EXHIBIT 6

East End Studios

Categorical Exemption Findings

Prepared for:

City of Glendale
Community Development Department
Planning Division
633 E. Broadway, Room 103
Glendale, CA 91206

Prepared by:

Westlake Village Office
920 Hampshire Road, Suite A5
Westlake Village, CA 91361

Meridian Consultants

Los Angeles Office
706 S. Hill Street, 11th Floor
Los Angeles, CA 90014

May 2021

TABLE OF CONTENTS

List of Figures

List of Tables

CATEGORICAL EXEMPTION FINDINGS

PROJECT DESCRIPTION

The East End Studios site is approximately 2.2-acres and is currently utilized as studio production, office, and sound stage uses with a surface parking lot (Project Site) in the City of Glendale (City). Six (6) one-story stucco buildings used as studio production offices are currently located on the northeast and center of the Project Site. The southeast portion of the Project Site contains one two-story sound stage building. A parking lot currently occupies the west half of the Project Site. The Applicant, Glendale Studio I Owner, LLC, proposes the demolition of the existing buildings and parking lot on site to construct two new studio spaces, including sound stages, adjacent to a surface parking lot and an ancillary three-story studio production office space on the site, for a total Project square footage of approximately 75,190 (Project).

The Project Site consists of various lots that together are seven Assessor Parcel Numbers (APNs) 5640-015-009, 5640-015-010, 5640-015-036, 560-015-029, 5640-015-030, 5640-015-033, and 5640-015-037. The approximately 96,043 square foot (2.2-acre) Project Site is commonly referred to as 1214, 1215, 1230, and 1234 South Maryland Avenue and 1221, 1229, and 1233 South Glendale Avenue. The Project Site has a General Plan Land Use designation of Commercial: Community Services (for that portion with the existing studio uses) and Residential: Medium Density (for that portion with that existing parking lot). The zoning for the site is C3 I—Commercial Service Height District I and R-2250 P – Medium Density Residential Parking Overlay.

The Project Site is bounded by South Maryland Avenue to the west; an alley, commercial uses, and residences to the north; South Glendale Avenue to the east; and a vacant lot, residences, and commercial uses to the south. Immediately north of the Project Site are commercial and residential uses (restaurant, insurance agency, multifamily housing, etc.) and an alley. Glendale Fire Station 22 and residential uses are located to the north across the alley. To the east, across South Glendale Avenue are commercial uses (nail salon, restaurants, dry cleaner, discount stores, pharmacy, insurance agency, etc.) and a surface parking lot. Residential and commercial uses and a vacant lot are located immediately to the south of the Project Site. Residential uses, a large two-story parking structure, and a surface parking lot for the New Century Volkswagen dealership are located to the west of the Project Site across South Maryland Avenue, as shown in **Figure 1: Project Site Location**.

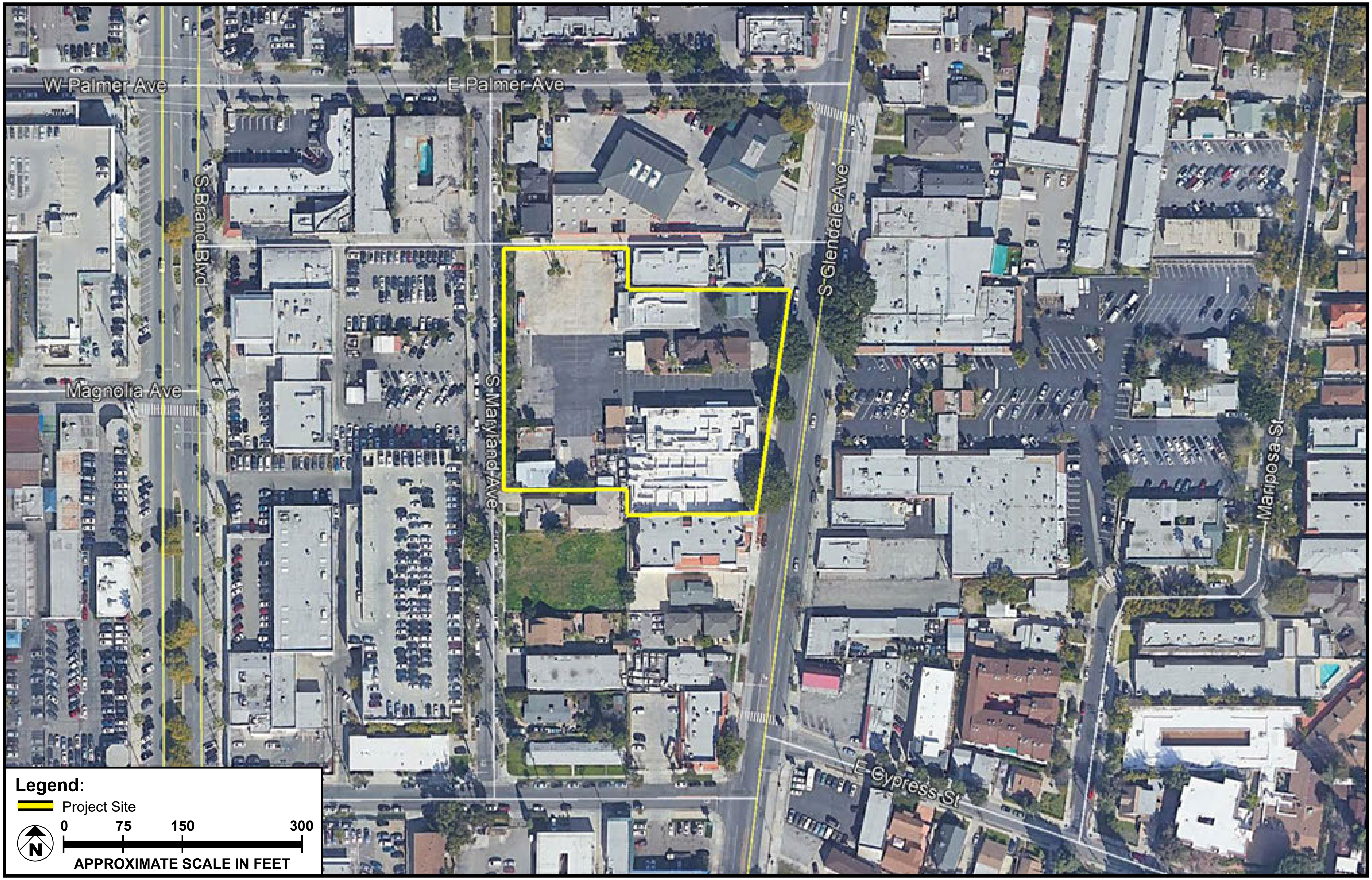
The proposed Project would demolish the six (6) stucco buildings totaling approximately 8,622 square feet, the approximately 18,948-square-foot sound stage building, and surface parking lot. As shown in **Figure 2: Site Plan**, the Project would construct studio spaces, an ancillary studio production office space along South Glendale Avenue, and a surface parking lot (new grading and asphalt) on the western portion of the Project Site. The proposed uses are generally consistent with the distribution of the existing studios uses (i.e., studio and office in the C3 zone and parking lot uses in the R-2250 zone). The Project would include an approximately 5-foot permeable landscaped walkway between the R-2250 zone abutting the C3 zone boundary within the Project Site. Additionally, a 14-foot interior setback is proposed between the C3 zone and the residence immediately to the south along the southernmost 35 feet of the Project Site. Elevation and building sections are presented in **Figure 3: Building Elevations** and **Figure 4: Building Sections**. The studio spaces would include sound stage space totaling approximately 37,936 square feet. The three (3) story studio production office space would contain approximately 10,710 square feet of first floor studio support space (green rooms, makeup/dressing rooms, storage, and lobby area). Offices, conference and break rooms, and open office space would occupy a mezzanine, second, and third floors of the studio production office, totaling approximately 26,544 square feet. The roof of the studio production office space would contain perforated metal panels between the white power coated aluminum canopy structure and landscaped areas. **Figures 5** through **11** show the floor and roof plans for the two studio spaces and studio production office.

The proposed surface parking lot would be approximately 37,013 square feet. The surface parking lot would contain 113 parking spaces, including five (5) Americans with Disabilities Act (ADA) parking spaces. Four parking spaces would be designated for electronic vehicle (EV) charging stations. Access to this surface parking lot would be provided by a single driveway on the northwest side of the Project Site along South Maryland Avenue. This driveway would be approximately 24 feet wide. The proposed universal trash enclosure would be located north of the access driveway within the surface parking lot with masonry walls and opaque fencing approximately 5.5 feet in height and partially covered. The proposed building would have a maximum height of 57 feet and 6 inches (which includes shade canopies on the studio production office rooftop). A solar canopy fifteen (15) feet in height above ground is also proposed a top the north portion of the surface parking lot near the alley. The studio roof has been designed to accommodate solar panels in the future as needed. Additionally, the existing landscape would remain and be updated while the 17 existing trees would be protected during construction. The Project would include approximately 10,081 square feet of landscaped area (at approximately 27 percent, which is in excess of the R-2250 standard requirement of 25 percent for lots in that zone) with 25 new trees, with landscaping spread across the entire Project Site to create a unified campus like setting. The parking plan and landscape features are shown in **Figure 12: Enlarged Parking Plan** and **Figure 13: Planter Façade Detail**.

Construction of the proposed Project would occur over approximately 12 months starting in January 2022 with completion in December.[1] The Project would require demolition of the existing buildings, grading including underground utilities, building construction of the shell envelope and interiors, and site improvements including paving.

---

1 Construction of the proposed Project would occur over approximately 12 months. It is possible the construction period could extend to 18 months. However, given a shorter construction period would result in higher daily emissions and more daily trips, a 12-month construction period was assumed for a conservative air quality impact analysis related to construction.



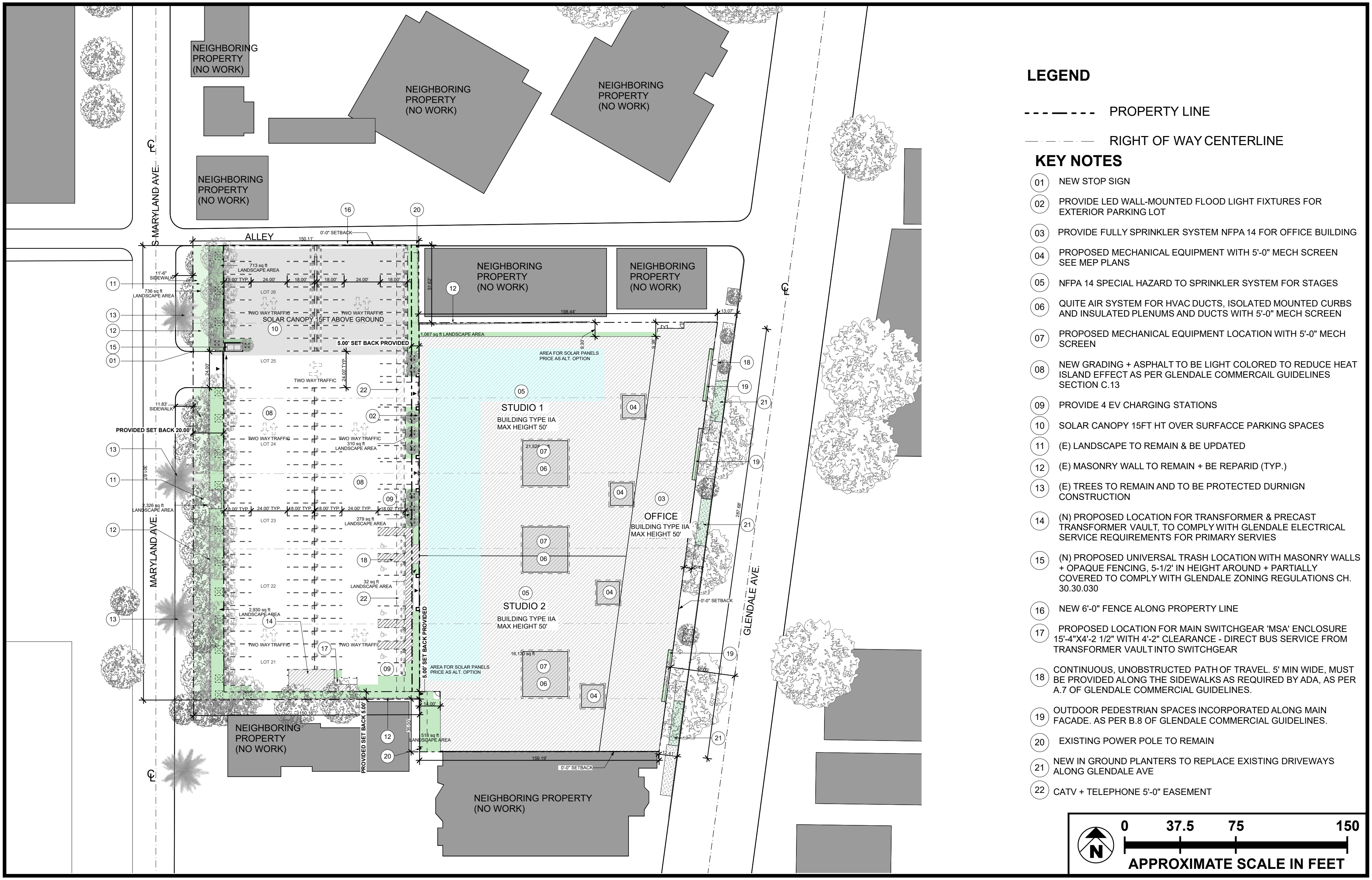
SOURCE: Google Earth - 2021

FIGURE 1

Meridian Consultants

Project Site Location

314-001-21



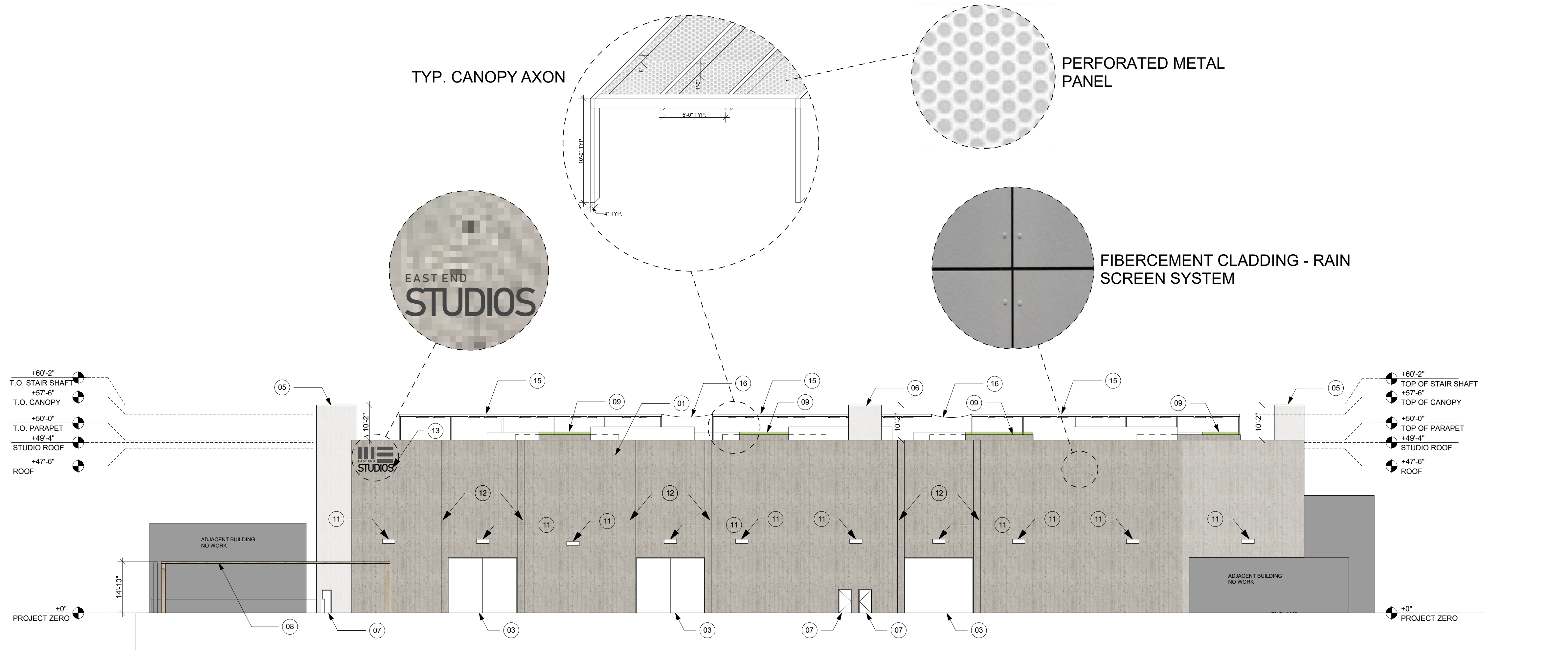
SOURCE: Relativity Architects - 2021

FIGURE 2

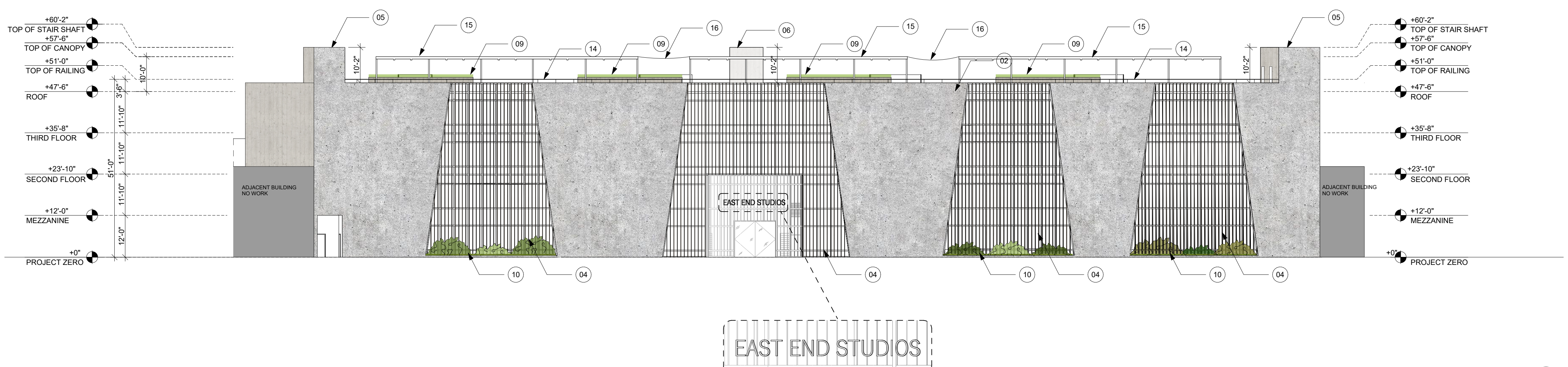
Meridian Consultants

Site Plan

314-001-21



West Elevation 2
SCALE: 1/16" = 1'-0"



East Elevation 1
SCALE: 1/16" = 1'-0"

FACADE MATERIAL COLOR PALETTE

- FIBERCEMENT CLADDING OVER EXTERIOR WALLS
- EXTERIOR VERTICAL LOUVERS AT CURTAIN WALL LOCATIONS
- EXPOSED CONCRETE TILT-UP

KEYNOTES

01 12" ICF STRUCTURAL WALLS + RAINSCREEN SYSTEM WITH FIBERCEMENT CLADDING

02 EXPOSED CONCRETE FINISH OVER LOGIX XP-1 ICF BLOCKS. WALL TYPE "CC"

03 NEW 20'x20' ELEPHANT DOORS

04 ALUMINUM 1"X4" LOUVERS WITH WOOD COLOR FINISH + CURTAIN WALL BEHIND

05 STAIR SHAFT

06 ELEVATOR SHAFT

07 EXIT DOOR

08 15 FT. HT. SOLAR CANOPY OVER SURFACE CAR PARKING

09 LANDSCAPED AREAS AT ROOF, SEE ROOF PLAN FOR LOCATIONS.

10 PLANTER SETBACK

11 PROPOSED SITE LIGHTING. EXT. LED FLOOD LIGHT FIXTURES TO COMPLY WITH 30.30.040 GLENDALE ZONING CODE

12 24X24 COLUMN AT BOTH SIDES OF OPENINGS. TYP. AT ICF STUDIO WALLS

13 10'X7' EAST END STUDIO LOGO 10'X7'

14 SAFETY RAILING

15 10' HIGH WHITE POWDER COATED ALUMINUM CANOPY WITH PERFORATED METAL PANELS

16 STRING LIGHTS

SCHEMATIC DESIGN SET FOR REFERENCE ONLY. NOT FOR CONSTRUCTION.

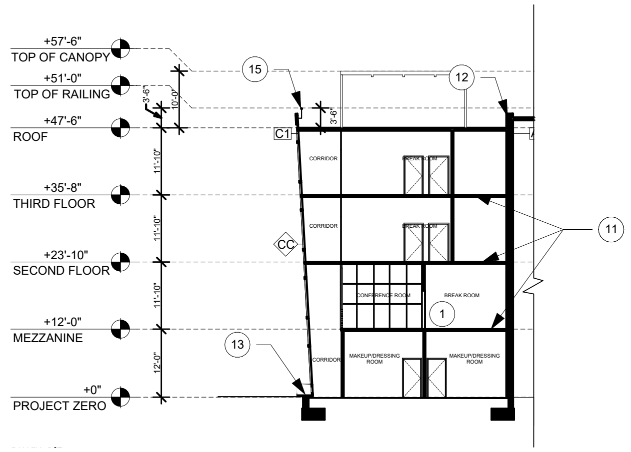
0 12.5 25 50
APPROXIMATE SCALE IN FEET

SOURCE: Relativity Architects - 2021

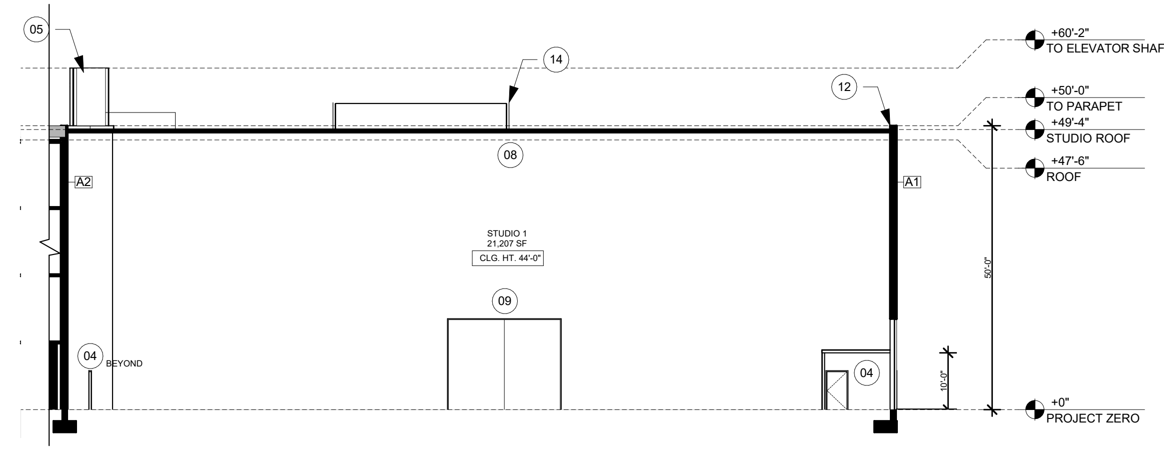
FIGURE 3

Meridian Consultants

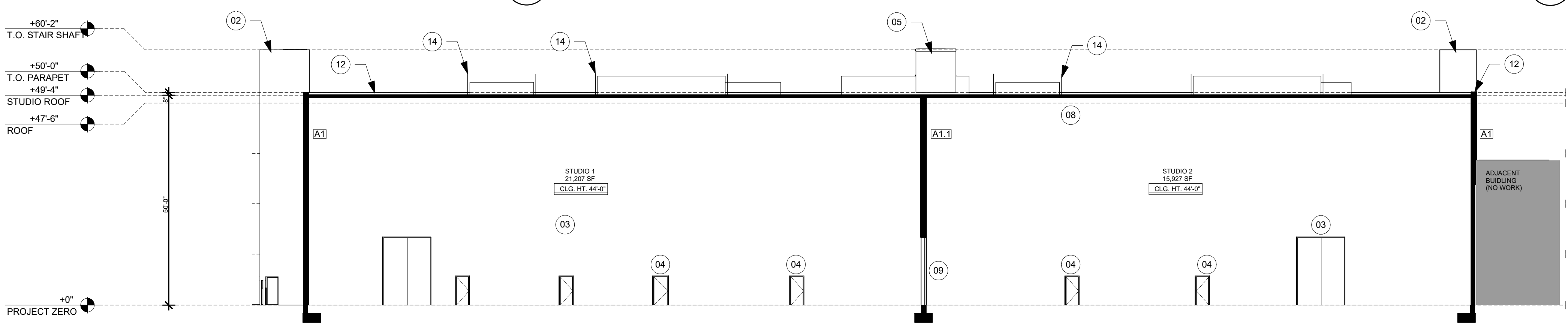
Building Elevations



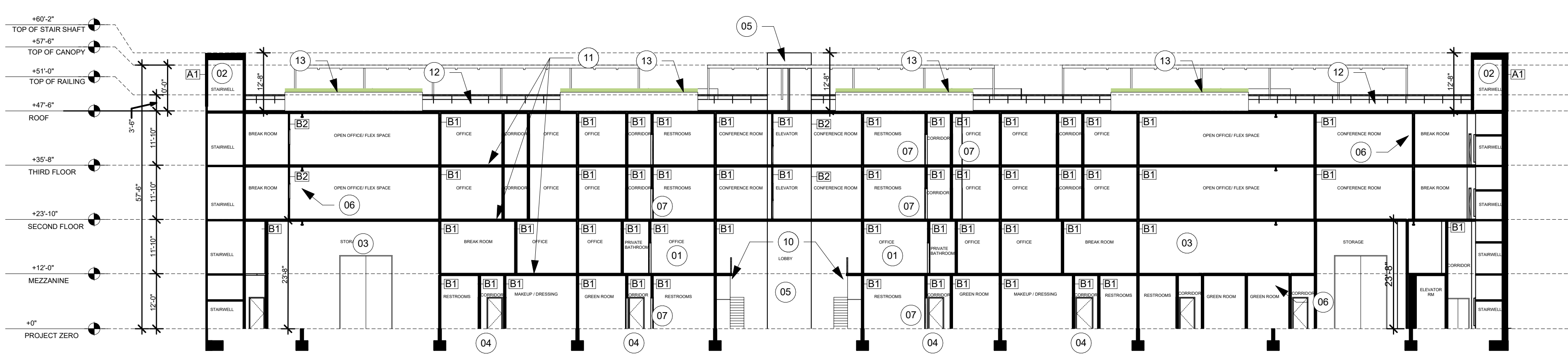
Office Cross Section 4
SCALE: 1/16" = 1'-0"



Studio Cross Section 3
SCALE: 1/16" = 1'-0"



Studio Section 2
SCALE: 1/16" = 1'-0"



Office Section 1
SCALE: 1/16" = 1'-0"

KEYNOTES

- (01) MEZZANINE STRUCTURE AS PER STRUCTRUAL DWGS.
- (02) STL AND CONCRETE STAIRS IN A 2 HR RATED ENCLOSURE. PROVIDE MTL FPSC SELF-CLOSING DOORS AT EACH FLOOR
- (03) STC 65 8'x10' DOORS TO STUDIO
- (04) STC 65 SELF CLOSING DOORS TO STUDIOS
- (05) ELEVATOR PROVIDE 4HR SHAFT ENCLOSURE
- (06) 4" STL COLUMNS
- (07) ALL INTERIOR DOORS TO BE SOLID CORE WOOD EXCEPT WHERE NOTED (TYP.)
- (08) STRUCTURAL MEMBER SEE STRUCTURAL DWGS.
- (09) PROVIDE ELEPHANT DOORS
- (10) STEEL & CONCRETE OPEN STAIRS W/ MTL RAILING
- (11) EXPOSED CEILING AT GROUND FLOOR, MEZZANINE AND SECOND FLOOR (TYP. EXCEPT BATHROOMS)
- (12) PARAPET AT ROOF
- (13) PLANTERS
- (14) NEW MECHANICAL EQUIPEMENT WITH 5' TALL SCREENS
- (15) SAFETY RAILING ATTACHED TO PARAPET
- (16) 10' HIGH WHITE POWDER COATED ALUMINUM CANOPY WITH PERFORATED METAL PANELS

NOTES

SEE WALL AND PARTITION TYPES ON A 210

SCHEMATIC DESIGN SET FOR PRICING ONLY. NOT FOR CONSTRUCTION.

0 12.5 25 50
APPROXIMATE SCALE IN FEET

SOURCE: Relativity Architects - 2021

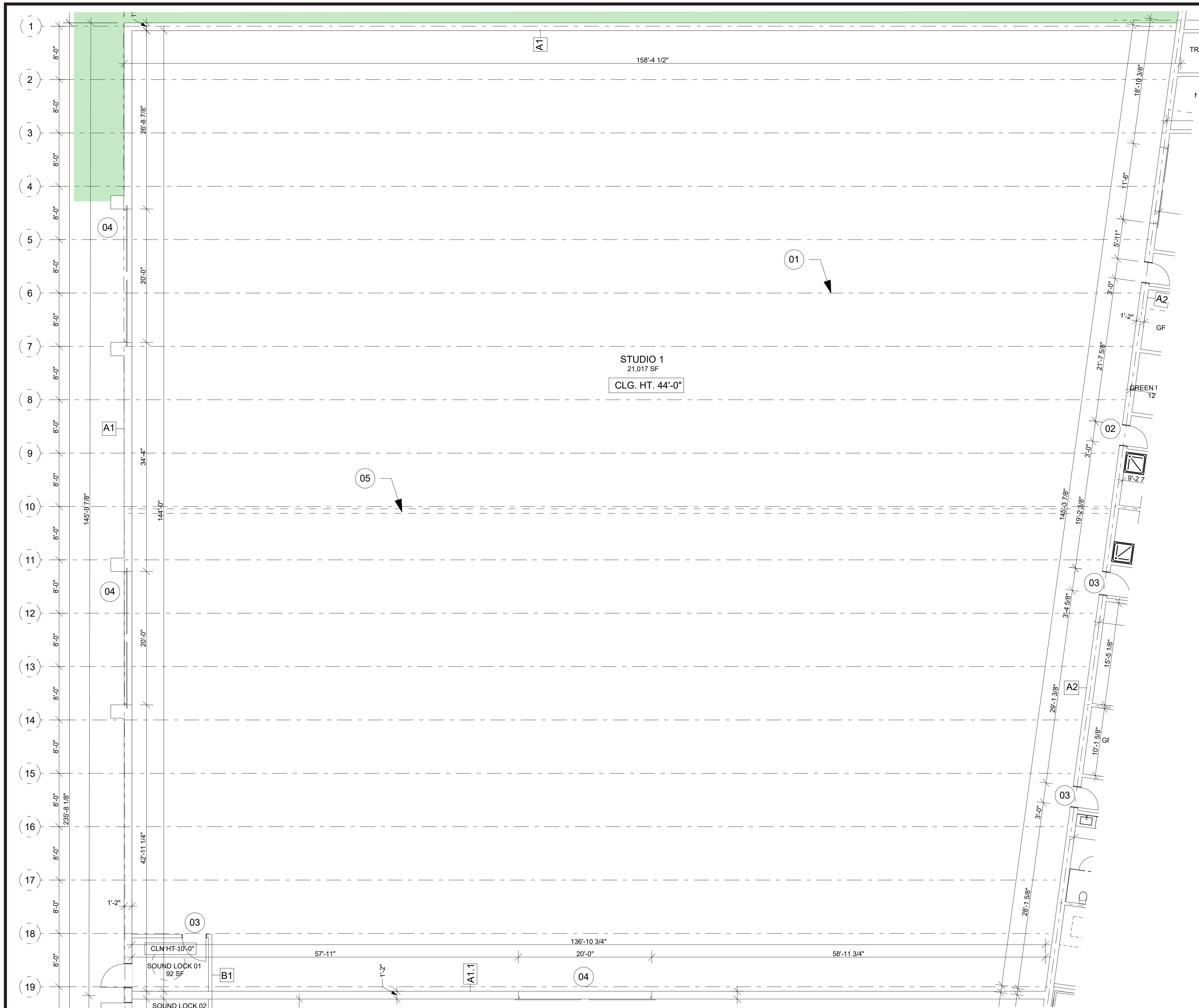
FIGURE 4

Meridian Consultants

Building Sections

314-001-21

SCHEMATIC DESIGN SET FOR REFERENCE ONLY. NOT FOR CONSTRUCTION.



KEY NOTES

01	STRUCTURAL MEMBER (TYP.) SEE STRUCTURAL DWGS.
02	PROVIDE STC NEW 8'x10' DOOR. SEE DOOR SCHEDULE
03	PROVIDE STC 65 SELF-CLOSING DOOR TO STUDIOS (TYP.). SEE DOOR SCHEDULE
04	PROVIDE NEW ELEPHANT DOOR. SEE DOOR SCHEDULE
05	PROVIDE ACOUSTIC PARTITION AT STUDIO #1
06	PROPOSED LOCATION FOR MAIN SWITCH GEAR

** SEE WALL + PARTITION TYPES ON PAGE A210

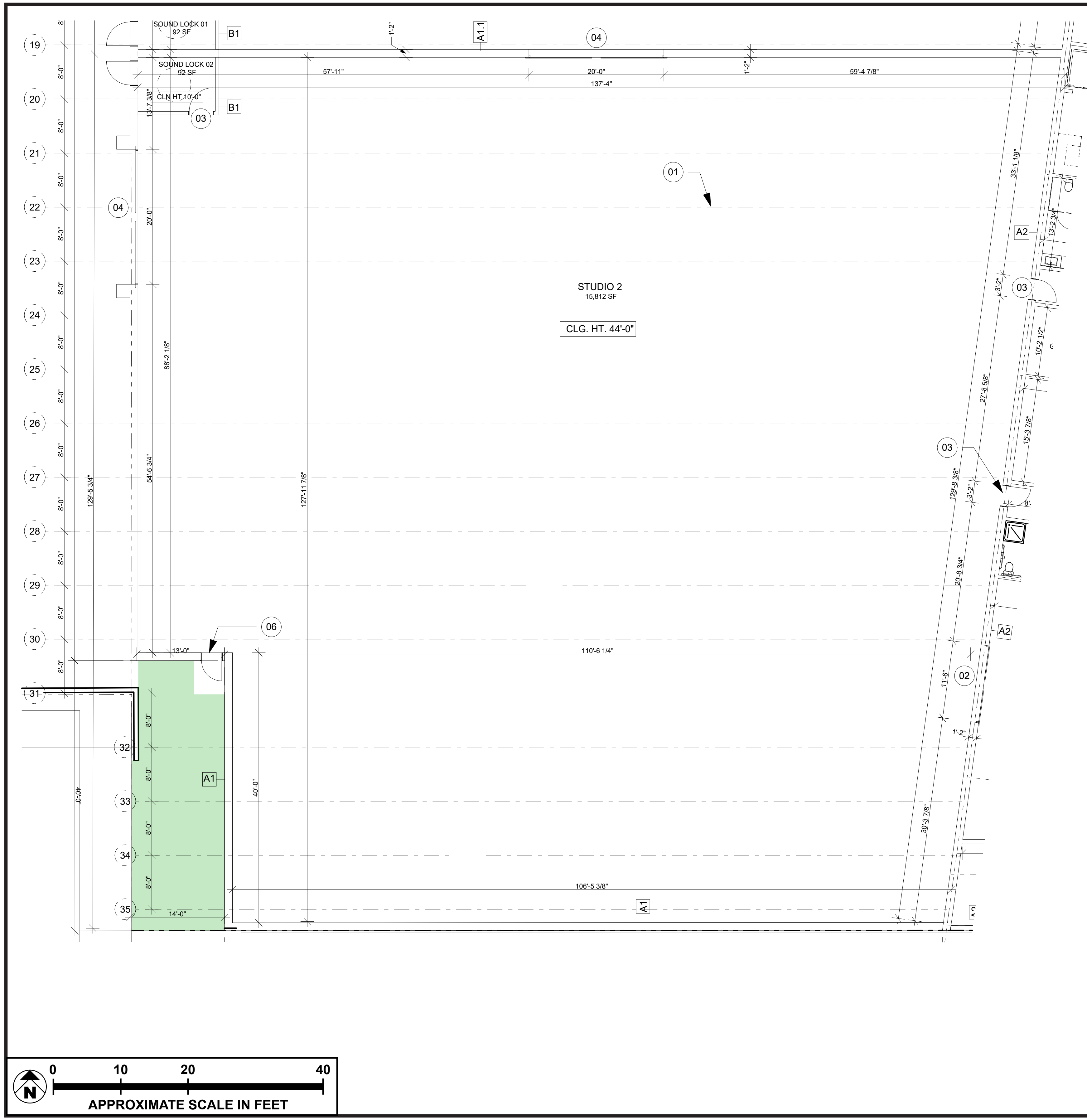
0 10 20 40
APPROXIMATE SCALE IN FEET

SOURCE: Relativity Architects - 2021

FIGURE 5

Meridian Consultants

First Floor Plan Studio 1



SCHEMATIC DESIGN SET FOR REFERENCE ONLY. NOT FOR CONSTRUCTION.

