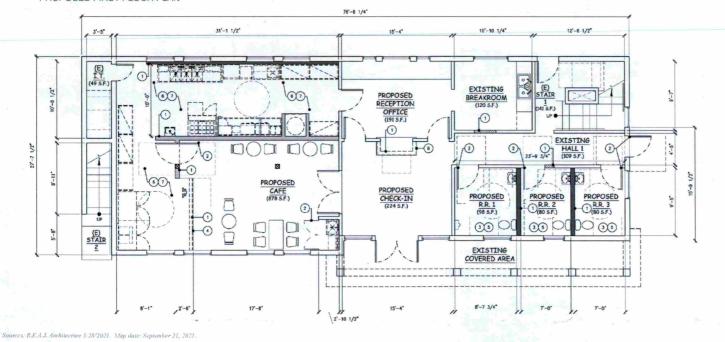




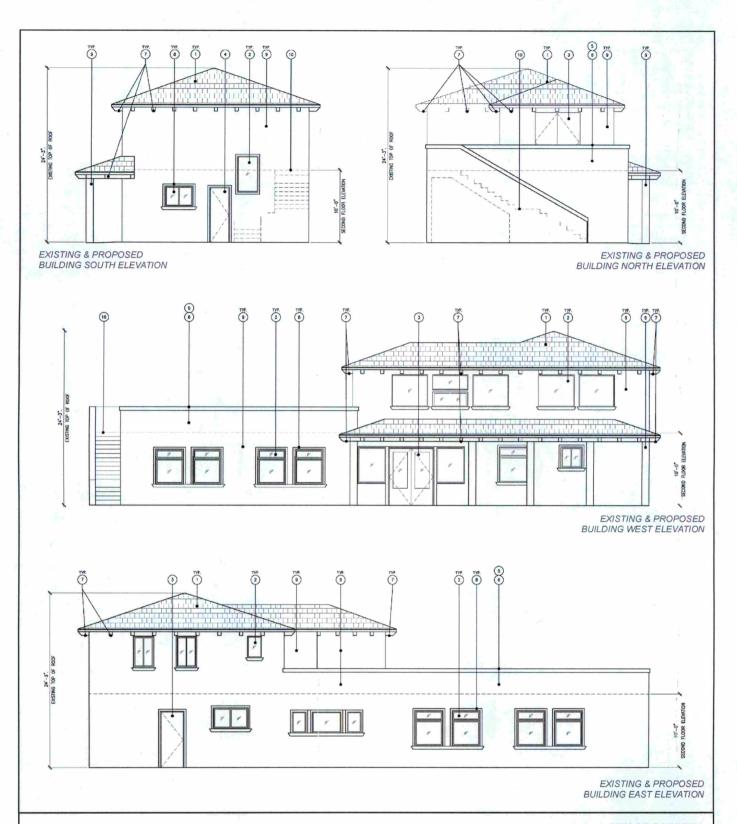
CITY OF GARDENA LAB FIVE SOCCER CENTER **CEQA CLASS 32** CATEGORICAL EXEMPTION

Exhibit 5. Proposed First Floor Plan

PROPOSED FIRST FLOOR PLAN

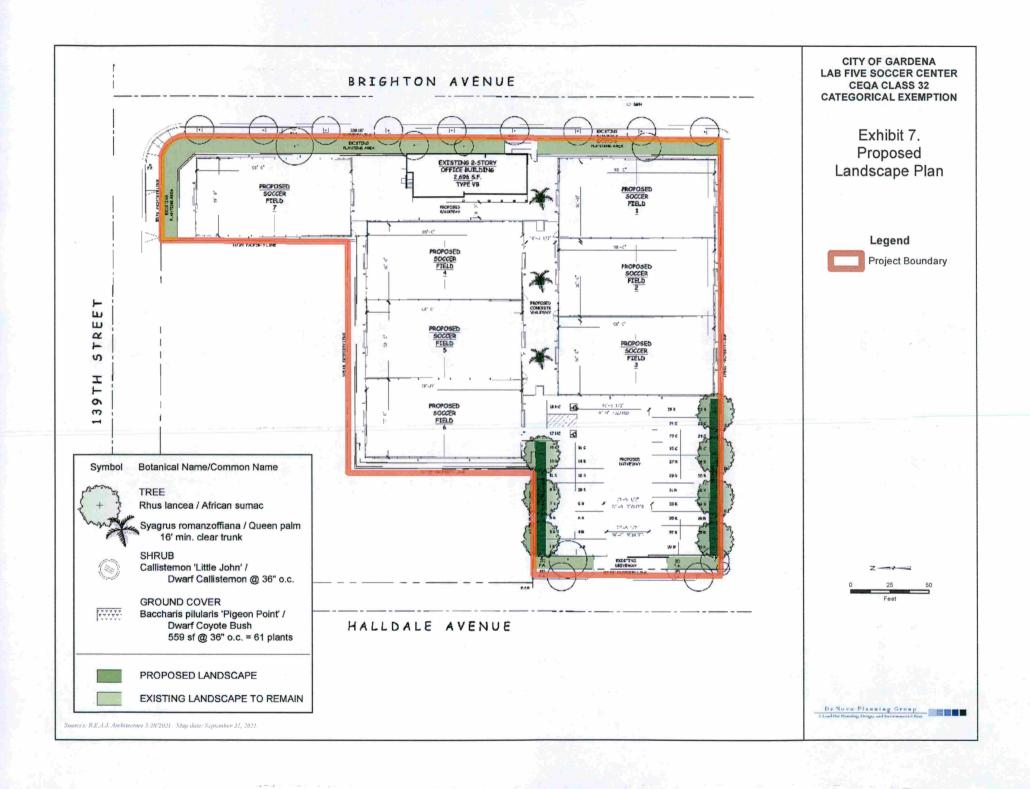


De Novo Planning Group



CITY OF GARDENA LAB FIVE SOCCER CENTER CEQA CLASS 32 CATEGORICAL EXEMPTION

Exhibit 6. Existing and Proposed Building Elevations



3.0 CLASS 32 CATEGORICAL EXEMPTION CRITERIA ANALYSIS

Criterion (a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.

General Plan

According to the City of Gardena Land Use Map (General Plan Land Use Element Figure LU-2), the Project site is designated Industrial. The Industrial land use designation allows for a wide variety of clean and environmentally friendly industries, technology-related uses and supporting facilities, and business parks. The maximum floor area ratio (FAR) is 1.0 in general; up to 2.0 for specific uses described in the Zoning Code.

The Project is consistent with the Industrial land use designation and would not exceed the maximum FAR of 1.0 allowed within the Industrial land use designation. Further, the Project would be consistent with applicable General Plan policies.

Zoning

The Project site is zoned M-1 (Industrial), which allows for a variety of uses. The Project proposes a commercial soccer facility, which would be consistent with the M-1 zoning for the site with approval of a Conditional Use Permit (CUP). The proposed development would meet all property development standards for the M-1 Zone as established by Gardena Municipal Code 18.36.060 with approval of the CUP for alternative parking.

Criterion (b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.

The Project site is comprised of one Assessor parcel (APN 6102-020-021) totaling approximately 1.5 acres located at 14000 Halldale Avenue in the City of Gardena. As described in Section 2.0, Project Description, the Project site is located within a developed urban area with commercial, industrial, and residential uses located within the immediate area; refer to Exhibit 2.

Criterion (c) The project site has no value as habitat for endangered, rare or threatened species.

The Project site is primarily paved and includes a two-story office building and single-story storage building. A mix of trees, bushes and shrubs are located around the perimeter of the Project site, adjacent to Halldale and Brighton Avenues; however, the Project site is highly disturbed and does not contain any habitat suitable for endangered, rare, or threatened species. Similarly, the Project area is located within a highly developed area of the City and does not provide habitat suitable for endangered, rare, or threatened species.

Criterion (d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.

TRAFFIC

The following analysis is based in part on the Transportation Memorandum prepared for the Lab Five Soccer Center Project (Transportation Analysis) prepared by Kittelson & Associates; refer to Appendix A, Transportation Analysis.

Conflict with any Program, Plan, Ordinance or Policy

Transit Facilities

The Project site and surrounding area is served by GTrans and LA Metro. GTrans provides public transportation services in the South Bay, including the cities of Gardena, Hawthorne, Compton, Carson, Harbor City, Lawndale and Los Angeles. Within the Project area, GTrans Line 2 operates on a loop circling Western, Imperial Highway, Vermont, Normandie and PCH. The closest stop to the Project site is located at Vermont Avenue and Rosecrans, approximately 0.75-mile from the Project site. Line 2 typically operates on weekdays from approximately 4:40 AM to 10:00 PM with 15- to 30-minute headways (the time between bus arrivals). On weekends, Line 2 operates from approximately 5:00 AM to 9:30 PM with 15- to 40-minute headways.

LA Metro Route 125 operates primarily along Rosecrans Avenue between the Norwalk Station and El Segundo on weekdays from approximately 4:19 AM to 8:20 PM, with approximately 20-minute headways, and on weekends beginning at 5:03 AM with approximately 30-minute headways. The nearest stop to the Project site is at Rosecrans and Normandie Avenues, approximately 0.25-mile south of the Project site.

The Project site would continue to be served by the existing transit system and would not conflict with a program plan, ordinance, or policy addressing transit and impacts would be less than significant.

Roadway Facilities

Halldale and Brighton Avenues provide access to the Project site via 139th and 141st Streets. Normandie Avenue is located one block to the east of the Project site. According to the Gardena General Plan, Normandie Avenue is a Major Collector. A Major Collector serves as an intermediate route to carry traffic between collector roadways and arterial roadways. Access to adjacent land uses is generally unrestricted. Normandie Avenue provides two lanes of travel in each direction with a center turn lane. The Gardena General Plan identifies 139th Street as a Collector. The primary function of collector roadways is to connect a defined geographic area of the city. These roadways are intended to move traffic from a local roadway to a secondary roadway. They are intended to provide access to all types of land uses and generally have no limitations on access. The Project does not propose any changes to roadways adjacent to or within the vicinity of the Project site. The Project site would continue to be accessed from the driveway located on Halldale Avenue.

Bicycle Facilities

There are no bicycle facilities adjacent to the Project site. 139th Street, between Budlong and Van Ness Avenues, is an Existing Class III Bike Route. The City adopted the South Bay Bicycle Master Plan (Bicycle Master Plan), which is a multi-jurisdictional bicycle master plan intended to guide the development and maintenance of a comprehensive bicycle network and set of programs throughout the cities in the South Bay, including Gardena. The Bicycle Master Plan (Figure 4-3) identifies proposed bicycle facilities within

Gardena. Halldale Avenue, south of 139th Street and adjacent to the Project site, is identified as a proposed Bike Friendly Street. A Bike Friendly Street is defined as local roads that have been enhanced with treatments that prioritize bicycle travel. These treatments include wayfinding signage, pavement markings, and traffic calming. The Project does not propose any modifications to 139th Street or Halldale Avenue that would conflict with the existing Class III Bike Route or conflict with the proposed Bike Friendly Street. The Project would not conflict with a program plan, ordinance, or policy addressing bicycle facilities and impacts would be less than significant.

Pedestrian Facilities

Sidewalks are located adjacent to the Project site along Brighton and Halldale Avenues. However, the sidewalk on Halldale Avenue terminates and does not extend further north to 139th Street. The Project would not modify the existing sidewalks with the exception that existing damaged sidewalks fronting the Project site would be repaired as part of the Project. Pedestrian access to the Project site would be maintained along Brighton Avenue and at the driveway on Halldale Avenue. The Project would not conflict with a program, plan, ordinance or policy addressing pedestrian facilities and impacts would be less than significant.

Consistency with CEQA Guidelines Section 15064.3, subdivision (b)

The City's SB 743 Implementation Transportation Analysis Updates (Transportation Analysis Guidelines), includes criteria for individual project screening, which can be used to screen projects that are expected to generate low vehicles miles traveled (VMT) out of a detailed VMT analysis. The City's three VMT screening criteria and determinations include:

- <u>Project Type Screening</u>: Projects that generate less than 110 daily trips may be screened from conducting a VMT analysis. This screening criterion does not apply since the Project is expected to generate more than 110 daily trips. The Project is expected to generate 198 daily trips.
- <u>Transit Proximity Screening</u>: Projects located within a High-Quality Transit Area (HQTA) would be screened from a detailed VMT analysis if the project has certain characteristics:
 - Has a Floor Area Ratio (FAR) of less than 0.75 (for office, retail, hotel, and industrial projects) or less than 20 units per acre (for residential projects).
 - o Includes more parking for use by residents, customers, or employees than required by the City (unless additional parking is being provided for design feasibility, such as completing the floor of a subterranean or structured parking facility, or if additional parking is located within the project site to serve adjacent uses).
 - Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the City).
 - Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

The Project site is located within a frequent transit area (within a half-mile radius of an existing or planned major transit stop, or an existing stop along a high-quality transit corridor, which has fixed route bus service with service intervals no longer than 15 minutes during peak commute hours). In addition, this project would meet the other criteria necessary to screen out due to transit proximity:

- The FAR/density requirement does not apply since this is not an office, retail, hotel, industrial, or residential project.
- The Project would supply 40 parking spaces on site, which does not exceed City requirements.
- The Project is consistent with the Southern California Association of Governments (SCAG) Sustainable Communities Strategy (SCS) (more information on SCS consistency is provided below).
- o The Project would not replace residential units.

The proposed project is consistent with the SCAG SCS for the following reasons:

- The proposed Project does not include a change from residential uses to employment uses (e.g., office and industrial) or vice versa, and is thus consistent with SCAG's land use projections for the area. In addition, the Project is a conditionally permitted use and would be consistent with the zoning for the site.
- The project furthers goals from the SCAG SCS, including:
 - The Project is located in an area with high-quality bus service and furthers the goals of: improving mobility, accessibility, reliability, and travel safety for people and goods; increasing person and goods movement and travel choices within the transportation system; reducing greenhouse gas emissions and improving air quality; and, focusing growth near destinations and mobility options.
 - By encouraging sports and recreation activities, the Project furthers the goal of supporting healthy and equitable communities.

Therefore, the Project can be screened out of requiring a detailed VMT analysis under the transit proximity screening criteria.

Low VMT Area Screening: Projects that are assessed using home-based VMT per resident (such as residential projects) or home-based work VMT per employee (such as offices) in a low-VMT generating area may be screened from a VMT analysis. This Project is a unique use that would not be analyzed using either of these VMT metrics, as it is not a residential use, and the number of employees is not directly correlated to the activity level of the soccer fields. As such, this screening criteria would not apply to this Project.

To be screened out of a detailed VMT analysis, a Project would need to satisfy at least one of the VMT screening criteria. Given that the proposed Project is located within a low VMT area, the Project meets the Low VMT Area Screening and a detailed VMT analysis would not be required. Projects located within a low VMT generating area are presumed to have a less than significant impact. Thus, the Project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

Hazards Due to a Geometric Design Feature or Incompatible Use

The Project would not provide any off-site roadway improvements that could substantially increase hazards due to a design feature. The Project would utilize the existing driveway at the southwest corner of the Project site. Thus, no impacts would occur in this regard.

Emergency Access

The Project would not modify the roadways adjacent to the site; the Project site would continue to be accessible from Halldale and Brighton Avenues in the event of an emergency. There is the potential that

traffic lanes located immediately adjacent to the Project site may be temporarily closed or controlled by construction personnel during construction activities. Any temporary closure would be required to receive permission from the traffic authority in accordance with Gardena Municipal Code Section 13.56.430, *Road Closure or Interference with Highway Use.* However, this would be temporary and emergency access to the Project site and surrounding area would be required to be maintained at all times. Additionally, all construction staging would occur within the boundaries of the Project site and would not interfere with circulation along arterials, or any other nearby roadways.

Prior to the issuance of a building permit, the applicant is required to submit appropriate plans for plan review to ensure compliance with zoning, building, and fire codes. The Los Angeles County Fire Department (LACFD) would review the Project for access requirements, minimum roadway widths, fire apparatus access roads, fire lanes, signage, access devices and gates, access walkways, among other requirements to ensure adequate emergency access would be provided to and within the Project site. Thus, Project construction and operation would not result in inadequate emergency access.

NOISE

The following analysis is based on the *Lab Five Soccer at Gardena Noise Impact Study*, September 27, 2021 (Noise Study) prepared by MD Acoustics; refer to <u>Appendix B</u>, <u>Noise Study</u>.

Short-Term Construction Noise

Construction noise associated with each phase of the Project was calculated at the adjacent residences utilizing methodology presented in the FHWA Roadway Construction Noise Model together with several key construction parameters including distance to each sensitive receiver, equipment usage, percent usage factor, and baseline parameters for the Project site. Construction equipment typically moves back and forth across the site, and it is an industry standard to use the acoustical center of the site to model average construction noise levels.

The anticipated construction equipment was split into two phases, site preparation and building construction. Noise levels associated with each phase are shown in <u>Table 1</u>, <u>Construction Noise Level by Phase (dBA, Leq)</u>.

Table 1
Construction Noise Level by Phase (dBA, Leq)

Activity	Noise Levels at Nearest Sensitive Receptor							
	Leq	Lmax						
Site Preparation	66	72						
Building Construction	64	69						

As shown in <u>Table 1</u>, Project construction noise would range between 64 to 66 dBA Leq and 69 to 72 dBA Lmax at nearby sensitive receptors. Construction noise is considered a short-term impact and would be considered significant if construction activities occur outside the allowable times as described in the City's General Plan and Municipal Code. However, the Project would be required to adhere to Gardena Municipal Code Section 8.36.080(G) which outlines the allowed times for construction. Thus, this impact would be less than significant.

Long-Term Operational Noise

The worst-case stationary noise was modeled using SoundPLAN 3D acoustical modeling software. This worst-case scenario models all operational noise operating at the same time for the full duration of an hour. The model utilizes the sound level data for the proposed Project activities, which includes parking and soccer activities. There is an existing 10-foot wall surrounding the Project site included in the model.

Seven receptors were modeled to accurately evaluate the proposed Project's operational noise impact to adjacent land uses; refer to Appendix B for further information regarding the receptors. Both daytime and nighttime ambient noise levels are calculated. It is noted that nighttime (between 10:00 pm and 11:00 pm) the soccer center would operate a reduced capacity. Worst-case, Project only operational noise levels are anticipated to range between 35 to 49 dBA Leq at the modeled noise receptors.

<u>Table 2</u>, <u>Worst-Case Predicted Operational Daytime Noise Levels (dBA, Leq)</u>, identifies Project plus ambient daytime noise level projections. As indicated in <u>Table 2</u>, daytime noise levels are anticipated to be 56 dBA leq during the day at the receptors during operational hours.

Table 2
Worst-Case Predicted Operational Daytime Noise Levels (dBA, Leq)

Receptor ¹	Existing Day Ambient Noise Level ²	Full Capacity Project Noise Level ³	Total Combined Noise Level	Daytime Land Use Noise Limit ⁴	Change in Noise Level as Result of Project
R1	56	39	56	70	0
R2	56	49	56	56	0
R3	56	43	56	56	0
R4	56	48	56	56	0
R5	56	49	56	70	0
R6	56	46	56	70	0
R7	56	43	56	72	0

Notes:51. R1 and R5 are industrial and R2 through R4 are residential.

- 2. FHWA projection calibrated to LT1 and traffic counts.
- 3. Refer to Exhibit F in Appendix B for the operation noise level projections at each receptor.
- 4. Per Gardena Municipal Code Section 8.36.040(C) if the ambient exceeds the noise standard the ambient becomes the noise standard.

<u>Table 3</u>, <u>Worst-Case Predicted Operational Nighttime Noise Levels (dBA, Leq)</u>, identifies Project plus ambient nighttime noise level projections. As indicated in <u>Table 3</u>, nighttime noise levels are anticipated to be 55 dBA leq during the nighttime at the receptors during operational hours.

Table 3
Worst-Case Predicted Operational Nighttime Noise Levels (dBA, Leq)

Receptor ¹	Noise Level ²		Total Combined Noise Level	Nighttime Land Use Noise Limit ⁴	Change in Noise Level as Result of Project
R1	55	35	55	70	0
R2	55	45	55	55	0
R3	55	39	55	55	0
R4	55	45	55	55	0
R5	55	47	56	70	1
R6	55	44	55	70	0
R7	55	41	55	70	0

Notes:51. R1 and R5 are industrial and R2 through R4 are residential.

- 2. FHWA projection calibrated to LT1 and traffic counts.
- 3. Refer to Exhibit F in Appendix B for the operation noise level projections at each receptor.
- 4. Per Gardena Municipal Code Section 8.36.040(C) if the ambient exceeds the noise standard the ambient becomes the noise standard.

As demonstrated in <u>Tables 2 and 3</u>, the combined noise levels do not exceed the City's noise limits established by Gardena Municipal Code Section 8.36.040, which stipulates a 70 dBA industrial noise limit and a residential noise limit that cannot exceed the ambient in cases such as this where the ambient exceeds the noise limit. Therefore, the Project would have a less than significant impact.

Groundborne Vibration or Noise

Construction activities can produce vibration that may be felt by adjacent land uses. The Caltrans Transportation and Construction Induced Vibration Guidance Manual provides general thresholds and guidelines as to the vibration damage potential from vibration impacts.

Construction equipment has the potential to get as close as 25 feet to the adjacent residential buildings. At this distance, a large bulldozer would yield a worst-case 0.089 PPV (in/sec) which would be perceptible but would not result in architectural damage. It is also acknowledged that construction activities would occur throughout the Project site and would not be concentrated at the point closest to the nearest residential structures. Construction vibration impacts would be less than significant.

AIR QUALITY

Air Quality Management Plan Consistency

The Project site is located within the South Coast Air Basin (SCAB), which is under the South Coast Air Quality Management District's (SCAQMD's) jurisdiction. The SCAQMD is required, pursuant to the Federal Clean Air Act (FCAA), to reduce emissions of criteria pollutants for which SCAB is in non-attainment. To reduce such emissions, the SCAQMD drafted the 2016 Air Quality Management Plan (AQMP). The 2016 AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving State (California) and national air quality standards. The 2016 AQMP is a regional and multiagency effort including the SCAQMD, the California Air Resources Board (CARB), the Southern California Association of Governments (SCAG), and the USEPA. The AQMP's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG's 2016

RTP/SCS, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans. The proposed Project is subject to the SCAQMD's AQMP.

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

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

Consistency Criterion No. 1 refers to the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). As shown in <u>Tables 4 and 5</u>, the proposed Project construction and operational emissions would be below SCAQMD's thresholds. As the Project would not generate localized construction or regional construction or operational emissions that would exceed SCAQMD thresholds of significance, the Project would not violate any air quality standards. Thus, no impact is expected, and the Project would be consistent with the first criterion.

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

With respect to determining consistency with Consistency Criterion No. 2, it is important to recognize that air quality planning within the air basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed Project exceeds the assumptions utilized in preparing the forecasts presented in the 2016 AQMP. Determining whether or not a project exceeds the assumptions reflected in the 2016 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

1. Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?

Growth projections included in the 2016 AQMP form the basis for the projections of air pollutant emissions and are based on the General Plan land use designations and SCAG's 2016-2040 Regional Transportation Plan/Sustainability Communities Strategy (2016-2040 RTP/SCS) demographics forecasts. The population, housing, and employment forecasts within the 2016-2040 RTP/SCS are based on local general plans as well as input from local governments, such as the City of Gardena. The SCAQMD has

¹ Although SCAG has adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (Connect SoCal), the SCAQMD has not released an updated AQMP that utilizes information from Connect SoCal; SCAQMD is planning to release the updated AQMP in 2022. Therefore, this analysis is based on the 2016-2040 RTP/SCS.

incorporated these same demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment) into the 2016 AQMP. The Project would not require a General Plan amendment and is consistent with the zoning subject to a CUP to operate the proposed facility. The Project would be within the population, housing, and employment projections anticipated and planned for by the City's General Plan and would not increase growth beyond the AQMP's projections.

2. Would the project implement all feasible air quality mitigation measures?

The proposed Project would result in less than significant air quality impacts. Compliance with all feasible emission reduction measures identified by the SCAQMD would be required as identified in the discussions below. As such, the proposed Project meets this 2016 AQMP consistency criterion.

Would the project be consistent with the land use planning strategies set forth in the AQMP?

Land use planning strategies set forth in the 2016 AQMP are primarily based on the 2016-2040 RTP/SCS. The Project would be consistent with the actions and strategies of the 2016-2040 RTP/SCS. For example, the Project would be an infill development, which is consistent with various goals within the 2016-2040 RTP/SCS. Additionally, the Project would be located near public transit, thereby supporting the 2016-2040 RTP/SCS goal of focusing new growth around transit.

In conclusion, the determination of 2016 AQMP consistency is primarily concerned with the long-term influence of a project on air quality in the air basin. The proposed Project would not result in a long-term impact on the region's ability to meet State and federal air quality standards. Further, the proposed Project's long-term influence on air quality in the air basin would also be consistent with the SCAQMD and SCAG's goals and policies and is considered consistent with the 2016 AQMP. Therefore, the Project would be consistent with the above criteria and impacts would be less than significant.

Cumulative Impacts

<u>Construction Impacts</u>. Project construction activities would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the Project site include ozone-precursor pollutants (i.e., Reactive Organic Gases [ROG] and NOx) and PM₁₀ and PM_{2.5}. Construction-generated emissions are short term and temporary, lasting only while construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

The Project's construction-related emissions were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. Construction of the proposed Project is anticipated to begin in late 2021 and be completed in early 2022; refer to Appendix C, Air Quality Modeling, for additional information.

<u>Table 4</u>, <u>Construction-Related Emissions</u>, presents the anticipated daily construction emissions.

As shown in <u>Table 4</u>, all criteria pollutant emissions would remain below their respective thresholds. While impacts would be considered less than significant, the proposed Project would be subject to compliance with SCAQMD Rules 402, 403, and 1113, which would further reduce specific construction-related emissions. As the proposed Project emissions would not worsen ambient air quality, create additional violations of federal and state standards, or delay SCAB's goal for meeting attainment standards, impacts associated with Project construction emissions would be less than significant.

Table 4
Construction-Related Emissions

	Pollutant (lbs per day) ¹										
Construction Year	ROG	NOx	со	SO _x	PM ₁₀	PM _{2.5}					
2021	2.0	20.5	15.1	<0.1	3.8	2.2					
2022	1.8	13.1	14.0	<0.1	1.0	0.7					
SCAQMD Thresholds	75	100	550	150	150	55					
Is Threshold Exceeded?	No	No	No	No	No	No					

Source: CalEEMod version 2020.4.0; refer to Appendix C for detailed model input/output data.