KEY NOTES

- 01 STRUCUTRAL MEMBER (TYP.) SEE STRUCTURAL DWGS.
- 02 PROVIDE STC NEW 8'x10' DOOR. SEE DOOR SCHEDULE
- 03 PROVIDE STC 65 SELF-CLOSING DOOR TO STUIOS (TYP.). SEE DOOR SCHEDULE
- 04 PROVIDE NEW ELEPHANT DOOR. SEE DOOR SCHEDULE
- 05 PROVIDE ACOUSITC PARTITION AT STUDIO #1
- 06 NEW MAINTANAINCE DOOR, NOT FOR EGRESS

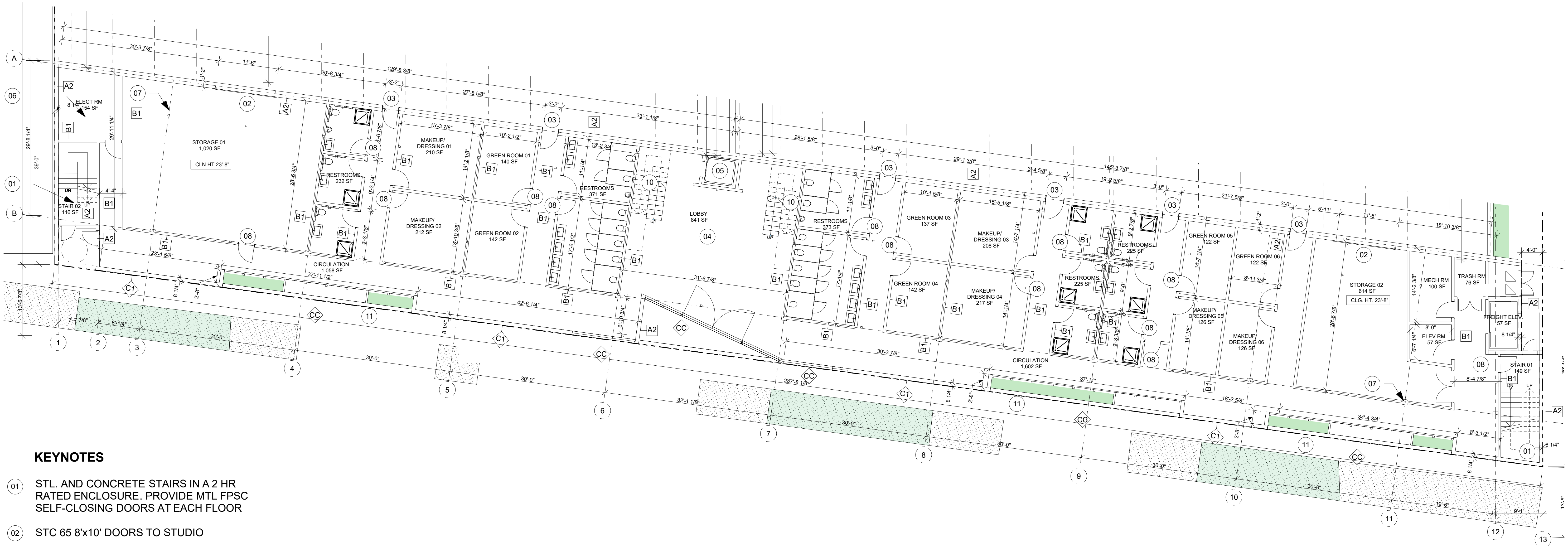
** SEE WALL + PARTITION TYPES ON PAGE A210

SOURCE: Relativity Architects - 2021

FIGURE 6

Meridian Consultants

First Floor Plan Studio 2



KEYNOTES

01 STL. AND CONCRETE STAIRS IN A 2 HR RATED ENCLOSURE. PROVIDE MTL FPSC SELF-CLOSING DOORS AT EACH FLOOR

02 STC 65 8'x10' DOORS TO STUDIO

03 STC 65 SELF CLOSING DOORS TO STUDIOS

04 PROVIDE SECURITY + ALARM THROUGHOUT THE BUILDING

05 PROPOSED ELEVATOR LOCATION. PROVIDE 4HR SHAFT ENCLOSURE

06 ELEVATOR ROOM

07 STRUCTURAL MEMBER (TYP.) AS PER STRUCTURAL DWGS.

08 ALL INTERIOR DOORS TO BE SOLID CORE WOOD EXCEPT WHERE NOTED (TYP.) SEE DOOR SCHEDULE FOR DETAILS

09 PROVIDE ELEPHANT DOORS

10 STL + CONCRETE OPEN STAIRS W/ MTL RAILING

11 LANDSCAPED AREA

** SEE WALL + PARTITION TYPES ON PAGE A210

N 0 10 20 40
APPROXIMATE SCALE IN FEET

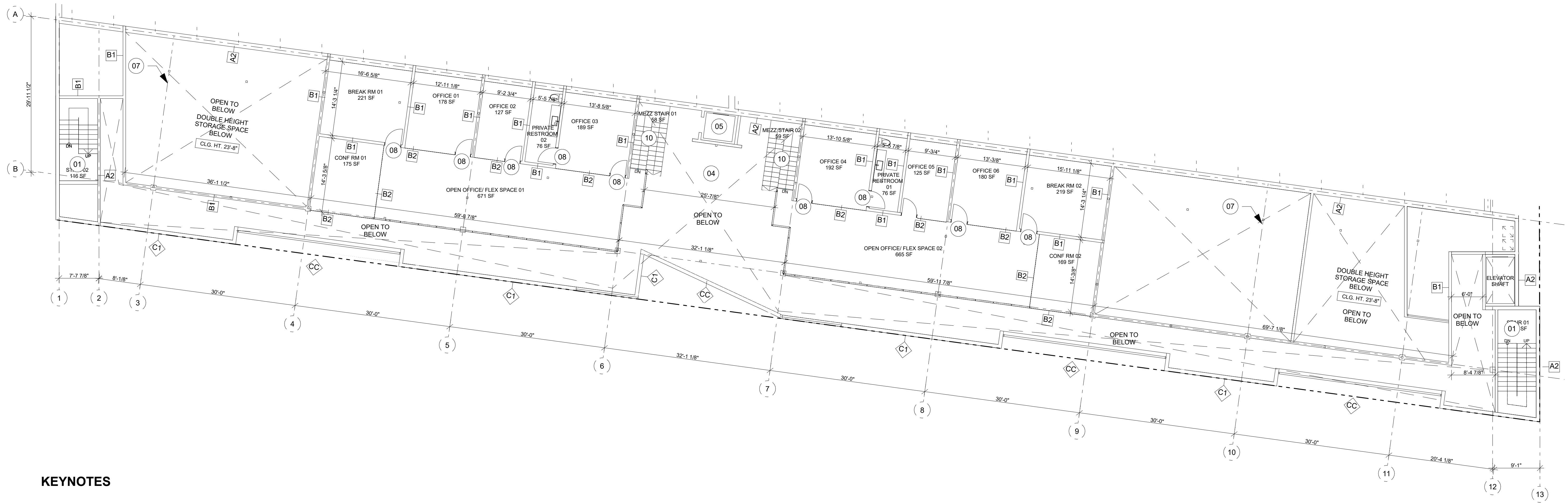
SCHEMATIC DESIGN SET
FOR REFERENCE ONLY.
NOT FOR
CONSTRUCTION.

SOURCE: Relativity Architects - 2021

FIGURE 7

Meridian Consultants

First Floor Plan Studio Support Space



KEYNOTES

01 STL. AND CONCRETE STAIRS IN A 2 HR RATED ENCLOSURE. PROVIDE MTL FPSC SELF-CLOSING DOORS AT EACH FLOOR

02 STC 65 8'x10' DOORS TO STUDIO

03 STC 65 SELF CLOSING DOORS TO STUDIOS

04 PROVIDE SECURITY + ALARM THROUGHOUT THE BUILDING

05 PROPOSED ELEVATOR LOCATION. PROVIDE 4HR SHAFT ENCLOSURE

06 ELEVATOR ROOM

07 STRUCTURAL MEMBER (TYP.) AS PER STRUCTURAL DWGS.

08 ALL INTERIOR DOORS TO BE SOLID CORE WOOD EXCEPT WHERE NOTED (TYP.) SEE DOOR SCHEDULE FOR DETAILS

09 PROVIDE ELEPHANT DOORS

10 STL + CONCRETE OPEN STAIRS W/ MTL RAILING

** SEE WALL + PARTITION TYPES ON PAGE A210

0 10 20 40
APPROXIMATE SCALE IN FEET

SCHEMATIC DESIGN SET FOR REFERENCE ONLY. NOT FOR CONSTRUCTION.

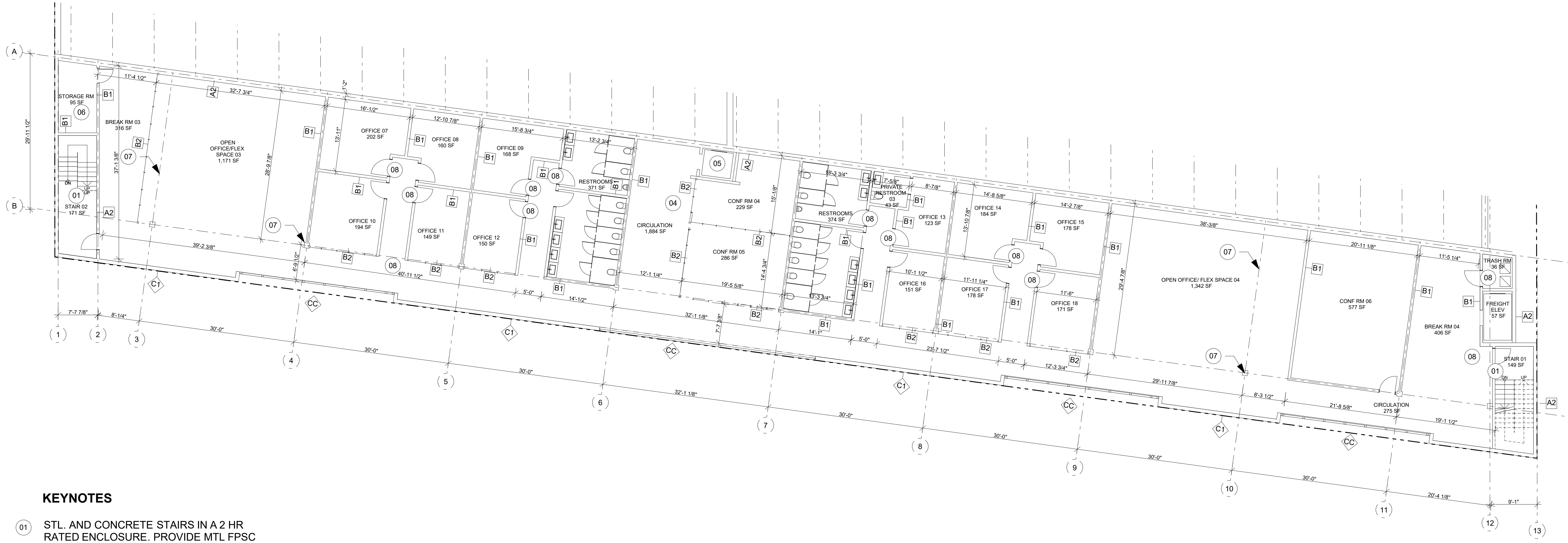
SOURCE: Relativity Architects - 2021

FIGURE **8**

Meridian Consultants

Mezzanine Studio Production Office Plan

314-001-21



KEYNOTES

01 STL. AND CONCRETE STAIRS IN A 2 HR RATED ENCLOSURE. PROVIDE MTL FPSC SELF-CLOSING DOORS AT EACH FLOOR

02 STC 65 8'x10' DOORS TO STUDIO

03 STC 65 SELF CLOSING DOORS TO STUDIOS

04 PROVIDE SECURITY + ALARM THROUGHOUT THE BUILDING

05 PROPOSED ELEVATOR LOCATION. PROVIDE 4HR SHAFT ENCLOSURE

06 ELEVATOR ROOM

07 STRUCTURAL MEMBER (TYP.) AS PER STRUCTURAL DWGS.

08 ALL INTERIOR DOORS TO BE SOLID CORE WOOD EXCEPT WHERE NOTED (TYP.) SEE DOOR SCHEDULE FOR DETAILS

09 PROVIDE ELEPHANT DOORS

10 STL + CONCRETE OPEN STAIRS W/ MTL RAILING

** SEE WALL + PARTITION TYPES ON PAGE A210

0 10 20 40

APPROXIMATE SCALE IN FEET

SCHEMATIC DESIGN SET FOR REFERENCE ONLY. NOT FOR CONSTRUCTION.

SOURCE: Relativity Architects - 2021

FIGURE **9**

Meridian Consultants

Second Floor Plan Studio Production Office

KEYNOTES

01 STL. AND CONCRETE STAIRS IN A 2 HR RATED ENCLOSURE. PROVIDE MTL FPSC SELF-CLOSING DOORS AT EACH FLOOR

02 STC 65 8'x10' DOORS TO STUDIO

03 STC 65 SELF CLOSING DOORS TO STUDIOS

04 PROVIDE SECURITY + ALARM THROUGHOUT THE BUILDING

05 PROPOSED ELEVATOR LOCATION. PROVIDE 4HR SHAFT ENCLOSURE

06 ELEVATOR ROOM

07 STRUCTURAL MEMBER (TYP.) AS PER STRUCTURAL DWGS.

08 ALL INTERIOR DOORS TO BE SOLID CORE WOOD EXCEPT WHERE NOTED (TYP.) SEE DOOR SCHEDULE FOR DETAILS

09 PROVIDE ELEPHANT DOORS

10 STL + CONCRETE OPEN STAIRS W/ MTL RAILING

** SEE WALL + PARTITION TYPES ON PAGE A210

0 10 20 40
APPROXIMATE SCALE IN FEET

SCHEMATIC DESIGN SET FOR REFERENCE ONLY. NOT FOR CONSTRUCTION.

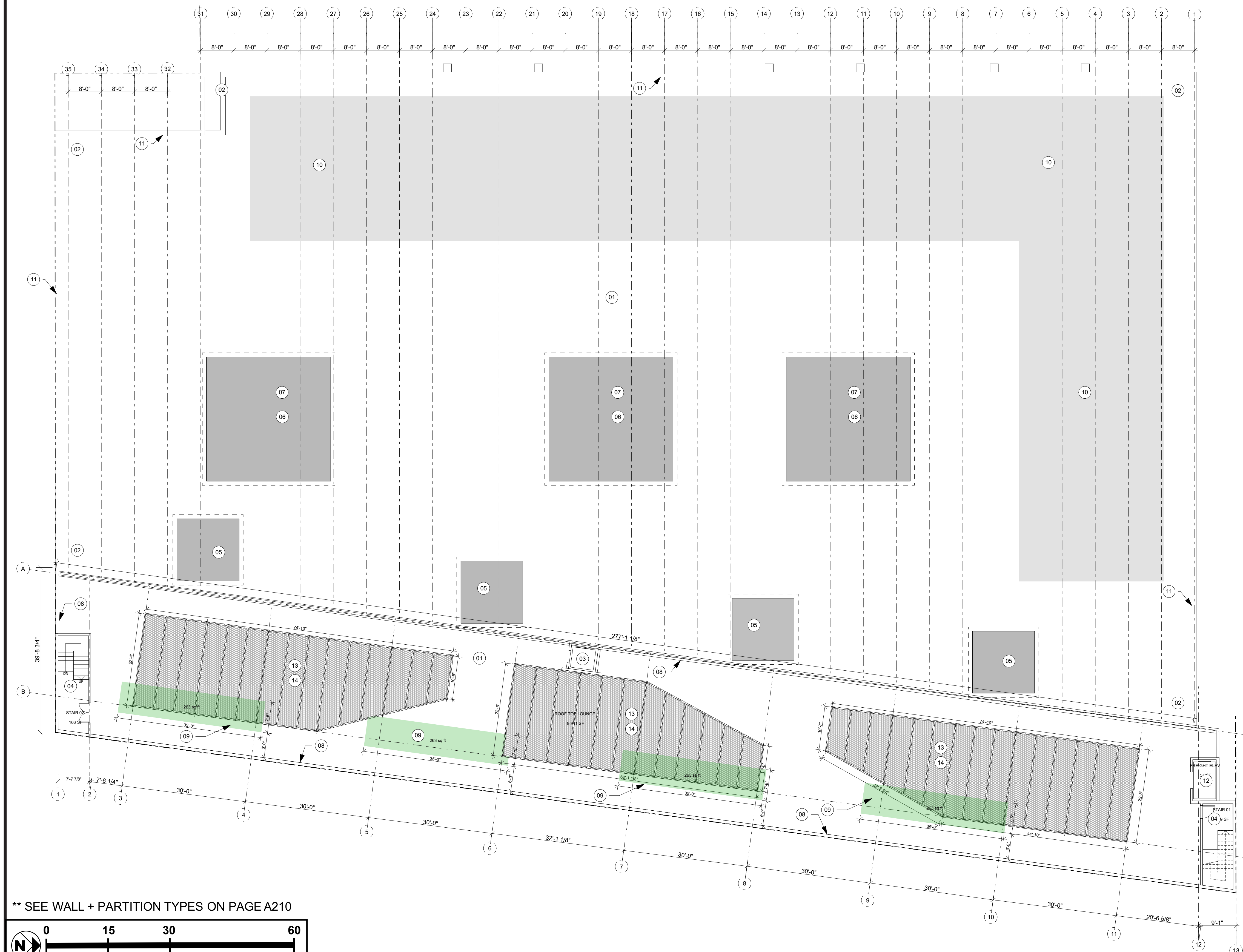
SOURCE: Relativity Architects - 2021

FIGURE **10**

Meridian Consultants

Third Floor Plan Studio Production Office

314-001-21



KEYNOTES

01 NEW INSULATED ROOF ASSEMBLY: WITH CONCRETE ROOF DECK PAVERS OVER ADJUSTABLE PEDESTAL SYSTEM

02 PROVIDE ROOF DRAINS AS REQUIRED

03 PROPSED ELEVATOR LOCATION. PROVIDE 4 HR SHAFT ENCLOSURE

04 STEEL AND CONCRETE STAIRS IN A 2HR RATED ENCLOSURE. PROVIDE METAL FPSC SELF-CLOSING DOORS AT EACH FLOOR

05 PROPOSED LOCATION FOR MECHANICAL EQUIPMENT W/ 5'-0" MECH SCREEN. FINAL DESIGN TBD BY MEP ENG.

06 PROPOSED HVAC CONDENSERS LOCATION W/ 5'-0" MECH SCREEN AT ROOF

07 QUIET AIR SYSTEM FOR HVAC DUCTS. PROVIDE THERMALLY BROKEN INSTALLATION AND INSULATE PLENUMS AND DUCTS AS REQUIRED

08 PROVIDE 30" HT PARAPET W/ MTL. RAILING UP TO 42" HT

09 PROPOSED NEW PLANTING AREA AS PER GLENDALE ZONING SEC. 30.31.020

10 PROPOSED SOLAR PHOTOVOLTAIC PANEL LOCATION

11 PROVIDE 8" HT CONCRETE PARAPET

12 FREIGHT ELEVATOR

13 10' HIGH WHITE POWDER COATED ALUMINUM CANOPY

14 PERFORATED METAL PANELS BETWEEN CANOPY STRUCTURE

** SEE WALL + PARTITION TYPES ON PAGE A210

0 15 30 60
APPROXIMATE SCALE IN FEET

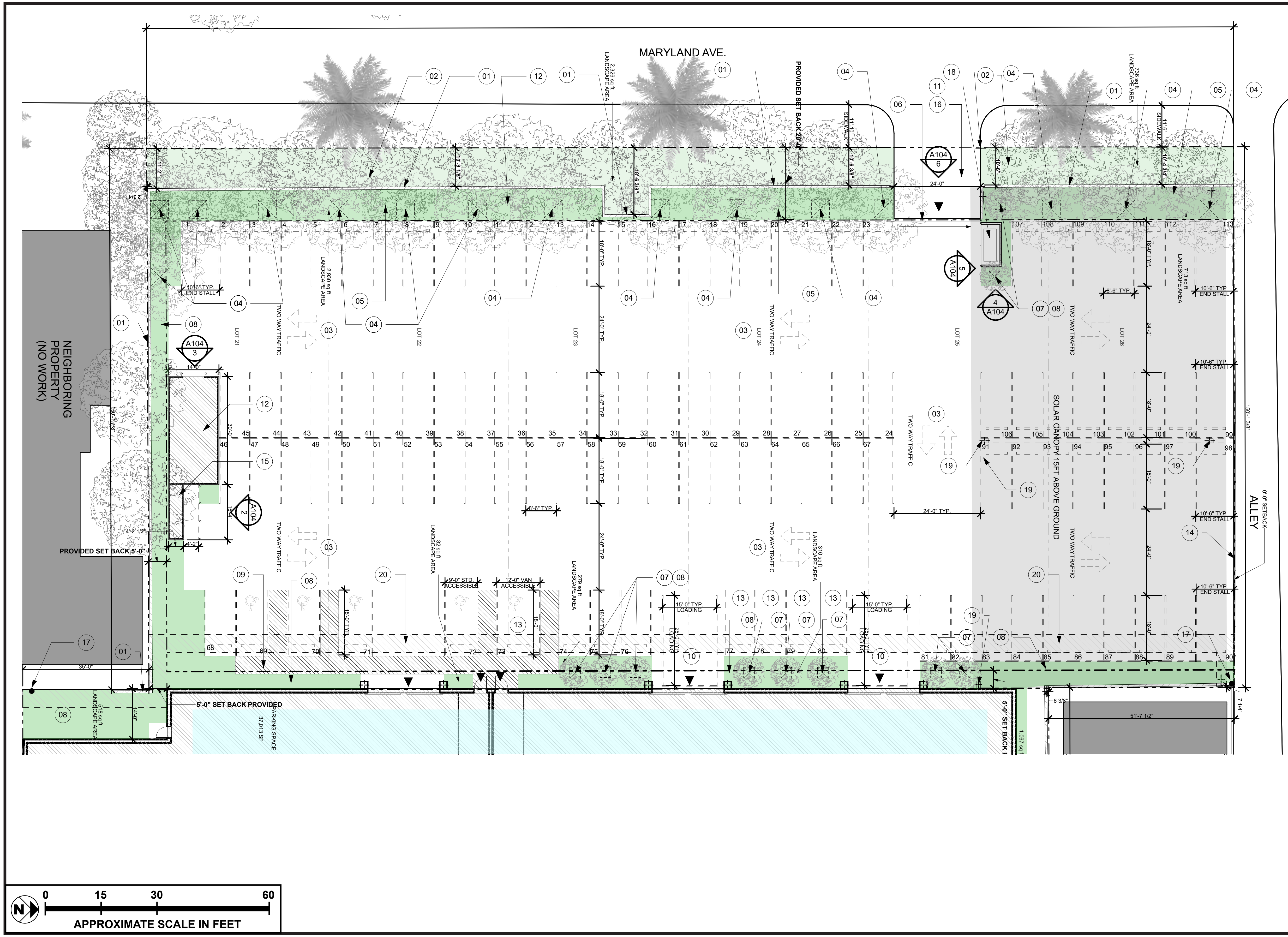
SCHEMATIC DESIGN SET FOR REFERENCE ONLY. NOT FOR CONSTRUCTION.

SOURCE: Relativity Architects - 2021

FIGURE **11**

Meridian Consultants

Roof Plan Studio Production Office



LEGEND

PROPERTY LINE

RIGHT OF WAY CENTERLINE

KEY NOTES

01 (E) MASONRY WALL TO REMAIN + BE REPAIRED - SEE SHEET A104 FOR ELEVATION

02 (E) PLANTING AREA - ALL EXISTING TREES TO REMAIN - GROUND COVER PLANTING TO BE IRRIGATED AND REPLACED WITH NATIVE, DROUGHT TOLERANT PLANTS.

03 PROVIDE LIGHT COLORED PAVEMENT TO REDUCE HEAT ISLAND EFFECT AS PER GLENDALE COMMERCAIL GUIDELINES SECTION C.13

04 NEW 25' TREE (TYP.)

05 NEW PROPOSED LANDSCAPE AREA WITH 3-FOOT-TALL PLANTING PROVIDED BETWEEN THE SIDEWALK AND PARKING AREA, AS PER A.7 OF GLENDALE COMMERCIAL GUIDELINES.

06 NEW ENTRANCE GATE

07 NEW 9' TREE (TYP.)

08 NEW PLANTING AREA AS PER GLENDALE ZONING SEC. 30.31.020

09 CONTINUOUS, UNOBSTRUCTED PATH OF TRAVEL. 5' MIN WIDE, MUST BE PROVIDED ALONG THE SIDEWALKS AS REQUIRED BY ADA, AS PER A.7 OF GLENDALE COMMERCIAL GUIDELINES.

10 DEDICATED15' X 25' LOADING ZONE

11 PROPOSED UNIVERSAL TRASH LOCATION WITH MASONRY WALLS + OPAQUE FENCING, + PARTIALLY COVERED TO COMPLY WITH GLENDALE ZONING REGULATIONS CH. 30.30.030 - SEE SHEET A104 FOR ELEVATION

12 PROPOSED TRANSFORMER VAULT LOCATION, 4,000 AMP 14'X30'X10'

13 PROVIDE 5 EV CHARGING STATIONS - 4 STD + 1 ACCESSIBLE VAN

14 NEW FENCE ALONG PROPERTY LINE ALONG ALLEYWAY

15 PROPOSED LOCATION FOR MAIN SWITCHGEAR 'MSA' ENCLOSURE 15'-4"X 4'-2 1/2" WITH 4'-2" CLEARNCE - DIRECT BUS SERVICE FROM TRANSFORMER VAULT TO SWITCHGEAR

16 DECORATIVE PAVING MATERIAL AT DRIVEWAY AS PER GLENDALE SECTION C.10

17 EXISTING POWER POLE TO REMAIN

18 NEW STOP SIGN

19 SOLAR CANOPY STRUCTURAL POSTS

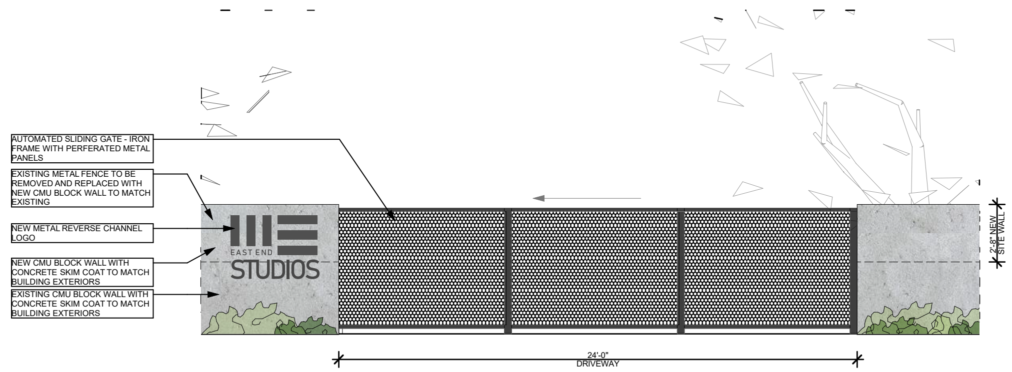
20 CATV + TELEPHONE 5'-0" EASEMENT

SOURCE: Relativity Architects - 2021

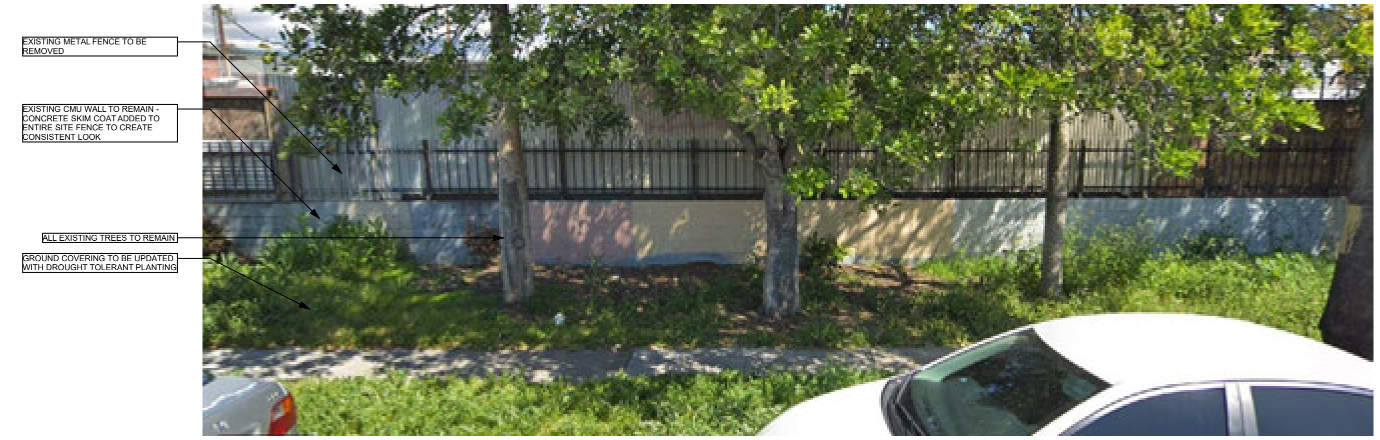
FIGURE 12

Meridian Consultants

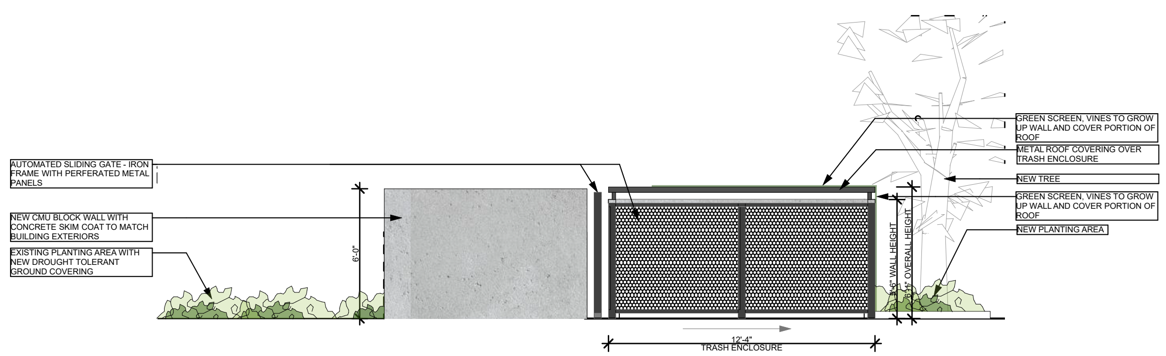
Enlarged Parking Plan



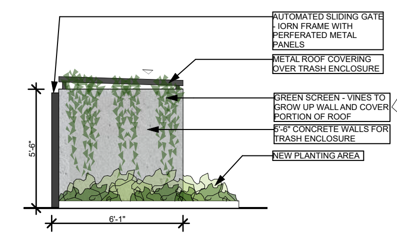
Entry Gate + Site Wall @ Maryland Ave
SCALE: 1/4" = 1'-0"
6



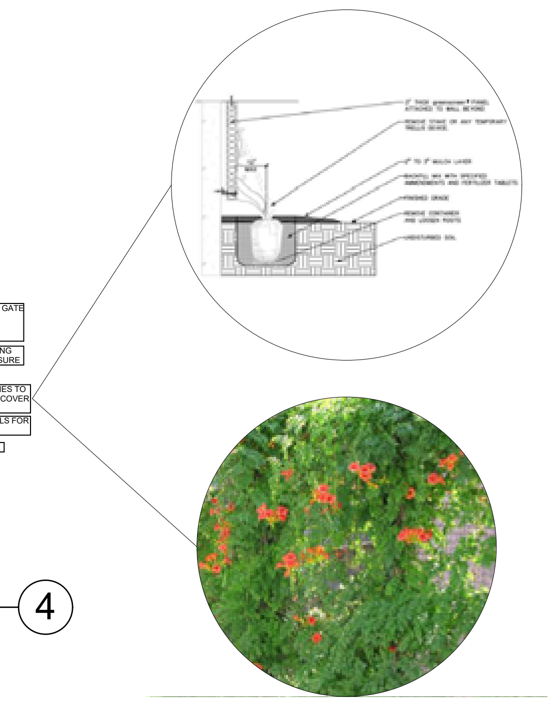
EXISTING CONDITIONS ALONG MARYLAND AVE



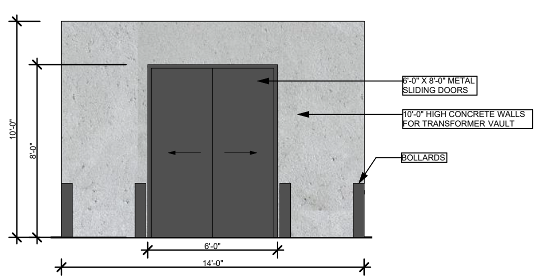
Trash Enclosure Elevation
SCALE: 1/4" = 1'-0"
5



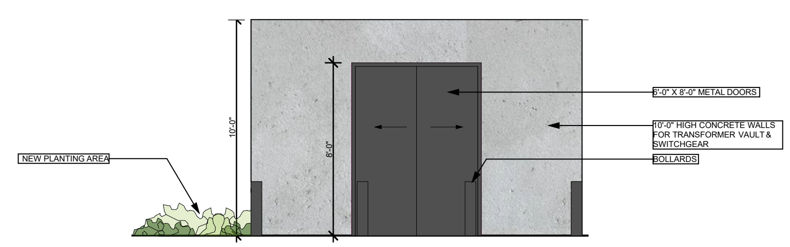
Trash Enclosure Elevation
SCALE: 1/4" = 1'-0"
4



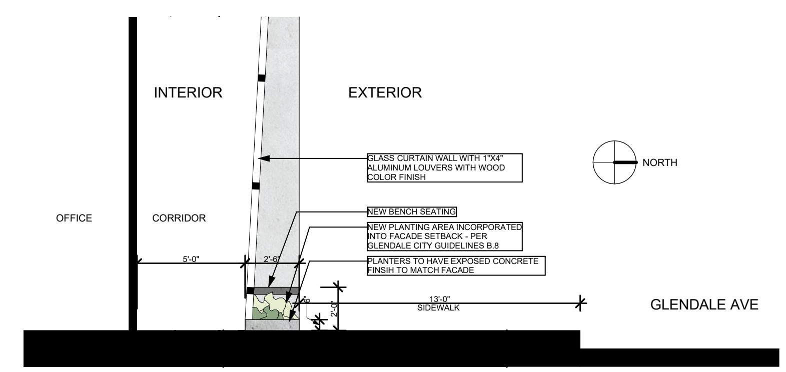
GREEN SCREEN DETAILS



Transformer Vault Elevation
SCALE: 1/4" = 1'-0"
3



Transformer/ Switch Gear Elevation
SCALE: 1/4" = 1'-0"
2



PLANTER-FACADE DETAIL
SCALE: 1/4" = 1'-0"
1

DESIGN DEVELOPMENT SET FOR REFERENCE ONLY.
NOT FOR CONSTRUCTION.

SOURCE: Relativity Architects - 2021

FIGURE 13

Meridian Consultants

Planter-Façade Detail

Proposed discretionary actions for the Project include the following:

(1) Design Review pursuant to GMC Chapter 30.47;

(2) The following Variances pursuant to GMC Chapter 30.43 to allow deviation from the following GMC sections:

   a. GMC Section 30.12.030 Table 30.12-B – To allow the elimination of the 25-foot interior setback requirement between the C3 zone boundary and R-2250 zone boundary. Additionally, a reduced 14-foot interior setback between the C3 zone and an abutting R-2250 zoned property along the Property's southernmost 35 feet;

   b. GMC Section 30.31.030.B – Elimination of the landscape buffer requirement between the C3 zone boundary and R-2250 boundary;

   c. GMC Section 30.11.030 Table 30.11-B – To allow a wall within the street front setback area where not a permitted exception.

   d. GMC Section 30.11.030 – To allow deviation from the 25% permanent landscaping requirement on the R Parcels/Parking Lot. Applicant requests to disperse the 25 landscaping throughout the entire Property (including on building rooftop).

   e. GMC Section 30.32.160.B – To allow deviation from tree planting dispersal requirement within the R Parcels/Parking Lot. Applicant requests to disperse trees throughout the Property.

   f. GMC Section 30.22.080 – To allow a trash collection area within the P overlay. Applicant requests to locate a modestly sized trash collection area behind a masonry wall on Lot 25, underneath a solar canopy.

   g. GMC Section 30.12.030 – Table 30.12-B – To allow a maximum height of 57 feet and 6 inches for the Office in lieu of the otherwise required 50-foot height limitation. Project requests additional height to allow for shade canopies on Office rooftop.

(3) Parking Reduction Permit pursuant to GMC Section 30.50.020.D to allow: a) 113 parking spaces in lieu of the GMC required 119 parking spaces; and b) 2 loading areas in lieu of the GMC required 5 loading areas.

(4) Other permits and approvals as to be requested or deemed necessary.

CLASS 32 INFILL CATEGORICAL EXEMPTION

Section 21084 of the California Environmental Quality Act (CEQA) statute requires the CEQA Guidelines to include a list of classes of projects determined not to have a significant effect on the environment that are exempt from environmental review under CEQA. The list of exemption classes is defined in Section 15300 of the CEQA Guidelines. The Project is considered to qualify as exempt under Class 32, Infill Development Projects as described in Section 15322 of the CEQA Guidelines, because the Project meets 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.

Additionally, CEQA Guidelines Section 15300.2 states that there are exceptions to the exemptions:

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

CONSISTENCY OF PROJECT WITH THE CLASS 32 EXEMPTION CRITERIA

> *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.*

Provided below is analysis of the Project's consistency with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.

SCAG 2020—2045 RTP/SCS

The uses of the proposed Project, sound stage production studios and ancillary production office space, are generally consistent with the existing studios uses on site. These uses as proposed would not add more residents to the City nor would it necessitate a change in the land use designation. Thus, the proposed Project is consistent with Southern California Association of Government (SCAG)'s growth projections for the City, which supports the conclusion that the proposed Project is consistent with SCAG policies.[2] The proposed Project would be consistent with applicable goals and policies presented within SCAG's 2020–2045 RTP/SCS. Refer to **Table 1: Consistency Analysis 2020–2045 RTP/SCS** for the proposed Project's consistency analysis with SCAG's 2020–2045 RTP/SCS.

Table 1
Consistency Analysis 2020–2045 RTP/SCS

Goals and Policies	Consistency Analysis
Goal 2: Improve mobility, accessibility, reliability, and travel safety for people and goods.	**No Conflict**. The Project Site is located in an urbanized area in the City within a High-Quality Transit Area (HQTA).[3] The Project would construct two new one-story studio spaces, a three-story ancillary studio production office along South Glendale Avenue, and a surface parking lot on the western portion of the Project Site to accommodate the Project's parking demand. The Project Site is well served by mass transit with the transit lines within a 0.25-mile walking distance of the Project Site have available capacity for approximately 1,139 additional riders during the morning peak hour and 1,145 riders during the afternoon peak hour.[4] The Project would provide employees and visitors with convenient access to mass transit and opportunities for walking and biking. The location of the Project encourages a variety of transportation options and access because the Project Site is served by multiple bus and shuttle lines and would provide bicycle and pedestrian connections to the existing sidewalks.
Goal 3: Enhance the preservation, security, and resilience of the regional transportation system.	**No Conflict**. While not necessarily applicable on a project-specific basis, the Project would support this goal by improving the viability of alternative forms of transportation through more efficient land uses on site, and heightened walkability. A robust variety of transportation options helps to ensure the mobility need of employees and visitors are met. Additionally, as discussed in the Transportation Analysis Memo (**Appendix A**), the Project would not result in significant transportation impacts.
Goal 4: Increase person and goods movement and travel choices within the transportation system.	**No Conflict**. While not necessarily applicable on a project-specific basis, the Project would support this goal by improving local access to alternative forms of transportation, with appropriate design considerations to account for the movement of pedestrians and

2 SCAG, Demographics and Growth Forecast, https://scag.ca.gov/sites/main/files/file-attachments/f2016rtpscs_demographicsgrowthforecast.pdf?1606073557, accessed April 2021.
3 City of Glendale, CA, *Transportation Impact Analysis Guidelines*, Attachment A: High-Quality Transit Maps, October 30, 2020.
4 Gibson Transportation Consulting, Inc., *Transportation Analysis for the East End Studio*, May 20, 2021 (See **Appendix A**).

Goals and Policies	Consistency Analysis
	multimodal choices such as access to multiple bus and shuttles lines provided by the Los Angeles County Metropolitan Transportation Authority (MTA) and the City of Glendale Beeline.
Goal 5: Reduce greenhouse gas emissions and improve air quality.	**No Conflict**. The Project would redevelop an existing commercial site within a HQTA. The Project Site's location near mass transit and proximity to services, retail stores, and employment opportunities promotes a pedestrian-friendly environment. The location of the Project promotes the use of a variety of transportation options, which includes walking and the use of public transportation. Further, the Project would reinvigorate the street frontage on South Glendale Avenue by providing new state-of-the-art studio and studio production office spaces that would blend into the existing buildings and visible from the sidewalk across South Glendale Avenue to the east. The Project would also introduce new landscaping and encourage pedestrian activity.
Goal 6: Support healthy and equitable communities.	**No Conflict**. The Project would redevelop an existing commercial site within a HQTA. The Project Site's location near mass transit and proximity to services, retail stores, and employment opportunities promotes a pedestrian-friendly environment. The location of the Project promotes the use of a variety of transportation options, which includes walking and the use of public transportation. Further, the Project would reinvigorate the street frontage on South Glendale Avenue by providing new state-of-the-art studio and studio production office spaces that would blend into the existing buildings and visible from the sidewalk across South Glendale Avenue to the east. The Project would also introduce new landscaping and encourage pedestrian activity.
Goal 7: Adapt to a changing climate and support an integrated regional development pattern in transportation network.	**No Conflict**. This policy is directed towards SCAG to support regional development pattern areas. However, the Project is an infill development within a HQTA which is consistent with and furthers this policy. In regard to adaptation to a changing climate, the Project would comply with the California Green Building Standards Code (CALGreen) and the City's Green Building Code, and would incorporate eco-friendly building materials, systems, and features wherever feasible. Moreover, the Project would replace dated and less efficient existing structures with modern, utility efficient, green friendly structures.
Goal 8: Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	**No Conflict**. This policy is directed towards SCAG to leverage the use of new transportation technologies using data-driven solutions. Nevertheless, as stated above, the Project is an infill development within an HQTA that offers highly efficient travel opportunities, which is consistent with this policy. The Project Site is well served by mass transit with MTA and Glendale Beeline bus and shuttle lines in walking distance that have available capacity for approximately 1,139 additional riders during the morning peak hour and 1,145 riders during the afternoon peak hour.[5] The Project would provide employees and visitors with convenient access to mass transit and opportunities for walking and biking as well as 113 vehicle parking spaces on the surface parking lot.

5 Gibson Transportation Consulting, Inc., *Transportation Analysis for the East End Studio*, May 20, 2021 (See **Appendix A**).

Goals and Policies	Consistency Analysis
Goal 10: Promote conservation of natural and agricultural lands and restoration of habitats.	**No Conflict**. This policy is directed towards SCAG and does not directly apply to the Project. The Project Site is already developed with urban uses, is surrounded by urban uses and is not identified for conservation efforts. Accordingly, development of the Project would not remove any areas that have significant value as wildlife habitats or agricultural lands given the fully developed nature of the Project Site.
Core Vision Topic 1: **Sustainable Development** Through our continuing efforts to better align transportation investments and land use decisions, we strive to improve mobility and reduce greenhouse gases by bringing housing, jobs and transit closer together.	**No Conflict.** The Project would comply with the California Green Building Standards Code (CALGreen) and the City's Green Building Code, and would incorporate eco-friendly building materials, systems, and features, such as a proposed solar canopy a top the north portion of the surface parking lot and the studio roof design could accommodate solar panels in the future, wherever feasible. The Project would redevelop an existing commercial site within a HQTA. Further, the Project is within walking distance of services, retail stores, and employment opportunities. The Project Site is also within a ½ mile of numerous bus routes with peak commute service intervals of 15 minutes or less.
Sustainable Community Strategy 1: Focus Growth Near Destinations and Mobility Options	
Sustainable Community Strategy 1a: Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations.	**No Conflict.** The Project's infill design and location would encourage the use of alternative transportation, including walking, bicycling and mass transit opportunities. Additionally, the Project Site is located within a ½ mile of numerous bus routes with peak commute service intervals of 15 minutes or less.
Sustainable Community Strategy 1b: Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets	**No Conflict.** This strategy is directed toward SCAG and is not specifically applicable to the Project. The Project includes redevelopment of an infill commercial site, which would place employees and visitors in close proximity to services, retail stores, and employment opportunities. The commercial uses on-site would continue to support the pedestrian activity in the community by providing direct connections to sidewalks along Glendale Avenue and Maryland Avenue. The Project Site is also within a ½ mile of numerous bus routes with peak commute service intervals of 15 minutes or less.
Sustainable Community Strategy 1d: Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses.	**No Conflict**. This strategy is directed toward SCAG and is not specifically applicable to the Project. Nonetheless, the Project is an infill commercial development that would support employment as well as increase the utilization of the Project Site, which is currently used as an operating production studio with office space and a surface parking lot. While the Project would provide the same uses, Project implementation would result in a more efficient and transit friendly use of land, consistent with SCAG goals and strategies.
Sustainable Community Strategy 1e: Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods.	**No Conflict**. This strategy is directed towards SCAG and the City and does not apply to individual development projects. However, the Project advances the local smart growth initiatives of Metro and the County by locating commercial uses designed to facilitate multiple modes of transportation.
Sustainable Community Strategy 1f: Encourage design and transportation options that reduce the reliance on number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations).	**No Conflict.** The Project Site is located in a HQTA. Additionally, the Project would develop commercial uses within walking distance to numerous services, retail, and employment opportunities. Additionally, the Project Site is within a ½ mile of numerous bus routes with peak commute service intervals of 15 minutes or less. The location of the Project encourages a variety of transportation

Goals and Policies	Consistency Analysis
	options, such as walking and biking. Thus, the Project would promote alternatives to driving.

Source: SCAG, Connect SoCal, 2020–2045 RTP/SCS, September 2020.
Notes:
Not Applicable: Actions/strategies are those that are not identified for implementation of local jurisdictions. The Project's consistency with any actions/strategies identified for implementation by the local jurisdictions is assessed below.

City of Glendale General Plan

The current General Plan designation for the Project Site is Commercial: Community Services and Residential: Medium Density. The Project Site is also zoned C3-1—Commercial Service Height District I and the R-2250 P– Medium Density Residential Parking Overlay, which are consistent with the respective General Plan designations.

The Commercial: Community Services land use designation serves a myriad of community functions, including shopping functions. Community services typically feature flexibility in both the range and type of services and facilities provided. Uses are varied and range from personal services, shopping and office. The Residential: Medium Density land use designation is mainly located in southern portions of the City, south of the Ventura Freeway (SR-134). Small pockets of this land use designation occur in the western and northern portions of the City. Medium size garden apartments at a density of 25 to 35 dwellings per acre with an overall average density of 30 units per acre are intended for the medium density residential land use.

The Project is consistent with various applicable goals and related objectives in the City's Land Use Element.[6] The Project promotes development and improvement within the community capitalizing on the location of, and access to, the City as adjacent to the regional core (General Goal 5). The Project provides opportunities for coordinated as well as designing expansion of desirable commercial uses adjacent to suitable areas (General Goal 6). Consistent with Commercial Goal 3 of the City's Land Use element, the Project improves the economic situation and the visual image of the present commercial development found along several of the City's major streets by increasing job opportunities through an expansion of the existing sounds stage and office uses found on the Project Site and creating pedestrian activity with a strong commercial street presence along Glendale Avenue. The Project also provides opportunities for the expansion of revenue producing commercial establishments within the parameters of other community goals (Economic Goal 2) for similar reasons.

6 City of Glendale California, *Land Use Element*, October 23, 1986.

As discussed above, the Project would construct two new one-story sound stage studio spaces, an ancillary studio production office along South Glendale Avenue, and a surface parking lot with new grading and asphalt on the western portion of the Project Site. The Project would redevelop and expand the existing sound stage and office uses on an infill site and enhance its existing use as a production studio and associated offices. The Project would lead to additional job creation on a commercial site that is currently used for commercial purposes. The Project would not displace any existing residential uses. The Project would be located on South Glendale Avenue within an HQTA.[7] The Project Site's location near mass transit and proximity to services, retail stores, and employment opportunities capitalizes on the City's central location within the region to provide commercial production services consistent with General Goal 5. Furthermore, the Project would expand desirable commercial uses by redeveloping an infill site while providing production services similar to the existing development consistent with General Goal 6. The proposed Project would utilize modern urban design and aesthetics that are consistent with surrounding community character to improve the visual image of existing commercial development on major City streets. In addition, the Project would reinvigorate the street frontage on South Glendale Avenue by providing new state-of-the-art studio and studio production office spaces that would blend into the existing buildings and visible from the sidewalk across South Glendale Avenue to the east. The Project would also introduce new landscaping and encourage pedestrian activity consistent with Commercial Goal 3. Once operational, the Project would also provide expansion of revenue producing commercial establishments by attracting more employees and visitors to the redeveloped Project Site consistent with Economic Goal 2. As such, the proposed Project would be consistent with the City's General Plan.

Draft South Glendale Community Plan

The Project Site is also located within the Draft South Glendale Community Plan (SGCP) in the South Glendale Avenue corridor (south of Palmer Avenue).[8] The SGCP has been in development since 2013 but not yet adopted by the City. The SGCP will guide development within the neighborhoods and commercial districts of the South Glendale areas of the City. The SGCP intends to shape positive community change and foster sustainable land use patterns, while balancing the unique character of the community with citywide policies and regional initiatives. The replacement of the existing production studio uses with the new production studio, studio production offices and surface parking lot would continue to serve the needs of the surrounding community in a similar manner and is consistent with the draft SGCP. The Project would provide improved facilities and circulation with enhanced landscaping and street frontages along the South Glendale Avenue commercial corridor for employees, visitors, and City residents consistent with

---

7 City of Glendale, CA, *Transportation Impact Analysis Guidelines*, Attachment A: High-Quality Transit Maps, October 30, 2020.

8 City of Glendale, California, *Draft South Glendale Community Plan*, January 2018.

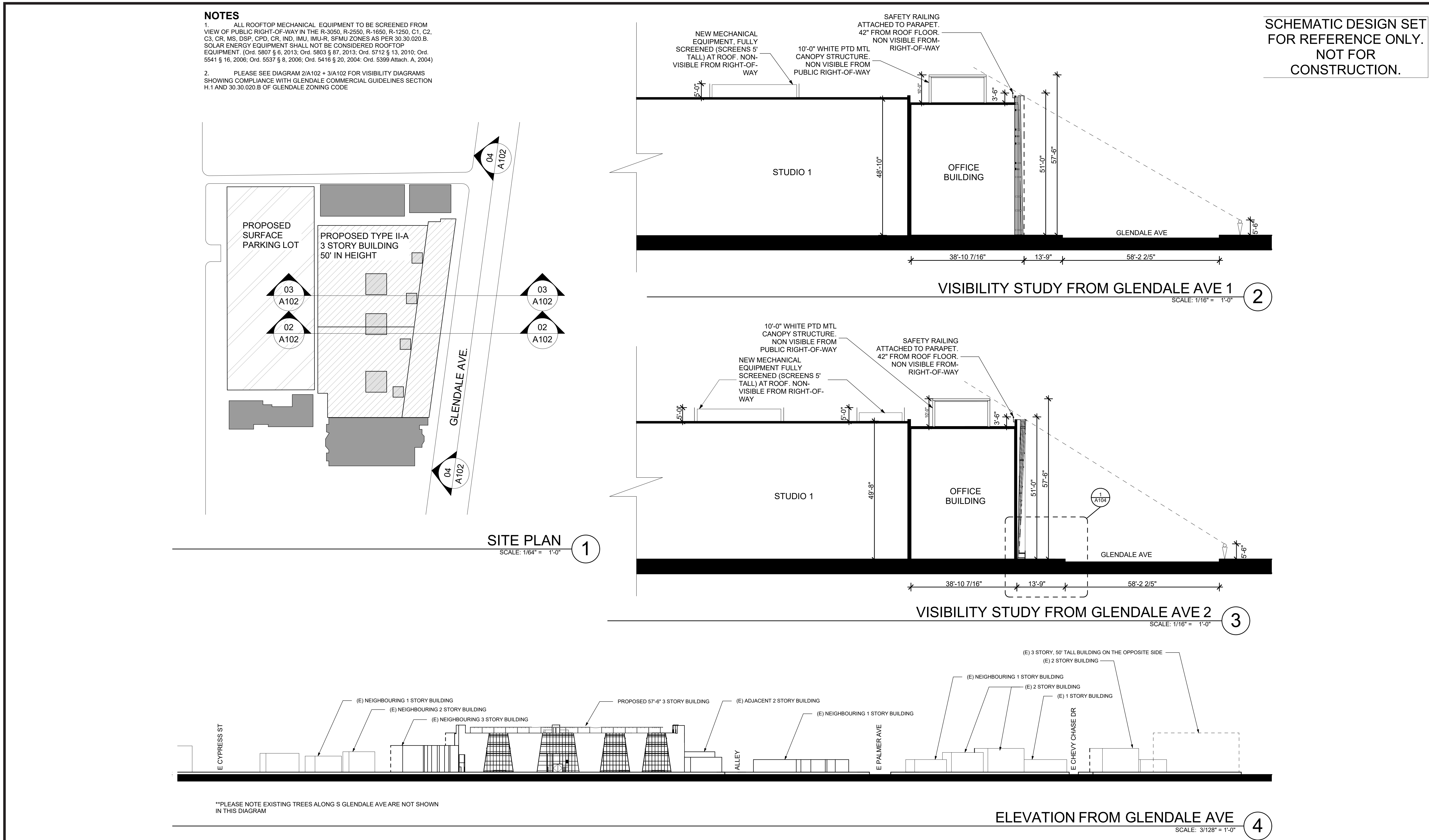
the draft SGCP. The Project would be designed one to three stories in height and would provide sidewalk access for pedestrians consistent with the draft SGCP. Due its use as sound stage production studios and ancillary production office space, the Project Site would continue to support the goals of the City as a commercial and entertainment destination locally and regionally, consistent with the draft SCGP. As such, the proposed Project would be consistent with all applicable goals and policies of the draft SCGP upon future adoption.

Zoning

The site is currently zoned for C3 I (Commercial Services Height District I) and R-2250 P (Medium Density Residential Parking Overlay). Surrounding buildings range from one to two stories in height. As previously discussed, the Project would preserve the Project Site's existing uses but would replace the existing structures with state-of-the-art modern sound stage production studios and ancillary offices that meet current entertainment industry needs. The expanded sound stage production studio and ancillary office uses are all located within the C3 I zone, where they are permitted by-right. The Project's parking lot is located in the R-2250 P zone (where it currently exists), which is allowed by-right pursuant to the parking overlay designation. The Project Site is a unified site but located in the two aforementioned zones. GMC Chapter 30.12.030 Table 30.12-B and Chapter 30.31.030.B impose both an interior setback requirement and a landscape buffer between the C3 zone and adjacent R-2250 zone. These requirements are meant to buffer more intense commercial development from adjacent residential uses and do not contemplate a unified campus like setting as proposed by the Project. Moreover, the existing uses and structures generally have the same physical configuration as proposed by the Project (i.e., no landscaped setback between the commercial uses in the C3 zone and the parking lot in the R-2250 P zone). The Project will replicate these existing conditions such that the proposed uses would be generally consistent with the distribution of the existing studios uses (i.e., studio and office in the C3 zone and parking lot uses in the R-2250 zone).

Height District 1 allows a maximum height of 3 stories and 50 feet. The Project's structures will not exceed a height of 3 stories and the vast majority of Project's new structures would not exceed 50 feet in height. Only a small portion of the Project's new structure would exceed 50 feet as follows: (i) a perimeter safety rail along the office structures north and south perimeter fronting Glendale Avenue will reach a height of 51 feet; and (ii) three shade canopy structures on top of the roof deck that will reach a height of 57 feet and 6 inches (the "Roof Canopies"). The Roof Canopies occupy approximately 9 percent of the Project's overall roof area and are not visible from the Glendale Avenue. Accordingly, only a small portion of the Project's overall height will exceed the GMC's vertical height regulation. As shown in **Figure 14: Visibility from Glendale Avenue**, the three-story ancillary studio production office space at 50 feet in height would be visible from the sidewalk across South Glendale Avenue to the east, however the proposed railing and canopy would not be visible. Moreover, the proposed building would blend into the existing buildings fronting South Glendale Avenue as shown in **Figure 15: Project Site and Context Design**. Thus, the proposed height would be consistent with the existing heights and land uses in this portion of the City.

The Project would also include a permeable landscaped walkway of approximately five (5) feet within the R-2250 zone abutting the C3 zone boundary within the Project Site. The proposed Project would eliminate both the 25-foot interior setback requirement between the C3 and R-2250 zoned parcels landscape buffer requirement to unify the Site. The Project includes a reduced 14-foot interior setback between the C3 zone and an abutting R-2250 zoned property along the Property's southernmost 35 feet to allow for improved circulation between the proposed building and surface parking lot.



SOURCE: Relativity Architects - 2021

FIGURE **14**

Meridian Consultants

Visibility from Glendale Avenue

DESIGN DEVELOPMENT SET FOR REFERENCE ONLY. NOT FOR CONSTRUCTION.

SOURCE: Relativity Architects - 2021

FIGURE **15**

Meridian Consultants

Project Site and Context Design

In addition, the Project would exceed the 25% of lot area landscaping requirement imposed by the R-2250 zoning designation but the Project would disperse landscaping over the Project Site instead of locating landscaping entirely in the R-2250 zone.[9] The Project would provide over 10,000 square feet of landscaping that will be dispersed throughout the Project Site (including the C3 zone and the roof deck) to accommodate the Project's intended campus like feeling, as the current 25% requirement is based on that portion of the lot area used for parking and circulation, which is also zoned as a parking lot overlay zone. Consistent with the Project's goal of creating a campus like setting, the Project will disperse trees required by GMC Section 30.32.160.B.2 over the Project Site rather than concentrated in the proposed parking lot. The Project exceeds the number of required trees. The proposed trash collection areas would be located within the R-2250-P zoned parcels, within the surface parking lot, which are allowed by the underlying R-2250 zone but not allowed by the P overlay. This would allow for improved circulation of garbage trucks in the proposed surface parking lot and reduce idling time; and would also concentrate all vehicle traffic along Maryland Avenue away from Glendale Avenue, which will eliminate curb cuts and contribute to pedestrian scale, orientation and walkability. The Project will also modify an existing legal non-conforming wall located in the setback along Maryland Avenue. While the wall would remain in the same location, an existing wrought iron fence would be replaced. Thus, the Project would replicate the existing uses on site and be generally consistent with the distribution of the existing studios uses. The Project would replace dated and less efficient existing structures with modern, utility efficient, green friendly structures to be compatible with surrounding land uses, provide more landscaping, and improve circulation.

As discussed above, the Project is consistent with applicable goals and related objectives in SCAG's 2020–2045 RTP/SCS, the City's Land Use Element, and the draft SCGP. Therefore, the Project would meet this criterion of the Class 32 Exemption.

> *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 encompasses approximately 2.2-acres of land, currently occupied by a production studio, office, sound stage, and parking lot. The proposed Project would demolish the existing buildings and parking lot on site to construct two new studio spaces, including sound stages, adjacent to a surface parking lot and a three-story ancillary studio production office space. The Site is surrounded by commercial and residential uses, including a large parking structure and surface parking lot associated with the various car dealerships that front Brand Boulevard to the west of the Project Site. As shown in **Figure 1**, the Project

---

9 The P overlay zone imposes a 5% lot area landscaping requirement, but the P overlay defers to the underlying R-2250 in this case.

Site is bounded by South Maryland Avenue and car dealership uses to the west; an alley, commercial uses, and residences to the north; South Glendale Avenue to the east; and a vacant lot, residences, and commercial uses to the south. Immediately north of the Project Site are commercial and residential uses and an alley. Glendale Fire Station 22 and residential uses are located to the north across the alley. To the east, across South Glendale Avenue are commercial uses and a surface parking lot. Residential and commercial uses and a vacant lot are located immediately to the south of the Project Site. The Project Site is located south of downtown Glendale and is substantially surrounded by urban uses.

The Project Site has no value as habitat for endangered, rare or threatened species.

The Project Site is surrounded entirely by commercial and dense residential uses. The Project Site is not identified for conservation purposes on any conservation or habitat plan. As noted above, the City's General Plan designates the Project Site for commercial uses and permits parking uses pursuant to the P overlay zone. The Project Site and the surrounding area are completely developed and disturbed. Portions of the existing landscape on the Site would remain and be enhanced and updated. The 17 existing trees along the west perimeter of the Site would be protected during construction. No protected trees exist on-site. 25 new trees would also be added to the Project Site. The proposed Project would not remove any existing street trees along Maryland Avenue and Glendale Avenue. Due to the centrally located urban location and developed nature of the Project Site and surrounding area the Project would not be a potential habitat for listed plant or wildlife species.

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

Traffic

The Project Site is located in a HQTA as identified by SCAG, Metro, and the City Transportation Impact Analysis (TIA) Guidelines.[10] The Project Site is served by multiple bus and shuttle lines. The Los Angeles County MTA and City of Glendale Beeline operate along Central Avenue, Brand Boulevard, Glendale Avenue, and Chevy Chase Drive.

Vehicle Miles Traveled

The City Council adopted updates to the City's TIA Guidelines in October 2020 pursuant to the requirements of SB 743, which states that all development projects within a HQTA are considered to have less than significant transportation impacts and would not require further vehicle miles traveled (VMT) analysis.[11] A transportation analysis memo was prepared to determine whether the Project would meet

10 City of Glendale, CA, *Transportation Impact Analysis Guidelines*, October 30, 2020.

11 Gibson Transportation Consulting, Inc., *Transportation Analysis for the East End Studio*, May 20, 2021 (See **Appendix A**).

the TIA's VMT exemption screening criteria for a project located in a HQTA and if the Project would require a non-CEQA local transportation analysis.

Per the City's TIA Guidelines,[12] a non-CEQA local transportation analysis may be required to evaluate the effects of a development project on the circulation network. A local transportation analysis is required for projects generating at least 50 net-new peak hour vehicle trips, using ITE trip generation rates or local/empirical rates (if available). The existing uses on site generate 190 daily trips, including 13 morning peak hour trips (nine inbound, four outbound) and 20 afternoon peak hour trips (five inbound, 15 outbound). The proposed Project would generate 527 peak daily trips, including 46 AM peak-hour and 53 PM peak-hour trips. After accounting for the Project Site's existing and active uses, the Project would result in a net increase of 337 daily trips, including 33 net new morning peak hour trips (28 inbound, five outbound) and 33 net new afternoon peak hour trips (nine inbound, 24 outbound).[13] The Project would generate fewer than 50 trips in any peak hour and, therefore, does not meet the requirement for further local transportation analysis.

The City's TIA Guidelines also provide guidance on determining when a detailed VMT analysis is needed, including several screening approaches that can be used to quickly identify when a project should be expected to cause a less-than-significant impact related to VMT. A project must meet at least one of the five screening criteria in order to be exempt from conducting a project-level VMT analysis. As shown in **Table 2: Transportation Impact Analysis Screening**, the Project meets the VMT exemption screening criterion for a project located in a HQTA. Accordingly, the Project qualifies for a VMT analysis exemption identified in Section 2.1.2 of the City's TIA Guidelines. Therefore, no further VMT analysis is required.

Table 2
Transportation Impact Analysis Screening

City of Glendale Screening Criteria[1]	Met by Project
Criterion 1: Small Project Consideration	
Does the Project generate fewer than 145 net new daily vehicle trips?	No
Is the Project consistent with the General Plan land use designation?	Yes
VMT Analysis Exempted (All Criteria Must Be Met)	**No**
Criterion 2: Affordable Housing Provision	
Does the Project provide 100% affordable housing?	No
VMT Analysis Exempted	No

12 City of Glendale, CA, *Transportation Impact Analysis Guidelines*, October 30, 2020.
13 Gibson Transportation Consulting, Inc., *Transportation Analysis for the East End Studio*, May 20, 2021 (See **Appendix A**).

City of Glendale Screening Criteria[1]	Met by Project
Criterion 3: Local-Serving Retail or Public Facility	
Is the Project a retail project (less than 50,000 square feet)?	No
Is the Project a local-serving public facility?	No
VMT Analysis Exempted (All Criteria Must Be Met)	**No**
Criterion 4: High-Quality Transit Area (HQTA)	
Is the project located in an existing high-quality transit area?[2]	Yes [2]
Does the Project have an FAR greater than 0.75?	Yes
Does the Project provide below the minimum required by City Municipal Code?	Yes
Is the Project consistent with the General Plan?	Yes
Is the Project not replacing affordable housing?	Yes
Does the Project contain transit-supportive uses?	Yes
VMT Analysis Exempted (All Criteria Must Be Met)	**Yes**
Criterion 5: Low VMT Area	
Is the Project located in a low VMT Area? [3]	No
VMT Analysis Exempted	**No**
DOES PROJECT MEET AT LEAST ONE OF THE SCREENING CRITERIA?	***YES***

[1] *City of Glendale, CA,* Transportation Impact Analysis Guidelines*, Section 2.1.2, Project Screening, October 30, 2020.*
[2] *The Project is located in an existing High Quality Transit Area (HQTA) per City TIA Guidelines Attachment A: High-Quality Transit Area Maps.*
[3] *Low VMT area shown in City TIA Guidelines Attachment B: Office/Employment Project VMT Screening.*
Source: See **Appendix A**.

Parking

In 2013, the State of California adopted Senate Bill (SB) 743 (PRC Section 21099(d)) that sets forth guidelines for evaluating aesthetic impacts for an in-fill, transit-oriented project under CEQA. PRC Section 21099(d)(1) states, "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area (TPA) shall not be considered significant impacts on the environment." The proposed Project is an infill site located within an HQTA. Thus, pursuant to Senate Bill 743, impacts related to parking for the proposed Project would not be considered significant. The following is provided for informational purposes.

Section 30.22.050 of the GMC identifies the off-street parking requirements of various land uses and the required off-street parking ratio for all developments proposed within the City. The off-street parking requirement for the Project was calculated based on the GMC rate for industrial uses. Per Table 30-32-D of the GMC, industrial uses, which include sound stages and support facilities, may provide vehicular parking at a rate of 2.0 spaces per 1,000 sf for the first 25,000 sf of floor area, 1.5 spaces per 1,000 sf for the second 25,000 sf of floor area, and 1.25 spaces per 1,000 sf for any floor area over 50,000 sf. Thus, the Project would be required to provide 119 parking spaces if the entire site were analyzed as an industrial use. The Project also requests a parking reduction permit pursuant to the GMC Section 30.50.040 to allow a reduction of six (6) parking spaces and a loading space reduction to two (2) spaces in lieu of the five (5) loading spaces required. With a supply of 113 parking spaces, the Project's proposed parking supply would not exceed the industrial GMC parking requirement. Access to the parking lot would be provided by a single driveway on the on South Maryland Avenue at the northwest side of the Project Site. This driveway would be approximately 24 feet wide. The driveway would allow right and left turns in, right turns out, and left turns out.

The Project encourages a variety of transportation options and is consistent with the General Plan goals of preserving the quality of life in the City's communities, minimizing congestion, air pollution, and noise associated with motorized vehicles, providing access to services and goods in the City by a variety of transportation modes, and developing land uses that can be supported within the capacity constraints of existing and realistic future infrastructure. The Project would preserve quality of life by minimizing traffic on major thoroughfares with access via a local street as opposed to an arterial. The Project would encourage walking, biking and transit usage by providing employment near transit, and bicycle and pedestrian connections from the Project Site to the existing sidewalks along Glendale Avenue and Maryland Avenue. The Project would provide pedestrian amenities such as street trees for a safer and more comfortable pedestrian environment. Although the Project may intensify use of existing pedestrian, transit, and bicycle facilities, as well as vehicular traffic using Maryland Avenue, none of the volumes of any of those travel modes are anticipated to reach a level where any degradation or capacity constraint would occur. As such, the Project is consistent with the goals contained in the General Plan.

The Project would not replace any existing low-income housing. The Project would contribute to the productivity and use of the nearby transit systems by providing employment near transit and retaining existing sidewalks adjacent to the Project Site along Glendale Avenue and Maryland Avenue. The Project also does not propose modification of existing bicycle and pedestrian infrastructure. As such, the Project would promote active transportation modes such as biking and walking.

As discussed above, the Project does not require further local transportation analysis and meets the VMT exemption screening criteria for a project located in a HQTA, which qualifies the Project for a VMT analysis exemption. No further VMT analysis is required because the Project is presumed to have less than significant impacts due to the Project Site's location in an HQTA and Project's proposed uses and intensity.

Noise

Noise standards for specific land uses are identified in the City of Glendale's Noise Ordinance, which is located in Chapter 8.36, Section 8.36.040 of the GMC. Under Section 8.36.040 of the Noise Ordinance, exterior and interior noise is regulated by reference to "presumed noise standards." Under Section 8.36.050 of the Noise Ordinance, where noise levels are below the presumed noise standards, the actual ambient noise level controls, and any noise more than 5 dBA above the actual ambient noise level is considered a violation of the Noise Ordinance. Where the actual ambient noise level exceeds the presumed noise standard, the actual ambient noise level is used, and any noise more than 5 dBA above the actual ambient noise level is considered a violation of the Noise Ordinance. However, under the Noise Ordinance, the actual ambient noise levels are not allowed to exceed the presumed noise level by more than 5 dBA. Under Section 8.36.040 of the GMC, residential uses have an exterior presumed noise standard of 65 dBA.

The City does not have regulations that establish maximum construction noise levels. However, Section 8.36.080 of the GMC states that it is unlawful for any person within a residential zone, or within a radius of five hundred feet therefrom, to operate equipment or perform any outside construction or repair work on buildings, structures or projects within the City between the hours of 7:00 PM on one day and 7:00 AM of the next day, or from 7:00 PM on Saturday to 7:00 AM on Monday, or from 7:00 PM preceding a holiday. Moreover, Section 8.36.290(K) of the GMC provides an exemption from the Noise Ordinance for any activity, operation, or noise, which cannot be brought into compliance (with the Noise Ordinance) because it is technically infeasible to do so. "Technical infeasibility" for the purpose of this section means that noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers, and/or any other noise reduction devices or techniques during the operation of the equipment.

The following methods were used to calculate construction noise levels:

- Ambient noise levels at surrounding noise-sensitive receptor locations were modeled based on existing noise in proximity to the nearby noise-sensitive receptors.
- Typical noise levels for each type of construction equipment were obtained from the Federal Highway Administration's (FHWA) Roadway Construction Noise Model (RCNM).

The inventory of construction equipment was assumed to operate simultaneously. Although it is unlikely that all pieces of construction equipment would be operating simultaneously at a single location during each phase, this is considered a conservative approach to calculate the maximum noise levels that would be generated.

Section 8.36.210 of the GMC provides that vibration created by the operation of any device would be a violation of City standards if such vibration were above the vibration perception threshold of an individual at or beyond the property boundary of a source on private property. For sources on a public space or public right-of-way, a violation would occur if the vibration perception threshold of an individual were exceeded at a distance of 150 feet from the source. A numerical threshold to identify the point at which a vibration impact is deemed perceptible is not identified in the GMC.