Notes: ROG = reactive organic gases; NO_x = nitrogen oxides; NO_x = carbon monoxide; NO_x = sulfur oxides; NO_x = particulate matter up to 10 microns; NO_x = particulate matter up to 2.5 microns; NO_x = pounds.

SCAQMD Rule 403 Fugitive Dust applied. The Rule 403 reduction/credits include the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour. Reductions percentages from the SCAQMD CEQA Handbook (Tables XI-A through XI-E) were applied. No mitigation was applied to construction equipment; refer to Appendix C for model outputs. Emissions were calculated using CalEEMod, version 2016.3.2. Winter emissions represent worst-case scenario.

Operational Emissions Impacts. The Project's operational emissions would be associated primarily with motor vehicle use. Mobile sources emissions are generated from vehicle operations associated with Project operations. CalEEMod was used to calculate pollutants emissions from vehicular trips generated from the proposed Project. CalEEMod default inputs for vehicle mix and trip distances were unaltered for this analysis. Estimated emissions from Project operations are summarized in Table 5, Operational-Related Emissions. Note that emissions rates differ from summer to winter because weather factors are dependent on the season and these factors affect pollutant mixing, dispersion, ozone formation, and other factors.

As shown in <u>Table 5</u>, emission calculations generated from CalEEMod demonstrate that Project operations would not exceed the SCAQMD thresholds for any criteria air pollutants. Therefore, Project operational impacts would be less than significant.

As shown in <u>Table 5</u>, the Project's unmitigated area source emissions would not exceed SCAQMD thresholds for either the winter or summer seasons. Therefore, impacts would be less than significant.

Energy source emissions would be generated due to the Project's electricity usage, which would be minimal. The Project's primary uses of electricity would be for outdoor lighting. As shown in <u>Table 5</u>, the Project's unmitigated energy source emissions would not exceed SCAQMD thresholds for criteria pollutants. As such, the Project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation. Therefore, the Project's operational air quality impacts would be less than significant.

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NOx, PM₁₀, and PM_{2.5} are all pollutants of regional concern. NOx and ROG react with sunlight to form O₃, known as photochemical smog. Additionally, wind currents readily transport PM₁₀ and PM_{2.5}. However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions have been estimated using CalEEMod, as recommended by the SCAQMD. As shown in <u>Table 5</u>, mobile source emissions would not exceed SCAQMD thresholds for criteria

pollutants. Therefore, the Project's air quality impacts associated with mobile source emissions would be less than significant.

Table 5
Operational-Related Emissions

		Pollutant (lbs per day) ¹										
Emissions Source	ROG	NO _x	со	SO _x	PM ₁₀	PM _{2.5}						
Proposed Project Summer Emission	ns		Ann and Ann Section Sec		200	9 1						
Area Source Emissions	<0.1	0	<0.1	<0.1	0	0						
Energy Emissions	0	0	0	0	0	0						
Mobile Emissions ²	0.6	0.6	5.8	<0.1	1.2	0.3						
Total Emissions ³	0.6	0.6	5.8	<0.1	1.2	0.3						
SCAQMD Threshold	55	55	550	150	150	55						
Is Threshold Exceeded?	No	No	No	No	No	No						
Proposed Project Winter Emission	S											
Area Source Emissions	<0.1	0	<0.1	<0.1	0	0						
Energy Emissions	0	0	0	0	0	0						
Mobile Emissions ²	0.6	0.7	5.7	<0.1	1.2	0.3						
Total Emissions ³	0.6	0.7	5.7	<0.1	1.2	0.3						
SCAQMD Threshold	55	55	550	150	150	55						
Is Threshold Exceeded?	No	No	No	No	No	No						

Refer to Appendix C for detailed model input/output data.

Notes: ROG = reactive organic gases; NO_x = nitrogen oxides; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = particulate matter up to 10 microns; $PM_{2.5}$ = particulate matter up to 2.5 microns; $PM_{2.5}$ = pounds.

3. The numbers may be slightly off due to rounding.

Cumulative Conclusion

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

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

^{1.} Emissions were calculated using CalEEMod, version 2020.4.0.

^{2.} The mobile source emissions were calculated using the trip generation data provided in the Transportation Memorandum prepared for the Lab Five Soccer Center Project (Transportation Analysis) prepared by Kittelson & Associates; refer to Appendix A, Transportation Analysis.

The SCAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, individual project emissions contribute to existing cumulatively significant adverse air quality impacts. The SCAQMD developed the operational thresholds of significance based on the level above which individual project emissions would result in a cumulatively considerable contribution to SCAB's existing air quality conditions. Therefore, a project that exceeds the SCAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.

As shown in <u>Table 5</u>, the Project's operational emissions would not exceed SCAQMD thresholds. As a result, the Project's operational emissions would not result in a cumulatively considerable contribution to significant cumulative air quality impacts. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. Project operations would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant and impacts would be less than significant.

Sensitive Receptors

The nearest sensitive receptors to the Project site are the residences located immediately north and west of the Project site. To identify impacts to sensitive receptors, the SCAQMD recommends addressing localized significance thresholds (LSTs) for construction. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the Final Localized Significance Threshold Methodology (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with Project-specific emissions.

<u>Localized Construction Significance Analysis</u>. The maximum daily disturbed acreage would be 1.5 acres (the gross area of the Project site). The appropriate SRA for the LSTs is the Southwest Coastal LA County area (SRA 3), since SRA 3 includes the Project site. LSTs apply to CO, NOx, PM_{10} , and $PM_{2.5}$. The SCAQMD produced look-up tables for projects that disturb areas less than or equal to 2.0 acres. As stated, Project construction is anticipated to disturb a maximum of 1.5 acres in a single day.

The SCAQMD's methodology states that "off-site mobile emissions from the Project should not be included in the emissions compared to LSTs". Therefore, for purposes of the construction LST analysis, only emissions included in the CalEEMod "on-site" emissions outputs were considered. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Therefore, as recommended by the SCAQMD, LSTs for receptors located at 25 meters were utilized in this analysis for receptors closer than 25 meters. <u>Table 6</u>, <u>Localized Significance of Construction Emissions</u>, presents the results of localized emissions during proposed Project construction.

Table 6
Localized Significance of Construction Emissions

Construction Activity	NO _x	со	PM ₁₀	PM _{2.5}	
Site Preparation	17.4	7.6	6.0	3.6	
Grading	20.2	9.8	8.0	4.3	
Demolition	19.7	14.5	1.1	1.0	
Paving	9.3	10.7	0.5	0.5	
Architectural Coating	1.4	1.8	0.1	0.1	
Building Construction	12.5	12.7	0.6	0.6	
SCAQMD Localized Screening Thresholds	131	967	8	5	
Exceed SCAQMD Thresholds?	No	No	No	No	

Source: CalEEMod Version 2020.4.0; refer to Appendix C for model outputs

Notes: NO_x = nitrogen oxides; CO = carbon monoxide; PM_{10} = particulate matter up to 10 microns; $PM_{2.5}$ = particulate matter up to 2.5 microns; lbs = pounds.

Emissions reflect on-site construction emissions only, per SCAQMD guidance.

As shown in <u>Table 6</u>, the emissions of these pollutants on the peak day of Project construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Further, the Project would be subject to compliance with SCAQMD Rules 402, 403, and 1113, which would further reduce specific construction-related emissions. Therefore, the proposed Project would result in a less than significant impact concerning LSTs during construction activities.

<u>Localized Operational Significance Analysis</u>. <u>Table 7</u>, <u>Localized Significance of Operational Emissions</u>, provides the on-site operational emissions compared to the LST thresholds.

Table 7
Localized Significance of Operational Emissions

Maximum Emissions	NO _x	со	PM ₁₀	PM _{2.5}
On-Site Emissions (Area Sources)	0	<0.1	0	0
SCAQMD Localized Screening Thresholds	131	967	2	1
Exceed SCAQMD Thresholds?	No	No	No	No

Source: CalEEMod Version 2020.4.0; refer to Appendix C for model outputs

Notes: NO_x = nitrogen oxides; CO = carbon monoxide; PM_{10} = particulate matter up to 10 microns; $PM_{2.5}$ = particulate matter up to 2.5 microns; Ibs = pounds.

As indicated in <u>Table 7</u>, the maximum daily emissions of pollutants during Project operations would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, the proposed Project would result in a less than significant impact concerning LSTs during operational activities.

The Project would not involve the use, storage, or processing of carcinogenic or non-carcinogenic toxic air contaminants, and no significant toxic airborne emissions would result from operation of the proposed Project. Construction activities are subject to the regulations and laws relating to toxic air pollutants at the regional, State, and federal level that would protect sensitive receptors from substantial concentrations of these emissions. Therefore, impacts associated with the release of toxic air contaminants would be less than significant.

Criteria Pollutant Health Impacts

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

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

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

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

existing equipment. Incentives can then accelerate deployment and enhance public acceptability of new technologies.

The 2016 AQMP also emphasized that beginning in 2012, continued implementation of previously adopted regulations will lead to NOx emission reductions of 68 percent by 2023 and 80 percent by 2031. With the addition of 2016 AQMP proposed regulatory measures, a 30 percent reduction of NOx from stationary sources is expected in the 15-year period between 2008 and 2023. This is in addition to significant NOx reductions from stationary sources achieved in the decades prior to 2008.

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

Carbon Monoxide Hotspots

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

Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard. The 2016 AQMP is the most recent version that addresses CO concentrations. As part of the SCAQMD CO Hotspot Analysis, the Wilshire Boulevard/Veteran Avenue intersection, one of the most congested intersections in Southern California with approximately 100,000 average daily traffic (ADT), was modeled for CO concentrations. This modeling effort identified a CO concentration high of 4.6 ppm, which is well below the 35-ppm Federal standard. The proposed Project would not produce the volume of traffic required to generate a CO hot spot in the context of SCAQMD's CO Hotspot Analysis. As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection even as it accommodates 100,000 ADT, it can be reasonably inferred that CO hotspots would not be experienced at any Project area intersections from the 198 ADT attributable to the proposed Project. Therefore, impacts would be less than significant.

Construction-Related Diesel Particulate Matter

Project construction would generate diesel particulate matter (DPM) emissions from the use of off-road diesel equipment required. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to

toxic air contaminants (TAC) emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The closest sensitive receptors to the Project site are located immediately adjacent to the north and west of the site. The use of diesel-powered construction equipment would be temporary and episodic and occur throughout the Project site. The duration of exposure would be short and exhaust from construction equipment would dissipate rapidly. Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities.

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

Objectionable Odors

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

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

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

According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed Project does not include any uses identified by the SCAQMD as being associated with odors.

WATER QUALITY

Short-term impacts related to water quality could occur during the construction phase associated with the development of the site. Construction-related erosion effects would be addressed through compliance with the NPDES program's Construction General Permit. Construction activity subject to this General Permit includes any construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation, or any other activity that results in a land disturbance of equal to or

greater than 1.0 acre. The Project site is approximately 1.5 acres and therefore would be subject to the General Permit. To obtain coverage under the General Permit, dischargers are required to file with the State Water Resources Control Board (SWRCB) the Permit Registration Documents (PRDs), which include a Notice of Intent (NOI) and other compliance-related documents. The General Permit requires development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and monitoring plan, which must include erosion-control and sediment-control Best Management Practices (BMPs) that would meet or exceed measures required by the General Permit to control potential construction-related pollutants. Erosion-control BMPs are designed to prevent erosion, whereas sediment controls are designed to trap sediment once it has been mobilized.

The Project would also be subject to Gardena Municipal Code Chapter 8.70, Stormwater and Runoff Pollution Control. Chapter 8.70 is intended to reduce the quality of pollutants being discharged to the waters of the United States through: the elimination of non-stormwater discharges to the municipal stormwater system; the elimination of discharge of pollutants into the municipal storm drain system; the reduction of pollutants in stormwater discharges to the maximum extent practicable; the protection and enhancement of the quality of the waters of the United States in a manner consistent with the provisions of the Clean Water Act.

Compliance with the NPDES and Gardena Municipal Code requirements would ensure the Project's construction-related activities would not violate any water quality standards or otherwise substantially degrade surface or groundwater quality, resulting in a less than significant impact.

Criterion (e) The site can be adequately served by all required utilities and public services.

The Project site has historically been used for a hauling and demolition business and all required utilities and public services are available to serve the proposed Project. Utility infrastructure is located within the surrounding area and serves the existing site. The Project would not require significant expansion of utilities and public services beyond existing conditions.

4.0 EXCEPTIONS TO CATEGORICAL EXEMPTIONS ANALYSIS

The following are exceptions to CEs pursuant to CEQA Guidelines 15300.2, Exceptions:

Exception a) Location. Classes 3, 4, 5, 6 and 11 are qualified by consideration of where the project is to be located – a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to apply all instances, expect where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state or local agencies.

Exception (a) is specifically applicable to CE Classes 3, 4, 5, 6, and 11. The Project does not qualify for any of these classes. The Project is being considered and analyzed under a Class 32 CE. Thus, this exception is not applicable.

Exception b) Cumulative Impact. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.

There are no projects currently proposed or known within the Project area of the same type. The Project is consistent with the General Plan land use (i.e., Industrial) anticipated for the site. The Project would not result in a significant environmental impact and would not contribute to a significant cumulative impact. Exception (b) would not apply to the Project.

Exception c) Significant Effect. A categorical exemption shall not be used for an activity where there is a reasonable possibility that they activity will have a significant effect on the environment due to unusual circumstances.

There are no unusual circumstances associated with the Project site or the Project. The Project site is located within an urbanized area of the City and does not include any site-specific environmental conditions that would preclude the proposed development. The Project proposes to construct a 5-a-side soccer center facility at the approximately 1.5-acre site. The proposed Project is consistent with the General Plan land use (i.e., Industrial) designation. Exception (c) would not apply to the Project.

Exception d) Scenic Highways. A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified EIR.

There are no officially-designated or eligible State Scenic Highways within proximity to the Project site. Thus, the proposed Project would not result in damage to scenic resources within an officially designated State Scenic Highway. Exception (d) would not apply to the Project.

Exception e) Hazardous Waste Sites. A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.

Government Code Section 65962.5 requires the DTSC and SWRCB to compile and update a regulatory sites listing (per the criteria of the Section). The California Department of Health Services is also required to compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Section 116395 of the Health and Safety Code. Section 65962.5 requires the local enforcement agency, as designated pursuant to Section 18051 of Title 14 of the California Code of Regulations, to compile, as appropriate, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste. The Project site is not listed pursuant to Government Code Section 65962.5. Thus, Exception (e) would not apply to the Project.

Exception f) Historical Resources. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

The Project site does not contain any historical resources. Further, there are no structures or resources within the surrounding area listed as historic resources. The Project would not cause a substantial adverse change in the significance of a historical resource and Exception (f) would not apply.

² California Environmental Protection Agency, Cortese List Data Resources, https://calepa.ca.gov/sitecleanup/corteselist/, accessed September 20, 2021.

5.0 CONCLUSION

Based on the analysis provided herein, the proposed Lab Five Soccer Center Project meets the criteria for a Class 32 Categorical Exemption pursuant to Section 15332 of the CEQA Guidelines.

6.0 REFERENCES

Ahrens, Donald C., Meteorology Today: An Introduction to Weather, Climate, & the Environment, 2006.

California Air Resources Board, *EMFAC2021Web Database*, https://arb.ca.gov/emfac/?utm_medium=email&utm_source=govdelivery

California Department of Transportation, Scenic Highways System Lists, *List of eligible and officially designated State Scenic Highways*, https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways, accessed April 15, 2021.

California Environmental Protection Agency, Cortese List Data Resources, https://calepa.ca.gov/sitecleanup/corteselist/, accessed September 20, 2021.

City of Gardena, Gardena General Plan 2006, Updated June 2012 and March 2013 and March-April 2021.

City of Gardena, *Gardena General Plan 2006 Final Environmental Impact Report, SCH# 2005021125*, April 2006.

City of Gardena, Gardena Municipal Code, current through Ordinance 1831, passed July 27, 2021.

GoogleEarth, 2021.

Kittelson & Associates, Lab Five Soccer Center Transportation Memorandum, September 22, 2021.

MD Acoustics, Lab Five Soccer at Gardena Noise Impact Study, September 27, 2021.

- South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993, https://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook#
- South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, June 2003, Revised July 2008. https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2
- South Coast Air Quality Management District, *Localized Significance Thresholds Methodology Appendix C*, Revised October 21, 2009.
- South Coast Air Quality Management District, *Final 2016 AQMP*, http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp
- Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, April 2016, http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx

The South Bay Bicycle Master Plan, November 2011.

This page intentionally left blank.

Appendix A



750 THE CITY DRIVE, SUITE 410 ORANGE, CA 92868 P 714.468.1997

MEMORANDUM

Date:

September 22, 2021

Project #26676

To:

City of Gardena

From:

Michael Sahimi and Tim Erney, Kittelson & Associates, Inc.

Project:

Lab Five Soccer Center

Subject:

Transportation Memorandum

This transportation memorandum summarizes estimated trip generation, the California Environmental Quality Act (CEQA) vehicle miles traveled (VMT) analysis, and the non-CEQA local transportation assessment for the proposed Lab Five Soccer Center (project), located at 14000 Halldale Avenue in the City of Gardena, California. This memo includes the following sections:

- Project Description
- Trip Generation Estimates
- VMT Impact Assessment
- Local Transportation Assessment
- Summary and Conclusions

The analysis methodologies and contents of this assessment are based on the City's SB 743 Implementation Transportation Analysis Updates (June 2020).

PROJECT DESCRIPTION

The project site is located at 14000 Halldale Avenue in the City of Gardena, between Halldale Avenue and Brighton Avenue south of 139th Street. The project site is within in an industrial zone and was previously used for a hauling and demolition business. The project will be on a 1.5-acre lot and includes the development of seven (7) 50-foot by 98-foot soccer fields designed for five versus five games. The project also includes remodeling an existing two-story 2,786 square foot office building, in which 878 square feet will be converted to an incidental café use for the patrons of the soccer center. A total of 40 on-site parking spaces will also be provided, which would be accessed via a proposed driveway on Halldale Avenue located approximately 275 feet south of 139th Street.

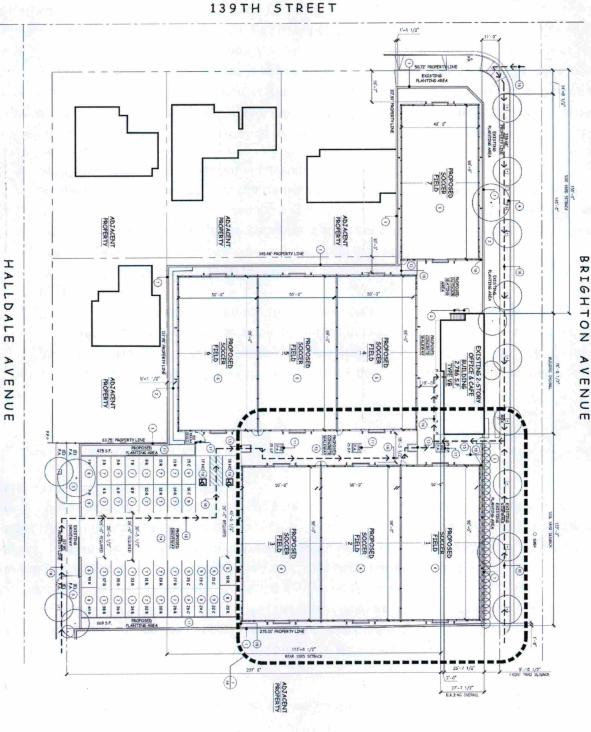
The hours of operation for the soccer center are anticipated to be 9:00 AM to 11:00 PM.

The project location is shown in Figure 1. The current proposed site plan is shown in Figure 2.



Project #26676 Page 3





Kittelson & Associates, Inc.

TRIP GENERATION ESTIMATES

Given that this project consists of a non-standard use that is not included in traditional trip generation rate sources such as the Institute of Transportation Engineers (ITE) Trip Generation Manual, trip generation rates were estimated using data collected at a comparable site. The existing Lab Five soccer center located at 9740 Telfair Avenue in the City of Pacoima was previously chosen as a comparable site for the project's parking study prepared by Walker Consultants in May 2021. This location has eight soccer fields, plus parking.

For the purposes of this analysis, inbound and outbound trips were collected at the Pacoima site during one weekday to develop per-field trip generation rates, which were then used to develop trip generation estimates for the proposed project. Given that the soccer fields are the project's primary trip-generating use supported by other buildings on the site, it is appropriate to develop per-field rates from the Pacoima site and apply them to the proposed Gardena site. Since some patrons of the Pacoima location park off-site and walk to the center. As such, driveway counts were conducted, including both vehicles and pedestrians. While bicycle counts were also collected, no bicyclists were observed entering or leaving the site. For the purpose of estimating vehicle trip generation, inbound and outbound pedestrian trips were conservatively included as vehicle trips.

The data collected at the Pacoima site was used to estimate per-field trip generation rates for four time periods:

- Weekday daily
- Weekday AM peak hour This represents the peak hourly trip generation during the weekday AM peak period of the local roadway network (from 7:00 AM to 9:00 AM). Note that the estimated weekday AM trip generation rate is 0.0 per field, since no activity was observed at the Pacoima site during the AM hours; this is consistent with the proposed project's hours of operation.
- Weekday PM peak hour This represents the peak hourly trip generation during the weekday
 PM peak period of the local roadway network (from 4:00 PM to 6:00 PM).
- Project weekday peak hour This represents the project's hour of highest trip generation for the
 entirety of the day, which occurred from 7:15 PM to 8:15 PM. Note that this period is included
 for informational purposes, as City's transportation analysis requirements does not require the
 evaluation of a project's peak hour of activity.

The inbound and outbound trip generation rates were derived from the eight-field Pacoima site (driveway counts were divided by 8 to obtain rates, with inbound/outbound percentages based on the driveway trip patterns). Rates were then applied to the proposed seven-field project in Gardena. As shown in Table 1, the proposed project is expected to generate 198 weekday daily vehicle trips, 0 weekday AM peak hour vehicle trips, and 7 weekday PM peak hour vehicle trips. The project is also expected to generate 60 vehicle trips during its peak hour of trip generation (provided for informational purposes).

Table 1: Pro	ect Trip	Generation	Estimate
--------------	----------	------------	----------

				Trip G	eneration	Rates				
	AM Peak Hour		our	Р	M Peak Ho	ur	Project Weekday Peak Hour			
Rate	Daily	In	Out	Total	In	Out	Total	In	Out	Total
Per field	28.25	L. T.		0.00	75%	25%	1.00	83%	17%	8.63
				Trip Gen	eration E	stimates				
		AM Peak Hour			P	M Peak Ho	ur	Project Weekday Peak Hou		
Size	Daily	In	Out	Total	In	Out	Total	In	Out	Total
7 fields	198	0	0	0	5	2	7	50	10	60

Source: Kittelson & Associates, Inc., 2021.

Note: These rates were derived from driveway counts collected at the comparable Pacoima site. The weekday AM and weekday PM peak hour trip generation rates represent the project's expected peak hourly trip generation during the morning and evening peak periods of the local roadway network (7:00-9:00 AM and 4:00-6:00 PM, respectively). The project weekday peak hour trip generation rate represents the project's hour of highest trip generation for the entirety of the day (7:15-8:15 PM).

VMT IMPACT ASSESSMENT

The City's transportation analysis guidelines include criteria for individual project screening, which can be used to screen projects that are expected to generate low VMT out of a detailed VMT analysis. The City's three VMT screening criteria and determinations are listed below.

(1) Project Type Screening

Projects that generate fewer than 110 daily trips, local-serving retail projects less than 50,000 square feet, and affordable housing projects may be screened from conducting a VMT analysis. Since the project would generate approximately 198 daily trips, is not a retail project, and is not an affordable housing project, none of these conditions would apply to this project.

(2) Transit Proximity Screening

Projects located within a high-quality transit area would be screened from a detailed VMT analysis if the project does not have certain characteristics. This screening criteria cannot be applied if the project:

- Has a Floor Area Ratio (FAR) of less than 0.75 (for office, retail, hotel, and industrial projects) or less than 20 units per acre (for residential projects).
- Includes more parking for use by residents, customers, or employees than required by the City
 (unless additional parking is being provided for design feasibility, such as completing the floor of
 a subterranean or structured parking facility, or if additional parking is located within the project
 site to serve adjacent uses).
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the City).
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

According to Figure 3 in the City's guidelines, the proposed project site is located within a frequent transit area (within a half-mile radius of an existing or planned major transit stop, or an existing stop along a high-quality transit corridor, which has fixed route bus service with service intervals no longer than 15 minutes during peak commute hours). In addition, this project would meet the other criteria necessary to screen out due to transit proximity:

- The FAR/density requirement does not apply since this is not an office, retail, hotel, industrial, or residential project.
- The project's parking supply would not exceed City requirements.
- The Project is consistent with the Southern California Association of Governments (SCAG)
 Sustainable Communities Strategy (SCS) (more information on SCS consistency is provided below).
- The project would not replace residential units.

The proposed project is consistent with the SCAG SCS for the following reasons:

- The proposed project does not include a change from residential uses to employment uses (e.g.,
 office and industrial) or vice versa, and is thus consistent with SCAG's land use projections for the
 area. In addition, the project would be obtaining a conditional use permit as opposed to requiring
 a change to the City's zoning map.
- The project furthers goals from the SCAG SCS, including:
 - The project is located in an area with high-quality bus service and furthers the goals of: improving mobility, accessibility, reliability, and travel safety for people and goods; increasing person and goods movement and travel choices within the transportation system; reducing greenhouse gas emissions and improving air quality; and, focusing growth near destinations and mobility options.
 - By encouraging sports and recreation activities, the project furthers the goal of supporting healthy and equitable communities.

Therefore, the project can be <u>screened out</u> of requiring a detailed VMT analysis under the transit proximity screening criteria.

(3) Low VMT Area Screening

Projects that are assessed using home-based VMT per resident (such as residential projects) or home-based work VMT per employee (such as offices) in a low-VMT generating area may be screened from a VMT analysis. This project is a unique use that would not be analyzed using either of these VMT metrics, as it is not a residential use, and the number of employees is not directly correlated to the activity level of the soccer fields. As such, this screening criteria would not apply to this project.

Screening Analysis Results

To be screened out of a detailed VMT analysis, a project would need to satisfy at least one of the VMT screening criteria. Given that this project meets the requirements for transit proximity screening, it is screened out of a detailed VMT analysis. Therefore, the project would result in a **less-than-significant** VMT impact.