Thus, the Caltrans *Transportation and Construction Vibration Guidance Manual*[14] is used as a screening tool to assess the potential for adverse vibration effects related to structural damage. Impacts related to vibration would be considered significant if it exceeds the following standards:

- Project construction activities cause ground-borne vibration levels to exceed 0.5 PPV at the nearest off-site reinforced-concrete, steel, or timber building.
- Project construction activities cause ground-borne vibration levels to exceed 0.3 PPV at the nearest off-site engineered concrete and masonry building.
- Project construction activities cause ground-borne vibration levels to exceed 0.2 PPV at the nearest off-site nonengineered timber and masonry building.
- Project construction activities cause ground-borne vibration levels to exceed 0.12 PPV at buildings extremely susceptible to vibration damage, such as historic buildings.

If short-term Project generated construction vibration levels exceed the FTA maximum acceptable vibration standard for infrequent events of 80 VdB at sensitive receiver locations.

Section 8.36.210 of the GMC provides that vibration created by the operation of any device would be a violation of City standards if such vibration were above the vibration perception threshold of an individual at or beyond the property boundary of a source on private property. For sources on a public space or public right-of-way, a violation would occur if the vibration perception threshold of an individual were exceeded at a distance of 150 feet from the source. A numerical threshold to identify the point at which a vibration impact is deemed perceptible is not identified in the GMC.

Construction Noise

A Noise Technical Report was prepared for the proposed Project and is included in **Appendix B**. Construction activities that would occur during the construction phases (demolition, grading, building construction, architectural coating, and paving) would generate both steady-state and episodic noise that

---

14 Caltrans, *Transportation and Construction Vibration Guidance Manual* (September 2018), accessed April 2021, http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf.

would be heard both on and off the Project Site. Each phase involves the use of different types of construction equipment and, therefore, has its own distinct noise characteristics. The Project would be constructed using typical construction techniques; no blasting, impact pile driving, or jackhammers would be required. Additionally, though grading would occur for the footings during construction, no vibratory equipment will be used in the course of construction as nominal grading/excavation activities would be proposed for this Project for the footings. Although there would be grading for the footings, the Project site would be balanced and no export would be required. As such, no heavy vibratory would be required. Moreover, because the Project does not propose any subterranean uses grading and dirt hauling activities will be minimal.

The potential noise impact generated during construction depends on the phase of construction and the percentage of time the equipment operates over the workday. Construction noise estimates used for the analysis are representative of worst-case conditions the analysis assumes because it is unlikely that all the equipment contained on site would operate simultaneously. This is a conservative assumption because operating all construction equipment on site simultaneously is not likely under a construction phase. Construction equipment noise would not be constant because of the variations of power, cycles, and equipment locations. For maximum noise events, this analysis considers equipment operating at the edge of the property line of the Project Site.

Construction activities typically generate noise from the operation of equipment required for demolition, site preparation, grading, construction, paving, and application of architectural coatings. Noise impacts from construction and staging of construction equipment were evaluated by determining cumulative noise levels generated by construction activity, calculating the construction-related noise level at nearby noise-sensitive receptor locations, and comparing these construction-related noise levels to existing ambient noise levels (i.e., noise levels without Project-related construction noise). The actual noise level would vary, depending upon the equipment type, model, the type of work activity being performed, and the condition of the equipment. Over the course of construction, activities would adhere to the City's Noise Ordinance. More specifically, the City's Municipal Code Section 8.36.080 prohibits noise levels generated by construction within a radius of 500 feet of a residential zone from 7:00 PM to 7:00 AM on weekdays and on Saturday or any time on Sundays and holidays. In addition, adherence to the City's Municipal Code Section 13.42.120 would require the Project to apply best management practices for development construction projects.

The noise levels at the nearby sensitive receptors (see **Appendix B**) from construction activity are shown in **Table 3: Construction Maximum Noise Estimates**. As shown, construction noise levels would result in a maximum increase of 28.9 dBA above the significance threshold without implementation of best management practices.

Pursuant to Section 8.36.290(K) of the GMC, the Project would ensure noise emanating from construction activities are minimized to a feasible extent. This includes implementation of best management practices. Best management practices include equipping all construction equipment, fixed or mobile, with properly operating and maintained mufflers and other State-required noise attenuation devices; identify the maximum distance between construction equipment staging areas and occupied residential areas; and require the use of electric air compressors and similar power tools. Optimal muffler systems for all equipment and the break in line of sight to a sensitive receptor would reduce construction noise levels by approximately 10 dB or more.[15] A noise barrier can achieve a 5-dB noise level reduction when it is tall enough to break the line-of-sight to the receiver. After it breaks the line-of-sight, it can achieve approximately 1.5 dB of additional noise level reduction for each one (1) meter (3.3 feet) of barrier height.[16]

Moreover, the Project would comply with the GMC as it relates to construction equipment by ensuring that the operation of noise generating construction equipment would not occur between the hours of 7:00 PM on one day and 7:00 AM of the next day, or from 7:00 PM on Saturday to 7:00 AM on Monday, or from 7:00 PM preceding a holiday. Compliance with the above practices would ensure construction noise levels are reduced to the maximum extent feasible; thus construction noise levels would not be considered significant.

Table 3
Construction Maximum Noise Estimates

Noise Monitoring Site	Nearest Off-Site Building Structures	Distance from Project Site (feet)	Max Leq	Ambient Noise Leq (dBA)	Significance Threshold (dBA)	Maximum Noise Increase over Significance Threshold without Regulatory Compliance Measures (dBA)
Site 1	Residential uses along Palmer Avenue and Maryland Avenue	175	74.9	64.8	69.8	+5.1
Site 2	Residential uses along Maryland Avenue	30	89.4	55.5	60.5	+28.9

15 FHWA, *Special Report – Measurement, Prediction, and Mitigation*, updated June 2017, accessed April 2021, https://www.fhwa.dot.gov/Environment/noise/construction_noise/special_report/hcn04.cfm.

16 FHWA, *Noise Barrier Design – Visual Quality,* accessed April 2021, https://www.fhwa.dot.gov/Environment/noise/noise_barriers/design_construction/keepdown.cfm.

Noise Monitoring Site	Nearest Off-Site Building Structures	Distance from Project Site (feet)	Max Leq	Ambient Noise Leq (dBA)	Significance Threshold (dBA)	Maximum Noise Increase over Significance Threshold without Regulatory Compliance Measures (dBA)
Site 3	Residential uses along Maryland Avenue and Cypress Street	355	68.8	73.1	73.1	0.0
Site 5	Residential uses along Cypress Street	400	67.8	66.1	71.1	0.0
Site 6	Residential uses along Palmer Avenue	455	66.6	62.4	67.4	0.0

Source: ***Appendix B****: Noise Technical Report.*

Note: Location 4 was measured at the Project boundary and therefore was not included in the analysis.

Construction Vibration

Table 4: On-Site Construction Vibration Impacts–Building Damage and **Table 5: On-Site Construction Vibration Impacts–Human Annoyance** presents the construction vibration impacts associated with on-site construction in terms of building damage and human annoyance, respectively.

As shown in **Table 4**, the forecasted vibration levels due to on-site construction activities would not exceed the building damage significance threshold of 0.5 PPV ips for all sites surrounding the Project area during construction. Due to the distance of the Project-identified sensitive receptors and intervening structures, such as buildings and walls, on-site construction vibration would not result in a significant vibration impact with regard to building damage. Impacts related to building damage from on-site construction vibration would not be considered significant.

As shown in **Table 5**, the forecasted vibration levels due to on-site construction activities would not exceed the human annoyance threshold for infrequent events of 80 VdB for all sites surrounding the Project area during construction. Due to the distance of the Project-identified sensitive receptors and intervening structures, such as buildings and walls, on-site construction vibration would not result in a significant vibration impact with regard to human annoyance. Impacts related to human annoyance from on-site construction vibration would not be considered significant.

Table 4
On-Site Construction Vibration Impacts – Building Damage

Nearest Off-Site Building Structures	Estimated Vibration Velocity Levels at the Nearest Off-Site Structures from the Project Construction Equipment		Significance Threshold (PPV ips)	Exceeds Threshold?
	Loaded Trucks	Small bulldozer		
Site 1	0.004	0.000	0.5	**No**
Site 2	0.015	0.002	0.5	**No**
Site 3	0.001	0.000	0.5	**No**
Site 5	0.001	0.000	0.5	**No**
Site 6	0.001	0.000	0.5	**No**

Source: ***Appendix B****: Noise Technical Report.*

Table 5
On-Site Construction Vibration Impacts – Human Annoyance

Nearest Off-Site Building Structures	Estimated Vibration Velocity Levels at the Nearest Off-Site Structures from the Project Construction Equipment		Significance Threshold (VdB)	Exceeds Threshold?
	Loaded Trucks	Small bulldozer		
Site 1	60	32	80	**No**
Site 2	71	55	80	**No**
Site 3	51	23	80	**No**
Site 5	49	21	80	**No**
Site 6	48	20	80	**No**

Source: ***Appendix B****: Noise Technical Report.*

Operation

The Project would introduce various stationary noise sources, including heating, ventilation, and air conditioning systems, which would be located either on the roof, the side of a structure, or on the ground. All Project mechanical equipment would be required to be designed with appropriate noise-control devices—such as sound attenuators, acoustics louvers, or sound screens/parapet walls—to comply with noise compatibility requirements provided in the GMC. The stationary equipment would be required to comply with GMC Section 30.34.070, which establishes low-sound intensities from mechanical equipment. Therefore, operation of mechanical equipment on the Project building would not exceed the City's threshold of significance.

Cumulative Noise

For purposes of this analysis, development of any related projects will be considered to contribute to cumulative noise impacts. Noise, by definition, is a localized phenomenon and drastically reduces as distance from the source increases. As a result, only related projects and growth in the general area of the Project Site (within 500 feet) would contribute to cumulative noise impacts. Cumulative construction-noise impacts have the potential to occur when multiple construction projects in the local area generate noise within the same time frame and contribute to the local ambient noise environment. It is expected that, as with the Project, any related projects would adhere to Section 8.36.290(K) of the GMC and implement noise reduction techniques such as mufflers, shields, sound barriers, which would minimize any noise-related nuisances during construction. In addition, distance attenuation and intervening structures would further reduce construction noise levels and not result in noticeable increases. Therefore, the combined construction-noise impacts of related projects within 500 feet and the Project's contribution would not cause a significant cumulative impact.

With regard to stationary sources, cumulative significant noise impacts may result from cumulative development. Stationary sources of noise that could be introduced in the area by cumulative projects could include mechanical equipment, loading docks, and parking lots. Noise levels within the proposed parking lot would fluctuate with the amount of automobile and human activity. It is anticipated that parking related noise would be similar to existing levels as the Project Site currently includes surface parking. As such, the parking lot would not introduce a new source of noise in the Project vicinity. Given that these projects would be required to adhere to the City's noise standards, all stationary sources would be required to have shielding or other noise-abatement measures so as not to cause a substantial increase in ambient noise levels. Moreover, due to distance, it is unlikely that noise from multiple cumulative projects would interact to create a significant combined noise impact. As such, it is not anticipated that a significant cumulative increase in permanent ambient noise levels would occur.

Air Quality

The Project Site is located within the City of Glendale, which is part of the South Coast Air Basin (Basin) and is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is the agency responsible for preparing the Air Quality Management Plan (AQMP) for the Basin. The most recent comprehensive plan fully approved by the US Environmental Protection Agency (USEPA) is the 2016 AQMP, which includes a variety of strategies and control measures.

Projects that are consistent with the projections of employment and population forecasts identified in the Growth Management chapter of the Regional Comprehensive Plan (RCP) are considered consistent with the AQMP growth projections because the Growth Management chapter forms the basis of the land use and transportation control portions of the AQMP. Population growth associated with the proposed Project is included in the SCAG projections for growth in the City of Glendale.[17] The proposed Project does not result in population and housing growth that would cause growth in Glendale to exceed the SCAG forecast because the Project's proposed uses and development intensity are consistent with the Glendale General Plan and applicable development regulations. Moreover, as shown in **Tables 6** through **8** below, the Project would not exceed any of the SCAQMD thresholds. Consequently, the proposed Project would not conflict with the implementation of any regulations set forth by the SCAQMD[18] or in the Congestion Management Plan;[19] violate any air quality standard; or contribute substantially to an existing project air quality violation.

Construction Emissions

An Air Quality Technical Report was prepared for the proposed Project and is included in **Appendix C**. Estimated construction emissions were quantified based on the type and number of equipment associated with demolition, grading, construction, paving, and architectural coating. Maximum daily emissions of air pollutants during construction of the Project were calculated using CalEEMod. **Table 6: Maximum Construction Emissions** identifies daily emissions that are estimated for peak construction days for each construction year. It is important to note, emissions presented in **Table 6** do not include regulatory compliance measures such as construction equipment controls (Tier 3 emissions standards with Level 3 DPF per CARB requirements)[20] or control efficiency of PM10 (dust control measures per SCAQMD Rule 403) to provide a worst-case scenario analysis. Emissions of volatile organic compounds (VOCs), nitrogen oxides (NOx), carbon monoxide (CO), sulfur oxides (SOx), and particulate matter (PM10 and PM2.5) are compared against the applicable SCAQMD mass daily threshold of significance. Based on the modeling, construction of the Project would not exceed regional VOC, NOx, CO, SOx, PM10, and PM2.5 concentration thresholds. Construction of the Project would not generate any significant environmental impacts associated with air quality compliance. Accordingly, air quality emissions associated with construction of the Project would not have a significant effect on the environment.

---

17 SCAG, *Demographics and Growth Forecast*, https://scag.ca.gov/sites/main/files/file-attachments/f2016rtpscs_demographicsgrowthforecast.pdf?1606073557, accessed April 2021.

18 South Coast Air Quality Management District (SCAQMD), accessed June 2018, http://www.aqmd.gov/.

19 Lost Angeles County Metropolitan Transportation Authority, "Congestion Management Program," accessed June 2018, https://www.metro.net/projects/congestion_mgmt_pgm/.

20 California Air Resources Board, *Guide to Off-Road Vehicle & Equipment Regulations,* website: https://ww3.arb.ca.gov/msprog/offroadzone/pdfs/offroad_booklet.pdf, accessed April 2021.

Table 6
Maximum Construction Emissions

Source	VOC	NOx	CO	SOx	PM10	PM2.5
	pounds/day					
Maximum (Project Construction)	9	27	31	<1	7	4
SCAQMD threshold	75	100	550	150	150	55
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: ***Appendix C****: Air Quality Technical Report.*
Notes:
CO = carbon monoxide; NOx = nitrogen oxides; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; SOx = sulfur oxides; VOC = volatile organic compounds.

Operational Emissions

Emissions of air pollutants attributed to stationary and mobile sources would result from normal day-to-day use of the proposed uses. Area source emissions would be generated by the consumption of natural gas and by landscape maintenance. Mobile emissions would be generated by the motor vehicles traveling to and from the Project Site.

The analysis of daily operational emissions associated with the proposed Project was prepared utilizing CalEEMod. The results presented in **Table 7: Maximum Operational Emissions** are compared to the SCAQMD-established operational significance thresholds. Operational emissions would result primarily from passenger vehicles traveling to and from the Project Site.

Table 7
Maximum Operational Emissions

Source	VOC	NOx	CO	SOx	PM10	PM 2.5
	pounds/day					
Area	2	<1	<1	0	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	1	4	13	<1	4	1
Total	3	4	14	<1	4	1
Existing	*1*	*2*	*6*	*<1*	*2*	*<1*
Net Total	**2**	**2**	**8**	**<1**	**2**	**<1**
SCAQMD Mass Daily Threshold	55	55	550	150	150	55
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

*Source: **Appendix C**: Air Quality Technical Report.*
Notes: Totals in table may not appear to add exactly due to rounding in the computer model calculations.
CO = carbon monoxide; NOx = nitrogen oxides; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; SOx = sulfur oxides; VOC = volatile organic compounds.

As shown in **Table 7**, the operational emissions would not exceed the regional VOC, NOx, CO, SOx, PM10, and PM2.5 concentration thresholds. Operation of the Project would not generate any significant environmental impacts associated with air quality compliance. Accordingly, air quality emissions associated with operation of the Project would not have a significant effect on the environment.

Localized Significance Thresholds

Localized emissions were evaluated to determine if there would be any significant air quality impacts to sensitive receptors. The result of the localized analysis are provided in **Table 8: Localized Construction and Operational Emissions**. These estimates assume the maximum area that would be disturbed during construction on any given day during Project buildout. Construction would comply with the SCAQMD's Rule 403 (Fugitive Dust), which requires watering of the site during dust-generating construction activities, stabilizing disturbed areas with water or chemical stabilizers, and preventing track-out dust from construction vehicles. Additionally, construction would be required to meet USEPA Tier 3 emission standards for equipment greater than 50 horsepower per CARB requirements.[21] As shown in **Table 8**, emissions would not exceed the localized significance construction and operational thresholds.

21 California Air Resources Board, Guide to Off-Road Vehicle & Equipment Regulations, website: https://ww3.arb.ca.gov/msprog/offroadzone/pdfs/offroad_booklet.pdf, accessed April 2021.

Table 8
Localized Construction and Operational Emissions

Source	NOx	CO	PM10	PM2.5
	On-Site Emissions (pounds/day)			
Construction				
Total maximum emissions	14	15	3	2
LST threshold[a]	112	799	7	4
Threshold Exceeded?	**No**	**No**	**No**	**No**
Operational				
Project area/energy emissions	<1	<1	<1	<1
LST threshold[a]	112	799	2	1
Threshold Exceeded?	**No**	**No**	**No**	**No**

*Source: **Appendix C**: Air Quality Technical Report.*
Notes: Totals in table may not appear to add exactly due to rounding in the computer model calculations.
CO = carbon monoxide; NOx = nitrogen oxide; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns.
[a] The Project Site is approximately 2.2 acres. Consistent with SCAQMD's Localized Significance Threshold (LST) Methodology, the localized thresholds are based on a 2.2-acre site with a receptor distance of 25 meters (82 feet) in SCAQMD's SRA 7.

Toxic Air Contaminants

Project construction would result in short-term emissions of diesel particulate matter, which is a TAC. Off-road heavy-duty diesel equipment would emit diesel particulate matter over the course of the construction period. Localized diesel particulate emissions (strongly correlated with PM2.5 emissions) would be minimal and would be substantially below localized thresholds, as shown in **Table 8**. Project compliance with the CARB anti-idling measure, which limits idling to no more than 5 minutes at any location for diesel-fueled commercial vehicles, would further minimize diesel particulate matter emissions in the Project area.

Project operations would generate only minor amounts of diesel emissions from delivery trucks and incidental maintenance activities. Trucks would comply with the applicable provisions of the CARB Truck and Bus regulation to minimize and reduce emission from existing diesel trucks. In addition, Project operations would only result in minimal emissions of air toxics from maintenance or other ongoing activities, such as from the use of architectural coatings or household cleaning products. As a result, toxic or carcinogenic air pollutants are not expected to occur in any meaningful amounts in conjunction with operation of the proposed uses within the Project Site. Based on the uses expected on the Project Site, potential long-term operational impacts associated with the release of TACs would be minimal and would not be expected to exceed the SCAQMD thresholds of significance.

Odors

As shown in **Table 8**, the construction of the Project would result in emissions below the localized significance thresholds. Mandatory compliance with SCAQMD Rule 1113 would limit the amount of VOCs in architectural coatings and solvents. According to SCAQMD, while almost any source may emit objectionable odors, some land uses are more likely to produce odors because of their operation. Land uses more likely to produce odors include agriculture, chemical plants, composting operations, dairies, fiberglass molding manufacturing, landfills, refineries, rendering plants, rail yards, and wastewater treatment plants. The Project does not contain any active manufacturing activities and would not convert current agricultural land to residential land uses. Therefore, objectionable odors would not be emitted by the proposed uses.

Any unforeseen odors generated by the Project will be controlled in accordance with SCAQMD Rule 402. As previously noted, Rule 402 prohibits the discharge of air contaminants that harm, endanger, or annoy individuals or the public; endanger the comfort, health or safety of individuals or the public; or cause injury or damage to business or property. Failure to comply with Rule 402 could subject the offending facility to possible fines and/or operational limitations in an approved odor control or odor abatement plan.

Consistency with AQMP

The Basin is designated nonattainment at the federal level for O3 and PM2.5 and State level for O3, PM10, and PM2.5. SCAQMD developed regional emissions thresholds, as shown in **Table 6** and **Table 7**, to determine whether a project would contribute to air pollutant violations. If a project exceeds the regional air pollutant thresholds, then it would significantly contribute to air quality violations in the Basin.

As shown in **Table 6**, temporary emissions associated with construction of the Project would fall below SCAQMD thresholds for VOCs, NOx, CO, SOx, PM10, and PM2.5. As shown in **Table 7**, long-term emissions associated with operation of the Project would not exceed SCAQMD thresholds for VOCs, NOx, CO, SOx, PM10, and PM2.5.

The Project's maximum potential NOx, CO, PM10, and PM2.5 daily emissions during construction and operation were analyzed to determine potential effects on localized concentrations and to determine if the potential exists for such emissions to cause or affect a violation of an applicable AAQS. As shown in **Table 8**, NOx, CO, PM10, and PM2.5 emissions would not exceed the SCAQMD localized significance thresholds.

The Project is also located in an urban area, which would reduce vehicle trips and vehicle miles traveled due to the Project's urban infill characteristic and proximity to public transit stops. These measures and features are consistent with existing recommendations to reduce air emissions. As such, the proposed Project would not result in a significant air quality impact.

Cumulative

Development of the Project in conjunction with any related projects near the Project would result in an increase in construction and operational emissions in an already urbanized area of the City. However, cumulative air quality impacts from construction, based on SCAQMD guidelines, are not analyzed in a manner similar to project-specific air quality impacts. Instead, SCAQMD recommends that a project's potential contribution to cumulative impacts should be assessed utilizing the same significance criteria as those for project-specific impacts. According to SCAQMD, individual development projects that generate construction or operational emissions that exceed SCAQMD recommended daily regional or localized thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

With the implementation of regulatory compliance measures such as Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coating), the Project's construction and operational emissions are not expected to significantly contribute to cumulative emissions for CO, NOx, PM10, and PM2.5. As such, the Project's contribution to cumulative air quality emissions in combination with the related projects would not be cumulatively considerable.

As discussed previously, the Project would not jeopardize the attainment of air quality standards in the 2016 AQMP for the South Coast Air Basin and the Los Angeles County portion of the South Coast Air Basin. As such, the Project would not have a cumulatively considerable contribution to a potential conflict with or obstruction of the implementation of the AQMP regional reduction plans.

Water Quality

As authorized by the Clean Water Act (CWA), the National Pollutant Discharge Elimination System (NPDES) Permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States which includes reservoirs, lakes, and their tributary waters. Point sources are discrete conveyances such as pipes or man-made ditches. Three general sources of potential short-term, construction-related stormwater pollution are associated with construction of the new studio spaces, ancillary studio production offices, and surface parking lot and the installation of the new landscape improvements: (i) the handling, storage, and disposal of construction materials containing pollutants; (ii) the maintenance and operation of construction equipment; (iii) and earthmoving activities that, when not controlled, may generate soil erosion via storm runoff or mechanical equipment. Waste discharges include discharges of stormwater and construction surface water runoff from a project.

The Applicant would be required to satisfy all applicable requirements of GMC Chapter 13.42, Stormwater and Urban Runoff Pollution Prevention Control and Standard Urban Stormwater Mitigation Plan (SUSMP), at the time of construction to the satisfaction of the City of Glendale Public Works Department.

These requirements include preparation of a Stormwater Prevention Plan (SWPPP) containing structural treatment and source control measures appropriate and applicable to the proposed Project. The SWPPP would incorporate best management practices (BMPs) by requiring control of pollutant discharges that utilize best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT) to reduce pollutants. Examples of BAT/BCT that may be implemented during site grading and construction of the proposed Project could include straw hay bales, straw bale inlet filters, filter barriers, and silt fences. Preparation of the SWPPP would be incorporated as a condition of approval. Implementation of BMPs would ensure that Los Angeles Regional Water Quality Control Board (LARWQCB) water quality standards are met during construction activities of the proposed Project. Therefore, no significant impact during construction would occur.

After construction, the new studio spaces, ancillary studio production office and surface parking lot would incrementally increase the intensity of activities on the site and would likely result in an incremental increase in typical urban pollutants generated by motor vehicle use on roadways and parking areas adjacent to the Project Site, and the maintenance and operation of landscaped areas. Stormwater quality is generally affected by the length of time since the last rainfall, rainfall intensity, urban uses of the area, and quantity of transported sediment. Typical urban water quality pollutants usually result from motor vehicle operations; oil and grease residues; fertilizer/pesticide uses; human/animal littering; careless material storage; and poor handling and property management. The majority of pollutant loads are usually washed away during the first flush of the storm occurring after the dry-season period. While these pollutants have the potential to degrade water quality, the quality of runoff from the Project Site would be subject to Section 401 of the CWA under the NPDES permit, which would be issued by the LARWQCB.

Development projects are required by the GMC to submit and then implement a SUSMP containing design features and BMPs appropriate and applicable to the project. The purpose of the SUSMP is to reduce postconstruction pollutants in stormwater discharges. The proposed Project would incorporate silt fences, sandbag barriers, and/or stabilization of the construction entrance/exit to satisfy the SUSMP standards. One of the requirements of the SUSMP is that the Project retain on-site water runoff from the first 0.75 inches of a 24-hour rain event. Prior to issuance of any grading or building permits, the City must approve the SUSMP; preparation of the SUSMP is incorporated as a project design feature. There would be no potential water quality impacts following the preparation of the SUSMP and implementation of the BMPs.

The site can be adequately served by all required utilities and public services.

Utilities

Electric, gas, water and sewer services already exist on the Project Site and already provide service to the existing buildings, which contain the same uses proposed by the Project. The proposed Project can be served by the existing utility systems. Electricity would be supplied to the Project Site by Glendale Water and Power distribution infrastructure and would be obtained from existing substations and electrical lines in and around the Project Site. Natural gas service would be provided to the Project Site by Southern California Gas Company (SoCalGas). Both electricity and natural gas supply and demand are discussed in detail in *Additional Findings* below.

Water service would be provided by Glendale Water and Power; wastewater generated would be collected and conveyed by the City's sewer infrastructure and discharge to either the City of Los Angeles's Hyperion Treatment Plant (HTP) or to the Los Angeles–Glendale Water Reclamation Plant, with the sludge discharged to the HTP system.

The City's Urban Water Management Plan projects adequate water supplies through 2040.[22] In the year 2015, the City utilized approximately 3,757 acre-feet (af) of water for commercial uses. By the year 2025, the City expects to increase that number to 4,290 af, an increase of 533 af.[23] Based on a water demand rate of 20 gallons per day (gpd) per 1,000 square feet, the proposed Project would utilize approximately 1,504 gpd, or 1.7 af per year. The increase in water usage would account for less than 1 percent of the expected increase between 2020 and 2040.

Public Services

The Project would be served by the Glendale Fire Department (GFD). Fire Station No. 22, located at 1201 South Glendale Avenue, immediately north of the Project Site across the bordering alley, would serve as the first-in station responder in the event of an emergency. Fire Station No. 22 is equipped with an engine company, basic life support ambulance, and urban search and rescue.[24] Fire Station No. 21, located at 421 Oak Street, would provide secondary response for any incident. In the event that any of the units of Fire Station Nos. 22 or 21 are not available, other units would be available for dispatch from other GFD fire stations or adjacent jurisdictions. As mentioned previously, the proposed Project does not result in any

---

22 City of Glendale, Glendale Water and Power, *2015 Draft Urban Water Management Plan (April 2016)*, accessed April 2021, http://www.glendaleca.gov/home/showdocument?id=29585.

23 City of Glendale, Glendale Water and Power, *2015 Draft Urban Water Management Plan (April 2016)*, accessed April 2021, http://www.glendaleca.gov/home/showdocument?id=29585.

24 City of Glendale Fire Department, "Fire Stations: Fire Station 22," accessed April 2021, https://www.glendaleca.gov/government/departments/fire-department/administration/fire-stations#22.

population and housing growth. The proposed Project would result in an increase of commercial building square footage on the Project Site (from approximately 26,948 square feet to approximately 75,190 square feet). With the additional square footage, the number of employees on site would increase. However, given the proximity of Fire Station No. 22, the increased square footage and employees on site would not substantially affect provision of fire protection services given the location of the site in a highly urbanized area and close proximity to existing fire stations. Thus, the proposed Project would not result in an increase of fire protection services.

Police protection services would be provided by the Glendale Police Department. The closest station to the Project Site is located at 131 North Isabel Street, approximately 1.3 miles to the northeast. The proposed Project does not result in any population and housing growth given the proposed and current commercial uses on the Site.

School services for the Project are provided by the Glendale Unified School District (GUSD). The Project is currently served by the following GUSD public schools: Horace Mann Elementary School, Allan F. Daily High School, and Theodore Roosevelt Middle School. Section 65995 of the Government Code provides that school districts can collect a fee on a per-square-foot basis to assist in the construction of or additions to schools. Pursuant to Section 65995, the Project applicant is required to pay school impact fees to the GUSD based on the current fee schedule for developments prior to the issuance of building permit. The proposed Project would not impact current GUSD operating capacities as the proposed use would not generate an increased demand of these uses.

With respect to libraries, the proposed Project does not contain any residential component. As such, the Project would not result in population growth that would increase the demand for library uses.

EXCEPTIONS TO THE USE OF CATEGORICAL EXEMPTIONS

There are exceptions to the use of categorical exemptions. The following analysis demonstrates why the Project does not fall into any of the exceptions that would disqualify the Project from using the Class 32 Infill Exemption.

Location.

This exception applies only to exemption Class 3, 4, 5, 6, and 11, and does not apply to exemption Class 32. Because the Project meets the criteria for exemption Class 32, this exception does not apply.

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.

Cumulative impacts may occur if the proposed Project in conjunction with one or more related projects would yield an impact that is greater than what would occur with the development of only the proposed Project. With regard to cumulative effects for the issues of land use, traffic, noise, air and water quality, utilities, public services and energy, the Project Site is located in South Glendale surrounded by commercial and residential uses; therefore, other developments occurring in the area of the Project Site would largely occur on previously disturbed land. Thus, no cumulative impact to these resources would occur.

The City's pending projects near the Project Site combined with the proposed Project may result in cumulative effects in other environmental issues areas due to collective development within an already urbanized area. However, the Project would not result in any impacts and thus would not result in cumulative impacts when combined with the City's other related projects.

> *<u>Significant Effect</u>. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.*

The proposed studio spaces and ancillary studio production office are located within the draft SGCP. As discussed above, the proposed studio spaces and ancillary studio production office uses are consistent with the draft SGCP objectives for the South Glendale Avenue Corridor (south of Palmer Avenue), which is to provide locally-serving development that caters to surrounding residents that encourages pedestrian activity by providing direct connections and access to sidewalks along Glendale Avenue and Maryland Avenue. As mentioned in the analysis presented above, there are no known or identified potentially significant effects on the environment because the Project Site consists of flat parcels and is already developed with the same uses as the proposed Project. No strange topography exists on the Project Site as the site is relatively flat. Further, the proposed uses are generally consistent with the distribution of the existing studios uses (i.e., studio and office in the C3 zone and parking lot uses in the R-2250 P Overlay zone) on the Project Site. The Project Site is within a completely developed infill urban area of the City and would comply with land use and massing requirements pursuant to the GMC. Therefore, this exception does not apply.

> *<u>Scenic Highways</u>. 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.*

The Project Site is not located adjacent to a State scenic highway because neither Maryland Avenue nor Glendale Avenue are designated State scenic highways. Nevertheless, the Project proposes to protect the 17 existing trees on the Project Site during construction. These trees will be incorporated into the proposed Project landscape design, with 25 new trees added. The proposed Project would not remove any existing street trees along Maryland Avenue and Glendale Avenue. In addition, the Project Site is not located within the view corridor of any State scenic highway because there are no State-designated scenic highways found in the City of Glendale.[25] As such, the proposed Project would not substantially damage scenic resources and would not have a significant effect on the environment. Therefore, this exception does not apply.

> *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.*

The Project Site is not included on any State hazardous list and would not pose an environmental hazard to people on the site or to surrounding sensitive uses. The State GeoTracker and EnviroStor websites were reviewed to determine if the site was listed as a current or former Department of Toxic Substances Control site. The Project Site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Accordingly, the Project Site redevelopment would not have a significant effect on the environment. Therefore, this exception does not apply.

> *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.*

A Historic Resources Survey for the SGCP EIR (SGCP Historic Resources Survey) identified potential historic resources within the South Glendale Community Plan area which includes all neighborhoods south of SR-134. These neighborhoods include the original industrial and commercial centers of the City along with some of the oldest residential neighborhoods. The historic resources survey included methodology and criteria which were used to identify resources associated with early single-family residential development. Two buildings on the Project Site were included in the survey assessment area, located at 1221 and 1229 South Glendale Avenue. Although both subject properties located at 1221 and 1229 South Glendale Avenue are within the area assessed in the SGCP EIR Historic Resources Survey, they were not identified as potential historical resources. In addition, these buildings are in fair condition but have been substantially altered since originally constructed and minimally convey the character-defining features of the Craftsman style of architecture.[26]

A Historic Resources Evaluation (**Appendix D**) was prepared for these buildings within the Project Site to determine if they meet the definition of a "historical resource" as defined in Section 15064.5(a) of the

---

25 California Department of Transportation, "California Scenic Highway Mapping System," accessed April 2021, https://www.arcgis.com/apps/webappviewer/index.html?id=2e921695c43643b1aaf7000dfcc19983.

26 Sapphos Environmental Inc., *Historical Resource Assessment Report*, March 25, 2021 (See **Appendix D**).

CEQA Guidelines. Properties considered historical resources under Section 15064.5(a)(3) of the CEQA Guidelines must meet one of the following criteria for listing in the California Register:

A. Is associated with events that have made a significant contribution to the broad patterns of history and cultural heritage; or

B. Is associated with the lives of persons important in our past; or

C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value; or

D. Has yielded or may be likely to yield information important in prehistory or history.

The evaluation of the subject properties was completed based upon California Register and Glendale Register designation criteria.[27]

Based on a review of the historic context prepared for the SGCP Historic Resources Survey, previous ownership, and the construction history of the buildings located at 1221 and 1229 South Glendale Avenue, the Historic Resources Evaluation determined no historically significant events were known to have occurred at these locations pursuant to Criterion A. Persons who made demonstrably significant contributions to the nation, State, region, or City are not known to be associated with either of these buildings and are therefore ineligible for listing pursuant to Criterion B. The residences at 1221 and 1229 South Glendale Avenue were constructed during the Craftsman style's period, but both buildings are a common example of Craftsman architecture and have been substantially altered leaving minimal character-defining features of the type intact. Further, the buildings are not known to be the work of a master and do not embody the distinct characteristics of a type, period, or method of construction. Accordingly, both buildings are ineligible for listing pursuant to Criterion C. Finally, both buildings were constructed using common building materials and techniques, and the sites were graded during construction of the buildings. As such, the buildings are not likely to yield significant information regarding the prehistory and history of the area pursuant to Criterion D.[28]

Thus, the buildings located at 1221 and 1229 South Glendale Avenue on the Project Site are not eligible for listing in the California Register or for designation as City Historic Resources because they are not considered to be historical resources. Although the buildings were originally constructed in Craftsman style, they have both been substantially altered overtime and no longer retain the necessary integrity to be considered significant examples of the architectural type.[29]

---

27 Sapphos Environmental Inc., *Historical Resource Assessment Report*, March 25, 2021 (See **Appendix D**).

28 Sapphos Environmental Inc., *Historical Resource Assessment Report*, March 25, 2021 (See **Appendix D**).

29 Sapphos Environmental Inc., *Historical Resource Assessment Report*, March 25, 2021 (See **Appendix D**).

Accordingly, demolition of these buildings would not result in a substantial adverse change to a historical resource. Therefore, this exception does not apply.

ADDITIONAL FINDINGS

The Class 32 Exemption is not applicable if a project requires mitigation measures to reduce potential environmental impacts to less than significant. Other topics from the Initial Study Checklist not addressed previously are discussed below to demonstrate that no mitigation is necessary to address any environmental impacts that would result from the Project.

Energy

The following analysis estimates the Project's electricity, natural gas, and transportation fuel usage and evaluates whether the Project would result in wasteful, inefficient, or unnecessary consumption of energy. In accordance with Appendix F of the CEQA Guidelines, the analysis includes relevant information to address the energy implications of the Project. It should be noted that the proposed Project would be required to comply with energy conservation standards pursuant to Title 24 of the California Code or Regulations and the City's Green Building Code. As such, the proposed Project would not conflict with adopted energy conservation plans or violate federal or State energy standards.