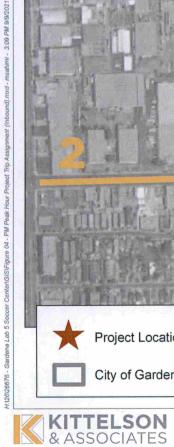
LOCAL TRANSPORTATION ASSESSMENT

To fulfill the City's local transportation assessment requirements, this section summarizes the trip generation, trip distribution, and trip assignment for the proposed project. As documented above and summarized in Table 1, the project is expected to generate 198 weekday daily vehicle trips, 0 weekday AM peak hour vehicle trips, and 7 weekday PM peak hour vehicle trips (while the project is estimated to generate 60 vehicle trips during its peak hour of trip generation, that hour is not within the standard AM and PM peak study periods). Given that the project is expected to generate fewer than 20 peak hour vehicle trips, this local transportation assessment summarizes project trip distribution and assignment; a cumulative project review and level of service (LOS) analysis are not required and have not been conducted.

For this analysis, project trip distribution was estimated using existing vehicle volumes and traffic patterns on adjacent arterial roadways such as Rosecrans Avenue and Normandie Avenue. Generally, it is expected that the majority of project trips would travel in the eastbound/westbound directions compared to the northbound/southbound directions based on recent traffic counts in the study area. Project trip distribution percentages are shown in Figure 3.

Based on these trip distribution estimates, the weekday PM peak hour project trips were assigned to the study area roadways based on local travel patterns, the locations of nearby freeway on- and off-ramps, and local roadway configurations and traffic controls. The weekday PM inbound and outbound project trip assignments are shown in Figure 4 and Figure 5.







SUMMARY AND CONCLUSIONS

The following summarizes the findings of the CEQA VMT impact assessment:

- Per the City's guidelines, the project can be screened out of a detailed VMT analysis since it meets the requirements for transit proximity screening.
- Since the project screens out of a detailed VMT analysis, it would result in a less-than-significant VMT impact.

The following summarizes the findings of the non-CEQA local transportation assessment:

- The proposed project is expected to generate 198 weekday daily vehicle trips, 0 weekday AM
 peak hour vehicle trips, and 7 weekday PM peak hour vehicle trips.
- Project trips are expected to mostly travel in the eastbound/westbound directions primarily along Rosecrans Avenue, as well as parallel roads such as 139th Street. Northbound/southbound trips are expected to primarily travel along Normandie Avenue.

Attachment A: Pacoima Site Data Collection Sheet

Attachment A: Pacoima Site Data Collection Sheet

Prepared by National Data & Surveying Services

Trip Generation Study

Location: Lab Five Soccer Dwy, 9740 Telfair Ave City: Pacoima, CA

Date: 8/25/2021 Day: Wednesday

	Vehicle				PEDS					BIKES						
TIME	1	N	0	JT	100	IN			OUT			IN			OUT	
	NR	SL	WL	WR	NR	SL	ET	WL	WT	WR	NR	SL	ET	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM 12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM 6:45 PM	7	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
7:00 PM	3	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	8	3	0	1	1	1	0	0	0	0	0	0	0	0	0	0
7:30 PM	6	6	0	0	0	2	0	0	0	1	0	0	0	0	0	0
7:45 PM	6	7	2	0	1	2	1	0	0	0	0	0	0	0	0	0
8:00 PM	11	1	6	2	0	1	0	0	0	0	0	0	0	0	0	0
8:15 PM 8:30 PM	0	2	2	1	3	3	0	0	0	0	0	0	0	0	0	0
8:45 PM	1	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	1	6	4	0	0	0	3	0	1	0	0	0	0	0	0
9:15 PM	1	0	11	10	1	0	0	1	0	4	0	0	0	0	0	0
9:30 PM	0	0	7	3	0	0	0	0	0	4	0	0	0	10	0	0
9:45 PM	0	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM 10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	48	41	51	38	8	15	1	5	0	16	0	0	0	0	0	0



Lab Five Soccer at Gardena Noise Impact Study City of Gardena, CA

Prepared for:

Starla Barker

De Novo Planning Group

25425 Jefferson Ave, Ste 1180 East Main S #108

Tustin, CA 92780

Prepared by:

MD Acoustics, LLC Claire Pincock, INCE-USA 1197 Los Angeles Ave, Ste C-256 Simi Valley, CA 93065

Date: 9/27/2021



Noise Study Reports | Vibration Studies | Air Quality | Greenhouse Gas | Health Risk Assessments

TABLE OF CONTENTS

1.0	Intro	duction	
	1.1	Purpose of Analysis and Study Objectives	1
	1.2	Site Location and Study Area	. 1
	1.3	Proposed Project Description	1
	1.4	Noise Study Summary	1
2.0	Fund	amentals of Noise	4
	2.1	Sound, Noise, and Acoustics	4
	2.2	Frequency and Hertz	4
	2.3	Sound Pressure Levels and Decibels	4
	2.4	Addition of Decibels	4
	2.5	Human Response to Changes in Noise Levels	5
	2.6	Noise Descriptors	5
	2.7	Traffic Noise Prediction	6
	2.8	Sound Propagation	7
3.0	Regu	latory Setting	8
	3.1	Federal Regulations	8
	3.2	State Regulations	8
	3.3	City of Gardena Noise Regulations	9
4.0	Stud	y Method and Procedure	12
	4.1	SoundPLAN Noise Model (Operational Noise)	12
5.0	Existi	ng Noise Environment	13
6.0	Futur	e Noise Environment Impacts and Mitigation	16
	6.1	Traffic Noise Impact	16
	6.2	Noise Impacts to Off-Site Receptors Due to Stationary Noise Sources	16
7.0	Cons	truction Noise Impact	20
	7.1	Construction Noise	20
	7.2	Construction Vibration	20
	7.3	Construction Noise Reduction Measures	22
8 N	Refe	rences	23

LIST OF APPENDICES

Appendix A:	Field Sheets	1
Appendix B:	SoundPLAN Input/Outputs	2
Appendix C:	Construction Noise Modeling	3
	LIST OF EXHIBITS	
Exhibit A:	Location Map	2
Exhibit B:	Site Plan	
Exhibit C:	Typical A-Weighted Noise Levels	4
Exhibit D:	Land Use Compatibility Guidelines	9
Exhibit E:	Noise Measurement Location	15
Exhibit F:	Full Capacity Operational Noise Levels	
Exhibit G:	Half Capacity Operational Noise Levels	19
	LIST OF TABLES	
Table 1: Allov	vable Exterior Noise Level (dBA, Leq)	11
	vable Interior Noise Level (dBA, Leq)	
Table 3: Soun	dPLAN Modeling Assumptions	12
	-Term Noise Measurement Data for (LT1) (dBA) ¹	
Table 5: Wors	st-Case Predicted Operational Noise Levels (dBA, Leq)	17
	struction Noise Level by Phase (dBA, Leq)	
	eline Vibration Damage Potential Threshold Criteria	
Table 8: Vibra	ation Source Levels for Construction Equipment	21

1.0 Introduction

1.1 Purpose of Analysis and Study Objectives

This noise assessment was prepared to evaluate the potential noise impacts for the project study area and to recommend noise mitigation measures, if necessary, to minimize the potential noise impacts. The assessment was conducted and compared to the noise standards set forth by the Federal, State, and Local agencies. Consistent with the City's Noise Guidelines, the project must demonstrate compliance to the applicable noise criterion as outlined within the City's Noise Element and Municipal Code.

The following is provided in this report:

- A description of the study area and the proposed project
- · Information regarding the fundamentals of noise
- A description of the local noise guidelines and standards
- An analysis of traffic noise impacts to the project site
- An analysis of railroad noise impacts to the project site
- An analysis of construction noise impacts

1.2 Site Location and Study Area

The project site is located at 1400 Halldale Avenue, in the City of Gardena, California, as shown in Exhibit A. The project site is located in an industrial zone with industrial buildings surrounding the site mainly. There are several residential homes abutting the subject property and across the street from Brighton Avenue.

The main existing source of noise is traffic on Normandie Ave and industrial activities.

1.3 Proposed Project Description

The Project proposes to develop an industrial site into a soccer facility with seven 50 ft by 98 ft soccer fields. In addition, there is an existing 2-story, 2,786 SF of an office building in which 878 SF will be converted to an incidental café use for the patrons of the soccer center. Also, the proposed scope of work includes reconstruction of existing restrooms to 3 new single-use occupancy accessible restrooms. The project includes a proposal of 40 parking spaces – 2 handicapped parking spaces, 8 compact tandem parking spaces, and 30 standard tandem parking spaces. The site plan used for this is illustrated in Exhibit B.

1.4 Noise Study Summary

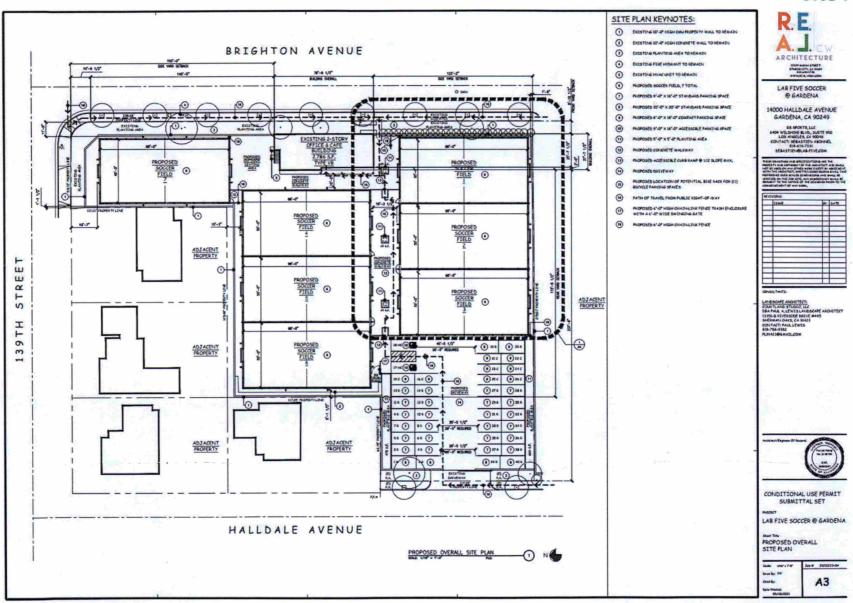
The operational-only levels at the property lines will range between 35 dBA Leq to 49 dBA Leq. The project plus ambient levels will range from 55 dBA Leq to 56 dBA Leq. All levels fall within the City of Gardena limits of 70 dBA in industrial areas and no increase in the ambient in residential areas (as the existing ambient already exceeds the residential limit). The project site is below 62 dBA.

Exhibit A **Location Map**



Exhibit B

Site Plan



2.0 Fundamentals of Noise

This section of the report provides basic information about noise and presents some of the terms used within the report.

2.1 Sound, Noise, and Acoustics

Sound is a disturbance created by a moving or vibrating source and is capable of being detected by the hearing organs. Sound may be thought of as mechanical energy of a moving object transmitted by pressure waves through a medium to a human ear. For traffic or stationary noise, the medium of concern is air. *Noise* is defined as sound that is loud, unpleasant, unexpected, or unwanted.

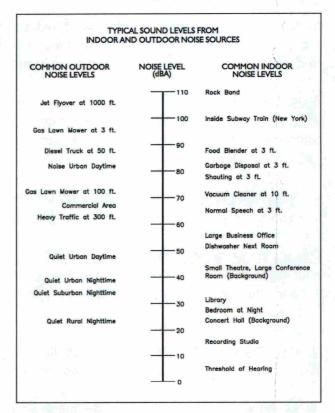
2.2 Frequency and Hertz

A continuous sound is described by its *frequency* (pitch) and its *amplitude* (loudness). Frequency relates to the number of pressure oscillations per second. Low-frequency sounds are low in pitch (bass sounding) and high-frequency sounds are high in pitch (squeak). These oscillations per second (cycles) are commonly referred to as Hertz (Hz). The human ear can hear from the bass pitch starting at 20 Hz to the high pitch of 20,000 Hz.

2.3 Sound Pressure Levels and Decibels

The *amplitude* of a sound determines its loudness. The loudness of sound increases or decreases as the amplitude increases or decreases. Sound pressure amplitude is measure in units of micro-Newton per square inch meter (N/m2), also called micro-Pascal (μ Pa). One μ Pa is approximately one hundred billionths (0.00000000001) of normal atmospheric pressure. Sound pressure level (SPL or L_p) is used to describe in logarithmic units the ratio of actual sound pressures to a reference pressure squared.

Exhibit C: Typical A-Weighted Noise Levels



These units are called decibels abbreviated dB. Exhibit C illustrates references sound levels for different noise sources.

2.4 Addition of Decibels

Because decibels are on a logarithmic scale, sound pressure levels cannot be added or subtracted by simple plus or minus addition. When two sounds or equal SPL are combined, they will produce an SPL 3 dB greater than the original single SPL. In other words, sound energy must be doubled to produce a 3 dB increase. If two sounds differ by approximately 10 dB, the higher sound level is the predominant sound.

2.5 Human Response to Changes in Noise Levels

In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz, (A-weighted scale) and it perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. For purposes of this report as well as with most environmental documents, the A-scale weighting is typically reported in terms of A-weighted decibel (dBA). Typically, the human ear can barely perceive the change in the noise level of 3 dB. A change in 5 dB is readily perceptible, and a change in 10 dB is perceived as being twice or half as loud. As previously discussed, a doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g. doubling the volume of traffic on a highway) would result in a barely perceptible change in sound level.

2.6 Noise Descriptors

Noise in our daily environment fluctuates over time. Some noise levels occur in regular patterns, others are random. Some noise levels are constant while others are sporadic. Noise descriptors were created to describe the different time-varying noise levels.

<u>A-Weighted Sound Level:</u> The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high-frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

<u>Ambient Noise Level</u>: The composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

<u>Community Noise Equivalent Level (CNEL)</u>: The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of five (5) decibels to sound levels in the evening from 7:00 to 10:00 PM and after the addition of ten (10) decibels to sound levels in the night before 7:00 AM and after 10:00 PM.

<u>Decibel (dB)</u>: A unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micro-pascals.

<u>dB(A):</u> A-weighted sound level (see definition above).

Equivalent Sound Level (LEQ): The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time-varying noise level. The energy average noise level during the sample period.

<u>Habitable Room:</u> Any room meeting the requirements of the Uniform Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking, or dining purposes, excluding such

enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms, and similar spaces.

<u>L(n):</u> The A-weighted sound level exceeded during a certain percentage of the sample time. For example, L10 in the sound level exceeded 10 percent of the sample time. Similarly L50, L90, and L99, etc.

Noise: Any unwanted sound or sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...".

<u>Outdoor Living Area:</u> Outdoor spaces that are associated with residential land uses typically used for passive recreational activities or other noise-sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, etc. associated with residential uses; outdoor patient recovery or resting areas associated with hospitals, convalescent hospitals, or rest homes; outdoor areas associated with places of worship which have a significant role in services or other noise-sensitive activities; and outdoor school facilities routinely used for educational purposes which may be adversely impacted by noise. Outdoor areas usually not included in this definition are: front yard areas, driveways, greenbelts, maintenance areas and storage areas associated with residential land uses; exterior areas at hospitals that are not used for patient activities; outdoor areas associated with places of worship and principally used for short-term social gatherings; and, outdoor areas associated with school facilities that are not typically associated with educational uses prone to adverse noise impacts (for example, school play yard areas).

Percent Noise Levels: See L(n).

<u>Sound Level (Noise Level):</u> The weighted sound pressure level obtained by use of a sound level meter having a standard frequency filter for attenuating part of the sound spectrum.

<u>Sound Level Meter:</u> An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

<u>Single Event Noise Exposure Level (SENEL):</u> The dB(A) level which, if it lasted for one second, would produce the same A-weighted sound energy as the actual event.

2.7 Traffic Noise Prediction

Noise levels associated with traffic depends on a variety of factors: (1) volume of traffic, (2) speed of traffic, (3) auto, medium truck (2 axles), and heavy truck percentage (3 axles and greater), and sound propagation. A greater volume of traffic, higher speeds and truck percentages equate to a louder volume in noise. A doubling of the Average Daily Traffic (ADT) along a roadway will increase noise levels by approximately 3 dB; reasons for this are discussed in the sections above.

2.8 Sound Propagation

As sound propagates from a source it spreads geometrically. Sound from a small, localized source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates at a rate of 6 dB per doubling of distance. The movement of vehicles down a roadway makes the source of the sound appear to propagate from a line (i.e., line source) rather than a point source. This line source results in the noise propagating from a roadway in a cylindrical spreading versus a spherical spreading that results from a point source. The sound level attenuates for a line source at a rate of 3 dB per doubling of distance.

As noise propagates from the source, it is affected by the ground and atmosphere. Noise models use hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate predicted noise levels. Hard site conditions assume no excessive ground absorption between the noise source and the receiver. Soft site conditions such as grass, soft dirt, or landscaping attenuate noise at a rate of 1.5 dB per doubling of distance. When added to the geometric spreading, the excess ground attenuation results in an overall noise attenuation of 4.5 dB per doubling of distance for a line source and 7.5 dB per doubling of distance for a point source.

Research has demonstrated that atmospheric conditions can have a significant effect on noise levels when noise receivers are located 200 feet from a noise source. Wind, temperature, air humidity, and turbulence can further impact have far sound can travel.

3.0 Regulatory Setting

The proposed project is located in the City of Gardena and noise regulations are addressed through the efforts of various federal, state, and local government agencies. The agencies responsible for regulating noise are discussed below.

3.1 Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Publicize noise emission standards for interstate commerce
- Assist state and local abatement efforts
- Promote noise education and research

The Federal Office of Noise Abatement and Control (ONAC) originally was tasked with implementing the Noise Control Act. However, it was eventually eliminated leaving other federal agencies and committees to develop noise policies and programs. Some examples of these agencies are as follows: The Department of Transportation (DOT) assumed a significant role in noise control through its various agencies. The Federal Aviation Agency (FAA) is responsible to regulate noise from aircraft and airports. The Federal Highway Administration (FHWA) is responsible to regulate noise from the interstate highway system. The Occupational Safety and Health Administration (OSHA) is responsible for the prohibition of excessive noise exposure to workers.

The federal government advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that "noise sensitive" uses are either prohibited from being constructed adjacent to a highway or that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation source, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

3.2 State Regulations

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the "Land Use Compatibility for Community Noise Environments Matrix." The matrix allows the local jurisdiction to clearly delineate the compatibility of sensitive uses with various incremental levels of noise.

The State of California has established noise insulation standards as outlined in Title 24 and the Uniform Building Code (UBC) which in some cases requires acoustical analyses to outline exterior noise levels and to ensure interior noise levels do not exceed the interior threshold. The State mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan.

The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable as illustrated in Exhibit D.

Land Use Category CNEL, dB Legend 65 Residential - Single family, multifamily, A A NORMALLY ACCEPTABLE Specified land use is satisfactory based on the assumption that any buildings involved Residential - Mobile homes A A are of normal conventional construction. without any special noise insulation Transient Lodging - Motels, hotels A requirements. A Schools, Libraries, Churches, Hospitals, CONDITIONALLY ACCEPTABLE **Nursing Homes** New construction or development should be undertaken only after a detailed analysis of Auditoriums, Concert Halls, the noise requirements is made and needed Amphitheaters, Meeting Halls noise insulation features included in the design. Conventional construction, but with Sports Arenas, Outdoor Spectator Sports, A A A closed windows and fresh air supply systems or air conditioning will normally suffice. **Amusement Parks** Playgrounds, Neighborhood Parks Golf Courses, Riding Stables, Cemeteries A A NORMALLY UNACCEPTABLE New construction or development should Office and Professional Buildings A A generally be discouraged. If it does proceed, a detailed analysis of the noise A A A Commercial Retail, Banks, Restaurants, A reduction requirements must be made and Theaters needed noise insulation features included in the design. A A A Industrial, Manufacturing, Utilities, A Wholesale, Service Stations CLEARLY UNACCEPTABLE New construction or development should Agriculture generally not be undertaken. Source: Taken in part from "Aircraft Noise Impact Planning Guidelines for Local Agencies," U.S. Dept. of Housing and Urban Development, TE/NA-472, November 1972,

Exhibit D: Land Use Compatibility Guidelines

3.3 City of Gardena Noise Regulations

The City of Gardena outlines their noise regulations and standards within the Noise Element of the City's General Plan and the Noise Ordinance located in the City's Municipal Code.

City of Gardena General Plan

Applicable policies and standards governing environmental noise in the City are set forth in the General Plan Noise Element. The City's noise and land use compatibility guidelines for land use planning are presented in Exhibit D. In addition to the noise standards, the City has outlined goals, policies, and implementation measures to reduce potential noise impacts and are presented below:

Goals, Policies, and Implementation Measures

Policies, goals and implementation program measures from the Noise Element that are applicable to the proposed project are presented below.

- **Goal N 1.0:** Use noise control measures to reduce the impact from transportation noise sources.
- Policy N 1.1: Minimize noise conflicts between land uses and the circulation network, and mitigate sound levels where necessary or feasible to ensure the peace and quiet of the community.
- Goal N 2.0: Incorporate noise considerations into land use planning decisions.
- Policy N 2.2: Require noise/land use compatibility standards to guide future planning and development.
- Policy N 2.4: Require mitigation of all significant noise impacts as a condition of project approval.
- Policy N 2.5: Require proposed projects to be reviewed for compatibility with nearby noise sensitive land uses with the intent of reducing noise impacts.
- Policy N 2:7 Require new commercial/industrial operations located in proximity to existing or proposed residential areas to incorporate noise mitigation into the project design.
- Policy N 2.9: Encourage the creative use of site and building design techniques as a means to minimize noise impacts.
- **Goal 3.0:** Develop measures to control non-transportation noise impacts.
- Policy N 3.3: Require compliance with construction hours to minimize the impacts of construction noise on adjacent land.

City of Gardena Municipal Code

Sections 8.36.040 and 8.36.050 of the City's Noise Ordinance establish exterior and interior noise standards that limit how loud project operation noise can be. The allowable exterior noise levels presented in Table 1, limit project operational noise at nearby land uses; and the allowable interior noise levels presented in Table 2, limit how loud project operational noise can be inside nearby residential and mixed use structures. Subsection 8.36.040(C), states that in the event the ambient noise level exceeds the noise standard, the ambient noise level shall become the noise standard.

Table 1: Allowable Exterior Noise Level (dBA, Leq)

	15-Minute Avera	ge Noise (dBA, Leq)	Maximum Noise Level (dBA, Lmax)			
Type of Land Use	7 AM-10 PM	10 PM to 7 AM	7 AM-10 PM	10 PM to 7 AM		
Residential	55	50	75	70		
Residential portions of mixed use	60	50	80	70		
Commercial	65	60	85	80		
Industrial or manufacturing	70	70	90	90		

Source: City of Gardena Municipal Code Section 8.36.040.

Table 2: Allowable Interior Noise Level (dBA, Leq)

	15-Minute Avera	ge Noise (dBA, Leq)	Maximum Noise Level (dBA, Lmax		
Type of Land Use	7 AM-10 PM	10 PM to 7 AM	7 AM-10 PM	10 PM to 7 AM	
Residential	45	40	65	60	
Residential portions of mixed use	45	40	70	60	

Source: City of Gardena Municipal Code Section 8.36.050.

Notes:

Construction Noise Regulations

Per Section 8.36.080 of the City's Noise Ordinance, project construction activities are explicitly exempt from the exterior and interior noise standards presented in Sections 8.36.040 and 8.36.050. Specifically, the ordinance states that "noise associated with construction, repair, remodeling, grading or demolition of any real property are exempt from the provisions in Chapter 8.36 (City of Gardena Noise Ordinance), provided said activities do not take place between the hours of 6:00 PM and 7:00 AM on weekdays between the hours of 6:00 PM and 9:00 AM on Saturday or any time on Sunday or a Federal holiday".

¹⁾ Measured noise levels are shown in Tables 3 and 4.

²⁾ Lowest measured nighttime noise level (see Table 4).

A. The exterior noise standards, unless otherwise specifically indicated, shall apply to all property within the City. The Land Use category refers to the affected receiver property. In the event the alleged offensive noise contains a pure tone such as a whine, screech, or hum, or contains repetitive, impulsive or impact noise such as hammering or riveting, or contains music or speech conveying informational content, each of the above noise standards shall be reduced by 5 dB.

B. No person shall operate or cause to be operated, any source of sound at any location within the incorporated City or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level when measured from any other property, either incorporated or unincorporated, to exceed the noise standards presented in the above table.

C. In the event the ambient noise level exceeds the noise standard, the ambient noise level shall become the noise standard.

A. The interior noise standards presented above, unless otherwise specifically indicated, shall apply to all residential dwellings with windows in their normal seasonal configuration, where such dwelling is the receiver of intrusive noise:

In the event the alleged offensive noise contains a pure tone such as a whine, screech, or hum, or contains repetitive, impulsive or impact noise such as hammering or riveting, or contains music or speech conveying informational content, each of the above noise standards shall be reduced by 5 dB.

B. No person shall operate or cause to be operated, any source of sound at any location within the incorporated City or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level when measured within any residential dwelling, either incorporated or unincorporated, to exceed the noise standards of paragraph (A).

C. In the event the ambient noise level exceeds the noise standard, the ambient noise level shall become the noise standard.

4.0 Study Method and Procedure

The following section describes the noise modeling procedures and assumptions used for this assessment.

4.1 SoundPLAN Noise Model (Operational Noise)

SoundPLAN acoustical modeling software was utilized to model project operational noise at nearby sensitive receptors. The SoundPLAN software utilizes algorithms (based on the inverse square law) to calculate noise level projections. It allows the user to input specific noise sources, spectral content, sound barriers, building placement, topography, and sensitive receptor locations. It also calculates noise level increases due to the reflection of noise from hard surfaces.

Measured and referenced sound level data was utilized to model the various stationary on-site noise sources associated with project operation.

Noise associated with proposed sport, recreational, and parking areas was modeled using SoundPLAN methodology which takes into consideration the number of parking spaces and estimates the number of movements per hour per parking space. Modeling assumptions are summarized in Table 3. SoundPLAN noise modeling input and results are provided in Appendix B. At full capacity, all soccer fields are operational, and the parking lot is full. At half capacity half the soccer fields are operational and the parking lot is half full. Half capacity is expected from 10 PM to 11 PM.

Table 3: SoundPLAN Modeling Assumptions

Noise Source	Source Type	Source Reference	Reference Level (dBA) Sound Pressure Level 58		
Soccer Field	Area	5' from Soccer Field			
Parking Lot	Area (SP Parking Tool)	1 movement per hour			
Source: SoundPLAN 8.2.					

5.0 Existing Noise Environment

One (1) 24-hour noise measurement was conducted at the project site in order to document the existing noise environment. The measurements include the 1-hour Leq, Lmin, Lmax, and other statistical data (e.g. L2, L8). The results of the noise measurement are presented in Table 4. Noise measurement field sheets are provided in Appendix A.

Table 4: Long-Term Noise Measurement Data for (LT1) (dBA)¹

Date	Time	1-Hour dB(A)							
Date	Time	LEQ	L _{MAX}	L _{MIN}	L ₂	L ₈	L ₂₅	L ₅₀	L ₉₀
8/25/2021	12AM-1AM	53.4	75.4	44.4	60.1	55.8	53.7	49.4	46.8
8/25/2021	1AM-2AM	51.0	73.0	42.0	57.7	53.4	51.3	47.0	44.4
8/25/2021	2AM-3AM	49.7	71.7	40.7	56.4	52.1	50.0	45.7	43.1
8/25/2021	3AM-4AM	48.0	70.0	39.0	54.7	50.4	48.3	44.0	41.4
8/25/2021	4AM-5AM	49.0	71.0	40.0	55.7	51.4	49.3	45.0	42.4
8/25/2021	5AM-6AM	52.8	74.8	43.8	59.5	55.2	53.1	48.8	46.2
8/25/2021	6AM-7AM	59.2	81.2	50.2	65.9	61.6	59.5	55.2	52.6
8/25/2021	7AM-8AM	61.5	83.5	50.6	68.2	63.9	61.8	57.5	54.9
8/25/2021	8AM-9AM	59.7	79.5	50.7	69.8	62.6	58.5	53.6	52.1
8/25/2021	9AM-10AM	59.6	80.1	50.3	66.6	62.2	59.1	53.9	52.0
8/25/2021	10AM-11AM	58.5	80.5	49.5	65.2	60.9	58.8	54.5	51.9
8/25/2021	11AM-12PM	56.2	72.6	47.8	64.0	60.5	58.2	53.5	50.8
8/25/2021	12PM-1PM	56.2	71.0	48.2	64.6	61.6	58.8	53.3	50.8
8/25/2021	1PM-2PM	55.9	72.6	49.3	61.3	59.2	58.2	53.6	51.3
8/25/2021	2PM-3PM	59.1	81.1	50.1	65.8	61.5	59.4	55.1	52.5
8/25/2021	3PM-4PM	60.3	82.3	51.3	67.0	62.7	60.6	56.3	53.7
8/25/2021	4PM-5PM	61.8	83.8	52.8	68.5	64.2	62.1	57.8	55.2
8/25/2021	5PM-6PM	61.5	83.5	52.5	68.2	63.9	61.8	57.5	54.9
8/25/2021	6PM-7PM	59.7	81.7	50.7	66.4	62.1	60.0	55.7	53.1
8/25/2021	7PM-8PM	58.4	80.4	49.4	65.1	60.8	58.7	54.4	51.8
8/25/2021	8PM-9PM	57.3	79.3	48.3	64.0	59.7	57.6	53.3	50.7
8/25/2021	9PM-10PM	55.6	78.6	47.6	63.3	59.0	56.9	52.6	50.0
8/25/2021	10PM-11PM	55.0	77.6	46.6	62.3	58.0	55.9	51.6	49.0
8/25/2021	11PM-12AM	55.0	77.0	46.0	61.7	57.4	55.3	51.0	48.4
C Notes:	NEL	}.			62.	0			

Notes:

^{1.} Long-term noise monitoring location (LT1) is illustrated in Exhibit E.

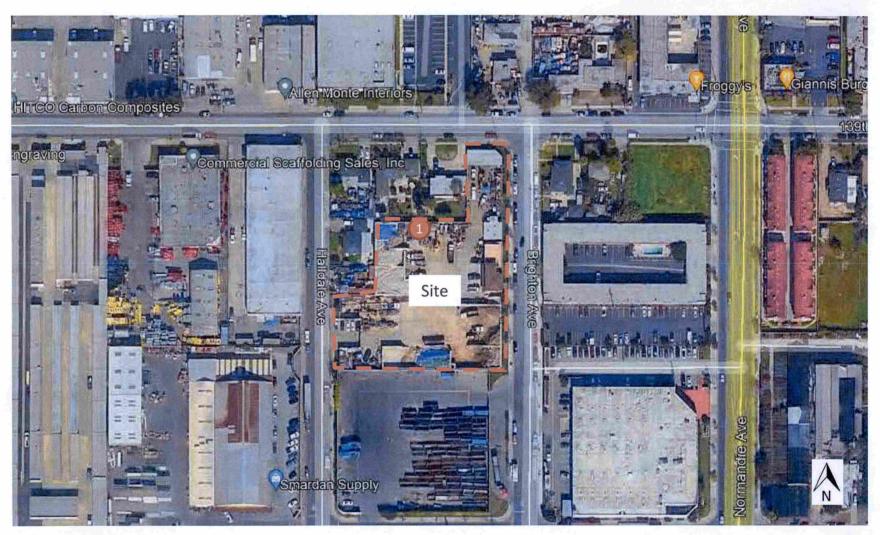
The data presented in Table 4 and the field notes provided in Appendix A indicate that ambient noise levels in the project vicinity range between 55.0 and 61.8 dBA Leq during operational hours. The

overall CNEL was 62.0 dBA CNEL. The field data indicates that traffic and industrial uses are the dominant noise sources.

As a worst-case scenario, the operational noise levels will be compared to the lowest hourly daytime level of 55.6 dBA Leq and nighttime level of 55.0 dBA Leq, as the project operates from 10 PM to 11 PM.

Exhibit D

Noise Measurement Location





6.0 Future Noise Environment Impacts and Mitigation

This assessment analyzes future noise impacts to and from the project compares the results to the City's Noise Standards. Traffic noise impacts are analyzed from the adjacent subject roadways. The analysis details the estimated exterior noise levels.

6.1 Traffic Noise Impact

The main source of ambient noise to the site is traffic noise and industrial uses. The CNEL levels are 62 dBA on site, which is below the normally acceptable level of 65 dBA CNEL for sports use.

The project will create approximately 198 daily trips. The main source of traffic noise to the site is Normandie Ave. which has an ADT of over 20,000 according to city-published 2018 traffic counts. The addition of 198 trips is not expected to increase the overall ambient level. Therefore, the impact is less than significant.

6.2 Noise Impacts to Off-Site Receptors Due to Stationary Noise Sources

The worst-case stationary noise was modeled using SoundPLAN 3D acoustical modeling software. This worst-case scenario models all operational noise operating at the same time for the full duration of an hour. The model utilizes the sound level data for the events specified within Section 4.2 of this report which includes parking and soccer activities. There is an existing 10' wall surrounding the site included in the model.

A total of seven (7) receptors were modeled to accurately evaluate the proposed project's operational noise impact to adjacent land uses. A receptor is denoted by a yellow dot. Exhibit F shows the model with project-only operational noise for day Leq at full operational capacity. Exhibit G shows the model with project-only operational noise for day Leq at half operational capacity. Between 10 PM and 11 PM only fields 1 through 4 will be operational.

Project Operational Noise Levels

"Project only" noise levels calculated by SoundPLAN are in Exhibit F and G and illustrate how the noise will propagate at the site. Worst-case operational noise levels are anticipated to range between 35 to 49 dBA Leq at the receptors R1 - R7.

Project Plus Ambient Operational Noise Levels

Project plus ambient noise level projections are provided in Table 5 (next page). Noise levels are anticipated to be 56 dBA Leq during the day and 55 dBA Leq at night at the receptors R1 – R7 during operational hours.

<Table 5, next page>

Table 5: Worst-Case Predicted Operational Noise Levels (dBA, Leq)

Receptor ¹	Existing Day Ambient Noise Level ²	Full Capacity Project Noise Level ³	Total Combined Noise Level	Daytime Land Use Noise Limit ⁴	Change in Noise Level as Result of Project
R1	56	39	56	70	0
R2	56	49	56	56	0
R3	56	43	56	56	0
R4	56	48	56	56	0
R5	56	49	56	70	0
R6	56	46	56	70	0
R7	56	43	56	70	0

Notes:

- ^{1.} R1 and R5 are industrial and R2 through R4 are residential.
- ^{2.} FHWA projection calibrated to LT1 and traffic counts.
- 3. See Exhibit F for the operational noise level projections at said receptors.
- 4. 8.36.040(C) If the ambient exceeds the noise standard the ambient becomes the noise standard.

Receptor ¹	Existing Night Ambient Noise Level ²	Half Capacity Project Noise Level ³	Total Combined Noise Level	Nighttime Land Use Noise Limit ⁴	Change in Noise Level as Result of Project
R1	55	35	55	70	0
R2	55	45	55	55	0
R3	55	39	55	55	. 0
R4	55	45	55	55	0
R5	55	47	56	70	1
R6	55	44	55	70	0
R7	55	41	55	70	0

Notes:

- ^{1.} R1 and R5 are industrial and R2 through R4 are residential.
- ^{2.} FHWA projection calibrated to LT1 and traffic counts.
- 3. See Exhibit G for the operational noise level projections at said receptors.
- 4. 8.36.040(C) If the ambient exceeds the noise standard the ambient becomes the noise standard.

As demonstrated in Table 5, the combined noise levels do not exceed the City's noise limits given by Section 8.36.040 of the Municipal Code which stipulate a 70 dBA industrial noise limit and a residential noise limit that cannot exceed the ambient in cases such as this where the ambient exceeds the noise limit. Therefore, the project's impact is less than significant and no additional mitigation measures are required.

Exhibit E

Full Capacity Operational Noise Levels

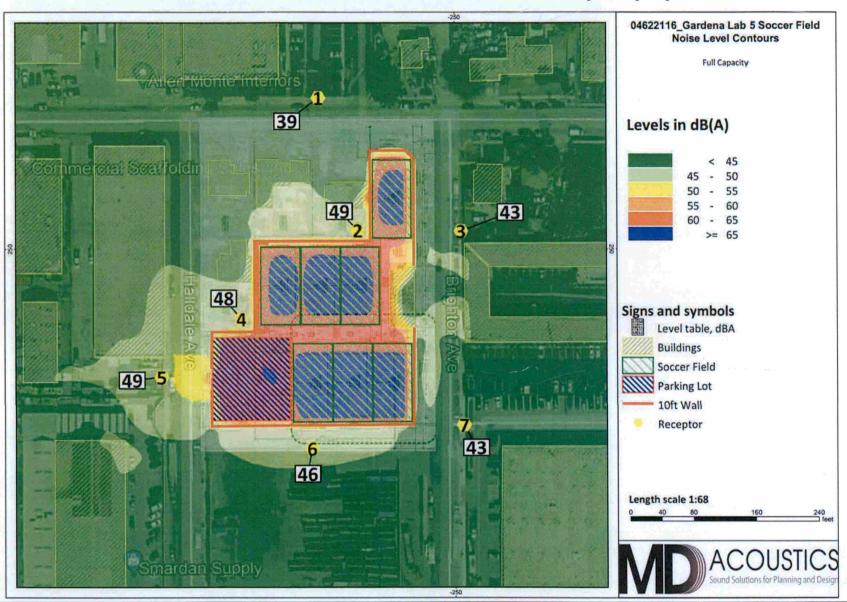
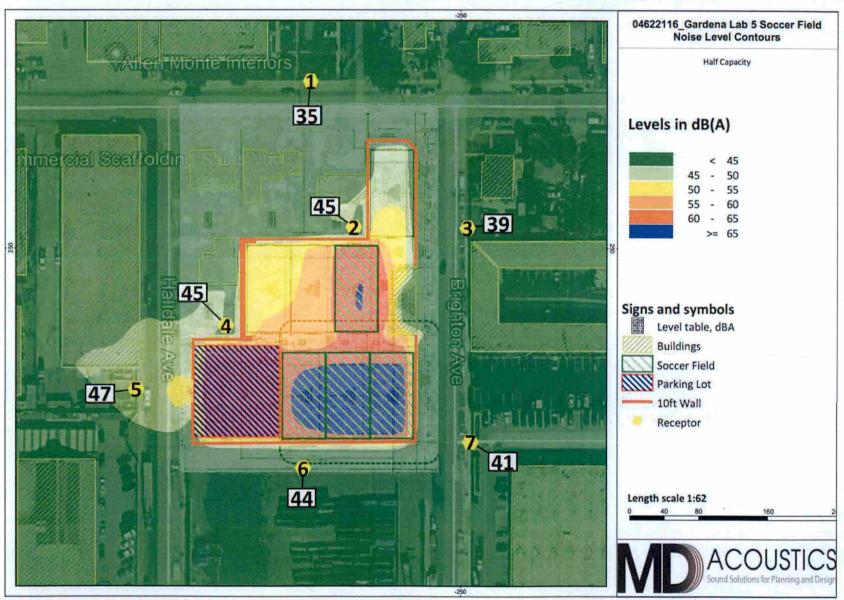


Exhibit F

Half Capacity Operational Noise Levels



7.0 Construction Noise Impact

The degree of construction noise may vary for different areas of the project site and also vary depending on the construction activities. This section summarizes discusses noise and ground-borne vibration modeling efforts, impact analysis, and mitigation, if necessary.

7.1 Construction Noise

Construction noise associated with each phase of the project was calculated at the residences to the south utilizing methodology presented in the FHWA Roadway Construction Noise Model together with several key construction parameters including distance to each sensitive receiver, equipment usage, percent usage factor, and baseline parameters for the project site. Construction equipment typically moves back and forth across the site, and it is an industry standard to use the acoustical center of the site to model average construction noise levels.

The anticipated construction equipment was split into two phases, site preparation and building construction. Noise levels associated with each phase are shown in Table 6. The construction noise calculation output worksheet is located in Appendix C.

Table 6: Construction Noise Level by Phase (dBA, Leq)

As shown in Table 6, project construction noise will range between 64 to 66 dBA Leq and 69 to 72 dBA Lmax at nearby sensitive receptors.

The Project will be required to adhere to Section 8.36.080(G) of the City of Gardena Municipal Code which outlines the allowed times for construction. This impact is less than significant. No mitigation is required.

7.2 Construction Vibration

Construction activities can produce vibration that may be felt by adjacent land uses. The construction of the proposed project would not require the use of equipment such as pile drivers, which are known to generate substantial construction vibration levels. The primary vibration source during construction may be from a bulldozer. A large bulldozer has a vibration impact of 0.089 inches per second peak particle velocity (PPV) at 25 feet which is perceptible but below any risk to architectural damage.

The fundamental equation used to calculate vibration propagation through average soil conditions and distance is as follows:

 $PPV_{equipment} = PPV_{ref} (100/D_{rec})^n$

Where: PPV_{ref} = reference PPV at 100ft.

 D_{rec} = distance from equipment to receiver in ft.

n = 1.1 (the value related to the attenuation rate through the ground)

The thresholds from the Caltrans Transportation and Construction Induced Vibration Guidance Manual in Table 7 (below) provides general thresholds and guidelines as to the vibration damage potential from vibratory impacts.

Table 7: Guideline Vibration Damage Potential Threshold Criteria

	Maximu	m PPV (in/sec)
Structure and Condition	Transient Sources	Continuous/Frequent
	Transient Sources	Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: Table 19, Transportation and Construction Vibration Guidance Manual, Caltrans, Sept. 2013.

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Table 8 gives approximate vibration levels for particular construction activities. This data provides a reasonable estimate for a wide range of soil conditions.

Table 8: Vibration Source Levels for Construction Equipment

	Approximate Vibration Lev		
(inches/second) at 25 feet	LV (dVB) at 25 feet		
1.518 (upper range)	112		
0.644 (typical)	104		
0.734 upper range	105		
0.170 typical	93		
0.202	94		
0.008 in soil	66		
0.017 in rock	75		
0.21	94		
0.089	87		
0.089	87		
0.089	. 87		
0.076	86		
0.035	79		
0.003	58		
	0.644 (typical) 0.734 upper range 0.170 typical 0.202 0.008 in soil 0.017 in rock 0.21 0.089 0.089 0.089 0.089 0.076 0.035		

Construction equipment has the potential to get as close as 25 feet to the adjacent residential buildings. At this distance, a large bulldozer would yield a worst-case 0.089 PPV (in/sec) which would be perceptible but would not result in architectural damage. The impact is not significant. No mitigation is required.

7.3 Construction Noise Reduction Measures

In addition to complying with Section 8.36.080(G) of the City of Gardena Municipal Code, the following measures are recommended to reduce construction noise.

- 1. During construction, the contractor shall ensure all construction equipment is equipped with appropriate noise attenuating devices.
- 2. The contractor should locate equipment staging areas that will create the greatest distance between construction-related noise/vibration sources and sensitive receptors nearest the project site during all project construction.
- 3. Idling equipment should be turned off when not in use.
- 4. Equipment shall be maintained so that vehicles and their loads are secured from rattling and banging.

8.0 References

State of California General Plan Guidelines: 1998. Governor's Office of Planning and Research

City of Gardena: General Plan Noise Element.

City of Gardena: Noise Ordinance Chapter 8.36



www.mdacoustics.com

Project:

24-Hour Continuous Noise Measurement Datasheet

Lab 5 Site Observations: Daytime temps in the 90's, night time in the low 60's. Wind 1-

Site Address/Location: 14000 Halldale Ave. Gardena 3MPH from the South, South West

Date: 8/25/2021

General Location:

Field Tech/Engineer:

Sound Meter: NTi Audio SN: 08562-E0

Settings: A-weighted, slow, 1-sec, 1-hr interval

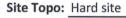
Jason Schuyler

Meteorological Con.: 90 F, minimal wind, partly sunny

Site ID: ST1

Figure 1: LT-1 Monitoring Location





Ground Type: Concrete

Noise Source(s) w/ Distance:

Noise Source(s) w/ Distance:

Noise comes from the area, not any 1 source mostly traffic



Figure 2: LT-1 Photo



AZ Office 4960 S. Gilbert Rd, Ste 1-461 Chandler, AZ 85249

<u>CA Office</u> 1197 E Los Angeles Ave, C-256 Simi Valley, CA 93065

24-Hour Noise Measurement Datasheet - Cont.

Project: Lab 5 **Day:** 1 of 1

Site ID: LT-1

Site Address/Location: 14000 Halldale Ave. Gardena

Date	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
8/25/2021	12:00 AM	1:00 AM	53.4	75.4	44.4	60.1	55.8	53.7	49.4	46.8
8/25/2021	1:00 AM	2:00 AM	51.0	73.0	42.0	57.7	53.4	51.3	47.0	44.4
8/25/2021	2:00 AM	3:00 AM	49.7	71.7	40.7	56.4	52.1	50.0	45.7	43.1
8/25/2021	3:00 AM	4:00 AM	48.0	70.0	39.0	54.7	50.4	48.3	44.0	41.4
8/25/2021	4:00 AM	5:00 AM	49.0	71.0	40.0	55.7	51.4	49.3	45.0	42.4
8/25/2021	5:00 AM	6:00 AM	52.8	74.8	43.8	59.5	55.2	53.1	48.8	46.2
8/25/2021	6:00 AM	7:00 AM	59.2	81.2	50.2	65.9	61.6	59.5	55.2	52.6
8/25/2021	7:00 AM	8:00 AM	61.5	83.5	50.6	68.2	63.9	61.8	57.5	54.9
8/25/2021	8:00 AM	9:00 AM	59.7	79.5	50.7	69.8	62.6	58.5	53.6	52.1
8/25/2021	9:00 AM	10:00 AM	59.6	80.1	50.3	66.6	62.2	59.1	53.9	52.0
8/25/2021	10:00 AM	11:00 AM	58.5	80.5	49.5	65.2	60.9	58.8	54.5	51.9
8/25/2021	11:00 AM	12:00 PM	56.2	72.6	47.8	64.0	60.5	58.2	53.5	50.8
8/25/2021	12:00 PM	1:00 PM	56.2	71.0	48.2	64.6	61.6	58.8	53.3	50.8
8/25/2021	1:00 PM	2:00 PM	55.9	72.6	49.3	61.3	59.2	58.2	53.6	51.3
8/25/2021	2:00 PM	3:00 PM	59.1	81.1	50.1	65.8	61.5	59.4	55.1	52.5
8/25/2021	3:00 PM	4:00 PM	60.3	82.3	51.3	67.0	62.7	60.6	56.3	53.7
8/25/2021	4:00 PM	5:00 PM	61.8	83.8	52.8	68.5	64.2	62.1	57.8	55.2
8/25/2021	5:00 PM	6:00 PM	61.5	83.5	52.5	68.2	63.9	61.8	57.5	54.9
8/25/2021	6:00 PM	7:00 PM	59.7	81.7	50.7	66.4	62.1	60.0	55.7	53.1
8/25/2021	7:00 PM	8:00 PM	58.4	80.4	49.4	65.1	60.8	58.7	54.4	51.8
8/25/2021	8:00 PM	9:00 PM	57.3	79.3	48.3	64.0	59.7	57.6	53.3	50.7
8/25/2021	9:00 PM	10:00 PM	55.6	78.6	47.6	63.3	59.0	56.9	52.6	50.0
8/25/2021	10:00 PM	11:00 PM	55.0	77.6	46.6	62.3	58.0	55.9	51.6	49.0
8/25/2021	11:00 PM	12:00 AM	55.0	77.0	46.0	61.7	57.4	55.3	51.0	48.4

CNEL: 62.0

AZ Office

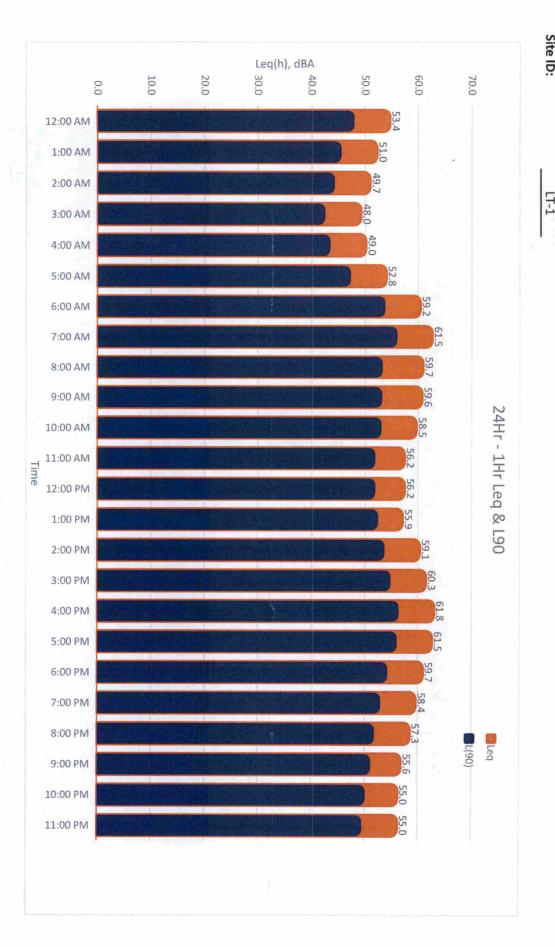
CA Office 1197 E Los Angeles Ave, C-256 Simi Valley, CA 93065

4960 S. Gilbert Rd, Ste 1-461 Chandler, AZ 85249

Site Address/Location: 14000 Halldale Ave. Gardena Lab 5 24-Hour Continuous Noise Measurement Datasheet - Cont. Day:

of

Project:



playing socer.