Construction

During construction, energy would be directly consumed on a limited basis to power lights, and electronic equipment, and indirectly for the conveyance of water used for dust control during grading. As discussed below, construction activities, including the construction of new buildings, typically do not involve the consumption of natural gas. Construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment within the Project Site, construction worker travel, haul trips, and delivery trips.

As shown in **Table 9: Summary of Energy Use During Construction** and additionally discussed below, a total of approximately 499 kilowatt-hours (kWh) of electricity, 44,970 gallons of diesel fuel, and 6,370 gallons of gasoline is estimated to be consumed during construction of the Project.

Table 9
Summary of Energy Use During Construction

Fuel Type	Quantity
Electricity	
Water Conveyance	499 kWh
Diesel	
On-Site Construction Equipment	36,251 gallons
Off-Site Motor Vehicles	8,719 gallons
Total	**44,970 gallons**
Gasoline	
On-Site Construction Equipment	0 gallons
Off-Site Motor Vehicles	6,370 gallons
Total	**6,370 gallons**

Source: Refer to **Appendix E** for detailed calculations.

Electricity

During construction, electricity would be consumed to supply and convey water for dust control and, on a limited basis, may be used to power lighting, electronic equipment, and other construction activities necessitating electrical power. Electricity would be supplied to the Project Site by Glendale Water and Power distribution infrastructure and would be obtained from existing substations and electrical lines in and around the Project Site.

As shown in **Table 9** above, a total of approximately 499 kWh of electricity is anticipated to be consumed during construction. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption.

Due to the relatively short duration of the construction process, and the fact that the extent of electricity consumption is inherent to construction projects of this size and nature, electricity consumption impacts would not be considered excessive or substantial with respect to regional supplies. The energy demands during construction would be typical of construction projects of this size and construction of the Project would not result in the wasteful, inefficient, or unnecessary consumption of electricity resources. Accordingly, electricity demands during construction would be less than significant.

Natural Gas

Construction activities do not typically involve the consumption of natural gas as construction equipment and staging rely heavily on electricity and transportation fuels. Accordingly, natural gas would likely not be needed to support construction activities; thus, there would be little to no demand generated by construction. As a result, the Project would not result in inefficient, or unnecessary consumption of natural gas during construction. Accordingly, natural gas demands during construction would be less than significant.

Transportation Energy

Project construction would consume energy in the form of petroleum-based fuels associated with use of off-road construction vehicles and equipment on the Project Site, construction worker travel to and from the Project Site, and delivery and haul truck trips (e.g., for deliveries of construction supplies and materials).

The petroleum-based fuel use summary provided in **Table 8** represents the amount of transportation energy that could potentially be consumed during construction based on a conservative set of assumptions. As shown, on- and off-road vehicles would consume an estimated 51,340 gallons of petroleum (6,370 gallons of gasoline and 44,970 gallons of diesel fuel) throughout the Project's construction period. For purposes of comparison, the Energy Information Administration (EIA) forecasts a national oil supply of 20.39 million barrels (mb) per day in 2022, which is the first year of construction for the Project.[30] This equates to approximately 7,472 mb per year or 312,579 million gallons (mg) per year. Construction of the Project would account for less than 0.01 percent of the projected annual oil supply in 2022.

Due to the relatively short duration of the construction process, and the fact that the extent of fuel consumption is inherent to construction projects of this size and nature, fuel consumption impacts would not be considered excessive or substantial with respect to regional fuel supplies. The energy demands during construction would be typical of construction projects of this size and would not necessitate additional energy facilities or distribution infrastructure. The Project will also comply with Sections 2485 in Title 13 of the California Code of Regulations, which requires the idling of all diesel fueled commercial vehicles be limited to five minutes at any location. As a result, the Project would not result in inefficient,

30 U.S. Energy Information Administration, Annual Energy Outlook 2020: Table 11. Petroleum and Other Liquids Supply and Disposition, https://www.eia.gov/outlooks/aeo/data/browser/#/?id=11-AEO2020&cases=ref2020&sourcekey=0, Accessed April 2021.

or unnecessary consumption of transportation resources during construction. Accordingly, transportation resource demands during construction would be less than significant.

Operation

During operation of the Project, energy would be consumed for multiple purposes associated with the proposed uses, including, but not limited to, heating/ventilating/air conditioning (HVAC); refrigeration; lighting; and the use of electronics, equipment, and machinery. Energy would also be consumed during operation of the Project in the form of water usage, solid waste disposal, and vehicle trips, among others. As shown in **Table 10: Summary of Annual Energy Use During Operation**, the Project's net energy demand would be approximately 666,265 kWh of electricity per year, 730,577 kBTU of natural gas per year, and 43,443 gallons of transportation fuel per year.

Electricity

As shown in **Table 10**, buildout of the Project would result in a projected on-site net demand for electricity, totaling 666,265 kWh per year. Electricity would be supplied to the Project Site by Glendale Water and Power distribution infrastructure and would be obtained from existing substations and electrical lines in and around the Project Site. Moreover, Glendale Water and Power anticipates an energy load forecast of 1,247 gigawatt hours (GWh) or 1,247,000,000 kWh for the year 2023, which is the opening year for the proposed Project.[31] The proposed Project's electricity demand would account for approximately 0.05 of the 2023 electricity forecast. Accordingly, electricity demand during operation would be less than significant.

Table 10
Summary of Annual Energy Use During Operation

Source	Units	Quantity
Electricity		
Studio Office	kWh/yr	342,497
Stage/Studio Production	kWh/yr	539,971
Parking Lot	kWh/yr	15,820
Water	kWh/yr	181,859
Total Electricity	kWh/yr	1,080,147
Existing Electricity	*kWh/yr*	*413,882*
Net Total	**kWh/yr**	**666,265**

31 City of Glendale Water and Power, 2019 SB 350 Integrated Resource Plan for Glendale Water and Power, July 2019.

Source	Units	Quantity
Natural Gas		
Studio Office	kBTU/yr	276,323
Stage/Studio Production	kBTU/yr	880,493
Total Natural gas	kBTU/yr	1,156,816
Existing Natural Gas	*kBTU/yr*	*426,239*
Net Total	**kBTU/yr**	**730,577**
Transportation Energy		
Diesel	Gallons/yr	9,295
Gasoline	Gallons/yr	57,762
Total Fuel	Gallons/yr	67,057
Existing Fuel	*Gallons/yr*	*23,614*
Net Total	**Gallons/yr**	**43,443**

Source: Refer to ***Appendix E*** *for detailed calculations.*
Notes: kWh/yr. = kilowatt-hours per year; kBtu/yr. = thousand British Thermal Units per year.
Electricity and Natural Gas for the Project is total yearly operational usage. Mobile gasoline and diesel usage were calculated using CalEEMod output data

Natural Gas

Natural gas service would be provided to the Project Site by SoCalGas. As shown in **Table 10** above, buildout of the proposed Project is projected to generate an on-site net demand for natural gas totaling 730,577 kBTU or 0.7 million cubic feet (MMcf) per year. Based on the 2020 California Gas Report, the California Energy and Electric Utilities estimates natural gas supply within SoCalGas' planning area will be approximately 1,158,875 million cubic feet (MMcf) in 2023.[32] The Project would account for less than 0.01 percent of the 2023 annual forecasted supply in SoCalGas' planning area. Accordingly, natural gas demand during operation would be less than significant.

Transportation Energy

As shown in **Table 10** above, buildout of the proposed Project is projected to generate a net demand of 43,443 gallons of transportation fuel. For purposes of comparison, the EIA forecasts a national oil supply of 20.34 mb per day in 2023, which is the opening year for the Project.[33] This equates to approximately 7,424 mb per year or 311,812 mg per year. Operation of the Project would account for less than 0.01 percent of the projected annual oil supply in 2023. The Project would not result in inefficient, or

32 California Gas and Electric Utilities, 2020 California Gas Report, October 2020.
33 U.S. Energy Information Administration, Annual Energy Outlook 2020: Table 11. Petroleum and Other Liquids Supply and Disposition, https://www.eia.gov/outlooks/aeo/data/browser/#/?id=11-AEO2020&cases=ref2020&sourcekey=0, Accessed April 2021.

unnecessary consumption of energy resources for transportation during operation and the impact of the Project would be less than significant.

Greenhouse Gas Emissions

Gases that trap heat in the atmosphere are called greenhouse gases (GHG), since they have effects that are analogous to the way in which a greenhouse retains heat. Greenhouse gases are emitted by both natural processes and human activities. The accumulation of greenhouse gases in the atmosphere regulates the earth's temperature. The State of California has undertaken initiatives designed to address the effects of greenhouse gas emissions, and to establish targets and emission reduction strategies for greenhouse gas emissions in California.

The principal GHGs are carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), sulfur hexafluoride (SF6), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and water vapor (H2O). CO2 is the reference gas for climate change because it is the predominant greenhouse gas emitted. To account for the varying warming potential of different GHGs, GHG emissions are often quantified and reported as CO2 equivalents (CO2e). GHG emissions from construction and operation of the Project were quantified using SCAQMD's CalEEMod model and are available in **Appendix F** to this report.

Construction

Construction activity impacts are relatively short in duration, and they contribute a relatively small portion of the total lifetime GHG emissions of a project. Due to the complex physical, chemical, and atmospheric mechanisms involved in global climate change, no basis exists for concluding that the Project's very small and essentially temporary (primarily from construction) increase in emissions could cause a measurable increase in global GHG emissions necessary to force global climate change. In addition, GHG emissions-reduction measures for construction equipment are relatively limited.[34] Therefore, in its *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Thresholds*,[35] the SCAQMD recommends that construction emissions be amortized over a 30-year project lifetime so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies. That method is used in this analysis.

The forecasting of construction-related GHG emissions requires assumptions regarding the timing of construction as the emission factors for some of the Project's construction-related GHG emission sources decline over time. As shown in **Table 10: Construction GHG Emissions**, total construction emissions would

34 SCAQMD, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, October 2008.
35 SCAQMD, Greenhouse Gases (GHG), http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds/page/2, Accessed April 2021.

be 473 metric tons of CO_2e ($MTCO_2e$). One-time, short-term emissions are converted to average annual emissions by amortizing them over the service life of a building.

Table 11
Construction GHG Emissions

Construction Phase	MTCO2e/Year
2022	473
Overall Total	**473**
30-Year Annual Amortized Rate	**16**

Source: Refer to ***Appendix F*** *for data sheets.*
Notes: GHG = greenhouse gas; MTCO2e = metric tons of carbon dioxide equivalent.

For buildings in general, it is reasonable to look at a 30-year time frame because this is a typical interval before a new building requires its first major renovation.[36] As shown in **Table 11**, when amortized over an average 30-year Project lifetime, average annual construction emissions from the Project would be 16 MTCO2e per year.

Operation

Operation of the proposed Project has the potential to generate GHG emissions through vehicle trips traveling to and from the Project Site. In addition, emissions would result from area sources on site, such as natural gas combustion, landscaping equipment, and use of consumer products. Emissions from mobile and area sources and indirect emissions from energy and water use, wastewater, as well as waste management would occur every year after full development of the uses allowed by the Project. Operational Project emissions from area sources, energy sources, mobile sources, solid waste, and water and wastewater conveyance are shown in **Table 12: Operational Greenhouse Gas Emissions** below. As shown in **Table 12**, average annual net operational emissions from the proposed Project would be 831 MTCO2e per year.

36 *International Energy Agency (IEA), Energy Efficiency Requirements in Building Codes, Energy Efficiency Policies for New Buildings, IEA Information Paper (2008).*

Table 12
Operational Greenhouse Gas Emissions

Source	Unmitigated MTCO2e per year
Construction (amortized)	16
Area	<1
Energy	519
Mobile	625
Waste	40
Water	133
Total	1,333
Existing	*502*
Net Total	**831**

Source: Refer to ***Appendix F*** *for data sheets.*
Abbreviation: MTCO2e = metric tons of carbon dioxide emissions.

There are no federal, State, or local quantitative adopted thresholds of significance for addressing a project's greenhouse gas emissions. In the absence of any adopted, numeric threshold, the City evaluates the significance of a project by considering whether the project conflicts with applicable regulations or requirements adopted to implement a Statewide, regional, or local plan for the reduction of mitigation of greenhouse gas emissions. The Project Site is located in an urbanized area of the City with nearby access to public transportation and off-site destinations. The Project would replace outdated structures with new construction designed in accordance with applicable energy, water, and waste efficiency measures specified in the Title 24 Building Energy Efficiency Standards, CALGreen standards, and City's Green Building Code. Moreover, the Project meets the VMT exemption screening criteria for a project located in a HQTA, which qualifies the Project for a VMT analysis exemption. No further VMT analysis is required because the Project is presumed to have less than significant impacts due to the Project Site's location in an HQTA and Project's proposed uses and intensity. As such, the Project would not have a significant impact on GHG emissions.

APPENDIX A

Transportation Analysis Memo

DRAFT

MEMORANDUM

TO: Michael Gonzales, Gonzales Law Group, APC

FROM: Richard Gibson, LEED Green Associate, and Janet Ye, EIT

DATE: May 20, 2021

RE: Transportation Analysis for the East End Studio
Glendale, California **Ref:** J1881

Gibson Transportation Consulting, Inc. prepared a transportation analysis for the East End Studio development (Project) located at 1214, 1216, 1230, 1234 Maryland Avenue & 1221, 1229, 1233 S. Glendale Avenue (Project Site), in the City of Glendale (City). The methodology and assumptions used in this analysis were established in conjunction with the City. This memorandum summarizes our analysis.

EXECUTIVE SUMMARY

State of California Senate Bill 743 (Steinberg, 2013) (SB 743), made effective in January 2014, required the Governor's Office of Planning and Research (OPR) to change the California Environmental Quality Act (CEQA) guidelines to shift the focus of transportation impact analysis from driver delay (i.e., level of service [LOS]) to vehicle miles traveled (VMT), in order to reduce greenhouse gas emissions, create multimodal networks, and promote mixed-use developments. The City Council adopted updates to the City's *Transportation Impact Analysis Guidelines* (October 30, 2020) (City TIA Guidelines) pursuant to the requirements of SB 743, which states that all development projects within a high-quality transit area (HQTA) are considered to have less than significant transportation impacts and would not require further VMT analysis, consistent with OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018) and CEQA Guidelines Section 15064.3, subdivision (b)(1), which determines the criteria for analyzing transportation impacts for land use projects. However, further VMT analysis is required for development projects that fall under any of the five exclusionary criteria, as further detailed in the City TIA Guidelines. In addition, the City TIA Guidelines require the consideration of a non-CEQA local transportation analysis to assess the circulation and safety of development projects and the non-CEQA local transportation analysis will not be considered for CEQA impact purposes.

The Project proposes the development of 75,190 square feet (sf) of studio and support uses in a HQTA. The Project would align with the goals of SB 743 to reduce VMT by placing employment uses in close proximity to transit. In addition, the Project would not fall under any of the five exclusionary criteria that would require further VMT analysis. Therefore, the Project would not result in a significant transportation impact. Furthermore, the Project does not meet the screening criteria that would require a non-CEQA local transportation analysis.

PROJECT DESCRIPTION

The Project would develop 75,190 sf of studio and support uses across seven parcels along Maryland Avenue and Glendale Avenue between Palmer Avenue and Cypress Avenue. The Project includes 37,936 sf of studio space, 26,544 sf of studio office space, and 10,710 sf of support facilities. The Project would provide multiple pedestrian entry points for employees and visitors along Maryland Avenue, the alleyway north of the Project, and Glendale Avenue. The Project would provide 113 parking spaces at-grade, of which approximately 25% would be covered by a solar canopy. Vehicular access to the at-grade parking would be provided via one full-access driveway on Maryland Avenue at the west edge of the Project Site.

The Project Site is currently occupied with approximately 26,948 sf of studio and support uses that would be replaced with the development of the Project. Figure 1 illustrates the Project's conceptual site plan.

The Project is anticipated to be completed and operational in Year 2024.

PROJECT LOCATION

Generally, the Project Site is bounded by an alleyway to the north, S. Glendale Avenue to the east, residential and commercial uses to the south, and Maryland Avenue to the west. Other nearby uses include office and commercial developments. The Project Site is approximately 1.35 miles west and north of State Route 2 (SR 2) and approximately 1.25 miles north and east of Interstate 5 (I-5).

The Project is served by multiple bus and shuttle lines operated by the Los Angeles County Metropolitan Transportation Authority (Metro) and the City of Glendale Beeline along Central Avenue, Brand Boulevard, Glendale Avenue, and Chevy Chase Drive. In the vicinity of the Project Site, existing bicycle routes are provided on Glendale Avenue south of Los Feliz Road and on Chevy Chase Road.

EXISTING TRANSPORTATION SETTING

The Existing Conditions analysis includes an assessment of the existing public transit service, as well as pedestrian and bicycle circulation, that correspond with the study preparation of Year 2021. The Project's Study Area, shown in Figure 2, is generally bounded by Chevy Chase Drive to the north, Glendale Avenue to the east, Los Feliz Road to the south, and Central Avenue to the west.

Existing Roadway System

Primary regional access to the Project Site is provided by SR 2 and I-5. The major arterials providing regional and sub-regional access to the Study Area include Central Avenue, Brand Boulevard, Glendale Avenue, and Chevy Chase Drive. The following is a brief description of the major streets in the Study Area and their classifications as defined in the Circulation Element of *City of Glendale General Plan* (City of Glendale, Effective May 28, 2015) (General Plan):

- Central Avenue – Central Avenue is a classified Major Arterial within the Study Area. It travels in the north-south direction and is located west of the Project Site. It generally provides two travel lanes in each direction with a center left-turn lane and left-turn lanes at most intersections. Parking is generally available on both sides of the street within the Study Area.

- Brand Boulevard – Brand Boulevard is a classified Major Arterial. It travels in the north-south direction within the Study Area and is located west of the Project Site. It generally provides two travel lanes in each direction with a landscaped center median and left-turn lanes at most intersections. Parking is generally available on both sides of the street within the Study Area.

- Maryland Avenue – Maryland Avenue is a classified Local Street. It travels in the north-south direction within the Study Area and is located along the western boundary of the Project Site. It generally provides one travel lane in each direction. Parking is generally available on both sides of the street within the Study Area.

- Glendale Avenue – Glendale Avenue is a classified Major Arterial within the Study Area. It travels in the north-south direction and is located along the eastern boundary of the Project Site. It generally provides two travel lanes in each direction and left-turn lanes at most intersections. Bicycle sharrows are provided on both sides of the street south of Los Feliz Road. Parking is generally available on both sides of the street within the Study Area.

- Chevy Chase Drive – Chevy Chase Drive is a classified Minor Arterial within the Study Area. It travels in the east-west direction within the Study Area and is located north of the Project Site. It generally provides two travel lanes in each direction and bicycle sharrows on both sides of the street. It provides left-turn lanes at most intersections. Parking is generally available on both sides of the street within the Study Area.

- Los Feliz Road – Los Feliz Road is a classified Major Arterial within the Study Area. It generally travels in the east-west direction and is located south of the Project Site. It generally provides two travel lanes in each direction with a center left-turn lane and left-turn lanes at most intersections. Parking is generally available on both sides of the street within the Study Area.

Street classifications in the Study Area are shown in Figure 3.

Existing Transit System

The Project Site is located within a HQTA, as identified by the Southern California Association of Governments, Metro, and the City TIA Guidelines HQTA Map, a copy of which is provided in Attachment A. As detailed in Table 1 and Figure 4, the Project area is served by bus lines operated by Metro and the Glendale Beeline bus service, including Metro Local Lines 90, 91, and 92 and Glendale Beeline Routes 8 and 11, which travel within the Project vicinity along Glendale Avenue and Brand Boulevard.

Table 2A and 2B summarize the total available capacity of the transit system that serves the Project Site during the morning and afternoon peak hours, respectively, based on the frequency of service of each line, the standing capacity of each bus, and the average peak hour load in each direction. As shown, based on ridership data from April 2019 provided by Metro, the transit lines within a 0.25-mile walking distance of the Project Site have available capacity for approximately 1,139 additional riders during the morning peak hour and 1,145 riders during the afternoon peak hour.

Existing Bicycle System

Based on *City of Glendale Bicycle Transportation Plan* (September 2012) (Bicycle Transportation Plan), the existing bicycle system in the Study Area consists of a limited coverage of bicycle paths (Class I), bicycle lanes (Class II), and bicycle routes (Class III). Bicycle paths are paved facilities physically separated from vehicle traffic and can be used by bicyclists. Bicycle lanes are a component of street design with dedicated striping and symbols on the roadway surface, separating vehicular traffic from bicycle traffic. Buffered bicycle lanes provide a painted flush buffer zone between a bicycle lane and adjacent travel lane. Bicycle routes are identified as bicycle-friendly streets where motorists and cyclists share the roadway and there is no dedicated striping of a bicycle lane. Bicycle routes are preferably located on Local, Collector, and lower volume Arterial Streets as part of a signed route or bicycle boulevard, which is typically applied on quiet streets such as residential neighborhoods. In the Study Area, existing bicycle routes are provided on Glendale Avenue south of Los Feliz Road and on Chevy Chase Road.

Figure 5 depicts the existing bicycle network within the Project vicinity.

Existing Pedestrian Facilities

The walkability of existing facilities is based on the availability of pedestrian routes necessary to accomplish daily tasks without the use of an automobile. The walkability of existing facilities is based on the availability of pedestrian routes necessary to accomplish daily tasks without the use of an automobile. These attributes are quantified by Walk Score and assigned a score out of 100 points. Based on proximity to other commercial businesses and cultural facilities, the walkability of the Study Area is approximately 90 points[1].

The Project area is comprised of employment and retail land uses and cultural facilities served by transit stops, a bicycle network, and sidewalk system. There are adequate sidewalks lining the streets, crosswalks available at the intersections, and many shops, restaurants, and other services within walking distance of the Project Site.

The sidewalks that serve as routes to the Project Site provide proper connectivity and adequate widths to pedestrian crossings at intersections for a comfortable and safe pedestrian environment. The following signalized intersections provide pedestrian facilities to limit illegal mid-block crossings to the Project Site (all intersections have marked pedestrian crossings):

---

[1] Walk Score (www.walkscore.com) rates the Project Site (1214 Maryland Avenue) with a score of 90 out of 100 possible points (scores accessed on March 1, 2021). Walk Score calculates the walkability of specific addresses by taking into account the ease of living in the neighborhood with a reduced reliance on automobile travel, based on available walking routes to nearby amenities, population density, and road metrics (block lengths, intersections density).

- Glendale Avenue & Palmer Avenue
- Glendale Avenue & Cypress Street

Each of the listed intersections provides a flashing pedestrian beacon, crosswalk striping, and Americans with Disabilities Act accessible ramps.

Figures 5 and 6 illustrate the existing sidewalk and crosswalk systems along the project frontages and the pedestrian destinations within the Study Area, respectively.

FUTURE IMPROVEMENTS

The analysis of future conditions considered pedestrian, bicycle, transit, roadway, and intersection improvements via capital projects that are reasonably expected to be implemented prior to the buildout of the proposed Project (Year 2024). The City has developed the following plans that identify future improvements to bicycle and pedestrian infrastructure in the area and the financing and timing of such improvements. Figure 7 shows the proposed future pedestrian and bicycle improvements to be provided.

Future Bicycle Improvements

The Bicycle Transportation Plan identifies the City's vision for a more integrated bicycle network throughout the City, including within the Study Area. It proposes bicycle routes on Los Feliz Road and Central Avenue within the Study Area.

Future Pedestrian Improvements

Glendale Citywide Pedestrian Plan (September 2017) (City Pedestrian Plan) outlines specific pedestrian projects for implementation throughout the City. The following proposed pedestrian improvements from City Pedestrian Plan have been assumed as part of the future conditions:

Safety Corridor Project 3: Glendale Avenue. As described in the City Pedestrian Plan, several safety improvements are planned for Glendale Avenue between Maple Street and Cypress Street. Within the Study Area, curb extensions would be added across Glendale Avenue at Chevy Chase Boulevard. An extended concrete island along Glendale Avenue at Cypress Street would be constructed to restrict left-turning movements, and an upgraded marked ladder crosswalk would be installed to extend pedestrian access to the median refuge island. At Palmer Avenue, the existing south leg pedestrian crossing would be moved to the north leg to maintain the northbound left-turn. A concrete median refuge island at the north leg would also be constructed along Glendale Avenue with an upgraded marked ladder crossing at Palmer Avenue.

NON-CEQA METHODOLOGY & GUIDELINES

Chapter 3 (Local Transportation Analysis Requirements) of the City TIA Guidelines requires analysis of non-CEQA transportation components relating to safety, site access and circulation, and congestion, as they may be affected by construction or operation of a project, and identifies specific screening criteria to determine whether each type of non-CEQA transportation analysis is required for a particular project. A local transportation analysis is required for projects generating at least 50 net-new peak hour vehicle trips, using the Institute of Transportation Engineers (ITE) trip generation rates or local/empirical rates (if available).

CEQA METHODOLOGY & GUIDELINES

On November 16, 2020, the City Council adopted updates to the City TIA Guidelines pursuant to the requirements of SB 743. In accordance with OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA* and CEQA Guideline Section 15064.3, subdivision (b)(1), all development projects within a HQTA are considered to have less than significant transportation impacts, excluding:

1. A project with a floor area ratio (FAR) of less than 0.75
2. A project with more than the required number of parking spaces
3. A project that is inconsistent with the General Plan
4. A project that replaces affordable residential units with fewer, moderate- or high-income residential units
5. A project without transit-supportive uses

For projects not screened out per the criteria above, the City has adopted a local threshold of significance of 15% VMT reduction below the existing citywide average.

PROJECT TRAFFIC

The number of vehicle trips traveling to and from the Project Site is related to the size of development and type of land use proposed. Empirical trip generation studies have demonstrated that studio office uses generally generate lower levels of morning and afternoon peak hour traffic and similar levels of daily traffic as general office uses. For conservative purposes, however, the number of vehicular trips expected to be generated by the studio office component of the Project were estimated using general rates published in *Trip Generation Manual, 10th Edition* (ITE, September 2017) based on developments located in "General Urban/Suburban" environments. These rates are based on surveys of similar land uses at sites around the country and are provided as both daily rates and morning and afternoon peak hour rates. The vehicular trips generated by the production support and sound stage components of the Project were estimated based on rates derived from empirical trip generation studies at studios in Los Angeles. Additionally, the trips currently generated by the existing of the Project Site were also estimated based on the applicable aforementioned rates, and those trips were then subtracted from the Project trip generation estimates to calculate the net new Project trips traveling to and from the Project Site.

Currently, activities on the Project Site include the production of motion pictures, television, and commercials on indoor and outdoor stages. These activities include pre-production and post-production activities and related administrative functions. The Project Site operates 24 hours per day, with filming activities occurring at any time of the day and any day of the week, including evenings and weekends. Although peak activities at the Project Site may not occur concurrently with typical commuter peak travel periods, this study assessed the worst-case scenario by assuming that the peak Project activities align with commuter peak hours.

As shown in Table 3, the existing uses generate 190 daily trips, including 13 morning peak hour trips (nine inbound, four outbound) and 20 afternoon peak hour trips (five inbound, 15 outbound) and the Project generates 527 daily trips, including 46 new morning peak hour trips (37 inbound, nine outbound) and 53 new afternoon peak hour trips (14 inbound, 39 outbound). After accounting for the removal of the existing studio uses on site, the Project is anticipated to generate a net increase of 337 daily trips, including 33 net new morning peak hour trips (28 inbound, five outbound) and 33 net new afternoon peak hour trips (nine inbound, 24 outbound), as summarized in Table 3.

SCREENING FOR NON-CEQA TRANSPORTATION ANALYSES

Per the City TIA Guidelines, a non-CEQA local transportation analysis may be required to evaluate the effects of a development project on the circulation network. A local transportation analysis is required for projects generating at least 50 net-new peak hour vehicle trips, using ITE trip generation rates or local/empirical rates (if available). As shown in Table 3, the Project generates fewer than 50 trips in any peak hour and, therefore, does not meet the requirement for further local transportation analysis.

SCREENING FOR CEQA TRANSPORTATION ANALYSIS

Table 4 summarizes the Project screening application for the CEQA transportation analyses identified in Section 2.1.2 of the City TIA Guidelines. The Project must meet at least one of the five screening criteria in order to be exempt from conducting a Project-level VMT analysis:

1. The Project would have a FAR density of 0.78.

2. Section 30.22.050 of the Glendale Municipal Code (GMC) identifies the off-street parking requirements of various land uses and the required off-street parking ratio for all developments proposed within the City. The off-street parking requirement for the Project was calculated based on the GMC rate for industrial uses. Per Table 30-32-D of the GMC, industrial uses, which include sound stages and support facilities, may provide vehicular parking at a rate of 2.0 spaces per 1,000 sf for the first 25,000 sf of floor area, 1.5 spaces per 1,000 sf for the second 25,000 sf of floor area, and 1.25 spaces per 1,000 sf for anyfloor area over 50,000 sf. As detailed in Table 5, the Project would be required to provide 119 parking spaces if the entire site were analyzed as an industrial use. The Project also requests a parking reduction permit pursuant to the GMC Section 30.50.040 to allow a reduction of six parking spaces and a loading space reduction to two spaces in lieu of the five loading spaces required. With a supply of 113 parking spaces, the Project's proposed parking supply would not exceed the industrial GMC parking requirement.

3. The General Plan presents a long-term vision for the City's transportation system and balances the region's future mobility needs with economic, environmental, and public health goals. The Project encourages a variety of transportation options and is consistent

with the General Plan goals of preserving the quality of life in the City's communities, minimizing congestion, air pollution, and noise associated with motorized vehicles, providing access to service and goods in the City by a variety of transportation modes, and developing land uses that can be supported within the capacity constraints of existing and realistic future infrastructure. The Project would preserve quality of life by minimizing traffic on major thoroughfares with access on a Local Street as opposed to an Arterial. The Project would encourage walking, biking and transit usage by providing employment near transit and pedestrian connections from the Project Site to the existing sidewalks along Glendale Avenue and Maryland Avenue. Pedestrian amenities such as street trees would be provided for a safer and more comfortable pedestrian environment. Although the Project may intensify use of existing pedestrian, transit, and bicycle facilities, as well as vehicular traffic using Maryland Avenue, none of the volumes of any of those travel modes are anticipated to reach a level where any degradation, capacity constraint, or significant conflict would arise. As such, the Project is consistent with the goals contained in the General Plan.

4. The Project would not replace any existing low-income housing.

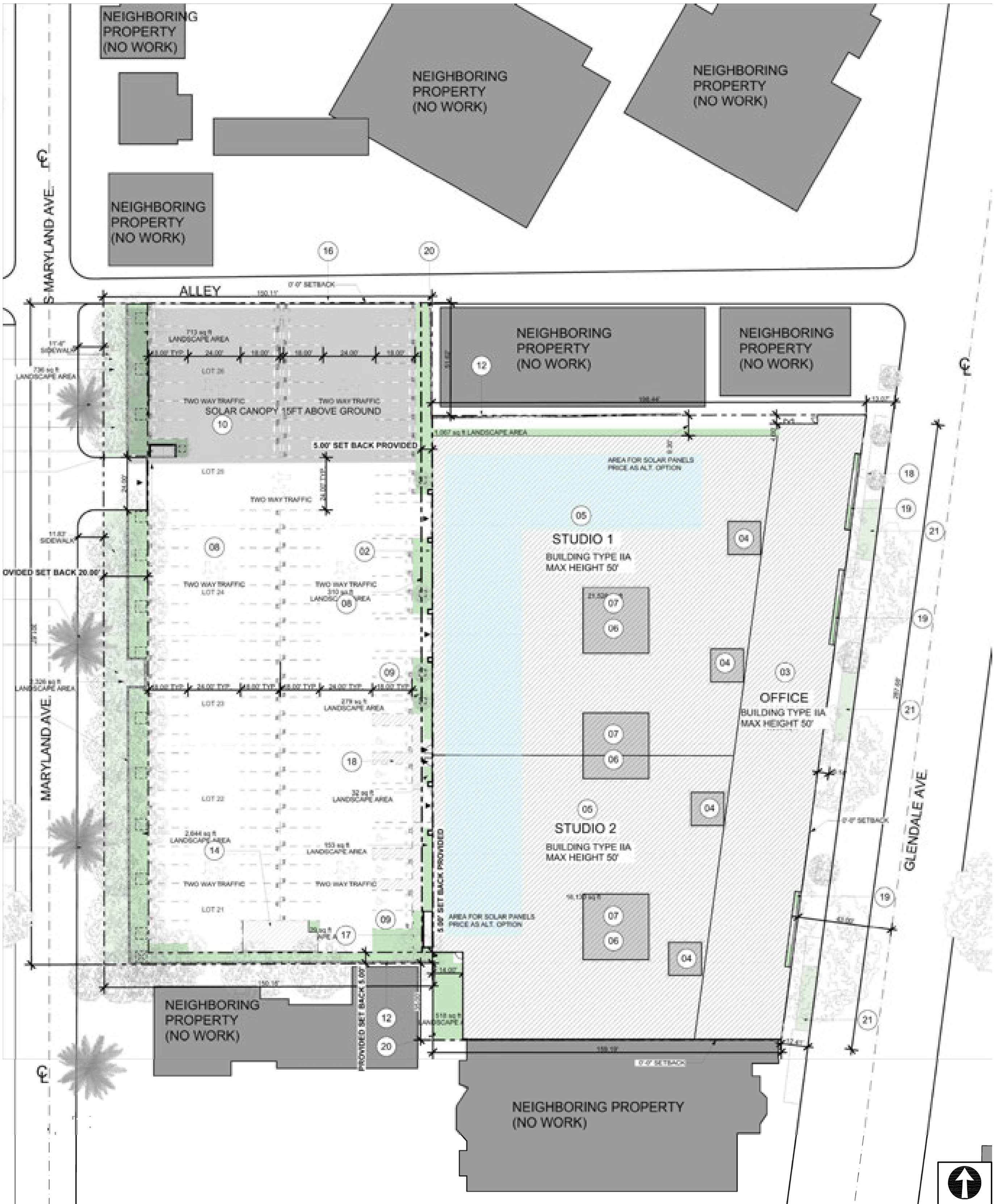
5. The Project would contribute to the productivity and use of the nearby transit systems by providing employment near transit and retaining existing sidewalks adjacent to the Project Site along Glendale Avenue and Maryland Avenue. The Project also does not propose modifying, removing, or otherwise negatively affect existing bicycle and pedestrian infrastructure. These measures would promote active transportation modes such as biking and walking.

Based on the above evaluation and as shown in Table 4 and Attachment B, the Project meets the VMT exemption screening criteria for a project located in a HQTA, which qualifies the Project for a VMT analysis exemption. Therefore, no further VMT analysis is required and no significant transportation impact is anticipated with development of the Project.

SUMMARY

The Project is located within a HQTA and would not meet the City's screening criteria requiring further VMT analysis. The Project also does not meet the City's screening criteria requiring a non-CEQA local transportation analysis.

Therefore, the Project is not anticipated to result in a significant transportation impact.



Source: Relativity Architects. April, 2021.