Simi Valley, CA 93065

15-Minute Continuous Noise Measurement Datasheet Site Observations: Over cast and hazy

Project: Lab 5 Gardena
Site Address/Location: 9740 Telfair Ave Pacoima, CA 91331

Date: 8/26/2020

Field Tech/Engineer: Jason Schuyler

General Location:

Sound Meter: NTi Audio SN: A2A-05967-E0
Settings: A-weighted, slow, 1-sec, 10-minute interval

Meteorological Con.: 87 degrees F, minimal wind, west-North west, 1-3mphs

Site ID: NM2

Figure 1: Monitoring Locations

Site Topo: Flat

Ground Type: Flat w encolsures for socer

Noise Source(s) w/ Distance:

NM2 - 5' from socer field

Over cast and hazy skys, measurements were performed on the site

and measured the baseline noise conditions created by the teams

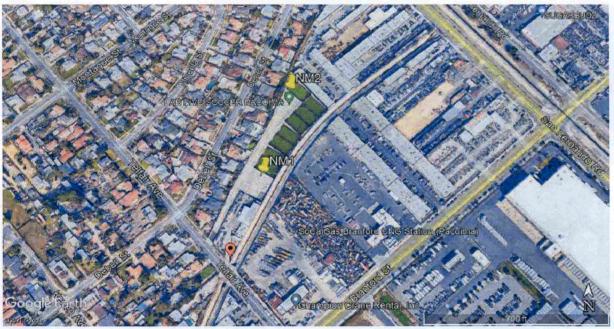






Figure 3: NM2 Photo



AZ Office

4960 S. Gilbert Rd, Ste 1-461 Chandler, AZ 85249

CA Office 1197 E Los Angeles Ave, C-256 Simi Valley, CA 93065

15-Minute Continuous Noise Measurement Datasheet

Project:

Lab 5 Gardena

Site Address/Location: 9740 Telfair Ave Pacoima, CA 91331

Site ID:

NM2

Figure 4: NM2 Photo



Table 1: Baseline Noise Measurement Summary

Location	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
1	7:27 PM	7:42 PM	57.9	79.9	42	66.2	61.8	57.7	54.6	50.2
-		E. M. T.	FK **	*********				7 7 7		
		-4		-						

AZ Office 4960 S. Gilbert Rd, Ste 1-461 Chandler, AZ 85249

CA Office 1197 E Los Angeles Ave, C-256 Simi Valley, CA 93065

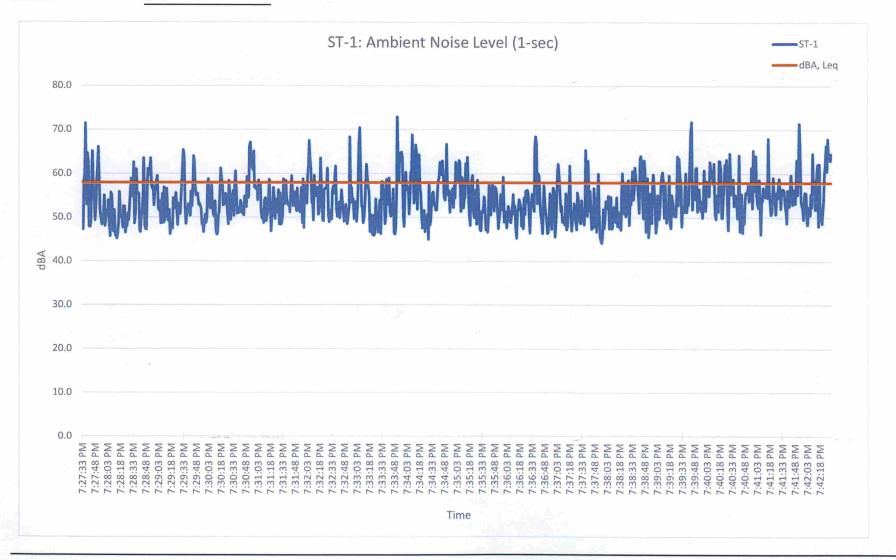
15-Minute Continuous Noise Measurement Datasheet

Project: Lab 5 Gardena

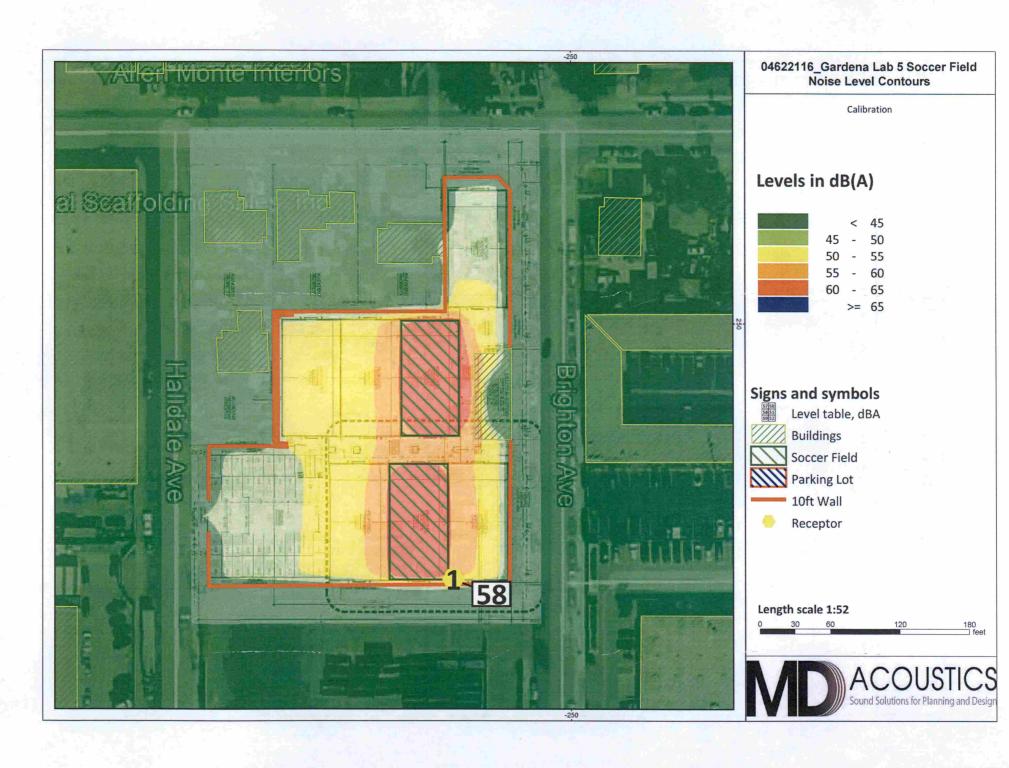
Site Address/Location: 9740 Telfair Ave Pacoima, CA 91331

Site ID:

ST1



Appendix B:
SoundPLAN Input/Outputs



Gardena Lab 5 Soccer Field Contribution level - 003 - Outdoor SP

9

Source	Source group	Source ty Tr. lane	LrD	Α	
and the second second	M. Balton		dB(A)	dB	Alexander Control
Receiver Receiver 5 FIG	LrD,lim dB(A) LrD 57.9 dE	B(A)			
Soccer Field 2	Default industrial noise	Area	57.7	0.0	
Soccer Field 4	Default industrial noise	Area	45.6	0.0	

MD Acoustics 1197 E Los Angeles Ave, Unit C 256 Simi Valley, CA 93065 USA

Source	Source group	Source ty T	r. lane	LrD	Α	,
	J	1		dB(A)	dB	
Receiver Receiver 1, FLG LrD lim dB(A) LrD 39.1 dB(A)						
Soccer Field 7	Default industrial noise	Area		35.1	0.0	
Soccer Field 3	Default industrial noise	Area		31.1	0.0	
Soccer Field 5	Default industrial noise	Area		30.9	0.0	
Auto Parking - 40 Spaces	Default parking lot noise	PLot		28.2	0.0	
Soccer Field 4	Default industrial noise	Area	İ	28.0	0.0	
Soccer Field 6	Default industrial noise	Area	ĺ	27.3	0.0	
Soccer Field 2	Default industrial noise	Area		25.8	0.0	
Soccer Field 1	Default industrial noise	Area		23.8	0.0	
Receiver Receiver 2 FI G L	rD,lim dB(A) LrD 48.8 dB	(A)				
Soccer Field 7	Default industrial noise	Area		42.4	0.0	, ,
Soccer Field 4	Default industrial noise	Area		42.0	0.0	
Soccer Field 5	Default industrial noise	Area	ļ	41.3	0.0	
Soccer Field 6	Default industrial noise	Area	-	40.7	0.0	
Auto Parking - 40 Spaces	Default parking lot noise	PLot		36.6	0.0	
Soccer Field 2	Default industrial noise	Area		36.5	0.0	
Soccer Field 3	Default industrial noise	Area		36.3	0.0	
Soccer Field 1	Default industrial noise	Area		35.0	0.0	
Receiver Receiver 3 FIG L	and the second s	(A)				
Soccer Field 7	Default industrial noise	Area		39.0	0.0	
Soccer Field 4	Default industrial noise	Area		34.3	0.0	•
Soccer Field 1	Default industrial noise	Area		33.7	0.0	
Soccer Field 5	Default industrial noise	Area		33.7	0.0	•
Soccer Field 6	Default industrial noise	Area		33.5	0.0	į
Soccer Field 2	Default industrial noise	Area		31.2	0.0	
Auto Parking - 40 Spaces	Default parking lot noise	PLot		30.3	0.0	
Soccer Field 3	Default industrial noise	Area		28.5	0.0	
Receiver Receiver 4 FIG L	3	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
Auto Parking - 40 Spaces	Default parking lot noise	PLot	,	44.9	0.0	,
Soccer Field 6	Default industrial noise	Area	`	40.8	0.0	
Soccer Field 5	Default industrial noise	Area		37.7	0.0	
Soccer Field 3	Default industrial noise	Area		37.2	0.0	
Soccer Field 4	Default industrial noise	Area		35.8	0.0	
Soccer Field 2	Default industrial noise	Area	ł	35.6	0.0	
Soccer Field 1	Default industrial noise	Area		35.2	0.0	
Soccer Field 7 Receiver Receiver 5 FI G L	Default industrial noise	Area /A)	,,,,,,,	28.0	_0.0	
2 R R - "R" B T B T B T B T B T B T B T B T B T B	2	<u>I felio della supra caraltario in i</u>		46.2	001	
Auto Parking - 40 Spaces	, , ,	PLot		46.3	0.0	,
Soccer Field 3	Default industrial noise	Area	1	40.9	0.0	
Soccer Field 2	Default industrial noise	Area		39.6	0.0	,
Soccer Field 1	Default industrial noise	Area		39.2	0.0	
Soccer Field 4	Default industrial noise	Area		32.8	0.0	,
Soccer Field 5	Default industrial noise	Area	Į	32.7	0.0	
Soccer Field 6	Default industrial noise	Area		32.4	0.0	

MD Acoustics 1197 E Los Angeles Ave, Unit C 256 Simi Valley, CA 93065 USA

Gardena Lab 5 Soccer Field Contribution level - 001 - Outdoor SP

9

Source	Source group	Source ty Tr. lane	LrD	Α	
			dB(A)	dB	فأنفض المراجع
Soccer Field 7	Default industrial noise	Area	26.3	0.0	
Receiver Receiver 6 FI G	LrD,lim dB(A) LrD 45.7 dE	B(A)			
Auto Parking - 40 Spaces	Default parking lot noise	PLot	40.9	0.0	
Soccer Field 3	Default industrial noise	Area	38.8	0.0	
Soccer Field 2	Default industrial noise	Area	37.7	0.0	
Soccer Field 1	Default industrial noise	Area	36.8	0.0	
Soccer Field 6	Default industrial noise	Area	33.3	0.0	
Soccer Field 4	Default industrial noise	Area	33.1	0.0	
Soccer Field 5	Default industrial noise	Area	32.7	0.0	
Soccer Field 7	Default industrial noise	Area	28.9	0.0	
Receiver Receiver 7 FIG	LrD,lim dB(A) LrD 42.9 dE	3(A)			
Soccer Field 1	Default industrial noise	Area	36.6	0.0	
Soccer Field 2	Default industrial noise	Area	35.6	0.0	
Auto Parking - 40 Spaces	Default parking lot noise	PLot	34.6	0.0	
Soccer Field 3	Default industrial noise	Area	33.5	0.0	
Soccer Field 6	Default industrial noise	Area	33.0	0.0	,
Soccer Field 5	Default industrial noise	Area	32.2	0.0	
Soccer Field 7	Default industrial noise	Area	30.9	0.0	
Soccer Field 4	Default industrial noise	Area	30.8	0.0	

Gardena Lab 5 Soccer Field Octave spectra of the sources in dB(A) - 001 - Outdoor SP

3

Name	Source type	IorA	Li	R'w	L'w	Lw	KI	KT	LwMax	DO-Wall	Time histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
		m,m²	dB(A)	dB	dB(A)	dB(A)	dB	dB	dB(A)	dB			dB(A)								
Soccer Field 1	Area	448.76			60.6	87.1	0.0	0.0	87.1	0	100%/24h	Soccer Game 15min - 5ft from corner	69.6	74.3	73.1	80.2	82.7	80.9	75.8	66.3	51.7
Soccer Field 2	Area	454.43			60.5	87.1	0.0	0.0	87.1	0	100%/24h	Soccer Game 15min - 5ft from corner	69.6	74.3	73.1	80.2	82.7	80.9	75.8	66.3	51.7
Soccer Field 3	Area	456.44			60.5	87.1	0.0	0.0	87.1	0	100%/24h	Soccer Game 15min - 5ft from corner	69.6	74.3	73.1	80.2	82.7	80.9	75.8	66.3	51.7
Soccer Field 4	Area	443.12			60.6	87.1	0.0	0.0	87.1	0	100%/24h	Soccer Game 15min - 5ft from corner	69.6	74.3	73.1	80.2	82.7	80.9	75.8	66.3	51.7
Soccer Field 5	Area	452.27			60.5	87.1	0.0	0.0	87.1	0	100%/24h	Soccer Game 15min - 5ft from corner	69.6	74.3	73.1	80.2	82.7	80.9	75.8	66.3	51.7
Soccer Field 6	Area	453.53			60.5	87.1	0.0	0.0	87.1	0	100%/24h	Soccer Game 15min - 5ft from corner	69.6	74.3	73.1	80.2	82.7	80.9	75.8	66.3	51.7
Soccer Field 7	Area	445.38			60.6	87.1	0.0	0.0	87.1	0	100%/24h	Soccer Game 15min - 5ft from corner	69.6	74.3	73.1	80.2	82.7	80.9	75.8	66.3	51.7
Auto Parking - 40 Spaces	PLot	956.80			56.9	86.7	0.0	0.0	86.7	0	E/h - Soccer Parking	Typical spectrum	70.1	81.7	74.2	78.7	78.8	79.2	76.5	70.3	57.5

MD Acoustics LLC 4960 S. Gilbert Rd Chandler, AZ 85249 Phone: 602 774 1950

Source		Source group	Source ty Tr. lane	LrD	Α	
		Acade in the second		dB(A)	dB	
Receiver Receiver 1	FIG	LrD,lim dB(A) LrD 34.6 dE	3(A)			
Soccer Field 3		Default industrial noise	Area	31.1	0.0	
Soccer Field 4		Default industrial noise	Area	28.0	0.0	
Soccer Field 2		Default industrial noise	Area	25.8	0.0	
Parking Lot		Default parking lot noise	PLot	25.2	0.0	
Soccer Field 1		Default industrial noise	Area	23.8	0.0	The second second
	FIG	LrD,lim dB(A) LrD 44.8 dE	B(A)			
Soccer Field 4		Default industrial noise	Area	42.0	0.0	
Soccer Field 2		Default industrial noise	Area	36.5	0.0	
Soccer Field 3		Default industrial noise	Area	36.3	0.0	
Soccer Field 1		Default industrial noise	Area	35.0	0.0	
Parking Lot		Default parking lot noise	PLot	33.5	0.0	
Receiver Receiver 3	FIG	LrD,lim dB(A) LrD 38.8 dE				KOP S CANTON AND
Soccer Field 4		Default industrial noise	Area	34.3	0.0	
Soccer Field 1		Default industrial noise	Area	33.7	0.0	
Soccer Field 2		Default industrial noise	Area	31.2	0.0	
Soccer Field 3		Default industrial noise	Area	28.5	0.0	
Parking Lot		Default parking lot noise	PLot	27.3	0.0	
Receiver Receiver 4	FIG	LrD,lim dB(A) LrD 45.0 dE	and and an annual control of the second cont			PART LINE OF STREET
Parking Lot		Default parking lot noise	PLot	41.9	0.0	
Soccer Field 3		Default industrial noise	Area	37.2	0.0	
Soccer Field 4		Default industrial noise	Area	35.8	0.0	
Soccer Field 2		Default industrial noise	Area	35.6	0.0	
Soccer Field 1		Default industrial noise	Area	35.2	0.0	
	FIG	LrD,lim dB(A) LrD 47.3 dE				
Parking Lot		Default parking lot noise	IPLot	43.3	0.0	
Soccer Field 3		Default industrial noise	Area	40.9	0.0	
Soccer Field 2		Default industrial noise	Area	39.6	0.0	
Soccer Field 1		Default industrial noise	Area	39.2	0.0	
Soccer Field 4		Default industrial noise	Area	32.8	0.0	
	FIG	LrD,lim dB(A) LrD 44.2 dE	B(A)			
Soccer Field 3		Default industrial noise	Area	38.8	0.0	772471
Parking Lot		Default parking lot noise	PLot	37.9	0.0	
Soccer Field 2		Default industrial noise	Area	37.7	0.0	
Soccer Field 1		Default industrial noise	Area	36.8	0.0	
Soccer Field 4		Default industrial noise	Area	33.1	0.0	
Receiver Receiver 7	FIG	LrD,lim dB(A) LrD 41.2 dE	3(A)			
Soccer Field 1		Default industrial noise	Area	36.6	0.0	
Soccer Field 2		Default industrial noise	Area	35.6	0.0	
Soccer Field 3		Default industrial noise	Area	33.5	0.0	
Parking Lot		Default parking lot noise	PLot	31.6	0.0	
Soccer Field 4		Default industrial noise	Area	30.8	0.0	

MD Acoustics 1197 E Los Angeles Ave, Unit C 256 Simi Valley, CA 93065 USA

Gardena Lab 5 Soccer Field Octave spectra of the sources in dB(A) - 002 - Outdoor SP

3

Name	Source type	I or A	Li 1	R'w	Ľw	Lw	ΚI	KT	LwMax	DO-Wall	Time histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
res		m,m²	dB(A)	dΒ	dB(A)	dB(A)	dB	dΒ	dB(A)	dB	i suje	, , , , , , , , , , , , , , , , , , , ,	dB(A)								
Soccer Field 1	Area	448.76			60.6	87.1	0.0	0.0	87.1	0	100%/24h	Soccer Game 15min - 5ft from corner	69.6	74.3	73.1	80.2	82.7	80.9	75.8	66.3	51.7
Soccer Field 2	Area	454.43			60.5	87.1	0.0	0.0	87.1	0	100%/24h	Soccer Game 15min - 5ft from corner	69.6	74.3	73.1	80.2	82.7	80.9	75.8	66,3	51.7
Soccer Field 3	Area	456.44			60.5	87.1	0.0	0.0	87.1	0	100%/24h	Soccer Game 15min - 5ft from corner	69.6	74.3	73.1	80.2	82.7	80.9	75.8	66.3	51.7
Soccer Field 4	Area	443.12			60.6	87.1	0.0	0.0	87.1	0	100%/24h	Soccer Game 15min - 5ft from corner	69.6	74.3	73.1	80.2	82.7	80.9	75.8	66.3	51.7
Parking Lot	PLot	949.93			57.0	86.7	0.0	0.0		0	E/h - Soccer Parking Non Peak	Typical spectrum	70.1	81.7	74.2	78.7	78.8	79.2	76.5	70.3	57.5

MD Acoustics LLC 4960 S. Gilbert Rd Chandler, AZ 85249 Phone: 602 774 1950

Appendix C:Construction Noise Modeling

Receptor - Adjacent Residences

			The state of the s					The state of the s	The same of the sa
A	В	C	D	E	Ŧ	G	H		-
Construction Phase Equipment Item	# of Items	Item Lmax at 50 feet, dBA Dist. To Recptr. Item Usage Percent Usage Factor Dist. Correction dB Usage Adj. dB Recptr. Item Lmax, dBA Recptr. Item Leq, dBA	Dist. To Recptr.	Item Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Recptr. Item Lmax, dBA	Recptr. Item Leq, dBA
SITE PREP						and in the second			
1. Saw	ь	76	110	20	0.20	-6.8	-7.0	69.2	62.2
2. Concrete Breaker	1	90	110	10	0.10	-6.8	-10.0	83.2	73.2
3. Jack Hammer	2	85	110	20	0.40	-6.8	-4.0	78.2	74.2
4. Skip Loader	ъ	80	110	40	0.40	-6.8	-4.0	73.2	69.2
5. Truck	1	84	110	40	0.40	-6.8	-4.0	77.2	73.2
								85.5	78.9
BUILD	- 1								
1. Skip Loader	ь	80	110	40	0.40	-6.8	-4.0	73.2	69.2
2. Truck	1	84	110	40	0.40	-6.8	-4.0	77.2	73.2
3. Lift	1	85	110	20	0.20	-6.8	-7.0	78.2	71.2
4. Welding Machine	2	73	110	40	0.80	-6.8	-1.0	66.2	65.2
							Log Sum	81.5	76.6

Barrier insertion loss For Flat Ground

Receiver	- Nortl	n P/L
----------	---------	-------

Heff (with barrier)

Heff no barrier

 G_B

Enter variables here:												Y _o				
Source Height H _s (ft)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Receiver Height H _R (ft)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	- 5
Barrier Height H _B (ft)	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Distance Source to barrier (ft)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Distance Receiver to Barrier (ft)	10	10	10	10	10	10	10	10	10	10	10	10	10	10		10
Soft Ground = 1; Hard Ground = 0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Calculations																
A	100	100.005	100.019998	100.04499	100.07997	100.12492	100.17984	100.2447	100.31949	100.40418	100.49876	100.60318	100.71743	100.84146	100.97524	101.11874
В	10.440307	10.77033	11.18033989	11.661904	12.206556	12.806248	13.453624	14.142136	14.866069	15.620499	16.401219	17,204651	18.027756	18.867962	19.723083	20.59126
C	110.0409	110,0409	110.0409015	110.0409	110.0409	110.0409	110,0409	110.0409	110.0409	110.0409	110.0409	110.0409	110.0409	110.0409	110.0409	110.0409
P	0.399405	0.734428	1.159436401	1.6659922	2.2456222	2.890269	3.5925609	4.3459347	5.1446569	5.983781	6.8590742	7.7669299	8.7042814	9.6685205	10.657426	11.669101
Ground type Heff (with barrier)	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Ground type Har(no barrier)	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75

19.5

6.5

	9.069496	11.661283	13.63711468	15.210378	16.506868	17.602862	18.547517	19.374307	20.107039	20.763231	21.356129	21.895968	22.390804	22.847075	23.269998	23.663848
Hammer	8.6	11.1	13.0	143	14.3	14.2	14.1	14.1	140	14.0	13.0	13.0	13.9	13.7	12.7	12.6

21.5

6.5

22.5

6.5

 $0.633928571 \quad 0.6339286 \quad 0.639286 \quad 0.639286 \quad 0.639286 \quad 0.639286 \quad 0.639286 \quad 0.63928$

23,5

6.5

24.5

6.5

6.5

6.5

0.3125 0.2946429 0.2767857 0.2589286 0.2410714 0.2232143

28.5

29.5

6.5

20.5

6.5

Barrier Height (ft)	IL (dBA)
8	9
9	11
10	13
11	14
12	14
13	14
14	14
15	14
16	14
17	14
18	14
19	14
20	14
21	14
22	14
23	14

14.5

6.5

0.4910714 0.4732143

0.6339286 0.6339286

15.5

6.5

16.5

6.5

17.5

18.5

6.5

Appendix C

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

City of Gardena - Lab Five

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.50	Acre	1.50	65,340.00	0

1.2 Other Project Characteristics

Urbanization

Urban

Wind Speed (m/s)

2.2

Precipitation Freq (Days)

33

Climate Zone

8

Operational Year

2022

Utility Company

Southern California Edison

CO2 Intensity (lb/MWhr)

390.98

CH4 Intensity (lb/MWhr)

0.033

N2O Intensity (lb/MWhr)

0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Land Uses: 1.5 acres park (soccer field)

Construction Phase - Construction schedule as provided by Project applicant. Phases estimated based on Project type.

Off-road Equipment -

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment -

Trips and VMT -

Demolition - ~200 s.f. of building demolished (per Project Applicant).

Grading - Grading would occur during grading phase only. Estimated total of 100 cubic yards of sand (soil) import.

CalEEMod Version: CalEEMod.2020.4.0 Page 2 of 29 Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

Vehicle Trips - Operational mobile trips provided by Kittelson & Associates, Inc. (198 trips per day) = 132 trips per acre per day.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves -

Energy Use -

Construction Off-road Equipment Mitigation - Reductions include: Water Exposed Area 3 times daily; Unpaved Road Mitigation (Moisture Content at 12%; Vehicle Speed 15 MPH).

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed		
tblConstructionPhase	NumDays	2.00	15.00
tblConstructionPhase	NumDays	4.00	10.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	200.00	10.00
tblConstructionPhase	PhaseEndDate	11/2/2021	-11/19/2021
tblConstructionPhase	PhaseEndDate	11/8/2021	12/3/2021
tblConstructionPhase	PhaseStartDate	11/3/2021	11/20/2021
tblGrading	AcresOfGrading	14.06	0.00
tblGrading	MaterialImported	· 0.00	100.00
tblVehicleTrips	ST_TR	1.96	132.00
tblVehicleTrips	. SU_TR	2.19	132.00
tblVehicleTrips	WD_TR	0.78	132.00

2.0 Emissions Summary

CalEEMod Version: CalEEMod.2020.4.0 Page 3 of 29 Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

2.1 Overall Construction <u>Unmitigated Construction</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Year	1				ton	s/yr							МТ	/yr		
2021	0.0367	0.3788	0.2418	4.6000e- 004	0.0779	0.0181	0.0960	0.0396	0.0168	0.0564	0.0000	40.8606	40.8606	0.0113	1.4000e- 004	41.1850
2022	9.9200e- 003	0.0728	0.0796	1.5000e- 004	2.1000e- 003	3.3900e- 003	5.4900e- 003	5.7000e- 004	3.2900e- 003	3.8500e- 003	0.0000	12.8571	12.8571	1.7400e- 003	1.9000e- 004	12.9575
Maximum	0.0367	0.3788	0.2418	4.6000e- 004	0.0779	0.0181	0.0960	0.0396	0.0168	0.0564	0.0000	40.8606	40.8606	0.0113	1.9000e- 004	41.1850

Mitigated Construction

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Year					ton	s/yr					1		МТ	/yr		
2021	0.0367	0.3788	0.2418	4.6000e- 004	0.0321	0.0181	0.0502	0.0159	0.0168	0.0327	0.0000	40.8606	40.8606	0.0113	1.4000e- 004	41.1850
2022	9.9200e- 003	0.0728	0.0796	1.5000e- 004	2.1000e- 003	3.3900e- 003	5.4900e- 003	5.7000e- 004	3.2900e- 003	3.8500e- 003	0.0000	12.8570	12.8570	1.7400e- 003	1.9000e- 004	12.9575
Maximum	0.0367	0.3788	0.2418	4.6000e- 004	0.0321	0.0181	0.0502	0.0159	0.0168	0.0327	0.0000	40.8606	40.8606	0.0113	1.9000e- 004	41.1850

CalEEMod Version: CalEEMod.2020.4.0 Page 4 of 29 Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive: PM2.5 ×	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	57.23	0.00	45.10	58.97	0.00	39.34	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
. 1	11-1-2021	1-31-2022	0.4847	0.4847
		Highest	0.4847	0.4847

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	*CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Area	6.2000e- 004	0.0000	2.0000e- 005	0.0000		0.0000	0.0000	1 1 1	0.0000 ·	0.0000	0.0000	4.0000e- 005	4.0000e- 005	0.0000	0.0000	4.0000e- 005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	1 1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1035	0.1275	1.0475	2.1500e- 003	0.2141	1.8600e- 003	0.2159	0.0571	1.7300e- 003	0.0588	0.0000	200.2825	200.2825	0.0144	9.1800e- 003	203.3774
Waste					,—————————————————————————————————————	0.0000	0.0000	1 1 1 1	0.0000	0.0000	0.0264	0.0000	0.0264	1.5600e- 003	0.0000	0.0654
Water	1 1 1		200 100 100 100 100 100 100 100 100 100	1	,—————— ; ; ;	0.0000	0.0000	7	0.0000	0.0000	0.0000	3.5214	-3.5214	3.0000e- 004	4.0000e- 005	3.5396
Total	0.1042	0.1275	1.0475	2.1500e- 003	0.2141	1.8600e- 003	0.2159	0.0571	1.7300e- 003	0.0588	0.0264	203.8040	203.8303	0.0162	9.2200e- 003	206.9824

CalEEMod Version: CalEEMod.2020.4.0 Page 5 of 29 Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