PROJECT SITE PLAN

FIGURE 1

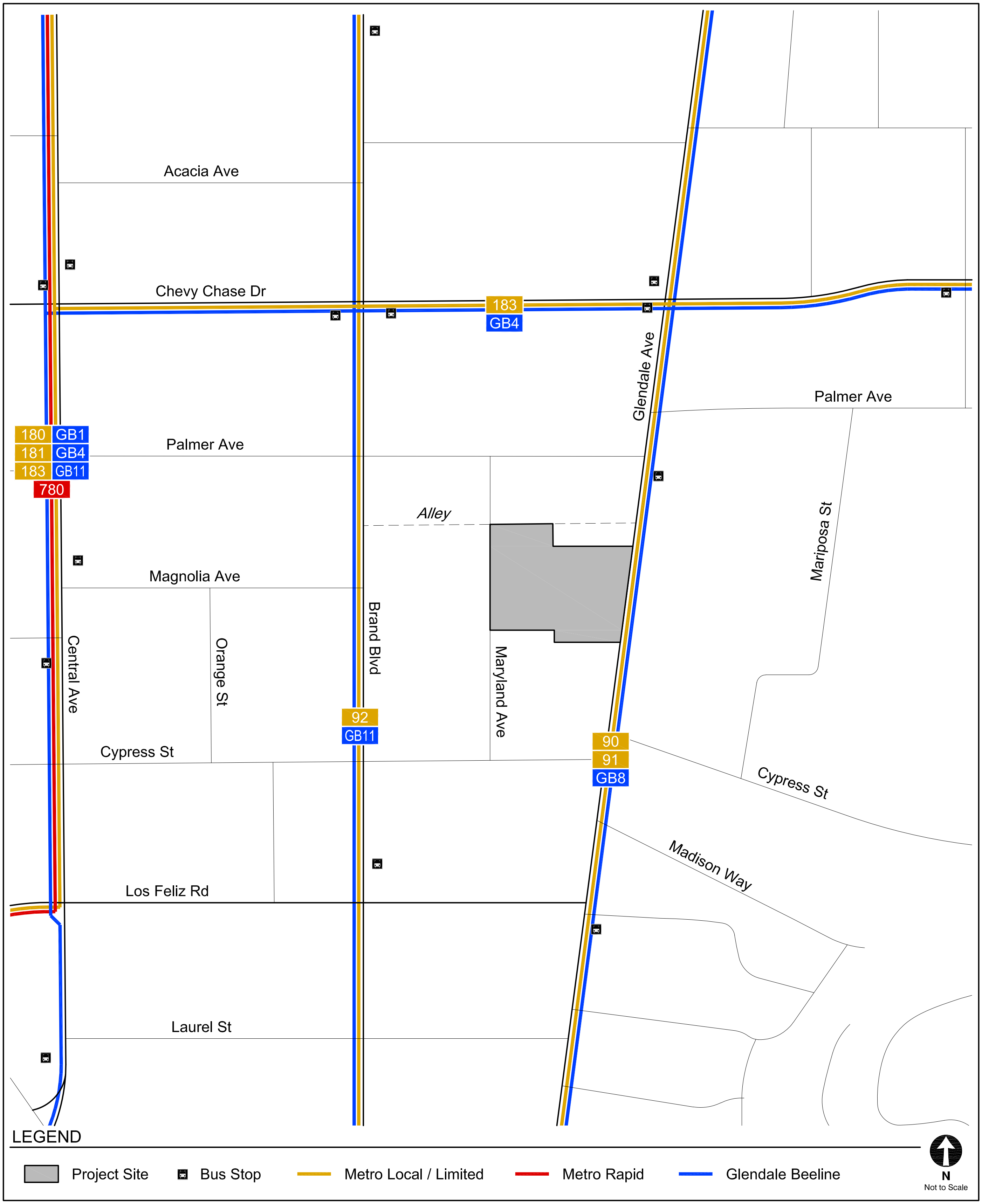
STUDY AREA

FIGURE 2

GENERAL PLAN STREET CLASSIFICATIONS

FIGURE 3

Gibson transportation consulting, inc.

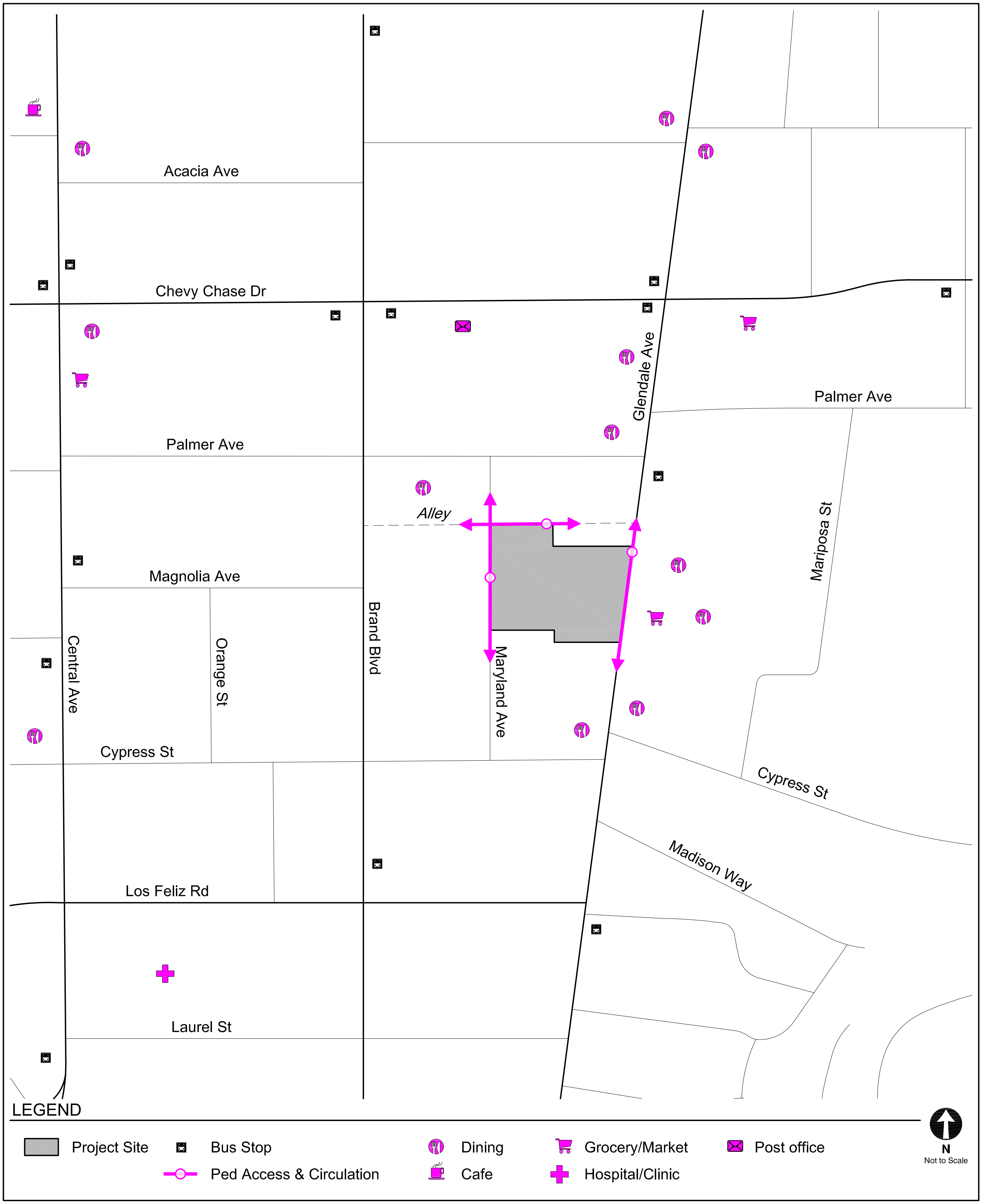


EXISTING TRANSIT SERVICE

FIGURE 4

EXISTING TRANSPORTATION FACILITIES

FIGURE 5



PEDESTRIAN DESTINATIONS WITHIN STUDY AREA

FIGURE 6

FUTURE TRANSPORTATION FACILITIES

FIGURE 7

TABLE 1
EXISTING TRANSIT SERVICE

Provider, Route, and Service Area		Service Type	Hours of Operation	Average Headway (minutes)			
				Morning Peak Period		Afternoon Peak Period	
Metro				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
90	Downtown Los Angeles - Sunland - Olive View Medical Center via Glendale Ave & Foothill Bl	Local	5:00 AM - 9:30 PM	34	27	34	34
91	Downtown Los Angeles - Sunland - Olive View Medical Center via Glendale Ave & Foothill Bl	Local	5:00 AM - 9:30 PM	34	34	30	30
92	Burbank - Downtown Los Angeles via Glendale Bl & Brand Bl	Local	5:00 AM - 10:00 PM	30	24	27	27
180	Hollywood - Glendale - Pasadena via Los Feliz Bl & Colorado Bl	Local	5:00 AM - 10:00 PM	34	34	30	27
181	Hollywood - Glendale - Pasadena via Los Feliz Bl & Colorado Bl	Local	5:00 AM - 10:00 PM	30	30	27	27
183	Glendale - Sherman Oaks via Magnolia Bl & Chevy Chase Dr	Local	5:00 AM - 10:00 PM	60	48	60	60
780	Pasadena - Hollywood via Fairfax Ave & Central Ave	Rapid	5:00 AM - 9:00 PM	14	15	15	15
Glendale Beeline				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
GB 1	Glendale Transportatioan Center - Stocker Square via Central Ave & Brand Bl	Local	6:00 AM - 7:00 PM	12	12	10	10
GB 4	Roosevelt Middle School - Glendale Galleria via Chevy Chase Dr & Central Ave	Local	6:00 AM - 7:00 PM	10	10	15	13
GB 8	Glendale Transportation Center - Glendale Community College via Glendale Ave	Local	6:00 AM - 7:00 PM	20	20	27	22
GB 11	Glendale Transportation Center - Downtown Glendale via Central Ave & Brand Bl	Local	6:00 AM - 9:30 AM; 2:30 PM - 6:30 PM	19	19	30	26

Notes
NB: Northbound; SB: Southbound; EB: Eastbound; WB: Westbound
Metro: Los Angeles County Metropolitan Transportation Authority
GB: Glendale Beeline
AM Peak from 6 AM - 10 AM
PM Peak from 3 PM - 7 PM

TABLE 2A
TRANSIT SYSTEM CAPACITY IN STUDY AREA - MORNING PEAK HOUR

Provider, Route, and Service Area		Capacity per Trip [a]	Peak Hour Ridership [b]				Average Remaining Capacity per Trip		Remaining Peak Hour Capacity	
			Peak Load		Average Load					
			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Metro Bus Service										
90	Downtown Los Angeles - Sunland - Olive View Medical Center via Glendale Ave & Foothill Bl	50	28	32	22	24	28	26	49	59
91	Downtown Los Angeles - Sunland - Olive View Medical Center via Glendale Ave & Foothill Bl	50	28	32	22	24	28	26	49	46
92	Burbank - Downtown Los Angeles via Glendale Bl & Brand Bl	50	29	19	22	17	28	33	56	83
180	Hollywood - Glendale - Pasadena via Los Feliz Bl & Colorado Bl	50	25	25	18	19	32	31	56	54
181	Hollywood - Glendale - Pasadena via Los Feliz Bl & Colorado Bl	50	25	25	18	19	32	31	64	62
183	Glendale - Sherman Oaks via Magnolia Bl & Chevy Chase Dr	50	4	6	3	4	47	46	47	58
780	Pasadena - Hollywood via Fairfax Ave & Central Ave	75	36	21	22	17	53	58	225	232
Total Remaining Transit System Capacity									**1,139**	

Notes
No transit capacity data was readily available for the Glendale Beeline.
Metro: Los Angeles County Metropolitan Transportation Authority.
[a] Capacity assumptions:
Metro Regular Bus - 40 seated / 50 seated and standing.
Metro Articulated Bus - 66 seated / 75 seated and standing standing.
[b] Based on ridership data provided by Metro in 2019.

TABLE 2B
TRANSIT SYSTEM CAPACITY IN STUDY AREA - AFTERNOON PEAK HOUR

Provider, Route, and Service Area		Capacity per Trip [a]	Peak Hour Ridership [b]				Average Remaining Capacity per Trip		Remaining Peak Hour Capacity	
			Peak Load		Average Load					
			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Metro Bus Service										
90	Downtown Los Angeles - Sunland - Sylmar via Glendale Ave & Foothill Bl	50	31	25	23	21	27	29	47	51
91	Downtown Los Angeles - Sunland - San Fernando via Glendale Ave & Foothill Bl	50	31	25	23	21	27	29	54	58
92	Burbank - Downtown Los Angeles via Glendale Bl & Brand Bl	50	19	32	13	24	37	26	83	59
180	Hollywood - Glendale - Altadena via Los Feliz Bl & Colorado Bl	50	19	27	11	23	39	27	78	61
181	Hollywood - Glendale - Pasadena via Los Feliz Bl & Colorado Bl	50	19	27	11	23	39	27	88	61
183	Glendale - Sherman Oaks via Magnolia Bl & Chevy Chase Dr	50	4	5	2	4	48	46	48	46
780	Pasadena - Hollywood via Fairfax Ave & Central Ave	75	26	40	21	26	54	49	216	196
Total Remaining Transit System Capacity									**1,145**	

Notes
No transit capacity data was readily available for the Glendale Beeline.
Metro: Los Angeles County Metropolitan Transportation Authority.
[a] Capacity assumptions:
Metro Regular Bus - 40 seated / 50 seated and standing.
Metro Articulated Bus - 66 seated / 75 seated and standing standing.
[b] Based on ridership data provided by Metro in 2019.

TABLE 3
PROJECT TRIP GENERATION ESTIMATES

TRIP GENERATION RATES								
Land Use	**Rate**	**Daily**	**A.M. Peak Hour**			**P.M. Peak Hour**		
			In	**Out**	**Total**	**In**	**Out**	**Total**
Studio Production Office (General Office) [a]	per ksf	9.74	86%	14%	1.16	16%	84%	1.15
Stage [b]	per ksf	5.91	63%	37%	0.20	40%	60%	0.43
Studio Support Space [b]	per ksf	4.14	65%	35%	0.61	45%	55%	0.57

TRIP GENERATION ESTIMATES								
Land Use	**Size**	**Daily**	**A.M. Peak Hour**			**P.M. Peak Hour**		
			In	**Out**	**Total**	**In**	**Out**	**Total**
<u>Proposed Project</u>								
Studio Production Office (General Office)	26.544 ksf	259	27	4	31	5	26	31
Stage	37.936 ksf	224	5	3	8	6	10	16
Studio Support Space	10.710 ksf	44	5	2	7	3	3	6
TOTAL - PROPOSED PROJECT		**527**	**37**	**9**	**46**	**14**	**39**	**53**
<u>Existing Site</u>								
Studio Production Office (General Office)	8.000 ksf	78	6	3	9	1	8	9
Stage	18.948 ksf	112	3	1	4	4	7	11
TOTAL - EXISTING SITE		**190**	**9**	**4**	**13**	**5**	**15**	**20**
NET NEW TRIPS		**337**	**28**	**5**	**33**	**9**	**24**	**33**

Notes:
ksf = 1,000 square feet
[a] Studio Production Office rate based on General Office Building (Land Use 710) rate from *Trip Generation, 10th Edition* , Institute of Transportation Engineers, 2017.
[b] Rate based on empirical rate from *Transportation Study for the NBC Universal Evolution Plan Environmental Impact Report,* Gibson Transportation Consulting, Inc. and Raju Associates, Inc., March 2010.

TABLE 4
TRANSPORTATION IMPACT ANALYSIS SCREENING - CEQA ANALYSES

City of Glendale Screening Criteria [a]	**Met by Project**
Small Project Consideration	
Does the Project generate fewer than 145 net new daily vehicle trips?	No
Is the Project consistent with the General Plan land use designation?	Yes
VMT Analysis Exempted (All Critera Must Be Met)	**No**
Affordable Housing Provision	
Does the Project provide 100% affordable housing?	No
VMT Analysis Exempted	**No**
Local-Serving Retail or Public Facility	
Is the Project a retail project (less than 50,000 square feet)?	No
Is the Project a local-serving public facility?	No
VMT Analysis Exempted (All Critera Must Be Met)	**No**
High-Quality Transit Area (HQTA)	
Is the project located in an existing high-quality transit area? [b]	Yes [b]
Does the Project have an FAR greater than 0.75?	Yes
Does the Project provide below the minimum required by City Municipal Code?	Yes
Is the Project consistent with the General Plan?	Yes
Is the Project not replacing affordable housing?	Yes
Does the Project contain transit-supportive uses?	Yes
VMT Analysis Exempted (All Critera Must Be Met)	**Yes**
Low VMT Area	
Is the Project located in a low VMT Area? [c]	No
VMT Analysis Exempted	**No**

Notes:
[a] Screening criteria from the City TIA Guidelines Section 2.1.2, Project Screening .
[b] The Project is located in an existing High Quality Transit Area (HQTA) per City TIA Guidelines Attachment A: High-Quality Transit Area Maps.
[c] Low VMT area shown in City TIA Guidelines Attachment B: Office/Employment Project VMT Screening.

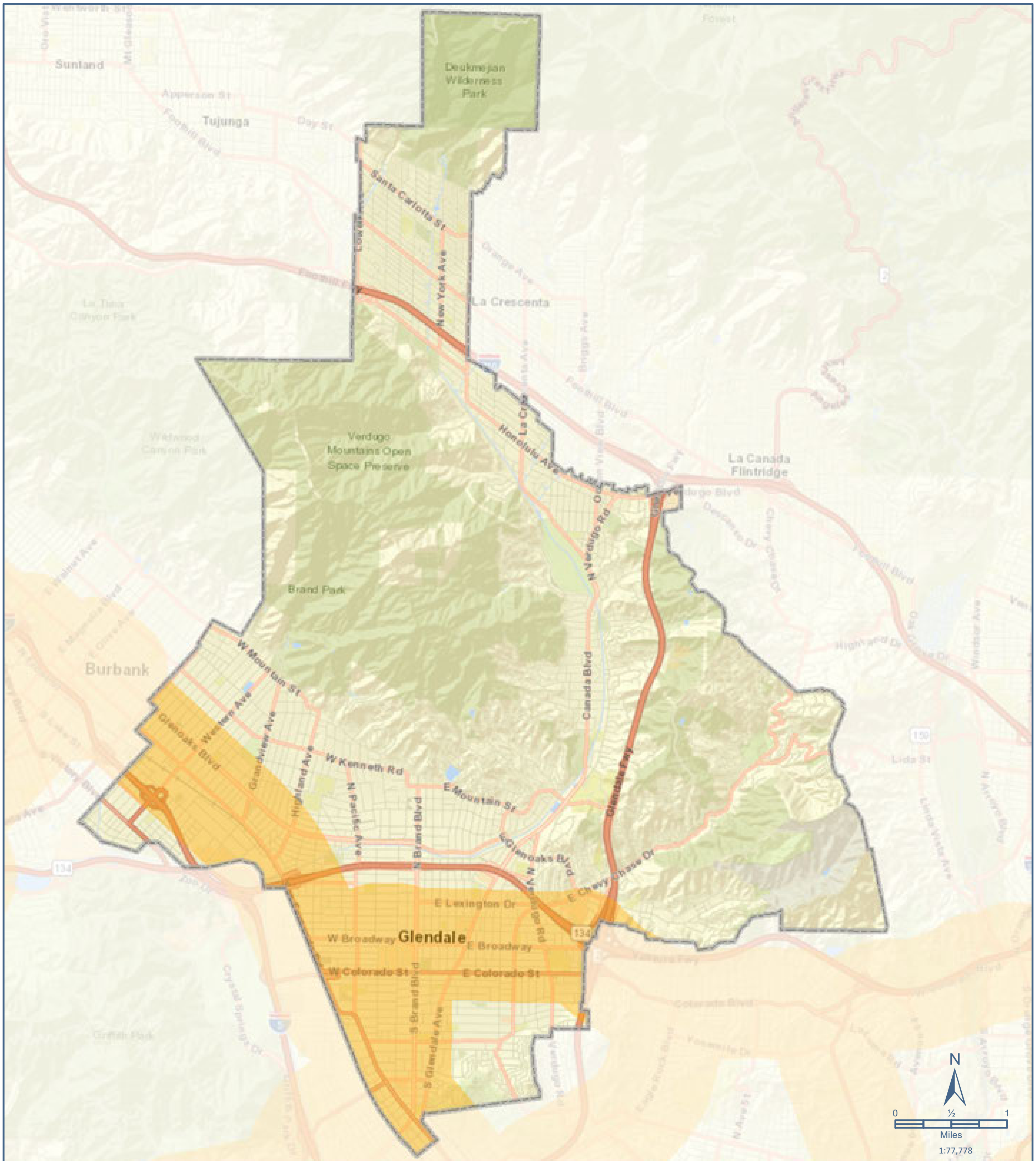
TABLE 5
VEHICLE PARKING CODE REQUIREMENTS

Land Use	Size	Code Requirement [a]	Parking Required
First 25,000 sf of Floor Area	25,000 sf	2.0 space / 1000 sf	50 spaces
Second 25,000 sf of Floor Area	25,000 sf	1.5 space / 1000 sf	38 spaces
Over 50,000 sf of Floor Area	25,190 sf	1.25 space / 1000 sf	31 spaces
		Total Code Parking Required	**119 spaces**

Notes:
[a] Parking rates from Glendale Municipal Code, Section 30.32.050, Table 30-32-D, October 2013.

Attachment A

High-Quality Transit Area Map



Glendale

Existing High Quality Transit Areas

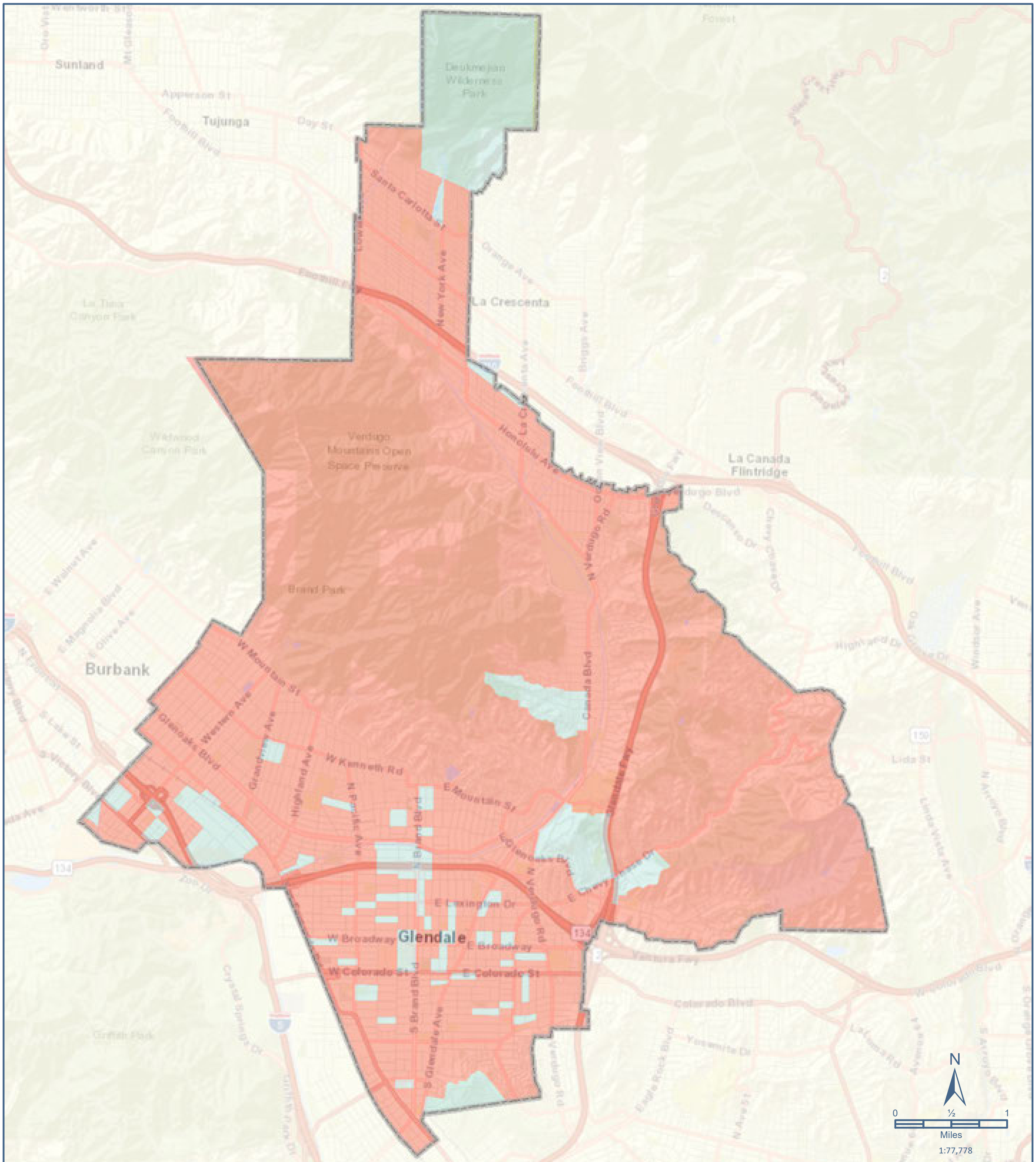
City of Glendale
SB 743 Implementation

Existing High Quality Transit Areas

Data sources: SWITRS; SANGIS; CalAtlas. Map date: February 24, 2020.

Attachment B

Office/Employment Project VMT Screening



Screened Out

Not Screened Out (VMT Analysis Required)

The City of Glendale average daily VMT per employee is estimated to be 17.87.
15% below the average is 15.19.

Data sources: SWITRS; SANGIS; CalAtlas. Map date: February 24, 2020.

City of Glendale
SB 743 Implementation

Office/Employment Project VMT Screening

APPENDIX B

Noise Technical Report

Noise Study

for the

East End Studios Project

1214, 1215, 1230, 1234 S. Maryland Avenue and
1221, 1229, 1233 S. Glendale Avenue, Glendale, CA 91205

PREPARED FOR:

City of Glendale
Community Development Department
Planning Division
633 E. Broadway, Room 103
Glendale, CA 91206

PREPARED BY:

Westlake Village Office
920 Hampshire Road, Suite A5
Westlake Village, CA 91361

Meridian Consultants

Los Angeles Office
706 S. Hill Street, 11th Floor
Los Angeles, CA 90014

May 2021

Table of Contents

Attachments

Figures

Figure		Page

Tables

Table		Page

EXECUTIVE SUMMARY

This Noise Study assesses and discusses the potential noise and vibration impacts that may occur with the East End Studios Project (Project), located in the City of Glendale (City), California. The analysis describes the existing environment in the Project area; estimates future noise and vibration levels at surrounding land uses resulting from construction and operation of the Project; and identifies the potential for significant impacts. An evaluation of the Project's contribution to potential cumulative noise impacts is also provided. The study summarizes the potential for the Project to conflict with applicable noise and vibration regulations, standards, and thresholds. The findings of the analyses are as follows:

- Construction activities would not result in short-term and temporary noise impacts to nearby noise-sensitive receptors due to on-site construction equipment and activities. Compliance with the City's Nosie Ordinance and standards established in the local general plan would ensure implementation of noise-attenuation techniques and placement of the construction-staging area and earthmoving equipment away from noise-sensitive sites to reduce construction noise levels below the significance threshold.
- Construction of the Project would generate sporadic, temporary vibration effects adjacent to the Project area but would not be expected to exceed the significance thresholds.
- Noise associated with cumulative construction activities would be reduced to the degree reasonably and technically feasible through proposed recommended measures for each individual project and compliance with locally adopted and enforced noise ordinances. Given that construction activities would be required to comply with the City's allowable hours and would be temporary, construction-related noise would not be significant.
- Noise associated with cumulative operational sources would not be significant.
- Due to the rapid attenuation characteristics of ground-borne vibration and the distance of the cumulative projects to the Project site, no potential exists for cumulative construction- or operational-related impacts with respect to ground-borne vibration.

INTRODUCTION

The purpose of this Noise Study is to assess and discuss the impact of potential noise impacts that may occur with the East End Studios Project (Project), located in the City of Glendale, California. The noise report analyzes short-term noise and ground-borne vibration impacts associated with the Project. The report also discusses the applicable federal, State, and local noise and vibration regulations; the applicable noise and vibration thresholds; the methodology used to analyze potential noise and vibration impacts; and the modeled roadway noise.

Project Description

The East End Studios site (Project Site) is currently utilized as studio production, office, and sound stage uses with a surface parking lot in the City of Glendale (City). Six (6) one-story stucco buildings used as studio production offices are currently located on the northeast and center of the Project Site. The approximately 96,043 square foot (2.2-acre) Project Site consists of various lots that together are seven Assessor Parcel Numbers (APNs) 5640-015-009, 5640-015-010, 5640-015-036, 560-015-029, 5640-015-030, 5640-015-033, and 5640-015-037. The Project site is commonly referred to as 1214, 1215, 1230, and 1234 South Maryland Avenue and 1221, 1229, and 1233 South Glendale Avenue and is bounded by an alley, commercial uses, and residences to the north; and a vacant lot, residences, and commercial uses to the south; South Glendale Avenue to the east; and South Maryland Avenue to the west, as shown in **Figure 1: Project Site Location**.

The proposed Project would demolish the six (6) stucco buildings totaling approximately 8,622 square feet, the approximately 18,948 square foot sound stage building, and surface parking lot for construction of studio spaces, an ancillary studio production office space along South Glendale Avenue, and a surface parking lot (new grading and asphalt) on the western portion of the Project Site. The proposed uses are generally consistent with the distribution of the existing studios uses (i.e., studio and office in the C3 zone and parking lot uses in the R-2250 zone). The studio spaces would include sound stage space totaling approximately 37,936 square feet. The three (3) story studio production office space would contain 10,710 square feet of first floor studio support space (green rooms, makeup/dressing rooms, storage, and lobby area). Offices, conference and break rooms, and open office space would occupy a mezzanine, second, and third floors of the studio production office, totaling 26,544 square feet. The surface parking lot would contain 113 parking spaces, including five (5) Americans with Disabilities Act (ADA) parking spaces. Four parking spaces would be designated for EV charging stations.

SOURCE: Google Earth - 2021

FIGURE 1

Meridian Consultants

Project Site Location

314-001-21

NOISE DESCRIPTORS

Fundamentals of Sound

Because the human ear does not respond uniformly to sounds at all frequencies, sound-pressure level alone is not a reliable indicator of loudness. For example, the human ear is less sensitive to low and high frequencies than to the medium frequencies that more closely correspond to human speech. In response to the sensitivity of the human ear to certain sound frequencies, the A-weighted noise level, referenced in units of dBA, was developed to better correspond with people's subjective judgment of sound levels. To support assessing a community reaction to noise, scales have been developed that average sound-pressure levels over time and quantify the result in terms of a single numerical descriptor. Several scales have been developed that address community noise levels. The equivalent sound level (Leq) is the average A-weighted sound level measured over a given time interval. Leq can be measured over any period but is typically measured for 1-minute, 15-minute, 1-hour, or 24-hour periods.

Table 1: Noise Descriptors identifies various noise descriptors developed to measure sound levels over different periods of time.

A doubling of sound energy results in a 3 dBA increase in sound, which means that a doubling of sound wave energy (e.g., doubling the volume of traffic on a roadway) would result in a barely perceptible change in sound level. In general, changes in a noise level of less than 3 dBA are not noticed by the human ear.[1] Changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. An increase of greater than 5 dBA is readily noticeable, while the human ear perceives a 10 dBA increase in sound level to be a doubling of sound volume.

Noise sources can generally be categorized in two types: (1) point sources, such as stationary equipment; and (2) line sources, such as a roadway. Sound generated by a point source typically diminishes (attenuates) at a rate of 6 dBA for each doubling of distance from the source to the receptor at acoustically hard sites, and at a rate of 7.5 dBA at acoustically soft sites.[2] A hard or reflective site consists of asphalt, concrete, or very hard-packed soil, which does not provide any excess ground-effect attenuation. An acoustically soft or absorptive site is characteristic of normal earth and most ground with vegetation.

---

1 US Department of Transportation, Federal Highway Administration (USDOT FHWA), *Fundamentals and Abatement of Highway Traffic Noise* (Springfield, VA: Author, September 1980), 81.

2 USDOT FHWA, *Fundamentals and Abatement,* 97.

Table 1
Noise Descriptors

Term	Definition
Decibel (dB)	The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measure sound to a reference pressure.
A-weighted decibel (dBA)	A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).
Hertz (Hz)	The frequency of the pressure vibration, which is measured in cycles per second.
Kilo hertz (kHz)	One thousand cycles per second.
Equivalent sound level (Leq)	The sound level containing the same total energy as a time varying signal over a given time period. The Leq is the value that expresses the time averaged total energy of a fluctuating sound level. Leq can be measured over any time period, but is typically measured for 1-minute, 15-minute, 1-hour, or 24-hour periods.
Community noise equivalent level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments add 5 dBA for the evening, 7:00 PM to 10:00 PM, and add 10 dBA for the night, 10:00 PM to 7:00 AM. The 5- and 10-dB penalties are applied to account for increased noise sensitivity during the evening and nighttime hours. The logarithmic effect of adding these penalties to the 1-hour Leq measurements typically results in a CNEL measurement that is within approximately 3 dBA of the peak-hour Leq.[a]
Nighttime (Lnight)	Lnight is the average noise exposure during the hourly periods from 10:00 PM to 7:00 AM.
Sound pressure level	The sound pressure is the force of sound on a surface area perpendicular to the direction of the sound. The sound pressure level is expressed in dB.
Ambient noise	The level of noise that is all encompassing within a given environment, being usually a composite of sounds from many and varied sources near to and far from the observer. No specific source is identified in the ambient environment.

[a] *California Department of Transportation,* Technical Noise Supplement; A Technical Supplement to the Traffic Noise Analysis Protocol, *(Sacramento, California: November 2009), pp. N51–N54.*

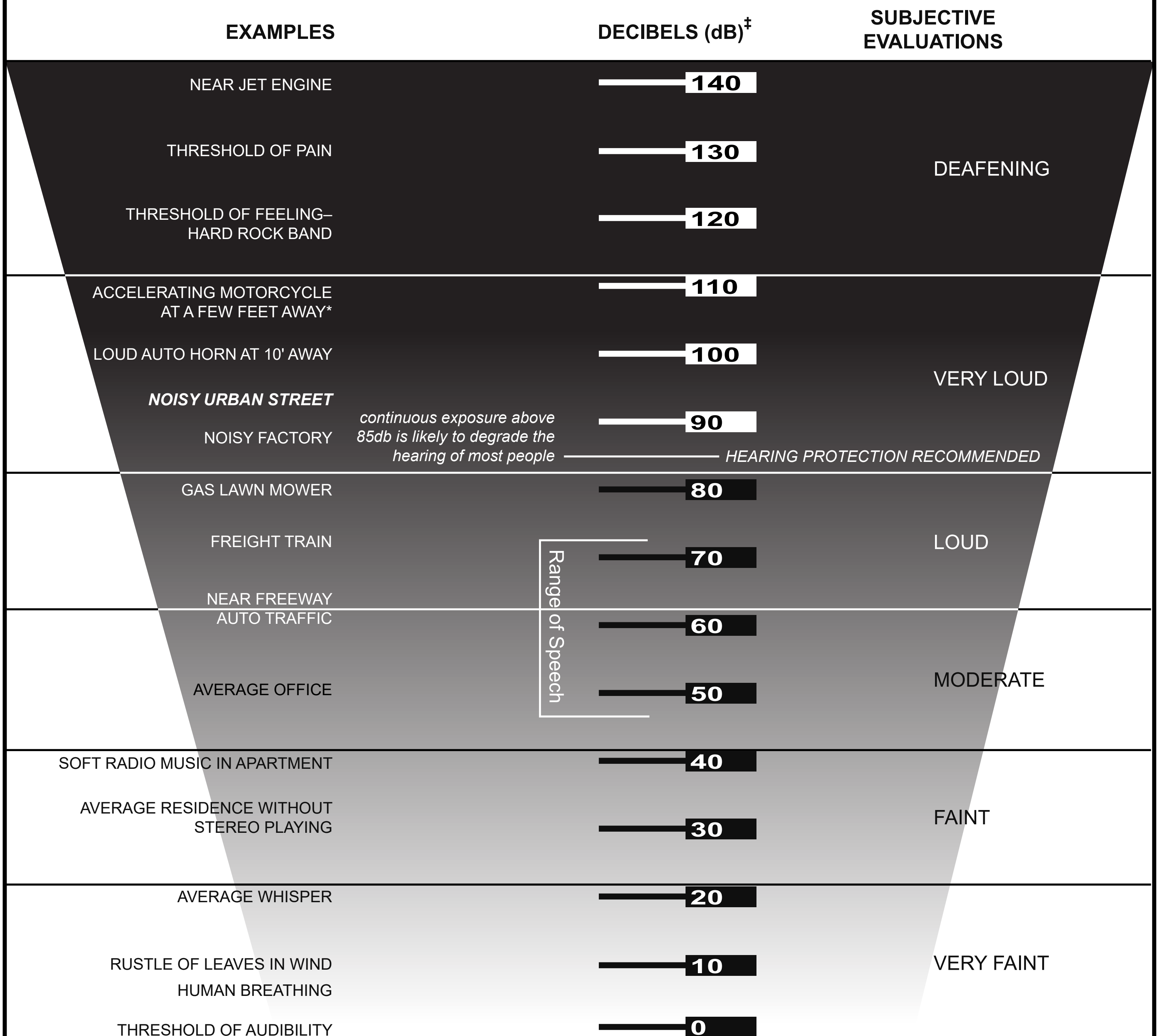
As an example, a 60-dBA noise level measured at 50 feet from a point source at an acoustically hard site would be 54 dBA at 100 feet from the source and 48 dBA at 200 feet from the source. Noise from the same point source at an acoustically soft site would be 52.5 dBA at 100 feet and 45 dBA at 200 feet from the source. Sound generated by a line source typically attenuates at a rate of 3 dBA and 4.5 dBA per doubling of distance from the source to the receptor for hard and soft sites, respectively.[3] Noise levels generated by a variety of activities are shown in **Figure 2: Common Noise Levels**. Man-made or natural barriers can also attenuate sound levels, as illustrated in **Figure 3: Noise Attenuation by Barriers**.