2.2 Overall Operational Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Area	6.2000e- 004	0.0000	2.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e- 005	4.0000e- 005	0.0000	0.0000	4.0000e- 005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1035	0.1275	1.0475	2.1500e- 003	0.2141	1.8600e- 003	0.2159	0.0571	1.7300e- 003	0.0588	0.0000	200.2825	200.2825	0.0144	9.1800e- 003	203.3774
Waste					 	0.0000	0.0000	,	0.0000	0.0000	0.0264	0.0000	0.0264	1.5600e- 003	0.0000	0.0654
Water	#				 	0.0000	0.0000	I. I.	0.0000	0.0000	0.0000	3.5214	3.5214	3.0000e- 004	4.0000e- 005	3.5396
Total	0.1042	0.1275	1.0475	2.1500e- 003	0.2141	1.8600e- 003	0.2159	0.0571	1.7300e- 003	0.0588	0.0264	203.8040	203.8303	0.0162	9.2200e- 003	206.9824

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2021	11/19/2021	5	15	
2	Grading	Grading	11/20/2021	12/3/2021	5	10	
3	Demolition	Demolition	12/4/2021	12/17/2021	5	10	

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

4	Paving	Paving	12/18/2021	12/31/2021	5	10	
5	Architectural Coating	Architectural Coating	1/15/2022	1/28/2022	5	10	
	•	Building Construction	1/1/2022	1/14/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

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

OffRoad Equipment

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

Page 7 of 29

Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	. 1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	13.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	27.00	11.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	1.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

CalEEMod Version: CalEEMod.2020.4.0 Page 8 of 29 Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

3.2 Site Preparation - 2021

<u>Unmitigated Construction On-Site</u>

	ROG	NOx	co	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tor	s/yr	ET THE TANK						M	Γ/yr		
Fugitive Dust	 11 11		 ! !		·0.0395	0.0000	0.0395	0.0217	0.0000	0.0217	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.1307	0.0567	1.3000e- 004		5.7400e- 003	5.7400e- 003		5.2800e- 003	5.2800e- 003	0.0000	11.3388	11.3388	3.6700e- 003	0.0000	11.4305
Total	0.0117	0.1307	0.0567	1.3000e- 004	0.0395	5.7400e- 003	0.0453	0.0217	5.2800e- 003	0.0270	0.0000	11.3388	11.3388	3.6700e- 003	0.0000	11.4305

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category					ion	s/yr							M	T/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e- 004	2.0000e- 004	2.4400e- 003	1.0000e- 005	6.6000e- 004	0.0000	6.6000e- 004	1.7000e- 004	0.0000	1.8000e- 004	0.0000	0.5594	0.5594	2.0000e- 005	2.0000e- 005	0.5647
Total	2.2000e- 004	2.0000e- 004	2.4400e- 003	1.0000e- 005	6.6000e- 004	0.0000	6.6000e- 004	1.7000e- 004	0.0000	1.8000e- 004	0.0000	0.5594	0.5594	2.0000e- 005	2.0000e- 005	0.5647

CalEEMod Version: CalEEMod.2020.4.0 Page 9 of 29 Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						s/yr		1 3 3 3 V					ТМ	-/yr		
Fugitive Dust	To a	. 20		= = =	0.0154	0.0000	0.0154	8.4700e- 003	0.0000	8.4700e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.1307	0.0567	1.3000e- 004		5.7400e- 003	5.7400e- 003		5.2800e- 003	5.2800e- 003	0.0000	11.3388	11.3388	3.6700e- 003	0.0000	11.4305
Total	0.0117	0.1307	0.0567	1.3000e- 004	0.0154	5.7400e- 003	0.0212	8.4700e- 003	5.2800e- 003	0.0138	0.0000	11.3388	11.3388	3.6700e- 003	0.0000	11.4305

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr	1 4					or the grade	МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	_ 0.0000	-0.0000	0.0000	- 0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e- 004	2.0000e- 004	2.4400e- 003	1.0000e- 005	6.6000e- 004	0.0000	6.6000e- 004	1.7000e- 004	0.0000	1.8000e- 004	0.0000	0.5594	0.5594	2.0000e- 005	2.0000e- 005	0.5647
Total	2.2000e- 004	2.0000e- 004	2.4400e- 003	1.0000e- 005	6.6000e- 004	0.0000	6.6000e- 004	1.7000e- 004	0.0000	1.8000e- 004	0.0000	0.5594	0.5594	2.0000e- 005	2.0000e- 005	0.5647

:

Page 10 of 29

Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

3.3 Grading - 2021 Unmitigated Construction On-Site

.coze		0.0000	9.1251	9.1251
N20			0.0000	0.000
	yī.	0.000.0	2.9300e- 003	2.9300e- 003
Total CO2	MT	0.000.0	9.0519 2.9300e- (9.0519
NBio-CO2		0.000.0	9.0519	9.0519
Bio-CO2		0.000.0	0.0000	0.0000
PM2.5 ∑Total		0.0171 0.0000 0.0000 0.0000 0.0000	4.2100e- 003	0.0213
gitive. Exhaust PM10 Fugitive Exhaust PM2.5 Bio-CO2 NBio-CO2 Total CH4.		0.0000	4.2100e- 4.2100e- 003 003	4.2100e- 003
Fugitive PM2.5		0.0171		0.0171
gitive Exhaust PM10 M10 FM10 Total		.0354 0.0000 0.0354 0.0171	4.5800e- 003	0.0400
Exhaust PM10	síyr	0.0000	4.5800e- 14.5800e- 003 003	54 4.5800e- 003
Fugitive PM10	ton	0.0354		0.0354
S02			1.0000e- 004	1.0000e- 004
O			0.0488	0.0488
NOX			0.1011	0.1011
ROG			9.1400e- 0.1011 003	9.1400e- 003
	Category	Fugitive Dust	Off-Road	Total

Unmitigated Construction Off-Site

	e.				
C02e	0,4324	0.0000	0.4706	0.9030	
-N20	7.0000e- 005	0.0000	1.0000e- 005	8.0000e- 005	
CH4	0.4124 2.0000e- 17.0000e-	0.0000	1.0000e- 005	3.0000e- 005	
Total CO2	0.4124	0.0000	0.4662	0.8786	
NBio-C02	0.0000 0.4124	0.0000	0.4662	0.8786	
Bio-CO2 NBio-CO2 Total CO2 CH4	0.0000	0.0000	0.0000	00000	
PM2:5 Total	4.0000e- 005	0.0000	1.5000e- 004	1.9000e- 004	
Fugitive Exhaust PM2.5 PM2.5	1.0000e- 005	0.0000	0000	0000e- 005	٠.
	1,3000e- 3,0000e- 1,0000e- 004 005 005	0.0000	1.5000e- 004	1.8000e- 004	
110 Exhaust PM10 110 PM10 Total	1.3000e- 004	0.0000	5.5000e- 004	6.8000e- 004	
Exhaust PM10	1.0000e- 005	0.0000	0.0000	2.3000e- 1.4700e- 2.3200e- 1.0000e- 6.6000e- 1.0000e- 0.05 0.04 0.05	
Fugitive PM10	1.1000e- 004	0.0000	1.9000e- 1.6000e- 2.0300e- 1.0000e- 5.5000e- 004 004 005 005	6.6000e- 004	
S02	0.0000	0.0000	1.0000e- 005	1,0000e- 005	
0	2.9000e- 004	0.0000	2.0300e- 003	2.3200e- 003	
Ŏ	1.3100e- 003	0.0000	1.6000e- 004	1.4700e- 003	
RoG	4.0000e- 1.3100e- 2.9000e- 005 003 004	0.0000	1.9000e- 004	2.3000e- 004	
Category	Hauling	Vendor	Worker	Total	

CalEEMod Version: CalEEMod.2020.4.0 Page 11 of 29 Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					ton	s/yr							МТ	⁻ /yr		
Fugitive Dust			G' 1	<u> </u>	0.0138	0.0000	0.0138	6.6800e- 003	0.0000	6.6800e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1400e- 003	0.1011	0.0488	1.0000e- 004		4.5800e- 003	4.5800e- 003		4.2100e- 003	4.2100e- 003	0.0000	9.0519	9.0519	2.9300e- 003	0.0000	9.1251
Total	9.1400e- 003	0.1011	0.0488	1.0000e- 004	0.0138	4.5800e- 003	0.0184	6.6800e- 003	4.2100e- 003	0.0109	0.0000	9.0519	9.0519	2.9300e- 003	0.0000	9.1251

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					ton	s/yr					4 4 -	4	МТ	/yr		
Hauling	4.0000e- 005	1.3100e- 003	2.9000e- 004	0.0000	1.1000e- 004	1.0000e- 005	1.3000e- 004	3.0000e- 005	1.0000e- 005	4.0000e- 005	0.0000	0.4124	0.4124	2.0000e- 005	7.0000e- 005	0.4324
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e- 004	1.6000e- 004	2.0300e- 003	1.0000e- 005	5.5000e- 004	0.0000	5.5000e- 004	1.5000e- 004	0.0000	1.5000e- 004	0.0000	0.4662	0.4662	1.0000e- 005	1.0000e- 005	0.4706
Total	2.3000e- 004	1.4700e- 003	2.3200e- 003	1.0000e- 005	6.6000e- 004	1.0000e- 005	6.8000e- 004	1.8000e- 004	1.0000e- 005	1.9000e- 004	0.0000	0.8786	0.8786	3.0000e- 005	8.0000e- 005	0.9030

CalEEMod Version: CalEEMod.2020.4.0

Page 12 of 29

Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

3.4 Demolition - 2021 Unmitigated Construction On-Site

C02e		0.0000	10.6030	10.6030
NZO		0.0000	0.0000	0.0000
СН4	ýr	0.0000	57 2.6900e- 003	2.6900e- 003
Total CO2	М́Т	0.00	10.53	10.5357
Bio- CO2 NBio- CO2 Total CO2		0.0000	10.5357	10.5357
Bio- CO2		0.0000	0.0000	0.0000
PM2.5 Total		1.0000e- 005	4.8600e- 003	4.8700e- 003
Exhaust PM2.5		0.0000	4.8600e- 003	.8600e- 003
Fugitive PM2.5		1.0000e- 1.0000e- 004 005		1.0000e- 4. 005
PM10 Total		1.0000e- 004	5.2000e- 003	5.3000e- 003
Exhaust PM10	síyr	0.000	5.2000e- 003	5.2000e- 003
Fugitive PM10	ion in the	1.0000e- 004		1.0000e- 004
S02			1.2000e- 004	1.2000e - 004
00			0.0725	0.0725
XÓN			0.0985	0.0985
ROG			9.9700e- 003	9.9700e- 003
	Category	Fugitive Dust	Off-Road	Total

Unmitigated Construction Off-Site

CO2e.	Section Section	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.0333	0.0000	0.6117	0.6450
N2O	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1.0000e- 005	0.0000	2.0000e- 005	3.0000e- 005
	4	yr	0.000.0	0.000.0	2.0000e- 005	2.0000e- 005
Total CO2		M	0.0317	0.0000	0.6061	0.6378
NBio-CO2			0.0317	0.000.0	0.6061	0.6378
Bio- CO2 NBio- CO2 Total CO2 CH4			0.0000	0.0000	0.0000	0.0000
PM2.5			0.0000	0.0000	1.9000e- 004	1,9000e- 004
Exhaust PM2.5	0.5		0.0000	0.0000	0.0000	.0000
Fugitive PM2 5	54		0.000.0	0.0000	1.9000e- 004	1.9000e- 0 004
PM10 Total	Old		1,0000e- 0 005	0.000.0	7.2000e- 004	7.3000e- 004
ve Exhaust	, MIO	tons/yr	0.0000	0.0000	0.0000	00000
Fugitive	(1) miles	ton		0.0000	7.1000e- 004	7.2000e- 004
802	A. Carlotte		0.0000	0.0000	1.0000e- 7.1000 005 004	1.0000e- 005
00	2. E		2.0000e- 005	0.0000	2.6400e- 003	2.6600e- 003
NOX			1.0000e- 2.0000e- 004 005	0.000.0	2.4000e- 2.1000e- 2.6400e- 004 003	2.4000e- 3.1000e- 2.6600e- 1.0000e- 7.2000 004 004 004
ROG		St. T.	0.000.0	0.000.0	2.4000e- 004	2.4000e- 004
		Category	Hauling	Vendor	Worker	Total

CalEEMod Version: CalEEMod.2020.4.0 Page 13 of 29 Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

3.4 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					ton	s/yr							МТ	/yr		
Fugitive Dust			-		4.0000e- 005	0.0000	4.0000e- 005	1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9600e- 003	0.0985	0.0725	1.2000e- 004		5.2000e- 003	5.2000e- 003	 	4.8600e- 003	4.8600e- 003	0.0000	10.5357	10.5357	2.6900e- 003	0.0000	10.6030
Total	9.9600e- 003	0.0985	0.0725	1.2000e- 004	4.0000e- 005	5.2000e- 003	5.2400e- 003	1.0000e- 005	4.8600e- 003	4.8700e- 003	0.0000	10.5357	10.5357	2.6900e- 003	0.0000	10.6030

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	1.0000e- 004	2.0000e- 005	0.0000	1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.0000	0.0000	0.0000	0.0317	0.0317	0.0000	1.0000e- 005	0.0333
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e- 004	2.1000e- 004	2.6400e- 003	1.0000e- 005	7.1000e- 004	0.0000	7.2000e- 004	1.9000e- 004	0.0000	1.9000e- 004	0.0000	0.6061	0.6061	2.0000e- 005	2.0000e- 005	0.6117
Total	2.4000e- 004	3.1000e- 004	2.6600e- 003	1.0000e- 005	7.2000e- 004	0.0000	7.3000e- 004	1.9000e- 004	0.0000	1.9000e- 004	0.0000	0.6378	0.6378	2.0000e- 005	3.0000e- 005	0.6450

Page 14 of 29

Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

3.5 Paving - 2021

Unmitigated Construction On-Site

CO2e			0.0000	7.2079
NZO		0.0000	0.0000	0.0000
CH4	yr	1.9500e- 003	0.0000	1.9500e- 003
Total CO2	MT/yr	7.1591	0.0000	7.1591
Bio- CO2 NBio- CO2 Total CO2		7.1591	0.0000	7.1591
Bio- CO2		0.0000 7.1591 7.1591 1.9500e-	0.000.0	0.0000
PM2.5 Total		-8-6-6-6	0.0000	2.3900e- 003
Exhaust PM2.5		2.3900e- 2.3900e- 003 003	0.0000	2.3900e- 003
Fugitive PM2.5				
PM10 Total		64	0.0000	2.5500e- 003
Exhaust PM10	tons/yr	2.5500e- 003	0.000.0	2.5500e- 003
Fugitive PM10	ton			
802		8.0000e- 005		8.0000e- 005
00		0.0534		0.0534
NOX		4.9600e- 0.0464 0.0534 8.0000e- 003 005		0.0464
ROG		4.9600e- 003	0.0000	4.9600e- 003
	Category	Off-Road	Paving	Total

Unmitigated Construction Off-Site

N2O CO2e			0.0000 0.0000	2.0000e- 0.7058 005	2.0000e- 0.7058 005
CH4 N2		0000 00000	0.0000	2.0000e- 2.000 005 00	2.0000e- 2.000 005 00
2 11	MT/yr		0.0000	0.6993 2.0	0.6993 2.0
Bio- CO2 NBio- CO2 Total CO2		0.0000	0.0000	0.6993	0.6993
Bio-CO2		0.0000	0.0000	0.0000	0.0000
PM2.5 Total		0.0000	0.0000	2.2000e- 004	2.2000e- 004
Exhaust PM2.5		0.0000 0.0000 0.0000 0.0000	0.0000	1.0000e- 2. 005	1.0000e- 005
Fugitive PM2.5		0.0000	0.0000	2.2000e- 004	2.2000e- 004
PM10 Total			0.0000	8.3000e- 004	8.3000e- 004
Exhaust PM10	tons/yr	0.0000	0.0000	1.0000e- 005	1.0000e- 005
Fugitive PM10	toi	0.0000	0.0000	8.2000e- 004	8.2000e- 004
202		0.0000	0.0000	1.0000e- 005	1.0000e- 8.2 005 (
00		0.0000	0.0000 0.0000 0.0000	3.0400e- 003	3.0400e- 003
XON			0.0000	2.8000e- 2.4000e- 3.0400e- 1.0000e- 8.2000e- 0.04 004 005 005	2.8000e- 2.4000e- 3.0400e- 004 003
ROG		0.0000	0.0000	2.8000e- 004	2.8000e-
	Category	Hauling	Vendor	Worker	Total

CalEEMod Version: CalEEMod.2020.4.0 Page 15 of 29 Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

3.5 Paving - 2021

Mitigated Construction On-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	1				ton	s/yr							MT	/yr		
Off-Road	4.9600e- 003	0.0464	0.0534	8.0000e- 005		2.5500e- 003	2.5500e- 003	E E	2.3900e- 003	2.3900e- 003	0.0000	7.1591	7.1591	1.9500e- 003	0.0000	7.2079
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.9600e- 003	0.0464	0.0534	8.0000e- 005		2.5500e- 003	2.5500e- 003		2.3900e- 003	2.3900e- 003	0.0000	7.1591	7.1591	1.9500e- 003	0.0000	7.2079

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					ton	s/yr	•					7	МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e- 004	2.4000e- 004	3.0400e- 003	1.0000e- 005	8.2000e- 004	1.0000e- 005	8.3000e- 004	2.2000e- 004	1.0000e- 005	2.2000e- 004	0.0000	0.6993	0.6993	2.0000e- 005	2.0000e- 005	0.7058
Total	2.8000e- 004	2.4000e- 004	3.0400e- 003	1.0000e- 005	8.2000e- 004	1.0000e- 005	8.3000e- 004	2.2000e- 004	1.0000e- 005	2.2000e- 004	0.0000	0.6993	0.6993	2.0000e- 005	2.0000e- 005	0.7058

CalEEMod Version: CalEEMod.2020.4.0

Page 16 of 29

Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

3.6 Architectural Coating - 2022
Unmitigated Construction On-Site

				1
CO2e	is a	0.0000	1.2787	1.2787
N2O		0.0000	0.0000	0.0000
CH4	/yr	0.0000 0.0000	8.0000e- 005	8.0000e- 005
Total CO2	· MŢ/yr	0.0000	1.2766	1.2766
Bio- CO2 NBio- CO2 Total CO2	13		1.2766	1.2766
Bio- CO2		0.0000	0.0000	0.0000
PM2.5 Total	,	0.000	4.1000e- 004	4.1000e- 004
Exhaust PM2.5	,	0.000.0	4.1000e- 004	4.1000e- 004
Fugitive PM2.5				
PM10 Total	, (0.0000	4.1000e- 004	4.1000e- 004
Exhaust PM10	ions/yr	0.0000	4.1000e- 14.	4.1000e- 004
Fugitive PM10	ton			
S02			1.0000e- 005	1.0000e- 005
CO			9.0700e- 003	9.0700e- 003
NOX			1.0200e- 7.0400e- 9.0700e- 003 003 003	1.0200e- 7.0400e- 9.0700e- 003 003
ROG		0.0000	1.0200e- 003	1.0200e- 003
	Category	Archit. Coating 0.0000	Off-Road	Total

Unmitigated Construction Off-Site

CO2e	,	0.0000	0.0000	0.2288	0.2288
NZO		0.0000 0.0000	0.000.0	.0000e- .005	000e- 005
CH4	ı	0.0000	0.000.0	1.0000e- 1 005	1,0000e- 1.0 005
Total CO2	MT/yr	0.0000	0.0000	0.2268	0.2268
Bio- CO2 NBio- CO2 Total CO2		0.000.0	0.0000	0.2268	0.2268
Bio- CO2		00000	0.0000	0.0000	0.000
PM2.5 Total		0.0000	0.0000	7.0000e- 005	7.0000e- 005
Exhaust PM2.5		0000.0	0.0000	0.0000	0.0000
Fugitive PM2.5	,	0.000 0.0000 0.0000	0.0000	- 7.0000e- 005	7.0000e- 005
PM10 Total		0.0000	0.0000	2.8000e- 7. 004	2.8000e- 004
Exhaust PM10	tons/yr	0.0000	0.0000	0.0000	0.0000
Fugitive PM10	ton	0.0000	0.0000	2.7000e- 004	2.7000e- 004
s02		0.000	0.0000	0.0000	0,000
00		0.0000	0.0000	9.3000e- 004	9.3000e- 004
×ON		0.0000	00000	9.0000e- 7.0000e- 9.3000e- 0.0000 2.7000e- 005 005 004	9.0000e- 7.0000e- 9.3000e- 0.0000 2.7000e- 0.00
ROG	٠,	0.0000 0.0000 0.0000 0.0000	0.0000	9.0000e- 005	9,0000e~ 005
3 0.	Category		Vendor	Worker	Total

CalEEMod Version: CalEEMod.2020.4.0 Page 17 of 29 Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

3.6 Architectural Coating - 2022 Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e- 003	7.0400e- 003	9.0700e- 003	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004	0.0000	1.2766	1.2766	8.0000e- 005	0.0000	1.2787
Total	1.0200e- 003	7.0400e- 003	9.0700e- 003	1.0000e- 005		4.1000e- 004	4.1000e- 004		4.1000e- 004	4.1000e- 004	0.0000	1.2766	1.2766	8.0000e- 005	0.0000	1.2787

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e- 005	7.0000e- 005	9.3000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2268	0.2268	1.0000e- 005	1.0000e- 005	0.2288
Total	9.0000e- 005	7.0000e- 005	9.3000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2268	0.2268	1.0000e- 005	1.0000e- 005	0.2288

CalEEMod Version: CalEEMod.2020.4.0 Page 18 of 29 Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

3.7 Building Construction - 2022 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2		N2O	CO2e
Category		,	3 3 4	\$	ton	s/yr		,			, "	7	МТ	/yr		, w
. Off-Road	8.2400e- 003	0.0625	0.0636	1.1000e- 004		2.9400e- 003	2.9400e- 003		2.8400e- 003	2.8400e- 003	0.0000	9.0789	9.0789	1.5800e- 003	0.0000	9.1184
Total	8.2400e- 003	0.0625	0.0636	1.1000e- 004		2.9400e- 003	2.9400e- 003		2.8400e- 003	2.8400e- 003	0.0000	9.0789	9.0789	1.5800e- 003	0.0000	9.1184

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category		*,			ton	s/yr							МТ	/yr		
										. •						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	1.1000e-	2.8300e- 003	9.4000e- 004	1.0000e- 005	3.5000e- 004	3.0000e- 005	3.7000e- 004	1.0000e- 004	2.0000e- 005	1.2000e- 004	0.0000	1.0503	1.0503	4.0000e- 005	1.5000e- 004	1.0963
Worker	4.6000e- 004	3.9000e- 004	5.0100e- 003	1.0000e- 005	1.4800e- 003	1.0000e- 005	1.4900e- 003	3.9000e- 004	1.0000e- 005	4.0000e- 004	0.0000	1.2245	1.2245	3.0000e- 005	3.0000e- 005	1.2353
Total	5.7000e- 004	3.2200e- 003	5.9500e- 003	2.0000e- 005	1.8300e- 003	4.0000e- 005	1.8600e- 003	4.9000e- 004	3.0000e- 005	5.2000e- 004	0.0000	2.2748	2.2748	7.0000e- 005	1.8000e- 004	2.3316

CalEEMod Version: CalEEMod.2020.4.0 Page 19 of 29 Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

3.7 Building Construction - 2022 Mitigated Construction On-Site

The second secon	ROG	NOx⊨	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr		And					. М1	7/ÿr		
Off-Road	8.2400e- 003	0.0625 າ	0.0636	1.1000e- 004	E to consider a second	2.9400e- 003	2.9400e- 003		2.8400e- 003	2.8400e- 003	0.0000	9.0788	9.0788	1.5800e- .003	0.0000	9.1184
Total	8.2400e- 003	0.0625	0.0636	1.1000e- 004		2.9400e- 003	2.9400e- 003		2.8400e- 003	2.8400e- 003	0.0000	9.0788	9.0788	1.5800e- 003	0.0000	9.1184

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category					- ton	s/yr	ا او دونو او خومور م	4 2 3				11 July 1 2 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M	آ /y r		1.1
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1000e- 004	2.8300e- 003	9.4000e- 004	1.0000e- 005	3.5000e- 004	3.0000e- 005	3.7000e- 004	1.0000e- 004	2.0000e- 005	1.2000e- 004	0.0000	1.0503	1.0503	4.0000e- 005	1.5000e- 004	1.0963
Worker	4.6000e- 004	3.9000e- 004	5.0100e- 003	1.0000e- 005	1.4800e- 003	1.0000e- 005	1.4900e- 003	3.9000e- 004	1.0000e- 005	4.0000e- 004	0.0000	1.2245	1.2245	3.0000e- 005	3.0000e- 005	1.2353
Total	5.7000e- 004	3.2200e- 003	5.9500e- 003	2.0000e- 005	1.8300e- 003	4.0000e- 005	1.8600e- 003	4.9000e- 004	3.0000e- 005	5.2000e- 004	0.0000	2.2748	2.2748	7.0000e- 005	1.8000e- 004	2.3316

CalEEMod Version: CalEEMod.2020.4.0

Page 20 of 29

Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		14 .000
Mitigated .	0.1035	0.1275	1.0475	2.1500e- 003	0.2141	1.8600e- 003	0.2159	0.0571	1.7300e- 003	0.0588	0.0000	200.2825	200.2825	0.0144	9.1800e- 003	203.3774
Unmitigated	0.1035	0.1275	1.0475	2:1500e- 003	0.2141 [.]	1.8600e- 003	0.2159	0.0571	·1.7300e- 003	0.0588	- 0.0000	200.2825	200.2825	0.0144	9.1800e- 003	203.3774

4.2 Trip Summary Information

	Ave	rage Daily Trip R	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	198.00	198.00	198.00	569,753	569,753
Total	198.00	198.00	198.00	569,753	569,753

4.3 Trip Type Information

		Miles			Trip %		, , , , , , , , , , , , , , , , , , , ,		e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397

Page 21 of 29

Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr						2 5 2 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	FM ₃	/yr		
Electricity Mitigated	r 1 1 1			t t t		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated	t t			1—————— t t t	•	0.0000	0.0000		0.0000,	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000	t :	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000	,	0.0000	0.0000	 : :	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CalEEMod Version: CalEEMod.2020.4.0 Page 22 of 29 Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s Use	ROG .	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	© CH4	N2O	CO2e
Land Use	kBTU/ÿi:					ton	s/yr ^							Mπ	/ŷr		
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBjo- CO2	Total CO2	CH4	N2O	CO2e
Land Use	ˈkBTU/ỳr			Transfer was a second		ton	s/ýr			र हिंदु दूस । १ 				11 Fig. 7, 1M1	Γ/ŷr	na de la compania de	
City Park	0	0.0000	0.0000	0.0000	0.0000	1	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000	_	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

5.3 Energy by Land Use - Electricity <u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	.CO2e
Land Use	kWh/yr		МТ	/yr ·	No.
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	- 17	МТ	7/yr	· · · · ·
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

CalEEMod Version: CalEEMod.2020.4.0 Page 24 of 29 Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		Y og			ton:	s/yr		,			; 3.		, MT	/yr		
Mitigated	6.2000e- 004	0.0000	2.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e- 005	4.0000e- 005	0.0000	0.0000	4.0000e- 005
Unmitigated	6.2000e- 004	0.0000	2.0000e- 005	0.0000	i i	0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e- 005	4.0000e- 005	0.0000	0.0000	4.0000e- 005

6.2 Area by SubCategory

Unmitigated

4.7	ROG	NOx .	CO-	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	, N2O	CO2e
SubCategory			•		ton	s/yr					,		MT	/yr		
Architectural Coating	0.0000		t t		1 1 1	0.0000	0.0000	i i i	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Deservate	6.1000e- 004		1 1 1	 	1 1 1	0.0000	0.0000	1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e- 005	0.0000	 	0.0000	0.0000	1 1 1 1	0.0000	0.0000	0.0000	4.0000e- 005	4.0000e- 005	0.0000	0.0000	4.0000e- 005
Total	6.1000e- 004	0.0000	2.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e- 005	4.0000e- 005	0.0000	0.0000	4.0000e- 005

CalEEMod Version: CalEEMod.2020.4.0 Page 25 of 29 Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
SubCategory	1				ton	s/yr							МТ	/yr		
Architectural Coating	0.0000				7734	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.1000e- 004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e- 005	4.0000e- 005	0.0000	0.0000	4.0000e- 005
Total	6.1000e- 004	0.0000	2.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e- 005	4.0000e- 005	0.0000	0.0000	4.0000e- 005

7.0 Water Detail

7.1 Mitigation Measures Water

CalEEMod Version: CalEEMod.2020.4.0 Page 26 of 29 Date: 9/9/2021 11:51 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	. 11	. ;; M∕1	/yr	
i i i i i i i i i i i i i i i i i i i	3.5214	3.0000e- 004	4.0000e- 005	3.5396
o magaiou	3.5214	3.0000e- 004	4.0000e- 005	3.5396

7.2 Water by Land Use

<u>Unmitigated</u>

; , ·	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	-	MT	/yr	
City Park	0 / 1.78722	3.5214	3.0000e- 004	4.0000e- 005	3.5396
Total		3.5214	3.0000e- 004	4.0000e- 005	3.5396

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

7.2 Water by Land Use

Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		Mi	r/yr	
City Park	0 / 1.78722	3.5214	3.0000e- 004	4.0000e- 005	3.5396
Total		3.5214	3.0000e- 004	4.0000e- 005	3.5396

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
		ΓM	7/yr	
_	0.0264	1.5600e- 003	0.0000	0.0654
Chinagatoa	0.0264	1.5600e- 003	0.0000	0.0654

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

8.2 Waste by Land Use

Unmitigated

2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	Waste Disposed	Total CO2	CH4	N2O .	CO2e
Land Use	tons		MT	/yr	
City Park	0.13	0.0264	1.5600e- 003	0.0000	0.0654
Total		0.0264	1.5600e- 003	0.0000	0.0654

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	-	MT	/yr	
					, i
City Park	0.13	0.0264	1.5600e- 003	0.0000	0.0654
Total		0.0264	1.5600e- 003	0.0000	0.0654

9.0 Operational Offroad

- 1							
	Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
				7.0 04 1.4 2.8 05 0 4 7 1 8 1	1.		, w _i s,

City of Gardena - Lab Five - Los Angeles-South Coast County, Annual

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

117	Equipment Type	Number
	그 등 그림을 하는 그는 그 그 가장 그를 가장 하는 것이 모든 모든 사람들이 되었다.	

11.0 Vegetation

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

City of Gardena - Lab Five

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.50	Acre	1.50	65,340.00	_ 0

1.2 Other Project Characteristics

Urbanization

Urban

Wind Speed (m/s)

2.2

Precipitation Freq (Days)

33

Date: 9/9/2021 11:52 AM

Climate Zone

a

Operational Year

2022

Utility Company

Southern California Edison

CO2 Intensity (lb/MWhr)

390.98

CH4 Intensity (lb/MWhr)

0.033

N2O Intensity (lb/MWhr)

0.004

1,3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Land Uses: 1.5 acres park (soccer field)

Construction Phase - Construction schedule as provided by Project applicant. Phases estimated based on Project type.

Off-road Equipment -

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment -

Trips and VMT -

Demolition - ~200 s.f. of building demolished (per Project Applicant).

Grading - Grading would occur during grading phase only. Estimated total of 100 cubic yards of sand (soil) import.

Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

Vehicle Trips - Operational mobile trips provided by Kittelson & Associates, Inc. (198 trips per day) = 132 trips per acre per day.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves -

Energy Use -

Construction Off-road Equipment Mitigation - Reductions include: Water Exposed Area 3 times daily; Unpaved Road Mitigation (Moisture Content at 12%; Vehicle Speed 15 MPH).

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	Ō,	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	2.00	15.00
tblConstructionPhase	NumDays	4.00	10.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	200.00	10.00
tblConstructionPhase	PhaseEndDate	11/2/2021	11/19/2021
tblConstructionPhase	PhaseEndDate	11/8/2021	12/3/2021
tblConstructionPhase	PhaseStartDate	11/3/2021	11/20/2021
tblGrading	AcresOfGrading	14.06	0.00
tblGrading	MaterialImported	0.00	100.00
tblVehicleTrips	ST_TR	1.96	132.00
tblVehicleTrips	SU_TR	2.19	132.00
tblVehicleTrips	WD_TR	0.78	132.00

2.0 Emissions Summary

CalEEMod Version: CalEEMod.2020.4.0 Page 3 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive (Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio≃ CO2	Total CO2	CH4	N2O -	CO2e
Year					lb/	day							lb/c	lay		
2021	2.0425	20.4906	15.0577	0.0255	7,2183	1.0421	8.1376	3.4608	0.9726	4.3067	0.0000	2,468.717 9	2,468.717 9	0.6533	0.0172	2,485.065 3
2022	1.7638	13.1101	13.9753	0.0270	0.3723	0.5959	0.9682	0.1003	0.5755	0.6759	0.0000	2,513.884 9	2,513.884 9	0.3640	0.0401	2,534.938 4
Maximum	2.0425	20.4906	15.0577	0.0270	7.2183	1.0421	8.1376	3.4608	0.9726	4.3067	0.0000	2,513.884 9	2,513.884 9	0.6533	0.0401	2,534.938 4

Mitigated Construction

	ROG	NOX	.co	SO2	Fugitive. PM10	Exhaust < PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio- CO2	Total CO2	CH4.	N2O	CO2e
Year					lb/o	day							lb/c	lay		
2021	2.0425	20.4906	15.0577	0.0255	2.8972	1.0421	3.8166	1.3716	0.9726	2.2175	0.0000	2,468.717 9	2,468.717 9	0.6533	0.0172	2,485.065
2022	1.7638	13.1101	13.9753	0.0270	0.3723	0.5959	0.9682	0.1003	0.5755	0.6759	0.0000	2,513.884 9	2,513.884 9	0.3640	0.0401	2,534.938 4
Maximum	2.0425	20.4906	15.0577	0.0270	2.8972	1.0421	3.8166	1.3716	0.9726	2.2175	0.0000	2,513.884 9	2,513.884 9	0.6533	0.0401	2,534.938 4

CalEEMod Version: CalEEMod.2020.4.0 Page 4 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	56.93	0.00	47.45	58.67	0.00	41.93	0.00	0.00	0.00	0.00	0.00	0.00

CalEEMod Version: CalEEMod.2020.4.0 Page 5 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
*Category**					lb/o	day	18 - 19 - 19 - 19 - 19 - 19 - 19 - 19 -	rad P					lb/d			The step was a second
Area	3.3800e- 003	0.0000	1.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		3.3000e- 004	3.3000e- 004	0.0000	1 1 1	3.5000e- 004
Energy	0.0000	0.0000	0.0000	0.0000	; ! ! !	0.0000	0.0000	 	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.5909	0.6407	5.8297	0.0122	1.1995	0.0102	1.2097	0.3195	9.5000e- 003	0.3290		1,253.697 6	1,253.697 6	0.0848	0.0529	1,271.565 2
Total	0.5943	0.6407	5.8298	0.0122	1.1995	0.0102	1.2097	0.3195	9.5000e- 003	0.3290		1,253.697 9	1,253.697 9	0.0848	0.0529	1,271.565 6

Mitigated Operational

	(ROG	NOX	CO.	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	≅ ,N2O	CO2e
Category					lb/	day		, , , , , , , , , , , , , , , , , , ,				4.7	lb/c	day		age a significant
	3,3800e- 003	0.0000	1,5000e- 004	0.0000	; ; ; ;	0.0000	0.0000		0.0000	0.0000		3.3000e- 004	3.3000e- 004	0.0000		3.5000e- 004
Energy	0.0000	0.0000	0.0000	0.0000	1 : : :	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.5909	0.6407	5.8297	0.0122	1.1995	0.0102	1.2097	0.3195	9.5000e- 003	0.3290		1,253.697 6	1,253.697 6	0.0848	0.0529	1,271.565 2
Total	0.5943	0.6407	5.8298	0.0122	1.1995	0.0102	1.2097	0.3195	9.5000e- 003	0.3290		1,253.697 9	1,253.697 9	0.0848	0.0529	1,271.565 6

Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
ercent duction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2021	11/19/2021	5	15	
2	Grading	Grading	11/20/2021	12/3/2021	5	10	
3	Demolition	Demolition	12/4/2021	12/17/2021	5	10	
4	Paving	Paving	12/18/2021	12/31/2021	5	10	
5	Architectural Coating	Architectural Coating	1/15/2022	1/28/2022	5	10	
6	Building Construction	Building Construction	1/1/2022	1/14/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graderş	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40

CalEEMod Version: CalEEMod.2020.4.0 Page 7 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Air Compressors		6.00	78	0.48
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	_1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	A Throshop and	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	13.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	27.00	11.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	1.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category				- 4	lb/d	day							·lb/c	day		
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000		1 1 1 1	0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654	 	0.7041	0.7041		1,666.517 4	1,666.517 4	0.5390	,	1,679.992 0
Total	1.5558	17.4203	7.5605	0.0172	5.2693	0.7654	6.0347	2.8965	0.7041	3.6006		1,666.517 4	1,666.517 4	0.5390	·	1,679.992 0

CalEEMod Version: CalEEMod.2020.4.0 Page 9 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

3.2 Site Preparation - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day		7.7		HE			lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0300	0.0230	0.3451	8.4000e- 	0.0894	6.1000e- 004	0.0900	0.0237	5.7000e- 004	0.0243		85.5430	85.5430	2.5200e- 003	2.1800e- 003	86.2562
Total	0.0300	0.0230	0.3451	8.4000e- 004	0.0894	6.1000e- 004	0.0900	0.0237	5.7000e- 004	0.0243	, Solve	85.5430	85.5430	2.5200e- 003	2.1800e- 003	86.2562

Mitigated Construction On-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	lay		
Fugitive Dust					2.0550	0.0000	2.0550	1.1296	0.0000	1.1296			0.0000		; ; ;	0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041	0.0000	1,666.517 4	1,666.517 4	0.5390	; ; ;	1,679.99 0
Total	1.5558	17.4203	7.5605	0.0172	2.0550	0.7654	2.8204	1.1296	0.7041	1.8338	0.0000	1,666.517 4	1,666.517 4	0.5390		1,679.99

CalEEMod Version: CalEEMod.2020.4.0 Page 10 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

3.2 Site Preparation - 2021 Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0300	0.0230	0.3451	8.4000e- 004	0.0894	6.1000e- 004	0.0900	0.0237	5.7000e- 004	0.0243		85.5430	85.5430	2.5200e- 003	2.1800e- 003	86.2562
Total	0.0300	0.0230	0.3451	8.4000e- 004	0.0894	6.1000e- 004	0.0900	0.0237	5.7000e- 004	0.0243		85.5430	85.5430	2.5200e- 003	2.1800e- 003	86.2562

3.3 Grading - 2021 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust					7,0837	0.0000	7.0837	3.4249	0.0000	3.4249	i		0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.611 4	1,995.611 4	0.6454		2,011.747 0
Total	1.8271	20.2135	9.7604	0.0206	7.0837	0.9158	7.9995	3.4249	0.8425	4.2674		1,995.611	1,995.611 4	0.6454		2,011.747

CalEEMod Version: CalEEMod.2020.4.0 Page 11 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

3.3 Grading - 2021
Unmitigated Construction Off-Site

	ROG	NOx	. co	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							16/0	day		
Hauling -	8.5800e- 003	0.2484	0.0573	8.3000e- 004	0.0228	2.8800e- 003	0.0256	6.2400e- 003	2.7600e- 003	8.9900e- 003		90.9160	90.9160	4.7600e- 003	0.0144	95.3312
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0376	0.0288	0.4314	1.0600e- 003	0.1118	7.7000e- 004	0.1125	0.0296	7.1000e- 004	0.0304		106.9287	106.9287	3.1500e- 003	2.7300e- 003	107.8203
Total	0.0461	0.2771	0.4887	1.8900e- 003	0.1345	3.6500e- 003	0.1382	0.0359	3.4700e- 003	0.0393		197.8447	197.8447	7.9100e- 003	0.0172	203.1515

Mitigated Construction On-Site

	ROG	NOx	, co	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	day							lb/c	lay		
Fugitive Dust				! !	2.7627	0.0000	2.7627	1.3357	0.0000	1.3357		 I I	0.0000	 		0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206	; ; ; ;	0.9158	0.9158		0.8425	0.8425	0.0000	1,995.611 4	1,995.611 4	0.6454	;	2,011.747 0
Total	1.8271	20.2135	9.7604	0.0206	2.7627	0.9158	3.6784	1.3357	0.8425	2.1782	0.0000	1,995.611 4	1,995.611 4	0.6454		2,011.747 0

CalEEMod Version: CalEEMod.2020.4.0 Page 12 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category	并以				lb/	day							lb/d	lay		
Hauling	8.5800e- 003	0.2484	0.0573	8.3000e- 004	0.0228	2.8800e- 003	0.0256	6.2400e- 003	2.7600e- 003	8.9900e- 003		90.9160	90.9160	4.7600e- 003	0.0144	95.3312
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0376	0.0288	0.4314	1.0600e- 003	0.1118	7.7000e- 004	0.1125	0.0296	7.1000e- 004	0.0304		106.9287	106.9287	3.1500e- 003	2.7300e- 003	107.8203
Total	0.0461	0.2771	0.4887	1.8900e- 003	0.1345	3.6500e- 003	0.1382	0.0359	3.4700e- 003	0.0393		197.8447	197.8447	7.9100e- 003	0.0172	203.1515

3.4 Demolition - 2021 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day					Fuel or		lb/d	ay		
Fugitive Dust		1.4			0.0197	0.0000	0.0197	2.9800e- 003	0.0000	2.9800e- 003			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715	1	2,322.717 1	2,322.717 1	0.5940		2,337.565
Total	1.9930	19.6966	14.4925	0.0241	0.0197	1.0409	1.0606	2.9800e- 003	0.9715	0.9745		2,322.717 1	2,322.717 1	0.5940		2,337.565

CalEEMod Version: CalEEMod.2020.4.0 Page 13 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

3.4 Demolition - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO*	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Hauling	6.6000e- 004	0.0191	4.4100e- 003	6.0000e- 005	1.7500e- 003	2.2000e- 004	1.9700e- 003	4.8000e- 004	2.1000e- 004	6.9000e- 004		6.9935	6.9935	3.7000e- 004	1.1100e- 003	7.3332
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0488	0.0374	0.5608	1.3700e- 003	0.1453	1.0000e- 003	0.1463	0.0385	9.2000e- 004	0.0395		139.0073	139.0073	4.1000e- 003	3.5500e- 003	140.1663
Total	0.0495	0.0565	0.5652	1.4300e- 003	0.1471	1.2200e- 003	0.1483	0.0390	1.1300e- 003	0.0401		146.0009	146.0009	4.4700e- 003	4.6600e- 003	147.4995

Mitigated Construction On-Site

	ROG	NOx	ÇO.	,SO2 *	Fugilive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio- CO2	Total CO2	CH4		CO2e
Category					lb/c	lay	. 45						lb/c	day	2	
Fugitive Dust	Sirit in A	ela Kalian. I		<u>. 36</u> ,	7.6800e-	0.0000	7.6800e-	1.1600e-	0.0000	1.1600e-		:	0.0000	<u>.</u> •		0.0000
	11 1 11 1		! ! !	! ! !	003		003	003	 	003		 		 - 	1 ! 1 ! 1 !	
Off-Road	1.9930	19.6966	14.4925	0.0241	,	1.0409	1.0409	1	0.9715	0.9715	0.0000	2,322.717 1	2,322.717 1	0.5940	2,3	337.565 8
Total	1.9930	19.6966	14.4925	0.0241	7.6800e- 003	1.0409	1.0486	1.1600e- 003	0.9715	0.9726	0.0000	2,322.717 1	2,322.717 1	0.5940	2,3	337.565 8

CalEEMod Version: CalEEMod.2020.4.0 Page 14 of 26 . Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

3.4 Demolition - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					lb/s	day							lb/d	day		
Hauling	6.6000e- 004	0.0191	4.4100e- 003	6.0000e- 005	1.7500e- 003	2.2000e- 004	1.9700e- 003	4.8000e- 004	2.1000e- 004	6.9000e- 004		6.9935	6.9935	3.7000e- 004	1.1100e- 003	7.3332
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0488	0.0374	0.5608	1.3700e- 003	0.1453	1.0000e- 003	0.1463	0.0385	9.2000e- 004	0.0395		139.0073	139.0073	4.1000e- 003	3.5500e- 003	140.1663
Total	0.0495	0.0565	0.5652	1.4300e- 003	0.1471	1.2200e- 003	0.1483	0.0390	1.1300e- 003	0.0401		146.0009	146.0009	4.4700e- 003	4.6600e- 003	147.4995

3.5 Paving - 2021 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					lb/	day				高兴			lb/d	ay		
Off-Road	0.9928	9.2691	10.6744	0.0165		0.5094	0.5094		0.4770	0.4770		1,578.314 5	1,578.314	0.4304		1,589.075
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000		 !	0.0000
Total	0.9928	9.2691	10.6744	0.0165		0.5094	0.5094		0.4770	0.4770		1,578.314 5	1,578.314 5	0.4304		1,589.075

CalEEMod Version: CalEEMod.2020.4.0 Page 15 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

3.5 Paving - 2021
<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	(CO)	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O -	CO2e
Category					lb/	day							lb/o	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0563	0.0431	0.6471	1.5800e- 003	0.1677	1.1500e- 003	0.1688	0.0445	1.0600e- 003	0.0455		160.3931	160.3931	4.7300e- 003	4.0900e- 003	161.7304
Total	0.0563	0.0431	0.6471	1.5800e- 003	0.1677	1.1500e- 003	0.1688	0.0445	1.0600e- 003	0.0455		160.3931	160.3931	4.7300e- 003	4.0900e- 003	161.7304

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive Exhaust PM10 PM10	PM10 Total	Fugitive Exhaust PM2.5 PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category					lb/daý						lb/	day		
Off-Road	0.9928	9.2691	10.6744	0.0165	0.5094	0.5094	0.4770	0.4770	0.0000	1,578.314 5	1,578.314 5	0.4304		1,589.075 2
Paving	0.0000			1	0.0000	0.0000	0.0000	0.0000		; ; ,	0.0000	 	1	0.0000
Total	0.9928	9.2691	10.6744	0.0165	0.5094	0.5094	0.4770	0.4770	0.0000	1,578.314 5	1,578.314 5	0.4304		1,589.075 2

CalEEMod Version: CalEEMod.2020.4.0 Page 16 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

3.5 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							1b/s	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0563	0.0431	0.6471	1.5800e- 003	0.1677	1.1500e- 003	0.1688	0.0445	1.0600e- 003	0.0455		160.3931	160.3931	4.7300e- 003	4.0900e- 003	161.7304
Total	0.0563	0.0431	0.6471	1.5800e- 003	0.1677	1.1500e- 003	0.1688	0.0445	1.0600e- 003	0.0455		160.3931	160.3931	4.7300e- 003	4.0900e- 003	161.7304

3.6 Architectural Coating - 2022 Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					lb/	day							lb/c	lay		2
Archit. Coating	0.0000		i i			0.0000	0.0000	1	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e- 003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	0.2045	1.4085	1.8136	2.9700e- 003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

CalEEMod Version: CalEEMod.2020.4.0 Page 17 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

3.6 Architectural Coating - 2022 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	, ,			Ye s	lb/	day	•	9	* ; *		***		. lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5 <i>1</i> ,	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	_ 0.0000	.0.0000	0.0000
Worker	0.0173	0.0126	0.1971	5.1000e- 004	0.0559	3.6000e- 004	0.0563	0.0148	3.3000e- 004	0.0152		52.0064	52.0064	1.4100e= 003	1.2500e- 003	52.4144
Total	0.0173	0.0126	0.1971	5.1000e- 004	0.0559	3.6000e- 004	0.0563	0.0148	3.3000e- 004	0.0152		52.0064	52.0064	1.4100e- 003	1.2500e- 003	52.4144

Mitigated Construction On-Site

s u	ROG	NOx	co ·	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		,
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1			4	s.										e. Biran arasını		u dit i
Archit. Coating	0.0000			1 1 1		0.0000	0.0000	1 1 1 1	0.0000	0.0000	1 10 1 1 1		0.0000		! !	0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e- 003		0.0817	0.0817	; ; ; ; ;	0.0817	.0.0817	0.0000	281.4481	281.4481	0.0183	; : : :	281.9062
Total	0.2045	1.4085	1.8136	2.9700e- 003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

CalEEMod Version: CalEEMod.2020.4.0 Page 18 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

3.6 Architectural Coating - 2022 Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					lb/e	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0173	0.0126	0.1971	5.1000e- 004	0.0559	3.6000e- 004	0.0563	0.0148	3.3000e- 004	0.0152		52.0064	52.0064	1.4100e- 003	1.2500e- 003	52.4144
Total	0.0173	0.0126	0.1971	5.1000e- 004	0.0559	3.6000e- 004	0.0563	0.0148	3.3000e- 004	0.0152		52.0064	52.0064	1.4100e- 003	1.2500e- 003	52.4144

3.7 Building Construction - 2022 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					lb/	day							lb/d	ay		
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.542 9	2,001.542 9	0.3486		2,010.258
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.542 9	2,001.542 9	0.3486		2,010.258 1

CalEEMod Version: CalEEMod.2020.4.0 Page 19 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

3.7 Building Construction - 2022 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	GH4	N2O	CO2e
Category					lb/e	day							ib/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0217	0.5388	0.1847	2.1500e- 003	0.0705	5.1300e- 003	0.0756	0.0203	4.9100e- 003	0.0252		231.5078	231.5078	7.7400e- 003	0.0334	241.6427
Worker	0.0935	0.0682	1.0642	2.7600e- 003	0.3018	1.9300e- 003	0.3037	0.0800	1.7800e- 003	0.0818		280.8343	280.8343	7.6000e- 003	6.7600e- 003	283.0377
Total	0.1151	0.6071	1.2489	4.9100e- _003	0.3723	7.0600e- 003	0.3793	0.1003	6.6900e- 003	0.1070		512.3421	512.3421	0.0153	0.0401	524.6804

Mitigated Construction On-Site

	ROG	NOx	co.	SO2	Fügitive Exhaus PM10 PM10		Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
'Category'					lb/day.							lb/o	dáy		
Off-Road	1.6487	12.5031	12.7264	0.0221	0.5889	0.5889	1 1 1 1	0.5689	0.5689	0.0000	2,001.542 9	2,001.542 9	0.3486		2,010.258 1
Total	1.6487	12.5031	12.7264	0.0221	0.5889	0.5889		0.5689	0.5689	0.0000	2,001.542 9	2,001.542 9	0.3486		2,010.258 1

CalEEMod Version: CalEEMod.2020.4.0 Page 20 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

3.7 Building Construction - 2022 Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					lb/	day			1 1				lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0217	0.5388	0.1847	2.1500e- 003	0.0705	5.1300e- 003	0.0756	0.0203	4.9100e- 003	0.0252		231.5078	231.5078	7.7400e- 003	0.0334	241.6427
Worker	0.0935	0.0682	1.0642	2.7600e- 003	0.3018	1.9300e- 003	0.3037	0.0800	1.7800e- 003	0.0818		280.8343	280.8343	7.6000e- 003	6.7600e- 003	283.0377
Total	0.1151	0.6071	1.2489	4.9100e- 003	0.3723	7.0600e- 003	0.3793	0.1003	6.6900e- 003	0.1070		512.3421	512.3421	0.0153	0.0401	524.6804

CalEEMod Version: CalEEMod.2020.4.0

Page 21 of 26

Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Mitigated	0.5909	0.6407	5.8297	0.0122	1.1995	0.0102	1.2097	0.3195	9.5000e- 003	0.3290		1,253.697 6	1,253.697 6	0.0848	0.0529	1,271.565
Unmitigated	0.5909	0.6407	5.8297	0.0122	1.1995	0.0102	1.2097	0.3195	9.5000e- 003	0.3290		1,253.697 6	1,253.697 6	0.0848	0.0529	1,271.565 2

4.2 Trip Summary Information

	Ave	erage Daily Trip F	Rate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	198.00	198.00	198.00	569,753	569,753
Total	198.00	198.00	198.00	569,753	569,753

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397

CalEEMod Version: CalEEMod.2020.4.0 Page 22 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	1.				lb/d	day							lb/c	lay		
NaturalGas Mitigated		0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated		0.0000	0.0000	0.0000		0.0000	0.0000	 : :	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Land Use	kBTU/yr					lb/	day);				lb/c	lay	4.90	
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

CalEEMod Version: CalEEMod.2020.4.0 Page 23 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGa s Use		NOx	co	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					. Ib/o	lay					g		· lb/d	day		
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	n = = = = = = = = = = = = = = = = = = =		****		, lb/c	day	1 P.				. /	,	lb/c	ay		
1	3.3800e- 003	0.0000	1.5000e- 004	0.0000	, 1 1	0.0000	0.0000	: : : :	0.0000	0.0000		3.3000e- 004	3,3000e- 004	0,0000		3,5000e- 004
ı	3.3800e- 003	0.0000	1.5000e- 004	0.0000	i i	0.0000	0.0000	,	0.0000	0.0000		3.3000e- 004	3.3000e- 004	0.0000		3.5000e- 004

CalEEMod Version: CalEEMod.2020.4.0 Page 24 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

6.2 Area by SubCategory <u>Unmitigated</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	1				lb/d	day							lb/d	lay		
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000		-	0.0000			0.0000
Consumer Products	3.3700e- 003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e- 005	0.0000	1.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		3.3000e- 004	3.3000e- 004	0.0000		3.5000e- 004
Total	3.3800e- 003	0.0000	1.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		3.3000e- 004	3.3000e- 004	0.0000		3.5000e- 004

CalEEMod Version: CalEEMod.2020.4.0 Page 25 of 26 Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/č	day						E. 14. 1511	ilb/d	day		
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumor	3.3700e- 003				t : :	0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e- 005	0.0000	1.5000e- 004	0.0000	1 1 1	0.0000	0.0000	1	0.0000	0.0000	·	3.3000e- 004	3.3000e- 004	0.0000	1 1 1	3.5000e- 004
Total	3.3800e- 003	0.0000	1.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		3.3000e- 004	3.3000e- 004	0.0000		3.5000e- 004

7.0 Water Detail

7.1 Mitigation Measures Water

Date: 9/9/2021 11:52 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Summer

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

8.0	W	26	0	Do:	tail
o.v	AA	asi			La

8.1 Mitigation Measures Waste

9.0 Operational Offroad

					TO SEE SHOULD BE	
Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
	The state of the s			STATE OF THE PARTY	A STATE OF THE RESIDENCE OF THE PARTY OF THE	CONTRACTOR OF THE PARTY OF THE

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

City of Gardena - Lab Five

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

in the first program of the Land Uses 1/2 Activities in	skie grad og Fisizer at Strageral et	Metric:	Lot Acreage	्र Floor Surface Area.	Population 2
City Park	1։50	Acre	1.50	65,340.00	0

1.2 Other Project Characteristics

Urbanization

Urban

Wind Speed (m/s)

. 2.2

Precipitation Freq (Days)

33

Climate Zone

R

Operational Year

2022

Utility Company

Southern California Edison

CO2 Intensity (lb/MWhr)

390.98

CH4 Intensity (Ib/MWhr)

0.033

N2O Intensity (lb/MWhr)

0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Land Uses: 1.5 acres park (soccer field)

Construction Phase - Construction schedule as provided by Project applicant. Phases estimated based on Project type.