Fundamentals of Vibration

Vibration is commonly defined as an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The peak particle velocity (PPV) or root-mean-square (RMS) velocity is typically used to describe vibration amplitudes. PPV is defined as the maximum instantaneous peak of the vibration signal, while RMS is defined as the square root of the average of the squared amplitude of the signal. PPV is typically used for evaluating potential building damage, whereas RMS is typically more suitable for evaluating human response to ground-borne vibration. The RMS vibration velocity level can be presented in inches per second (ips) or in VdB (a decibel unit referenced to 1 microinch per second). Commonly, ground-borne vibration generated by man-made activities (i.e., road traffic, construction) attenuates rapidly with distance from the source of the vibration.

The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings such as the operation of mechanical equipment, the movement of people, or the slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration from traffic is barely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

3 USDOT FHWA, *Fundamentals and Abatement,* 97.



* NOTE: 50' from motorcycle equals noise at about 2000' from a four-engine jet aircraft.

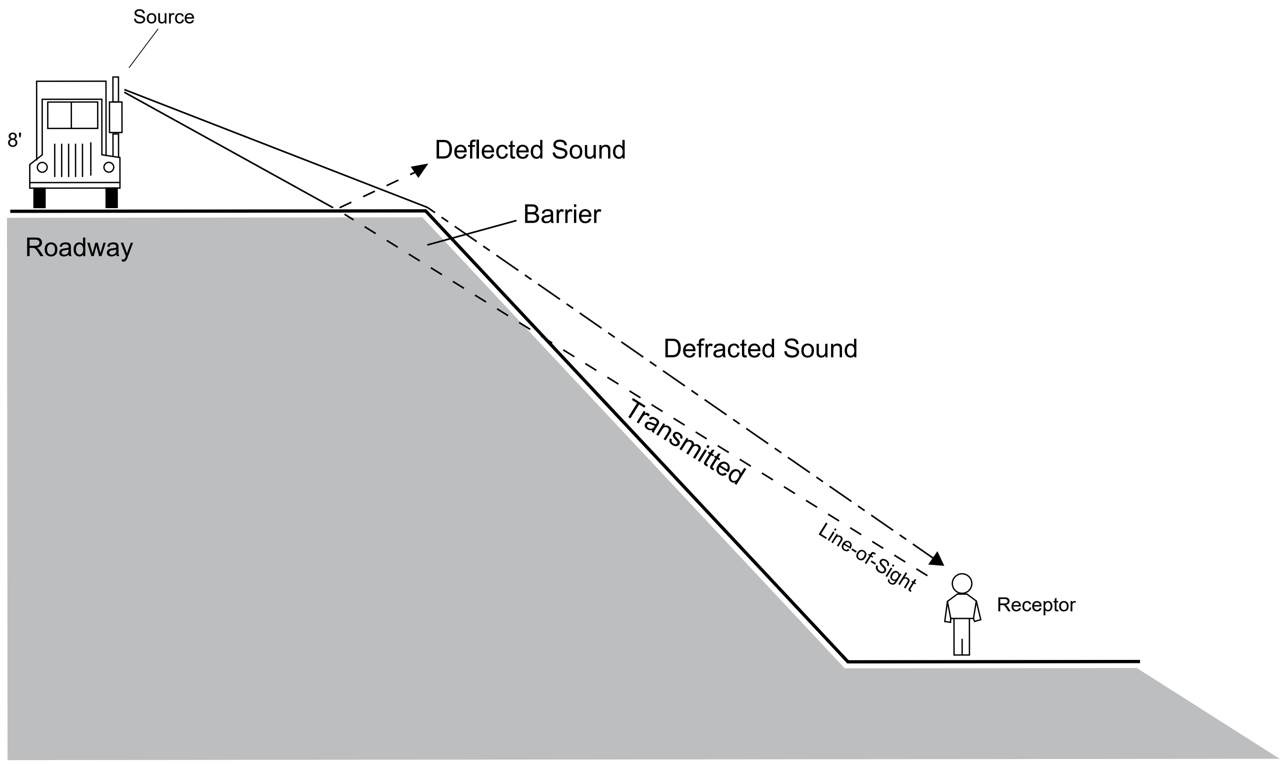
‡NOTE: dB are "average" values as measured on the A–scale of a sound–level meter.

FIGURE 3

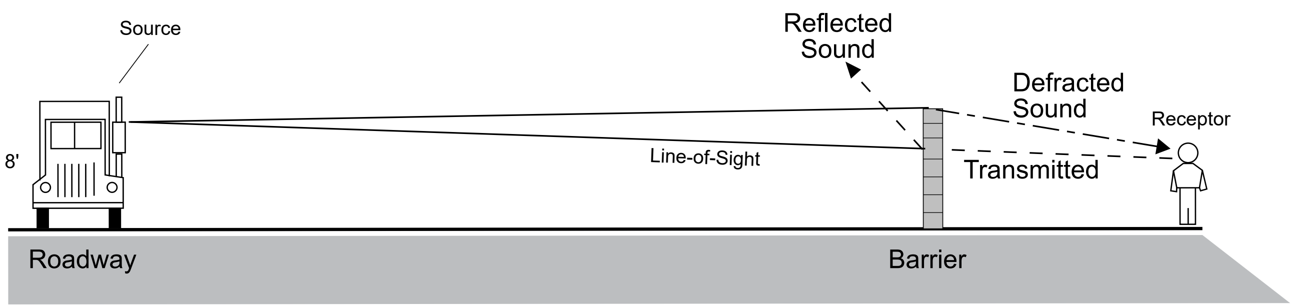
Meridian Consultants

Common Noise Levels

314-001-21



"Barrier Effect" Resulting from Differences in Elevation.



"Barrier Effect" Resulting from Typical Soundwall.

FIGURE 4

Meridian Consultants

Noise Attenuation by Barriers

314-001-21

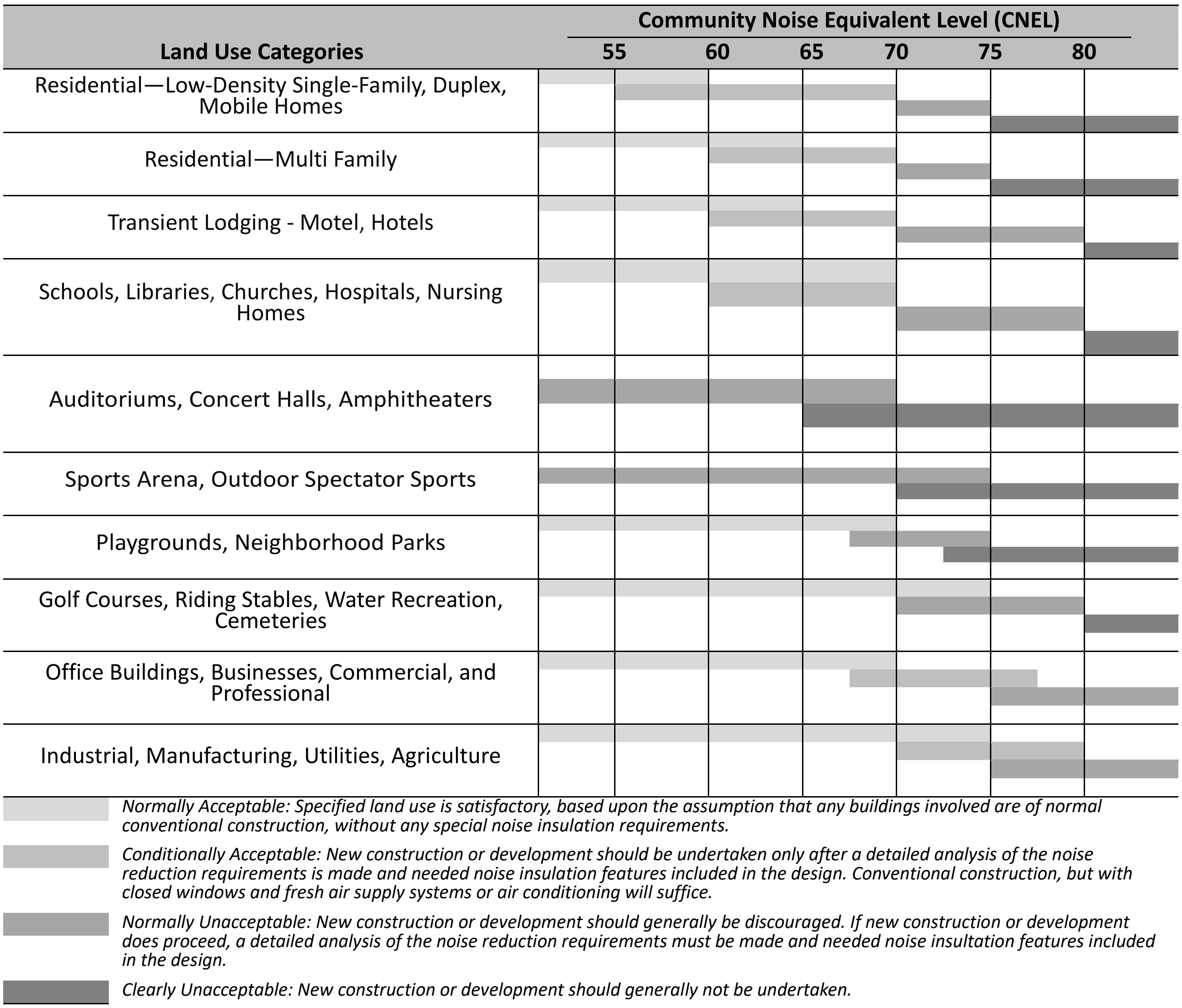
REGULATORY SETTING

City of Glendale General Plan Noise Element

The City of Glendale General Plan Noise Element establishes noise criteria for the various land uses throughout the City.[4] **Table 2: Land Use for Compatibility Noise Exposure**, identifies the acceptable limit of noise exposure for various land-use categories within the City.

Table 2

Land Use Compatibility for Community Noise Exposure



Source: City of Glendale, General Plan, "Noise Element" (2007).

4 City of Glendale, *General Plan,* "Noise Element" (2007).

Noise exposure for commercial uses is “normally acceptable” when the CNEL at exterior commercial locations is equal to or below 70 dBA, “conditionally acceptable” when the CNEL is between 67.5 to 77.5 dBA, and “normally unacceptable” when the CNEL exceeds 75 dBA. Noise exposure for low density residential uses is “normally acceptable” when the CNEL at exterior residential locations is equal to or below 60 dBA, “conditionally acceptable” when the CNEL is between 55 to 70 dBA, “normally unacceptable” when the CNEL is between 70 to 75 dBA, and “clearly unacceptable” when the CNEL exceeds 75 dBA. These guidelines apply to noise sources such as vehicular traffic, aircraft, and rail movements.

City of Glendale Municipal Code

Noise

Noise standards for specific land uses are identified in the City of Glendale’s Noise Ordinance, which is located in Chapter 8.36, Section 8.36.040 of the GMC. Under Section 8.36.040 of the Noise Ordinance, exterior and interior noise is regulated by reference to “presumed noise standards,” which are presented in **Table 3: Interior and Exterior Presumed Noise Standards**. Under Section 8.36.050 of the Noise Ordinance, where noise levels are below the presumed noise standards, the actual ambient noise level controls, and any noise more than 5 dBA above the actual ambient noise level is considered a violation of the Noise Ordinance. Where the actual ambient noise level exceeds the presumed noise standard, the actual ambient noise level is used, and any noise more than 5 dBA above the actual ambient noise level is considered a violation of the Noise Ordinance. However, under the Noise Ordinance, the actual ambient noise levels are not allowed to exceed the presumed noise level by more than 5 dBA.

The City does not have regulations that establish maximum construction noise levels. However, Section 8.36.080 of the Glendale Municipal Code (GMC) states that it is unlawful for any person within a residential zone, or within a radius of five hundred feet therefrom, to operate equipment or perform any outside construction or repair work on buildings, structures or projects within the City between the hours of 7:00 PM on one day and 7:00 AM of the next day, or from 7:00 PM on Saturday to 7:00 AM on Monday, or from 7:00 PM preceding a holiday. Moreover, Section 8.36.290(K) of the GMC provides an exemption from the Noise Ordinance for any activity, operation, or noise, which cannot be brought into compliance (with the Noise Ordinance) because it is technically infeasible to do so. “Technical infeasibility” for the purpose of this section means that noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers, and/or any other noise reduction devices or techniques during the operation of the equipment.

Table 3
Interior and Exterior Presumed Noise Standards

Land Use Category		Noise Standards	
Category	**Uses**	**Interior CNEL**	**Exterior CNEL**
Residential	Single Family	45[1]	65[2]
	Multifamily	45[1]	65[3]
	Residential within Mixed Use	45[1]	-
Commercial	Hotel, Motel, Transient, Lodging	45[1]	-
Institutional	Hospital, School, Church, Library	45	-
Open Space	Parks[4]	-	65[1]

Source: City of Glendale General Plan Noise Element, 2007.
[1] Applies to the indoor environment excluding bathrooms, toilets, closets and corridors
[2] Applies to the outdoor environment limited to the private yard of single family residences (normally the rear yard).
[3] Applies to the patio area where there is an expectation of privacy (i.e., not a patio area which also serves as, or is adjacent to, the primary entrance to the unit).
[4] Only applies to parks where peace and quiet are determined to be of prime importance, such as hillside open space areas to the public. Generally would not apply to urban parks or active-use parks.

Vibration

Section 8.36.210 of the GMC provides that vibration created by the operation of any device would be a violation of City standards if such vibration were above the vibration perception threshold of an individual at or beyond the property boundary of a source on private property. For sources on a public space or public right-of-way, a violation would occur if the vibration perception threshold of an individual were exceeded at a distance of 150 feet from the source. The Noise Ordinance does not define the level of vibration that is deemed perceptible by an individual and does not establish maximum allowable vibration levels.

EXISTING CONDITIONS

Ambient Noise Levels

Short-term sound monitoring was conducted at six (6) locations to measure the ambient sound environment in the Project vicinity, as shown in **Figure 4: Noise Monitoring Locations**. Measurements were taken over 15-minute intervals at each location between the hours of 1:51 PM and 4:00 PM on April 4, 2021. **Table 4: Ambient Noise Measurements**. As shown in **Table 4**, ambient noise levels ranged from a low of 55.5 dBA Leq south of the Project site along Maryland Avenue (Site 2) to a high of 73.1 dBA Leq at the northeast corner of Maryland Avenue and Cypress Street (Site 3).

Table 4
Ambient Noise Measurements

Location Number/Description		Nearest Use	Time Period	Noise Source	dBA Leq
1	Southwest corner of Maryland Avenue and Palmer Avenue	Residential	1:51 PM–2:06 PM	Vehicle traffic along Maryland Avenue and Palmer Avenue	64.8
2	South of the Project site along Maryland Avenue	Residential	2:08 PM–2:23 PM	Vehicle traffic along Maryland Avenue	55.5
3	Northeast corner of Maryland Avenue and Cypress Street	Residential	2:25 PM–2:40 PM	Vehicle traffic along Maryland Avenue and Cypress Street	73.1
4	East boundary of the Project site along Glendale Avenue	Project site	2:43 PM–2:58 PM	Vehicle traffic along Glendale Avenue	66.1
5	Southeast of the Project site along Cypress Street	Residential	3:16 PM–3:31 PM	Vehicle traffic along Cypress Street	62.4
6	Northeast of the Project site along Palmer Avenue	Residential	3:45 PM–4:00 PM	Vehicle traffic along Palmer Avenue and Glendale Avenue	62.1

Source: Refer to ***Attachment A*** *for noise monitoring data sheets.*
Notes: dBA = A-weighted decibels; Leq = average equivalent sound level.


North


West


South


East

SOURCE: Google Earth - 2021

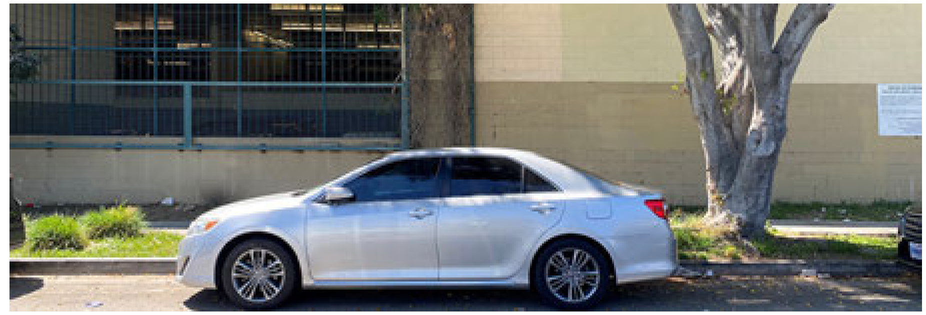
FIGURE **4a**

Meridian Consultants

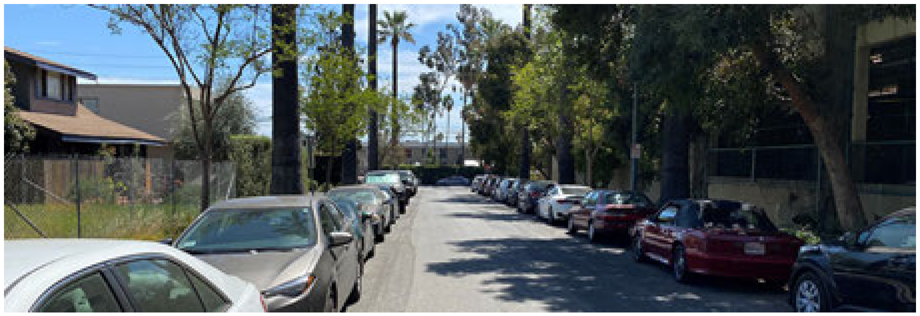
Noise Monitoring Location (Site 1)

314-001-21

North



West



South

East

SOURCE: Google Earth - 2021

FIGURE **4b**

Meridian Consultants

Noise Monitoring Location (Site 2)

314-001-21

North

West

South

East

SOURCE: Google Earth - 2021

FIGURE **4c**

Meridian Consultants

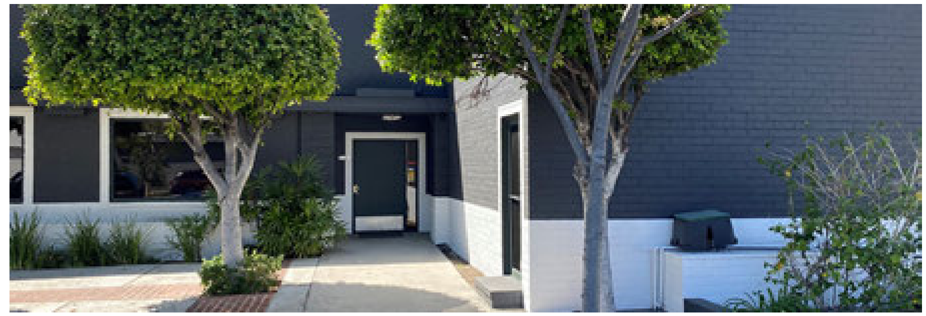
Noise Monitoring Location (Site 3)

314-001-21

North

West

South



East

SOURCE: Google Earth - 2021

FIGURE **4d**

Meridian Consultants

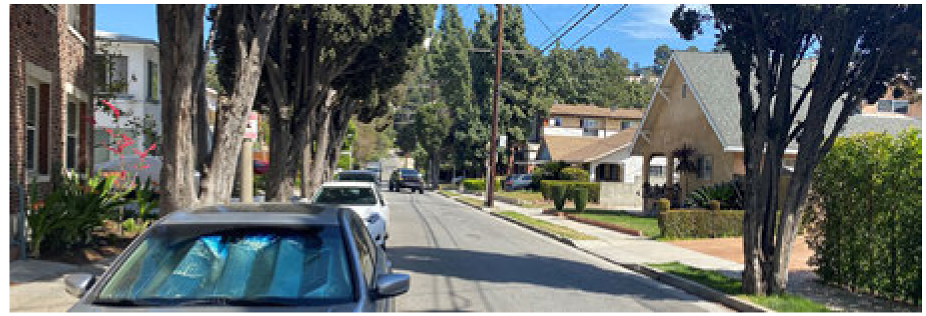
Noise Monitoring Location (Site 4)

314-001-21

North

West

South



East

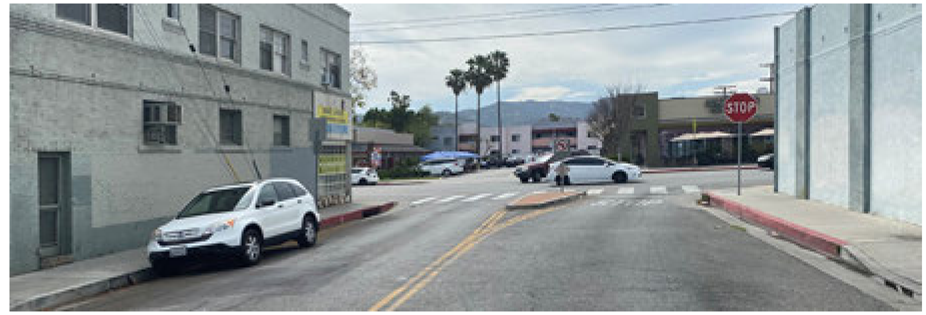
SOURCE: Google Earth - 2021

FIGURE **4e**

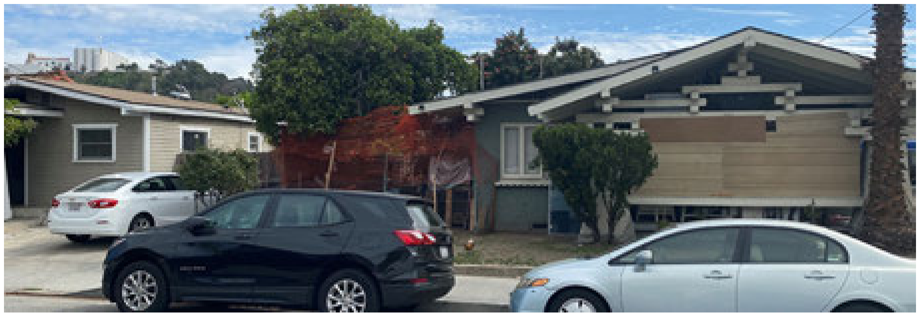
Meridian Consultants

Noise Monitoring Location (Site 5)

North



West



South

East

SOURCE: Google Earth - 2021

FIGURE 4f

Meridian Consultants

Noise Monitoring Location (Site 6)

314-001-21

Vibration Conditions

Based on field observations, the primary source of existing ground-borne vibration in the vicinity of the Project site is vehicle traffic on local roadways. According to the Federal Transit Administration (FTA),[5] typical road traffic–induced vibration levels are unlikely to be perceptible by people. Trucks and buses typically generate ground-borne vibration velocity levels of approximately 63 VdB (at a 50-foot distance), and these levels could reach 72 VdB when trucks and buses pass over bumps in the road. The FTA identifies a maximum acceptable level threshold of 65 VdB for buildings where low ambient vibration is essential for interior operations (such as hospitals and recording studios), 72 VdB for residences and buildings where people normally sleep, and 75 VdB for institutional land uses with primary daytime use (such as churches and schools).[6]

METHODOLOGY

Ambient Noise Measurements

Noise-level monitoring was conducted for 15-minute intervals at each location using a Larson Davis Model 831 sound-level meter. This meter satisfies the American National Standards Institute (ANSI) standard for general environmental noise measurement instrumentation. The ANSI specifies several types of sound-level meters according to their precision. Types 1, 2, and 3 are referred to as "precision," "general-purpose," and "survey" meters, respectively. Most measurements carefully taken with a Type 1 sound-level meter will have a margin of error not exceeding 1 dB.

The Larson Davis Model 831 is a Type 1 precision sound-level meter. This meter meets all requirements of ANSI S1.4-1983 and ANSI1.43-1997 Type 1 standards, as well as International Electrotechnical Commission (IEC) IEC61672-1 Ed. 1.0, IEC60651 Ed 1.2, and IEC60804 Type 1, Group X standards.

The sound-level meter was located approximately 5 feet above ground and was covered with a Larson Davis windscreen. The sound-level meter was field calibrated with an external calibrator prior to operation.

Construction Scenario

Future dates represent approximations based on the general Project timeline and are subject to change pending unpredictable circumstances that may arise. As such, for purposes of this analysis, project

---

5 Federal Transit Administration, *Transit Noise and Vibration Impact Assessment,* FTA report no. 0123 (September 2018), https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf, Accessed March 2021.

6 Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018.

construction is assumed to begin in January 2022 and is expected to last until December 2022.[7] Construction would occur over five phases: (1) demolition; (2) grading; (3) building construction; (4) paving; and (5) architectural coating.

Each phase of construction would result in varying levels of intensity and a number of construction personnel. The construction workforce would consist of approximately 13 worker trips per day and 125 total hauling trips during demolition; 10 worker trips per day during grading; 46 worker trips per day and 19 vendor trip per day during building construction; 15 worker trip per day during paving; and 9 worker trips per day during architectural coating.

Construction Equipment Noise

Construction activities typically generate noise from the operation of equipment required for demolition, site preparation, grading, construction, paving, and application of architectural coatings. Noise impacts from construction and staging of construction equipment were evaluated by determining cumulative noise levels generated by construction activity, calculating the construction-related noise level at nearby noise-sensitive receptor locations, and comparing these construction-related noise levels to existing ambient noise levels (i.e., noise levels without Project-related construction noise). The actual noise level would vary, depending upon the equipment type, model, the type of work activity being performed, and the condition of the equipment. Over the course of construction, activities would adhere to the City's Noise Ordinance. More specifically, the City's Municipal Code Section 8.36.080 prohibits noise levels generated by construction within a radius of 500 feet of a residential zone from 7:00 PM to 7:00 AM on weekdays and on Saturday or any time on Sundays and holidays. In addition, adherence to the City's Municipal Code Section 13.42.120 would require the Project to apply best management practices for development construction projects.

The anticipated equipment for construction activities is shown in **Table 5: Proposed Project Construction Equipment by Phase**. The Project would be constructed using typical construction techniques; no blasting, impact pile driving, or jackhammers would be required. Moreover, because the Project does not propose any subterranean uses grading and dirt hauling activities will be minimal. Additionally, though grading would occur for the footings during construction, no vibratory equipment will be used in the course of construction as nominal grading/excavation activities would be proposed for this Project for the footings.

7 Construction of the proposed Project would occur over approximately 12 months. It is possible the construction period could extend to 18 months. However, given a shorter construction period would result in higher daily emissions and more daily trips, a 12-month construction period was assumed for a conservative air quality impact analysis related to construction.

Although there would be grading for the footings, the Project site would be balanced and no export would be required. As such, no heavy vibratory would be required.

Construction equipment noise would not be constant because of the variations of power, cycles, and equipment locations. For maximum noise events, this analysis considers equipment operating at the edge of the property line of the Project site.

Table 5
Proposed Project Construction Equipment by Phase

Equipment	Demolition	Grading	Construction	Paving	Architectural Coating
Air Compressor	--	--	--	--	1
Cement and Mortar Mixers	--	--	--	1	--
Concrete/Industrial Saws	1	--	--	--	--
Crane	--	--	1	--	--
Generators	--	--	1	--	--
Graders	--	1	--	--	--
Pavers	--	--	--	1	--
Paving Equipment	--	--	--	1	--
Rollers	--	--	--	2	--
Rough Terrain Forklifts	--	--	2	--	--
Rubber Tired Dozers	1	2	--	--	--
Tractors/Loaders/Backhoes	3	2	1	1	--
Welders	--	--	3	--	--

The following methods were used to calculate construction noise levels:

- Ambient noise levels at surrounding noise-sensitive receptor locations were modeled based on existing noise in proximity to the nearby noise-sensitive receptors.
- Typical noise levels for each type of construction equipment were obtained from the Federal Highway Administration's (FHWA) Roadway Construction Noise Model (RCNM).

The inventory of construction equipment identified in **Table 5** above was assumed to operate simultaneously. Although it is unlikely that all pieces of construction equipment identified in **Table 5** above would be operating simultaneously at a single location during each phase, this is considered a conservative approach to calculate the maximum noise levels that would be generated.

Best management practices include equipping all construction equipment, fixed or mobile, with properly operating and maintained mufflers and other State-required noise attenuation devices; identify the maximum distance between construction equipment staging areas and occupied residential areas; and require the use of electric air compressors and similar power tools. Optimal muffler systems for all equipment and the break in line of sight to a sensitive receptor would reduce construction noise levels by approximately 10 dB or more.[8] A noise barrier can achieve a 5-dB noise level reduction when it is tall enough to break the line-of-sight to the receiver. After it breaks the line-of-sight, it can achieve approximately 1.5 dB of additional noise level reduction for each one (1) meter (3.3 feet) of barrier height.[9]

Distances between construction activities for each of the phases and staging area locations (noise source), and surrounding noise-sensitive receptors were measured using concept plans for the proposed Project and aerial imagery.

Construction equipment noise was evaluated by determining the noise levels generated by typical outdoor construction activity and calculating the potential for exposure to noise-sensitive uses. Construction equipment noise impacts were assessed by identifying the closest noise-sensitive receptors to each construction area.

Ground-Borne Vibration

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. While ground vibrations from construction activities do not often reach the levels that can damage structures, fragile buildings must receive special consideration.

Impacts due to construction activities were evaluated by identifying vibration sources (i.e., construction equipment), measuring the distance between vibration sources and surrounding structure locations, and making a significance determination.

For quantitative construction vibration assessments related to building damage and human annoyance, vibration source levels for construction equipment are taken from the FTA *Transit Noise and Vibration*

8 FHWA, *Special Report – Measurement, Prediction, and Mitigation*, updated June 2017, accessed April 2021, https://www.fhwa.dot.gov/Environment/noise/construction_noise/special_report/hcn04.cfm.

9 FHWA, *Noise Barrier Design – Visual Quality*, accessed April 2021, https://www.fhwa.dot.gov/Environment/noise/noise_barriers/design_construction/keepdown.cfm.

Impact Assessment Manual.[10] Building damage would be assessed for each piece of equipment individually and assessed in terms of peak particle velocity. Ground-borne vibration related to human annoyance is assessed in terms of rms velocity levels.

The vibration source levels for various types of equipment are based on data provided by the FTA. The list of proposed vibration inducing equipment to be utilized during construction is shown in **Table 6: Proposed Project Vibration Construction Equipment by Phase**. As mentioned above, the Project would utilize best management practices which include identifying the maximum distance between construction equipment staging areas and occupied residential areas. Loaded trucks would primarily utilize S. Glendale Avenue along the designated haul route and would be located approximately 260 feet from the nearest sensitive use (Site 2). Additionally, for maximum vibration events related to small bulldozers, this analysis considers this piece of equipment operating at the edge of the property line of the Project to the nearest sensitive receptors (30 feet).

Table 6
Proposed Project Vibration Construction Equipment by Phase

Equipment	Demolition	Grading	Construction	Paving	Architectural Coating
Small bulldozer	1	2	--	--	--
Loaded Trucks	3	2	1	1	--

THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the State CEQA Guidelines, a project would have a potentially significant impact related to noise and groundborne vibration if it would result in:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- Generation of excessive groundborne vibration or groundborne noise levels?
- For a project located within the vicinity of a private airstrip or an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise?

10 FTA, *Transit Noise and Vibration Impact Assessment Manual,* September 2018, accessed April 2021, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

The Project site is not located within an airport land use plan and is not located within two miles of public airport or public use airport or within the vicinity of a private airstrips. As such, the Project would result in no impacts to these screening criteria and no further analyses of these topics are necessary.

The State CEQA Guidelines do not provide a definition for "substantial increase" in noise and they do not provide a threshold of significance for potential noise or vibration impacts. Therefore, the following thresholds of significance were developed for this noise analysis based on the City's General Plan Noise Element and Noise Ordinance. These thresholds apply to both Project impacts and cumulative impacts.

Noise

Under Section 8.36.050 of the Noise Ordinance, where noise levels are below the presumed noise standards, the actual ambient noise level controls, and any noise more than 5 dBA above the actual ambient noise level is considered a violation of the Noise Ordinance. Where the actual ambient noise level exceeds the presumed noise standard, the actual ambient noise level is used, and any noise more than 5 dBA above the actual ambient noise level is considered a violation of the Noise Ordinance. However, under the Noise Ordinance, the actual ambient noise levels are not allowed to exceed the presumed noise level by more than 5 dBA. As shown in **Table 4** above, the actual ambient noise levels at the nearby sensitive receptors for Locations 1, 2, 5, and 6 do not exceed the exterior noise standard of 65 dBA for residential uses. As such, the proposed Project would result in a significant impact if noise levels exceed 5 dBA above the actual ambient noise levels. Additionally, the actual ambient noise level for Location 3 does exceed the exterior noise standard of 65 dBA for residential uses. As such, the proposed Project would result in a significant impact if noise levels exceed 5 dBA above the presumed exterior noise standard of 65 dBA for residential uses at Location 3. It is important to note, Location 4 was measured at the Project boundary and therefore was not included in the analysis below.

Vibration

Section 8.36.210 of the GMC provides that vibration created by the operation of any device would be a violation of City standards if such vibration were above the vibration perception threshold of an individual at or beyond the property boundary of a source on private property. For sources on a public space or public right-of-way, a violation would occur if the vibration perception threshold of an individual were exceeded at a distance of 150 feet from the source. A numerical threshold to identify the point at which a vibration impact is deemed perceptible is not identified in the GMC.

Thus, the Caltrans *Transportation and Construction Vibration Guidance Manual*[11] is used as a screening tool to assess the potential for adverse vibration effects related to structural damage. Impacts related to vibration would be considered significant if it exceeds the following standards:

- Project construction activities cause ground-borne vibration levels to exceed 0.5 PPV at the nearest off-site reinforced-concrete, steel, or timber building.
- Project construction activities cause ground-borne vibration levels to exceed 0.3 PPV at the nearest off-site engineered concrete and masonry building.
- Project construction activities cause ground-borne vibration levels to exceed 0.2 PPV at the nearest off-site nonengineered timber and masonry building.
- Project construction activities cause ground-borne vibration levels to exceed 0.12 PPV at buildings extremely susceptible to vibration damage, such as historic buildings.

If short-term Project generated construction vibration levels exceed the FTA maximum acceptable vibration standard for infrequent events of 80 VdB at sensitive receiver locations.

NOISE ANALYSIS

Construction

Construction noise impacts due to construction activities were determined by comparing the calculated construction-related noise levels of the proposed Project to the presumed noise standards identified in **Table 3** and the measured existing ambient noise levels provided in **Table 4** (i.e., noise levels without construction noise from the proposed Project). Construction noise levels were calculated for each phase of construction (demolition, grading and construction, paving and architectural coating) at the adjacent sensitive receptors.

On-Site Construction Noise

The potential noise impact generated during construction depends on the phase of construction and the percentage of time the equipment operates over the workday. Construction noise estimates used for the analysis are representative of worst-case conditions the analysis assumes because it is unlikely that all the equipment contained on site would operate simultaneously. This is a conservative assumption because operating all construction equipment on site simultaneously is not likely under a construction phase.

As previously noted, the Project would be constructed using typical construction techniques; no blasting, impact pile driving, or jackhammers would be required. As would be the case for construction of most

11 Caltrans, *Transportation and Construction Vibration Guidance Manual* (September 2018), accessed April 2021, http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf.

land use development projects, construction of the proposed Project would require the use of heavy-duty equipment with the potential to generate audible noise above the ambient background noise level. The noise levels at the nearby sensitive receptors (refer to **Figure 5: Sensitive Receptor Map**) from construction activity are shown in **Table 7: Construction Maximum Noise Estimates**. As shown, construction noise levels would result in a maximum increase of 28.9 dBA above the significance threshold without implementation of best management practices.

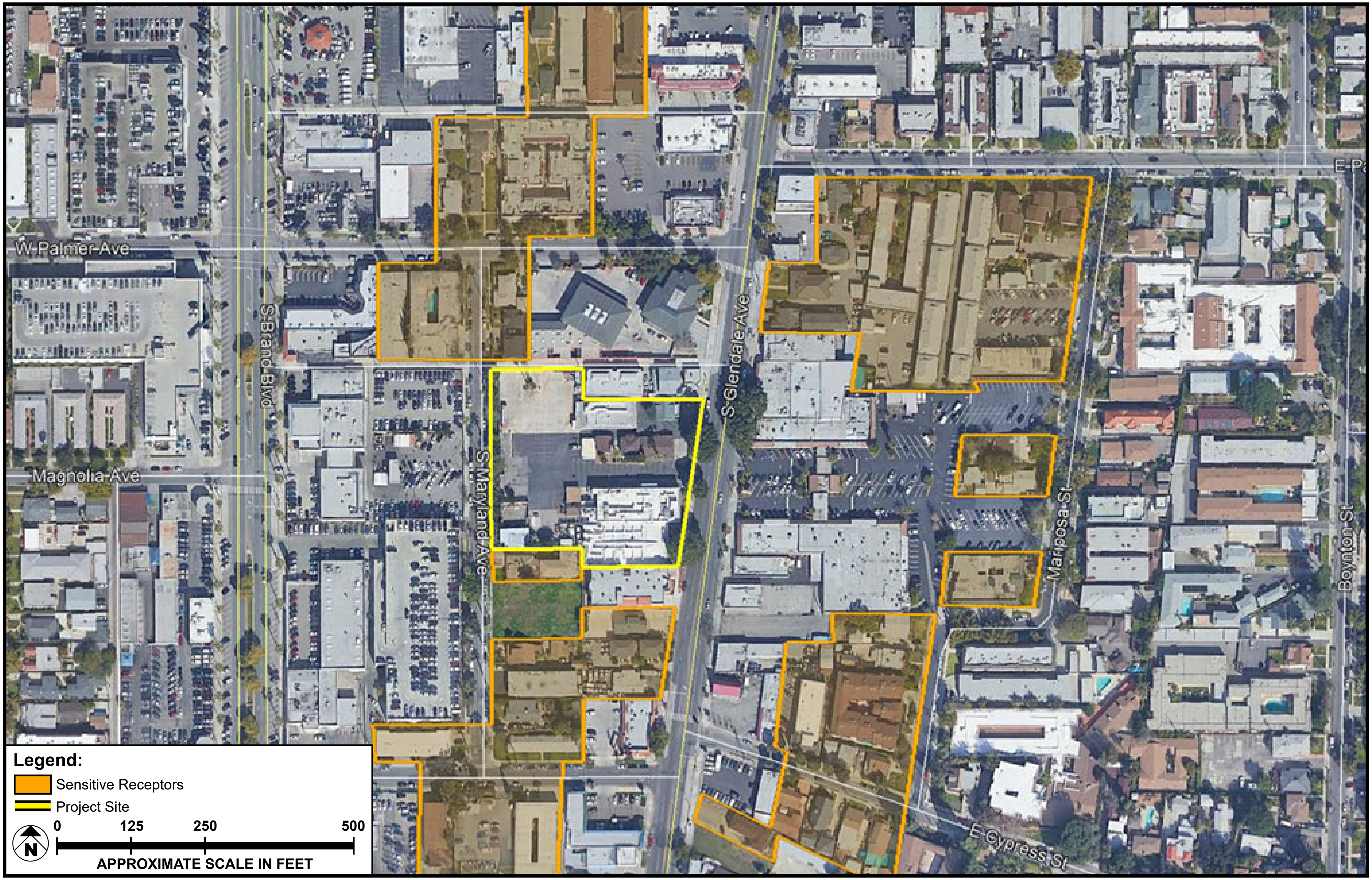
Pursuant to Section 8.36.290(K) of the GMC, the Project would ensure noise emanating from construction activities are minimized to a feasible extent. This includes implementation of best management practices. Best management practices include equipping all construction equipment, fixed or mobile, with properly operating and maintained mufflers and other State-required noise attenuation devices; identify the maximum distance between construction equipment staging areas and occupied residential areas; and require the use of electric air compressors and similar power tools. Optimal muffler systems for all equipment and the break in line of sight to a sensitive receptor would reduce construction noise levels by approximately 10 dB or more.[12] A noise barrier can achieve a 5-dB noise level reduction when it is tall enough to break the line-of-sight to the receiver. After it breaks the line-of-sight, it can achieve approximately 1.5 dB of additional noise level reduction for each one (1) meter (3.3 feet) of barrier height.[13]

Moreover, the Project would comply with the GMC as it relates to construction equipment by ensuring that the operation of noise generating construction equipment would not occur between the hours of 7:00 PM on one day and 7:00 AM of the next day, or from 7:00 PM on Saturday to 7:00 AM on Monday, or from 7:00 PM preceding a holiday. Compliance with the above practices would ensure construction noise levels are reduced to the maximum extent feasible; thus construction noise levels would not be considered significant.

---

12 FHWA, *Special Report – Measurement, Prediction, and Mitigation*, updated June 2017, accessed April 2021, https://www.fhwa.dot.gov/Environment/noise/construction_noise/special_report/hcn04.cfm.

13 FHWA, *Noise Barrier Design – Visual Quality*, accessed April 2021, https://www.fhwa.dot.gov/Environment/noise/noise_barriers/design_construction/keepdown.cfm.



SOURCE: Google Earth - 2021

FIGURE **5**

Meridian Consultants

Sensitive Receptor Map

314-001-21

Table 7
Construction Maximum Noise Estimates

Noise Monitoring Site	Nearest Off-Site Building Structures	Distance from Project Site (feet)	Max Leq	Ambient Noise Leq (dBA)	Significance Threshold (dBA)	Maximum Noise Increase over Significance Threshold without Regulatory Compliance Measures (dBA)
Site 1	Residential uses along Palmer Avenue and Maryland Avenue	175	74.9	64.8	69.8	+5.1
Site 2	Residential uses along Maryland Avenue	30	89.4	55.5	60.5	+28.9
Site 3	Residential uses along Maryland Avenue and Cypress Street	355	68.8	73.1	70.0	0.0
Site 5	Residential uses along Cypress Street	400	67.8	66.1	70.0	0.0
Site 6	Residential uses along Palmer Avenue	455	66.6	62.4	67.4	0.0

Source: FHWA, RCNM, version. 1.1.
Refer to ***Attachment B*** *for Construction Noise Worksheets*
Note: Location 4 was measured at the Project boundary and therefore was not included in the analysis.

Off-Site Construction Noise

Construction of the Project would require worker, haul, and vendor truck trips to and from the site to work on the site, export demolition debris, and deliver supplies to the site. Trucks traveling to and from the Project site would be required to travel along a haul route approved by the City. Approximately 125 total hauling trips would take place during the demolition phase, totaling to approximately 3 haul truck trips per work day. Haul truck traffic would take the most direct route to the freeway ramp, which includes the freeway ramp.

Project haul truck trips which includes medium- and heavy-duty trucks would generate noise levels of approximately 51.8 dBA and 52.7 dBA, respectively, measured at a distance of 25 feet from the nearest sensitive receptors. As shown in **Table 4**, existing noise levels at the Project site ranged from 55.5 dBA to 73.1 dBA. The noise level increases from truck trips would be below the significance threshold of 5 dBA.

Construction Vibration

Table 8: On-Site Construction Vibration Impacts–Building Damage and **Table 9: On-Site Construction Vibration Impacts–Human Annoyance** presents the construction vibration impacts associated with on-site construction in terms of building damage and human annoyance, respectively.

As shown in **Table 8**, the forecasted vibration levels due to on-site construction activities would not exceed the building damage significance threshold of 0.5 PPV ips for all sites surrounding the Project area during construction. Due to the distance of the Project-identified sensitive receptors and intervening structures, such as buildings and walls, on-site construction vibration would not result in a significant vibration impact with regard to building damage. Impacts related to building damage from on-site construction vibration would not be considered significant.

As shown in **Table 9**, the forecasted vibration levels due to on-site construction activities would not exceed the human annoyance threshold for infrequent events of 80 VdB for all sites surrounding the Project area during construction. Due to the distance of the Project-identified sensitive receptors and intervening structures, such as buildings and walls, on-site construction vibration would not result in a significant vibration impact with regard to human annoyance. Impacts related to human annoyance from on-site construction vibration would not be considered significant.

Table 8
On-Site Construction Vibration Impacts – Building Damage

Nearest Off-Site Building Structures	Estimated Vibration Velocity Levels at the Nearest Off-Site Structures from the Project Construction Equipment		Significance Threshold (PPV ips)	Exceeds Threshold?
	Loaded Trucks	Small bulldozer		
Site 1	0.004	0.000	0.5	**No**
Site 2	0.015	0.002	0.5	**No**
Site 3	0.001	0.000	0.5	**No**
Site 5	0.001	0.000	0.5	**No**
Site 6	0.001	0.000	0.5	**No**

Source: US Department of Transportation, Federal Transportation Authority, Transit Noise and Vibration Impact Assessment.
Note: Refer to ***Appendix D*** *for construction vibration worksheets.*

Table 9
On-Site Construction Vibration Impacts – Human Annoyance

Nearest Off-Site Building Structures	Estimated Vibration Velocity Levels at the Nearest Off-Site Structures from the Project Construction Equipment		Significance Threshold (VdB)	Exceeds Threshold?
	Loaded Trucks	Small bulldozer		
Site 1	60	32	80	**No**
Site 2	71	55	80	**No**
Site 3	51	23	80	**No**
Site 5	49	21	80	**No**
Site 6	48	20	80	**No**

Source: US Department of Transportation, Federal Transportation Authority, Transit Noise and Vibration Impact Assessment.
Note: Refer to ***Appendix D*** *for construction vibration worksheets.*

Operation

Fixed Mechanical Equipment Noise

The Project would introduce various stationary noise sources, including heating, ventilation, and air conditioning systems, which would be located either on the roof, the side of a structure, or on the ground. All Project mechanical equipment would be required to be designed with appropriate noise-control devices—such as sound attenuators, acoustics louvers, or sound screens/parapet walls—to comply with noise compatibility requirements provided in the GMC. The stationary equipment would be required to comply with GMC Section 30.34.070, which establishes low-sound intensities from mechanical equipment. Therefore, operation of mechanical equipment on the Project building would not exceed the City's threshold of significance.

CUMULATIVE NOISE

For purposes of this analysis, development of any related projects will be considered to contribute to cumulative noise impacts. Noise, by definition, is a localized phenomenon and drastically reduces as distance from the source increases. As a result, only related projects and growth in the general area of the Project site (within 500 feet) would contribute to cumulative noise impacts. Cumulative construction-noise impacts have the potential to occur when multiple construction projects in the local area generate noise within the same time frame and contribute to the local ambient noise environment. It is expected that, as with the Project, any related projects would adhere to Section 8.36.290(K) of the GMC and implement noise reduction techniques such as mufflers, shields, sound barriers, which would minimize any noise-related nuisances during construction. In addition, distance attenuation and intervening structures would further reduce construction noise levels and not result in noticeable increases. Therefore, the combined construction-noise impacts of related projects within 500 feet and the Project's contribution would not cause a significant cumulative impact.

With regard to stationary sources, cumulative significant noise impacts may result from cumulative development. Stationary sources of noise that could be introduced in the area by cumulative projects could include mechanical equipment, loading docks, and parking lots. Noise levels within the proposed parking lot would fluctuate with the amount of automobile and human activity. It is anticipated that parking related noise would be similar to existing levels as the Project Site currently includes surface parking. As such, the parking lot would not introduce a new source of noise in the Project vicinity. Given that these projects would be required to adhere to the City's noise standards, all stationary sources would be required to have shielding or other noise-abatement measures so as not to cause a substantial increase in ambient noise levels. Moreover, due to distance, it is unlikely that noise from multiple cumulative projects would interact to create a significant combined noise impact. As such, it is not anticipated that a significant cumulative increase in permanent ambient noise levels would occur.

ATTACHMENT A

Noise Monitoring Data Sheets

Monitoring Location: Site 1
Monitoring Date: 4/7/2021

Monitoring Period

Time	**LAeq**	**LASmax**	**LASmin**
13:51:18	52.4	60.2	47.1
13:52:18	56.9	68.2	48.1
13:53:18	61.8	73.3	46.6
13:54:18	73.8	83.3	47.9
13:55:18	67.1	71.7	48.9
13:56:18	50.4	60.2	45.3
13:57:18	61.4	68.7	46.4
13:58:18	65.3	70.9	49.4
13:59:18	56.3	63.5	46.2
14:00:18	51.3	63.4	45.6
14:01:18	57.5	64.8	47.4
14:02:18	64.3	70.4	47.8
14:03:18	63.5	70.2	47.8
14:04:18	66.7	70.6	50.8
14:05:18	62.7	70.7	50.3
14:06:18	51.3	51.3	50.5

15-minute LAeq **64.8**

Monitoring Location: Site 2
Monitoring Date: 4/7/2021

Monitoring Period

Time	LAeq	LASmax	LASmin
14:08:48	49.8	57.2	45.3
14:09:48	47.9	57.2	45.0
14:10:48	53.9	61.3	45.0
14:11:48	51.2	59.0	47.0
14:12:48	54.1	65.0	45.9
14:13:48	63.7	80.9	44.9
14:14:48	57.6	71.1	46.9
14:15:48	51.5	61.1	45.6
14:16:48	49.8	56.8	45.7
14:17:48	48.4	56.5	45.9
14:18:48	51.2	60.5	45.8
14:19:48	57.8	67.7	47.5
14:20:48	57.7	68.5	46.0
14:21:48	50.3	56.5	45.4
14:22:48	50.1	58.4	45.8
14:23:48	51.8	54.9	53.8

15-minute LAeq **55.5**

Monitoring Location: Site 3
Monitoring Date: 4/7/2021

Monitoring Period

Time	LAeq	LASmax	LASmin
14:25:20	54.1	59.7	50.0
14:26:20	55.6	63.1	49.3
14:27:20	54.5	59.5	51.4
14:28:20	54.8	62.9	49.9
14:29:20	54.6	61.2	49.2
14:30:20	54.1	62.9	50.5
14:31:20	57.3	68.5	50.0
14:32:20	85.1	97.5	50.0
14:33:20	51.9	59.7	49.2
14:34:20	49.7	51.1	48.5
14:35:20	61.3	72.3	49.6
14:36:20	60.5	65.7	53.7
14:37:20	55.5	64.0	47.5
14:38:20	53.9	62.6	47.9
14:39:20	53.4	62.9	46.8
14:40:20	48.7	49.5	46.6

15-minute LAeq **73.1**

Monitoring Location: Site 4
Monitoring Date: 4/7/2021

Monitoring Period

Time	LAeq	LASmax	LASmin
14:43:06	66.1	72.0	58.8
14:44:06	64.9	70.5	54.8
14:45:06	67.4	71.8	55.0
14:46:06	67.1	72.8	56.8
14:47:06	65.0	70.1	54.3
14:48:06	67.2	72.8	57.6
14:49:06	65.9	70.0	57.8
14:50:06	67.3	73.7	59.2
14:51:06	67.0	73.6	58.1
14:52:06	66.4	76.5	50.2
14:53:06	66.5	71.0	59.4
14:54:06	65.7	69.2	58.1
14:55:06	63.5	72.4	50.8
14:56:06	66.2	72.4	58.6
14:57:06	66.5	72.5	58.4
14:58:06	59.9	61.7	60.0

15-minute LAeq **66.1**

Monitoring Location: Site 5
Monitoring Date: 4/7/2021

Monitoring Period

Time	LAeq	LASmax	LASmin
15:16:13	56.4	65.5	48.3
15:17:13	60.7	68.9	51.0
15:18:13	68.4	82.4	52.3
15:19:13	58.2	65.2	51.4
15:20:13	59.0	66.5	52.0
15:21:13	55.3	64.1	48.6
15:22:13	61.2	71.3	51.2
15:23:13	59.9	70.5	51.1
15:24:13	60.7	73.5	50.0
15:25:13	54.8	65.2	47.3
15:26:13	58.7	67.1	52.7
15:27:13	59.9	66.9	52.7
15:28:13	57.4	64.0	51.6
15:29:13	56.0	62.0	50.5
15:30:13	57.4	65.9	51.4
15:31:13	70.1	68.8	61.7

15-minute LAeq	**62.4**

Monitoring Location: Site 6
Monitoring Date: 4/7/2021

Monitoring Period

Time	LAeq	LASmax	LASmin
15:45:20	59.8	69.9	53.0
15:46:20	60.4	68.1	51.2
15:47:20	67.7	80.2	51.4
15:48:20	60.6	69.1	51.5
15:49:20	66.3	76.0	53.2
15:50:20	61.3	72.9	50.9
15:51:20	61.3	72.2	51.8
15:52:20	63.9	71.6	55.2
15:53:20	60.3	67.0	52.6
15:54:20	61.8	69.7	52.7
15:55:20	56.8	64.2	52.4
15:56:20	59.5	67.6	52.4
15:57:20	58.9	67.3	49.7
15:58:20	61.6	69.9	54.8
15:59:20	60.5	70.5	50.8
16:00:20	54.3	58.4	57.2

15-minute LAeq	**62.1**

ATTACHMENT B

Construction Noise Worksheet

Roadway Construction Noise Model (RCNM),Version 1.1

Report dat 4/8/2021
Case Descı Demolition

---- Receptor #1 ----

Descriptio	Land Use	Baselines (dBA) Daytime	Evening	Night
Site 1	Residentia	64.8	64.8	64.8

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	175	0
Dozer	No	40		81.7	175	0
Front End Loader	No	40		79.1	175	0
Front End Loader	No	40		79.1	175	0
Backhoe	No	40		77.6	175	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	78.7	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	70.8	66.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	68.2	64.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	68.2	64.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	66.7	62.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	78.7	74.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Descriptio	Land Use	Baselines (dBA) Daytime	Evening	Night
Site 2	Residentia	55.5	55.5	55.5

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	30	0
Dozer	No	40		81.7	30	0
Front End Loader	No	40		79.1	50	0
Front End Loader	No	40		79.1	50	0
Backhoe	No	40		77.6	30	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	94	87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	86.1	82.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	82	78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	94	89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Descriptio	Land Use	Baselines (dBA) Daytime	Evening	Night
Site 3	Residentia	73.1	73.1	73.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	355	0
Dozer	No	40		81.7	355	0
Front End Loader	No	40		79.1	355	0
Front End Loader	No	40		79.1	355	0
Backhoe	No	40		77.6	355	0

			Results											
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	72.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	64.6	60.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	62.1	58.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	62.1	58.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	60.5	56.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	72.6	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 5	Residentia	71.1	71.1	71.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	400	0
Dozer	No	40		81.7	400	0
Front End Loader	No	40		79.1	400	0
Front End Loader	No	40		79.1	400	0
Backhoe	No	40		77.6	400	0

			Results											
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	71.5	64.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	61	57.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	61	57.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	59.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	71.5	67.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 6	Residentia	67.4	67.4	67.4

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	455	0
Dozer	No	40		81.7	455	0
Front End Loader	No	40		79.1	455	0
Front End Loader	No	40		79.1	455	0
Backhoe	No	40		77.6	455	0

			Results											
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	70.4	63.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	62.5	58.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	59.9	55.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	59.9	55.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	58.4	54.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	70.4	66	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report dat 4/8/2021
Case Descı Grading

---- Receptor #1 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 1	Residentia	64.8	64.8	64.8

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		175	0
Dozer	No	40		81.7	175	0
Tractor	No	40	84		175	0
Backhoe	No	40		77.6	175	0

Results

		Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
				Day		Evening		Night		Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		74.1	70.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		70.8	66.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe		66.7	62.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	74.1	74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 2	Residentia	55.5	55.5	55.5

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		30	0
Dozer	No	40		81.7	30	0
Tractor	No	40	84		30	0
Backhoe	No	40		77.6	30	0

Results

		Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
				Day		Evening		Night		Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		89.4	85.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		86.1	82.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		88.4	84.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe		82	78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	89.4	89.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 3	Residentia	73.1	73.1	73.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		355	0
Dozer	No	40		81.7	355	0
Tractor	No	40	84		355	0
Backhoe	No	40		77.6	355	0

Results

		Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
				Day		Evening		Night		Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq

Grader		68	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		64.6	60.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		67	63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe		60.5	56.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	68	67.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 5	Residentia	71.1	71.1	71.1

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Grader	No	40	85		400	0
Dozer	No	40		81.7	400	0
Tractor	No	40	84		400	0
Backhoe	No	40		77.6	400	0

				Results											
		Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
				Day		Evening		Night		Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		66.9	63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		65.9	62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe		59.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	66.9	66.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 6	Residentia	67.4	67.4	67.4

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Grader	No	40	85		455	0
Dozer	No	40		81.7	455	0
Tractor	No	40	84		455	0
Backhoe	No	40		77.6	455	0

				Results											
		Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
				Day		Evening		Night		Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		65.8	61.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		62.5	58.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		64.8	60.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe		58.4	54.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	65.8	65.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report dat 4/8/2021
Case Descı Building Construction

---- Receptor #1 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 1	Residentia	64.8	64.8	64.8

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	175	0
Forklift	No	40		85	175	0
Forklift	No	40		85	175	0
Generator	No	50		80.6	175	0
Backhoe	No	40		77.6	175	0
Welder / Torch	No	40		74	175	0
Welder / Torch	No	40		74	175	0
Welder / Torch	No	40		74	175	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	69.7	61.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	74.1	70.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	74.1	70.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	69.7	66.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	66.7	62.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	63.1	59.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	63.1	59.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	63.1	59.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	74.1	74.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 2	Residentia	55.5	55.5	55.5

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	100	0
Forklift	No	40		85	30	0
Forklift	No	40		85	30	0
Generator	No	50		80.6	100	0
Backhoe	No	40		77.6	30	0
Welder / Torch	No	40		74	30	0
Welder / Torch	No	40		74	30	0
Welder / Torch	No	40		74	30	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	74.5	66.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	89.4	85.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	89.4	85.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	74.6	71.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	82	78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	78.4	74.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	78.4	74.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	78.4	74.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	89.4	89.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Descriptio	Land Use	Daytime	Evening	Night
Site 3	Residentia	73.1	73.1	73.1

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Crane	No	16		80.6	355	0
Forklift	No	40		85	355	0
Forklift	No	40		85	355	0
Generator	No	50		80.6	355	0
Backhoe	No	40		77.6	355	0
Welder / Torch	No	40		74	355	0
Welder / Torch	No	40		74	355	0
Welder / Torch	No	40		74	355	0

			Results											
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	63.5	55.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	68	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	68	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	63.6	60.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	60.5	56.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	57	53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	57	53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	57	53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	68	68.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 5	Residentia	71.1	71.1	71.1

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Crane	No	16		80.6	400	0
Forklift	No	40		85	400	0
Forklift	No	40		85	400	0
Generator	No	50		80.6	400	0
Backhoe	No	40		77.6	400	0
Welder / Torch	No	40		74	400	0
Welder / Torch	No	40		74	400	0
Welder / Torch	No	40		74	400	0

			Results											
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	62.5	54.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	66.9	63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	66.9	63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	62.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	59.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	55.9	52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	55.9	52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	55.9	52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.9	67.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 6	Residentia	67.4	67.4	67.4

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)

Crane	No	16	80.6	455	0
Forklift	No	40	85	455	0
Forklift	No	40	85	455	0
Generator	No	50	80.6	455	0
Backhoe	No	40	77.6	455	0
Welder / Torch	No	40	74	455	0
Welder / Torch	No	40	74	455	0
Welder / Torch	No	40	74	455	0

			Results											
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	61.4	53.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	65.8	61.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	65.8	61.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	61.4	58.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	58.4	54.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	54.8	50.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	54.8	50.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	54.8	50.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	65.8	66.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report dat 4/8/2021
Case Descr Paving

---- Receptor #1 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 1	Residentia	64.8	64.8	64.8

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Drum Mixer	No	50		80	175	0
Paver	No	50		77.2	175	0
Paver	No	50		77.2	175	0
Roller	No	20		80	175	0
Roller	No	20		80	175	0
Tractor	No	40	84		175	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Drum Mixer	69.1	66.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	66.3	63.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	66.3	63.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	69.1	62.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	69.1	62.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	73.1	73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 2	Residentia	55.5	55.5	55.5

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Drum Mixer	No	50		80	30	0
Paver	No	50		77.2	30	0
Paver	No	50		77.2	30	0
Roller	No	20		80	30	0
Roller	No	20		80	30	0
Tractor	No	40	84		30	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Drum Mixer	84.4	81.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	81.7	78.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	81.7	78.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	84.4	77.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	84.4	77.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	88.4	84.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	88.4	88.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 3	Residentia	73.1	73.1	73.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Drum Mixer	No	50		80	355	0

Paver	No	50		77.2	355	0
Paver	No	50		77.2	355	0
Roller	No	20		80	355	0
Roller	No	20		80	355	0
Tractor	No	40	84		355	0

			Results											
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Drum Mixer	63	60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	60.2	57.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	60.2	57.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	63	56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	63	56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	67	63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	67	66.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 5	Residentia	71.1	71.1	71.1

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Drum Mixer	No	50		80	400	0
Paver	No	50		77.2	400	0
Paver	No	50		77.2	400	0
Roller	No	20		80	400	0
Roller	No	20		80	400	0
Tractor	No	40	84		400	0

			Results											
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Drum Mixer	61.9	58.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	59.2	56.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	59.2	56.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	61.9	54.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	61.9	54.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	65.9	62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	65.9	65.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 6	Residentia	67.4	67.4	67.4

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Drum Mixer	No	50		80	455	0
Paver	No	50		77.2	455	0
Paver	No	50		77.2	455	0
Roller	No	20		80	455	0
Roller	No	20		80	455	0
Tractor	No	40	84		455	0

			Results											
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Drum Mixer	60.8	57.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	58	55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	58	55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	60.8	53.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	60.8	53.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Tractor		64.8	60.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	64.8	64.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report dat 4/8/2021
Case Descr Architectural Coating

---- Receptor #1 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 1	Residentia	64.8	64.8	64.8

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)	No	40		77.7	175	0

			Results												
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	66.8	62.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.8	62.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 2	Residentia	55.5	55.5	55.5

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)	No	40		77.7	30	0

			Results												
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	82.1	78.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	82.1	78.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 3	Residentia	73.1	73.1	73.1

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)	No	40		77.7	355	0

			Results												
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	60.6	56.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	60.6	56.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 5	Residentia	71.1	71.1	71.1

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)	No	40		77.7	400	0

	Results													
	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	59.6	55.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	59.6	55.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 6	Residentia	67.4	67.4	67.4

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	455	0

	Results													
	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	58.5	54.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	58.5	54.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

ATTACHMENT C

Construction Vibration Worksheet

Equipment		Pieces of Equipment	PPV at 25 feet (in/sec)	Distance from Equipment	PPV at adjusted distance	RMS velocity amplitude in in/sec at adjusted distance[a]	RMS Vibration level in VdB at adjusted distance
Caisson drilling		1	0.089	175	0.005	0.001	62
Jackhammer		1	0.035	175	0.002	0.000	53
Large bulldozer		1	0.089	175	0.005	0.001	62
Loaded trucks		1	0.076	175	0.004	0.001	60
Pile Drive (impact)		1	0.644	175	0.035	0.009	79
Vibratory Roller		1	0.210	175	0.011	0.003	69
Small bulldozer		1	0.003	175	0.000	0.000	32

*** Suggested Vibration Thresholds per the Federal Transit Administration, United States Department of Transportation, Transit Noise and Vibration Impact Assessment (FTA-VA-90-1003-06), May 2006, pg. 12-12.**

-Fragile Buildings- 0.20 in/sec

Equipment		Pieces of Equipment	PPV at 25 feet (in/sec)	Distance from Equipment	PPV at adjusted distance	RMS velocity amplitude in in/sec at adjusted distance[a]	RMS Vibration level in VdB at adjusted distance
Caisson drilling		1	0.089	30	0.068	0.017	85
Jackhammer		1	0.035	30	0.027	0.007	76
Large bulldozer		1	0.089	30	0.068	0.017	85
Loaded trucks		1	0.076	30	0.058	0.014	83
Pile Drive (impact)		1	0.644	30	0.490	0.122	102
Vibratory Roller		1	0.210	30	0.160	0.040	92
Small bulldozer		1	0.003	30	0.002	0.001	55

*** Suggested Vibration Thresholds per the Federal Transit Administration, United States Department of Transportation, Transit Noise and Vibration Impact Assessment (FTA-VA-90-1003-06), May 2006, pg. 12-12.**

-Fragile Buildings- 0.20 in/sec

East End Studios
Construction Vibration Model
Site 3

Equipment		Pieces of Equipment	PPV at 25 feet (in/sec)	Distance from Equipment	PPV at adjusted distance	RMS velocity amplitude in in/sec at adjusted distance[a]	RMS Vibration level in VdB at adjusted distance
Caisson drilling		1	0.089	355	0.002	0.000	52
Jackhammer		1	0.035	355	0.001	0.000	44
Large bulldozer		1	0.089	355	0.002	0.000	52
Loaded trucks		1	0.076	355	0.001	0.000	51
Pile Drive (impact)		1	0.644	355	0.012	0.003	70
Vibratory Roller		1	0.210	355	0.004	0.001	60
Small bulldozer		1	0.003	355	0.000	0.000	23

*** Suggested Vibration Thresholds per the Federal Transit Administration, United States Department of Transportation, Transit Noise and Vibration Impact Assessment (FTA-VA-90-1003-06), May 2006, pg. 12-12.**

-Fragile Buildings- 0.20 in/sec

Equipment		Pieces of Equipment	PPV at 25 feet (in/sec)	Distance from Equipment	PPV at adjusted distance	RMS velocity amplitude in in/sec at adjusted distance[a]	RMS Vibration level in VdB at adjusted distance
Caisson drilling		1	0.089	400	0.001	0.000	51
Jackhammer		1	0.035	400	0.001	0.000	43
Large bulldozer		1	0.089	400	0.001	0.000	51
Loaded trucks		1	0.076	400	0.001	0.000	49
Pile Drive (impact)		1	0.644	400	0.010	0.003	68
Vibratory Roller		1	0.210	400	0.003	0.001	58
Small bulldozer		1	0.003	400	0.000	0.000	21

*** Suggested Vibration Thresholds per the Federal Transit Administration, United States Department of Transportation, Transit Noise and Vibration Impact Assessment (FTA-VA-90-1003-06), May 2006, pg. 12-12.**

-Fragile Buildings- 0.20 in/sec

Equipment		Pieces of Equipment	PPV at 25 feet (in/sec)	Distance from Equipment	PPV at adjusted distance	RMS velocity amplitude in in/sec at adjusted distance[a]	RMS Vibration level in VdB at adjusted distance
Caisson drilling		1	0.089	455	0.001	0.000	49
Jackhammer		1	0.035	455	0.000	0.000	41
Large bulldozer		1	0.089	455	0.001	0.000	49
Loaded trucks		1	0.076	455	0.001	0.000	48
Pile Drive (impact)		1	0.644	455	0.008	0.002	66
Vibratory Roller		1	0.210	455	0.003	0.001	57
Small bulldozer		1	0.003	455	0.000	0.000	20

*** Suggested Vibration Thresholds per the Federal Transit Administration, United States Department of Transportation, Transit Noise and Vibration Impact Assessment (FTA-VA-90-1003-06), May 2006, pg. 12-12.**

-Fragile Buildings- 0.20 in/sec

ATTACHMENT A

Noise Monitoring Data Sheets

Monitoring Location: Site 1
Monitoring Date: 4/7/2021

Monitoring Period

Time	**LAeq**	**LASmax**	**LASmin**
13:51:18	52.4	60.2	47.1
13:52:18	56.9	68.2	48.1
13:53:18	61.8	73.3	46.6
13:54:18	73.8	83.3	47.9
13:55:18	67.1	71.7	48.9
13:56:18	50.4	60.2	45.3
13:57:18	61.4	68.7	46.4
13:58:18	65.3	70.9	49.4
13:59:18	56.3	63.5	46.2
14:00:18	51.3	63.4	45.6
14:01:18	57.5	64.8	47.4
14:02:18	64.3	70.4	47.8
14:03:18	63.5	70.2	47.8
14:04:18	66.7	70.6	50.8
14:05:18	62.7	70.7	50.3
14:06:18	51.3	51.3	50.5

15-minute LAeq **64.8**

Monitoring Location: Site 2
Monitoring Date: 4/7/2021

Monitoring Period

Time	LAeq	LASmax	LASmin
14:08:48	49.8	57.2	45.3
14:09:48	47.9	57.2	45.0
14:10:48	53.9	61.3	45.0
14:11:48	51.2	59.0	47.0
14:12:48	54.1	65.0	45.9
14:13:48	63.7	80.9	44.9
14:14:48	57.6	71.1	46.9
14:15:48	51.5	61.1	45.6
14:16:48	49.8	56.8	45.7
14:17:48	48.4	56.5	45.9
14:18:48	51.2	60.5	45.8
14:19:48	57.8	67.7	47.5
14:20:48	57.7	68.5	46.0
14:21:48	50.3	56.5	45.4
14:22:48	50.1	58.4	45.8
14:23:48	51.8	54.9	53.8

15-minute LAeq	**55.5**

Monitoring Location: Site 3
Monitoring Date: 4/7/2021

Monitoring Period

Time	**LAeq**	**LASmax**	**LASmin**
14:25:20	54.1	59.7	50.0
14:26:20	55.6	63.1	49.3
14:27:20	54.5	59.5	51.4
14:28:20	54.8	62.9	49.9
14:29:20	54.6	61.2	49.2
14:30:20	54.1	62.9	50.5
14:31:20	57.3	68.5	50.0
14:32:20	85.1	97.5	50.0
14:33:20	51.9	59.7	49.2
14:34:20	49.7	51.1	48.5
14:35:20	61.3	72.3	49.6
14:36:20	60.5	65.7	53.7
14:37:20	55.5	64.0	47.5
14:38:20	53.9	62.6	47.9
14:39:20	53.4	62.9	46.8
14:40:20	48.7	49.5	46.6

15-minute LAeq	**73.1**

Monitoring Location: Site 4
Monitoring Date: 4/7/2021

Monitoring Period

Time	LAeq	LASmax	LASmin
14:43:06	66.1	72.0	58.8
14:44:06	64.9	70.5	54.8
14:45:06	67.4	71.8	55.0
14:46:06	67.1	72.8	56.8
14:47:06	65.0	70.1	54.3
14:48:06	67.2	72.8	57.6
14:49:06	65.9	70.0	57.8
14:50:06	67.3	73.7	59.2
14:51:06	67.0	73.6	58.1
14:52:06	66.4	76.5	50.2
14:53:06	66.5	71.0	59.4
14:54:06	65.7	69.2	58.1
14:55:06	63.5	72.4	50.8
14:56:06	66.2	72.4	58.6
14:57:06	66.5	72.5	58.4
14:58:06	59.9	61.7	60.0

15-minute LAeq **66.1**

Monitoring Location: Site 5
Monitoring Date: 4/7/2021

Monitoring Period

Time	LAeq	LASmax	LASmin
15:16:13	56.4	65.5	48.3
15:17:13	60.7	68.9	51.0
15:18:13	68.4	82.4	52.3
15:19:13	58.2	65.2	51.4
15:20:13	59.0	66.5	52.0
15:21:13	55.3	64.1	48.6
15:22:13	61.2	71.3	51.2
15:23:13	59.9	70.5	51.1
15:24:13	60.7	73.5	50.0
15:25:13	54.8	65.2	47.3
15:26:13	58.7	67.1	52.7
15:27:13	59.9	66.9	52.7
15:28:13	57.4	64.0	51.6
15:29:13	56.0	62.0	50.5
15:30:13	57.4	65.9	51.4
15:31:13	70.1	68.8	61.7

15-minute LAeq **62.4**

Monitoring Location: Site 6
Monitoring Date: 4/7/2021

Monitoring Period

Time	LAeq	LASmax	LASmin
15:45:20	59.8	69.9	53.0
15:46:20	60.4	68.1	51.2
15:47:20	67.7	80.2	51.4
15:48:20	60.6	69.1	51.5
15:49:20	66.3	76.0	53.2
15:50:20	61.3	72.9	50.9
15:51:20	61.3	72.2	51.8
15:52:20	63.9	71.6	55.2
15:53:20	60.3	67.0	52.6
15:54:20	61.8	69.7	52.7
15:55:20	56.8	64.2	52.4
15:56:20	59.5	67.6	52.4
15:57:20	58.9	67.3	49.7
15:58:20	61.6	69.9	54.8
15:59:20	60.5	70.5	50.8
16:00:20	54.3	58.