Off-road Equipment -

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment -

Trips and VMT -

Demolition - ~200 s.f. of building demolished (per Project Applicant).

Grading - Grading would occur during grading phase only. Estimated total of 100 cubic yards of sand (soil) import.

CalEEMod Version: CalEEMod.2020.4.0 Page 2 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

Vehicle Trips - Operational mobile trips provided by Kittelson & Associates, Inc. (198 trips per day) = 132 trips per acre per day.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves -

Energy Use -

Construction Off-road Equipment Mitigation - Reductions include: Water Exposed Area 3 times daily; Unpaved Road Mitigation (Moisture Content at 12%; Vehicle Speed 15 MPH).

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	2.00	15.00
tblConstructionPhase	NumDays	4.00	10.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	200.00	10.00
tblConstructionPhase	PhaseEndDate	11/2/2021	11/19/2021
tblConstructionPhase	PhaseEndDate	11/8/2021	12/3/2021
tblConstructionPhase	PhaseStartDate	11/3/2021	11/20/2021
tblGrading	AcresOfGrading	14.06	0.00
tblGrading	MaterialImported	0.00	100.00
tblVehicleTrips	ST_TR	1.96	132.00
tblVehicleTrips	SU_TR	2.19	132.00
tblVehicleTrips	WD_TR	0.78	132.00

2.0 Emissions Summary

CalEEMod Version: CalEEMod.2020.4.0 Page 3 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year				v^.	lb/	day	*						lb/c	lay		
2021	2.0457	20,5035	15.0112	0.0255	7.2183	1.0421	8.1377	3.4608	0.9726	4.3068	0.0000	2,461.346 2	2,461.346 2	0.6534	0.0173	2,477.767 5
2022	1.7701	13.1395	13.8946	0.0268	0.3723	0.5960	0.9682	0.1003	0.5756	0.6759	0.0000	2,499.123 5	2,499.123 5	0.3640	0.0406	2,520.329 5
Maximum	2.0457	20.5035	15.0112	0.0268	7.2183	1.0421	8.1377	3.4608	0.9726	4.3068	0.0000	2,499.123 5	2,499.123 5	0.6534	0.0406	2,520.329 5

Mitigated Construction

· . · · · · · · · · · · · · · · · · · ·	ROG	NOx	CO	ŞO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	in .				lb/	day							lb/c	lay ,		*.
2021	2.0457	20.5035	15.0112	0.0255	2.8972	1.0421	3.8166	1.3716	0.9726	2.2176	0.0000	2,461.346 2	2,461.346 2	0.6534	0.0173	2,477.767 5
2022	1.7701	13.1395	13.8946	0.0268	0.3723	0.5960	0.9682	0.1003	0.5756	0.6759	0.0000	2,499.123 5	2,499.123 5	0.3640	0.0406	2,520.329 5
Maximum	2.0457	20.5035	15.0112	0.0268	2.8972	1.0421	3.8166	1.3716	0.9726	2.2176	0.0000	2,499.123 5	2,499.123 5	0.6534	0.0406	2,520.329 5

CalEEMod Version: CalEEMod.2020.4.0 Page 4 of 26

Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	56.93	0.00	47.45	58.67	0.00	41.93	0.00	0.00	0.00	0.00	0.00	0.00

CalEEMod Version: CalEEMod.2020.4.0 Page 5 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

2.2 Overall Operational Unmitigated Operational

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					lb/	day	电流					10 / 2 / 10 / 10 / 10 / 10 / 10 / 10 / 1	lb/d	lay		E.
Area	3.3800e- 003	0.0000	1.5000e- 004	0.0000	1	0.0000	0.0000		0.0000	0.0000		3.3000e- 004	3.3000e- 004	0.0000		3.5000e- 004
Energy	0.0000	0.0000	0.0000	0.0000	i	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.5796	0.6904	5.7034	0.0117	1.1995	0.0102	1.2097	0.3195	9.5100e- 003	0.3290	İ	1,200.097 1	1,200.097 1	0.0876	0.0553	1,218.75 5
Total	0.5830	0.6904	5.7036	0.0117	1.1995	0.0102	1.2097	0.3195	9.5100e- 003	0.3290		1,200.097	1,200.097 5	0.0876	0.0553	1,218.75

Mitigated Operational

	ROG	NOx	co	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	No.				lb/	day							lb/c	lay		
Area	3.3800e- 003	0.0000	1.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		3.3000e- 004	3.3000e- 004	0.0000		3.5000e 004
Energy	0.0000	0.0000	0.0000	0.0000	i	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.5796	0.6904	5.7034	0.0117	1.1995	0.0102	1.2097	0.3195	9.5100e- 003	0.3290		1,200.097 1	1,200.097 1	0.0876	0.0553	1,218.75 5
Total	0.5830	0.6904	5.7036	0.0117	1.1995	0.0102	1.2097	0.3195	9.5100e- 003	0.3290		1,200.097	1,200.097 5	0.0876	0.0553	1,218.75

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

Date: 9/9/2021 11:53 AM

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2021	11/19/2021	5	15	
2	Grading	Grading	11/20/2021	12/3/2021	5	10	
3	Demolition	Demolition	12/4/2021	12/17/2021	5	10	
4	Paving	Paving	12/18/2021	12/31/2021	5	10	
5	Architectural Coating	Architectural Coating	1/15/2022	1/28/2022	5	10	
6	Building Construction	Building Construction	1/1/2022	1/14/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	Transfer 1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40

CalEEMod Version: CalEEMod.2020.4.0 Page 7 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Air Compressors	1	6.00	78	0.48
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1;	6.00:	78:	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	13.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	27.00	11.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	1.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000		1	0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654	 	0.7041	0.7041		1,666.517 4	1,666.517 4	0.5390	1	1,679.992 0
Total	1.5558	17.4203	7.5605	0.0172	5.2693	0.7654	6.0347	2.8965	0.7041	3.6006		1,666.517 4	1,666.517 4	0.5390		1,679.992 0

CalEEMod Version: CalEEMod.2020.4.0 Page 9 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

3.2 Site Preparation - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	777.5				Mary Control			lb/o	day		Section and the section and th
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	محمديون .	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0321	0.0254	0.3164	8.0000e- 004	0.0894	6.1000e- 004	0.0900	0.0237	5.7000e- 004	0.0243		81.0061	81.0061	2.5500e- 003	2.3300e- 003	81.7648
Total	0.0321	0.0254	0.3164	8.0000e- 004	0.0894	6.1000e- 004	0.0900	0.0237	5.7000e- 004	0.0243		81.0061	81.0061	2.5500e- 003	2.3300e- 003	81.7648

Mitigated Construction On-Site

Park to the second seco	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category				te de la	lb/	day				on the second se			lb/c	lay		
Fugitive Dust] 	2.0550	0.0000	2.0550	1.1296	0.0000	1.1296	·	1 1 1	0.0000		! ! !	0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041	0.0000	1,666.517 4	1,666.517 4	0.5390	j==== 	1,679.992 0
Total	1.5558	17.4203	7.5605	0.0172	2. 0550	0.7654	2.8204	1.1296	0.7041	1.8338	0.0000	1,666.517 4	1,666.517 4	0.5390		1,679,992 0

CalEEMod Version: CalEEMod.2020.4.0 Page 10 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	Category Ib/day												lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0321	0.0254	0.3164	8.0000e- 004	0.0894	6.1000e- 004	0.0900	0.0237	5.7000e- 004	0.0243		81.0061	81.0061	2.5500e- 003	2.3300e- 003	81.7648
Total	0.0321	0.0254	0.3164	8.0000e- 004	0.0894	6.1000e- 004	0.0900	0.0237	5.7000e- 004	0.0243		81.0061	81.0061	2.5500e- 003	2.3300e- 003	81.7648

3.3 Grading - 2021 Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					lb/e	day							lb/d	lay		
Fugitive Dust		787.			7.0837	0.0000	7.0837	3.4249	0.0000	3,4249			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.611 4	1,995.611 4	0.6454		2,011.74
Total	1.8271	20.2135	9.7604	0.0206	7.0837	0.9158	7.9995	3.4249	0.8425	4.2674		1,995.611	1,995.611	0.6454		2,011.747

CalEEMod Version: CalEEMod.2020.4.0 Page 11 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

3.3 Grading - 2021
Unmitigated Construction Off-Site

-	ROG	NOx	co	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day	**			N			lb/o	day		
Hauling	8.4500e- 003	0.2582	0.0583	8.3000e- 004	0,0228	2.8800e- 003	0.0256	6.2400e- 003	2.7600e- 003	9.0000e- 003		90.9262	90.9262	4.7500e- 003	0.0144	95.3418
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0401	0.0318	0.3955	1.0000e- 003	0.1118	7.7000e- 004	0.1125	0.0296	7.1000e- 004	0.0304		101.2576	101.2576	3.1800e- 003	2.9200e- 003	102.2059
Total	0.0485	0.2900	0.4538	1.8300e- 003	0.1345	3.6500e- 003	0.1382	0.0359	3.4700e- 003	0.0394		192.1837	192.1837	7.9300e- 003	0.0173	197.5478

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	day		
						. \		.1.	* ,	à		,				
Fugitive Dust			i i	! !	2,7627	0.0000	2.7627	1.3357	0.0000	1.3357		i i	0.0000	i i	; ; ;	0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158	 	0.8425	0.8425	0.0000	1,995.611 4	1,995.611 4	0.6454	; 1 1 1 1 1	2,011.747 0
Total	1.8271	20.2135	9.7604	0.0206	2.7627	0.9158	3.6784	1,3357	0.8425	2.1782	0.0000	1,995.611 4	1,995.611 4	0.6454		2,011.747 0

CalEEMod Version: CalEEMod.2020.4.0 Page 12 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	8.4500e- 003	0.2582	0.0583	8.3000e- 004	0.0228	2.8800e- 003	0.0256	6.2400e- 003	2.7600e- 003	9.0000e- 003		90.9262	90.9262	4.7500e- 003	0.0144	95.3418
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0401	0.0318	0.3955	1.0000e- 003	0.1118	7.7000e- 004	0.1125	0.0296	7.1000e- 004	0.0304		101.2576	101.2576	3.1800e- 003	2.9200e- 003	102.2059
Total	0.0485	0.2900	0.4538	1.8300e- 003	0.1345	3.6500e- 003	0.1382	0.0359	3.4700e- 003	0.0394		192.1837	192.1837	7.9300e- 003	0.0173	197.5478

3.4 Demolition - 2021 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category	1				lb/	day							lb/d	ay		
Fugitive Dust					0.0197	0.0000	0.0197	2.9800e- 003	0.0000	2.9800e- 003			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715		2,322.717 1	2,322.717 1	0.5940	100	2,337.565
Total	1.9930	19.6966	14.4925	0.0241	0.0197	1.0409	1.0606	2.9800e- 003	0.9715	0.9745		2,322.717 1	2,322.717	0.5940	7	2,337.565 8

CalEEMod Version: CalEEMod.2020.4.0 Page 13 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

3.4 Demolition - 2021
<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day					Sale for the		.lb/d	day		
Hauling	6.5000e- 004	0.0199	4.4800e- 003	6.0000e- 005	1.7500e- 003	2.2000e- 004	1.9700e- 003	4.8000e- 004	2.1000e- 004	6.9000e- 004		6.9943	6.9943	3.7000e- 004	1.1100e- 003	7.3340
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0521	0.0413	0.5142	1.3000e- 003	0.1453	1.0000e- 003	0.1463	0.0385	9.2000e- 004	0.0395		131.6348	131.6348	4.1400e- 003	3.7900e- 003	132.8677
Total	0.0527	0.0612	0.5187	1.3600e- 003	0.1471	1.2200e- 003	0.1483	0.0390	1.1300e- 003	0.0401		138.6292	138.6292	4.5100e- 003	4.9000e- 003	140.2017

	ROG	NOx	CO	ŚO2	Fugitive PM10	Exhaust PM10	PM10.** Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category				, , , , , , , , , , , , , , , , , , ,	1b/c	day ,							lb/c	day		
Fugitíve Dust					7.6800e- 003	0.0000	7.6800e- 003	1.1600e- 003	0.0000	1.1600e- 003			0.0000			0,0000
Off-Road	1.9930	19.6966	14.4925	0.0241	 	1.0409	1.0409		0.9715	0.9715	0.0000	2,322.717 1	2,322.717 1	0.5940	; 1	2,337.565 8
Total	1.9930	19.6966	14.4925	0,0241	7.6800e- 003	1.0409	1.0486	1.1600e- 003	0.9715	0.9726	0.0000	2,322.717 1	2,322.717 1	0.5940		2,337.565 8

CalEEMod Version: CalEEMod.2020.4.0 Page 14 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

3.4 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category			7		lb/d	day							lb/d	day		
Hauling	6.5000e- 004	0.0199	4.4800e- 003	6.0000e- 005	1.7500e- 003	2.2000e- 004	1.9700e- 003	4.8000e- 004	2.1000e- 004	6.9000e- 004		6.9943	6.9943	3.7000e- 004	1.1100e- 003	7.3340
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0521	0.0413	0.5142	1.3000e- 003	0.1453	1.0000e- 003	0.1463	0.0385	9.2000e- 004	0.0395		131.6348	131.6348	4.1400e- 003	3.7900e- 003	132.8677
Total	0.0527	0.0612	0.5187	1.3600e- 003	0.1471	1.2200e- 003	0.1483	0.0390	1.1300e- 003	0.0401		138.6292	138.6292	4.5100e- 003	4.9000e- 003	140.2017

3.5 Paving - 2021 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	day							lb/d	ay		
Off-Road	0.9928	9.2691	10.6744	0.0165		0.5094	0.5094	:	0.4770	0.4770		1,578.314	1,578.314 5	0.4304		1,589.075
Paving	0.0000					0.0000	0.0000		0.0000	0.0000		4.14	0.0000			0.0000
Total	0.9928	9.2691	10.6744	0.0165		0.5094	0.5094		0.4770	0.4770	. 9	1,578.314	1,578.314 5	0.4304		1,589.075

CalEEMod Version: CalEEMod.2020.4.0 Page 15 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

3.5 Paving - 2021
<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category				-	lb/	day		,					lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0601	0.0477	0.5933	1.5000e- 003	0.1677	1.1500e- 003	0.1688	0.0445	1.0600e- 003	0.0455		151.8864	151.8864	4.7800e- 003	4.3700e- 003	153.3089
Total	0.0601	0.0477	0.5933	1.5000e- 003	0.1677	1.1500e- 003	0.1688	0.0445	1.0600e- 003	0.0455		151.8864	151.8864	4.7800e- 003	4.3700e- 003	153.3089

x *	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		•			lb/	day							lb/d	day		
							, 1				,	*	, , , , ,			
Off-Road	0.9928	9.2691	10.6744	0.0165	1 1 1 1	0.5094	0.5094	; ; ;	0.4770	0.4770	0.0000	1,578.314 5	1,578.314 5	0.4304		1,589.075 2
Paving	0.0000	1 1 1 1 1	1		1	0.0000	0.0000	; ! ! !	0.0000	0.0000	# ! !		0.0000			0.0000
Total	0.9928	9.2691	10.6744	0.0165		0.5094	0.5094		0.4770	0.4770	0.0000	1,578.314 5	1,578.314 5	0.4304		1,589.075 2

CalEEMod Version: CalEEMod.2020.4.0 Page 16 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

3.5 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category				i y	lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0601	0.0477	0.5933	1.5000e- 003	0.1677	1.1500e- 003	0.1688	0.0445	1.0600e- 003	0.0455		151.8864	151.8864	4.7800e- 003	4.3700e- 003	153.3089
Total	0.0601	0.0477	0.5933	1.5000e- 003	0.1677	1.1500e- 003	0.1688	0.0445	1.0600e- 003	0.0455		151.8864	151.8864	4.7800e- 003	4.3700e- 003	153.3089

3.6 Architectural Coating - 2022 Unmitigated Construction On-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	ay		
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e- 003	2	0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	0.2045	1.4085	1.8136	2.9700e- 003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

CalEEMod Version: CalEEMod.2020.4.0 Page 17 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

3.6 Architectural Coating - 2022 Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	St. St. St. St. St. St. St. St. St. St.				16/	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0185	0.0140	0.1809	4.8000e- 004	0.0559	3.6000e- 004	0.0563	0.0148	3.3000e- 004	0.0152		49.2567	49.2567	1.4200e- 003	1.3400e- 003	49.6907
Total	0.0185	0.0140	0.1809	4.8000e- 004	0.0559	3.6000e- 004	0.0563	0.0148	3.3000e- 004	0.0152		49.2567	49.2567	1.4200e- 003	1.3400e- 003	49.6907

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total		NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	and a grand of the form		المستوليسونون معالي المستوليسونون معالي المستوليسونون معالي المستوليسونونونونونونونونونونونونونونونونونونون		lb/o	day:		m wa gostaj iligina Taliani					lb/o	day		-
Archit. Coating	0.0000		1 1 1			0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e- 003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	281.9062
Total	0.2045	1.4085	1.8136	2.9700e- 003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

CalEEMod Version: CalEEMod.2020.4.0 Page 18 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

3.6 Architectural Coating - 2022 Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					lb/	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0185	0.0140	0.1809	4.8000e- 004	0.0559	3.6000e- 004	0.0563	0.0148	3.3000e- 004	0.0152		49.2567	49.2567	1.4200e- 003	1.3400e- 003	49.6907
Total	0.0185	0.0140	0.1809	4.8000e- 004	0.0559	3.6000e- 004	0.0563	0.0148	3.3000e- 004	0.0152		49.2567	49.2567	1.4200e- 003	1.3400e- 003	49.6907

3.7 Building Construction - 2022 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					lb/	day					7.3		lb/d	lay		
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.542 9	2,001.542 9	0.3486		2,010.258
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.542 9	2,001.542 9	0.3486	i lap	2,010.258

CalEEMod Version: CalEEMod.2020.4.0 Page 19 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

3.7 Building Construction - 2022 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	co.	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day	e e e e e e e e e e e e e e e e e e e			19 mg/mg/m			lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0214	0.5610	0.1911	. 2.1600e- 003	_0,0705	5,1500e- 003	0.0756	0.0203	4.9300e- 003	0.0252		231.594 <u>7</u>	231.5947	7,7100e- 003	0.0334	241.7418
Worker	0.1000	0.0754	0.9771	2.6100e- 003	0.3018	1.9300e- 003	0.3037	0.0800	1.7800e- 003	0.0818		265.9860	265.9860	7.6900e- 003	7.2200e- 003	268.3296
Total	0.1214	0.6364	1.1682	4.7700e- 003	0.3723	7.0800e- 003	0.3793	0.1003	6.7100e- 003	0.1070		497.5807	497.5807	0.0154	0.0406	510.0715

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	2° 20 3	17.1	, ' ' ,		lb/	day							lb/d	day		er englig
			4853													
Off-Road	1.6487	12.5031	12,7264	0.0221	i	0.5889	0.5889		0.5689	0.5689	0.0000	2,001.542	2,001.542	0.3486	i i	2,010.258
	11 1	_	! !	! !	1 !	l !	! !	1	1	! !		1 9	, 9 !	l L	! ! ! !	ı
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.542	2,001.542	0.3486		2,010.258
												9	9	tuer -		1
							1			·			ı	an. 7 **		

CalEEMod Version: CalEEMod.2020.4.0 Page 20 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

3.7 Building Construction - 2022 Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N20	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0214	0.5610	0.1911	2.1600e- 003	0.0705	5.1500e- 003	0.0756	0.0203	4.9300e- 003	0.0252		231.5947	231.5947	7.7100e- 003	0.0334	241.7418
Worker	0.1000	0.0754	0.9771	2.6100e- 003	0.3018	1.9300e- 003	0.3037	0.0800	1.7800e- 003	0.0818		265.9860	265.9860	7.6900e- 003	7.2200e- 003	268.3296
Total	0.1214	0.6364	1.1682	4.7700e- 003	0.3723	7.0800e- 003	0.3793	0.1003	6.7100e- 003	0.1070		497.5807	497.5807	0.0154	0.0406	510.0715

CalEEMod Version: CalEEMod.2020.4.0

Page 21 of 26

Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

The second secon	ROG	NOx-	.co	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	, N2O	CO2e
Category					lb/0	day		7 × 1 × 2 × 2 × 2 × 2 × 2 × 2 × 2 × 2 × 2					lb/c	lay		
Mitigated	0.5796	0.6904	5.7034	0.0117	1.1995	0.0102	1.2097	0.3195	9.5100e- 003	0.3290		1,200.097 1	1,200.097 1	0.0876	0.0553	1,218.758 5
Unmitigated	0.5796	0.6904	5.7034	0.0117	1.1995	0.0102	1.2097	0.3195	9.5100e- 003	0.3290		1,200.097 _1	1,200.097 1	0.0876	0.0553	1,218.758 5

4.2 Trip Summary Information

	Aver	age Daily Trip Rat	te	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	198.00	198.00	198.00	569,753	569,753
Total	198.00	198.00	198.00	569,753	569,753

4.3 Trip Type Information

		Miles			Trip %		Gall Par Les per Salat de La Companya de Companya de Companya de Companya de Companya de Companya de Companya de Companya de Companya de La Companya de Companya de Companya de Companya de Companya de Companya de Companya de Companya de Companya de	Trip Purpos	e %'
Land Use	H-W or C-W	H-S or C-C	.H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	МН
City Park	0.546774	0.061880	0.186704	0.127505	0.022909	0.005912	0.010702	0.008032	0.000940	0.000617	0.023937	0.000692	0.003397

CalEEMod Version: CalEEMod.2020.4.0	alEEMod V	ersion: C	alEEMod.	2020.4.0	
-------------------------------------	-----------	-----------	----------	----------	--

Page 22 of 26

Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	1.				lb/d	day							lb/c	day		
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	 	0.0000	0.0000	1 1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	·	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s Use	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/	day							lb/d	day		
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

CalEEMod Version: CalEEMod.2020.4.0

Page 23 of 26

Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGa s Use	ROG	NOx	co.	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr				4	lb/e	day							lb/c	lay		
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	, 18	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
							·				,						

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	ay .							lb/d	day	77,	
Mitigated	3.3800e- 003	0.0000	1.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		3.3000e- 004	3.3000e- 004	0.0000	r 1 1	3.5000e- 004
Unmitigated	3.3800e- 003	0.0000	1.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		3.3000e- 004	3.3000e- 004	0.0000	; ;	3.5000e- 004

CalEEMod Version: CalEEMod.2020.4.0 Page 24 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

6.2 Area by SubCategory Unmitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	1				lb/d	day							lb/c	lay		
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.3700e- 003		1			0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e- 005	0.0000	1.5000e- 004	0.0000		0.0000	0.0000	 	0.0000	0.0000		3.3000e- 004	3.3000e- 004	0.0000		3.5000e- 004
Total	3.3800e- 003	0.0000	1.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		3.3000e- 004	3.3000e- 004	0.0000		3.5000e- 004

CalEEMod Version: CalEEMod.2020.4.0 Page 25 of 26 Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	. CO	SO2	Fugitive : PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/c	day							 b /6	day		
Architectural Coating	0.0000			ć		0.0000	0.0000	1 1 1 1	0.0000	0.0000			0.0000	1 1 1		0.0000
	3.3700e- 003		1 1 1 1	 	;	0.0000	0.0000	1 1 1	0.0000	0.0000			0.0000	 	1	0.0000
Landscaping	1.0000e- 005	0.0000	1.5000e- 004	0.0000	1 1 1	0.0000	0.0000	1	0.0000	0.0000		3.3000e- 004	3.3000e- 004	0.0000	1	3.5000e- 004
Total	3.3800e- 003	0.0000	1.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		3.3000e- 004	3.3000e- 004	0.0000		3.5000e- 004

7.0 Water Detail

7.1 Mitigation Measures Water

Date: 9/9/2021 11:53 AM

City of Gardena - Lab Five - Los Angeles-South Coast County, Winter

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

THE RESIDENCE AND ADDRESS OF THE PARTY OF THE PARTY OF THE PARTY.		THE RESIDENCE OF THE PERSON NAMED IN	Name and Address of the Owner, where the Owner, which is the Owne	Charles of the last of the las	THE RESERVE THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER.	MATERIAL PROPERTY AND ADDRESS OF THE PARTY AND
Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation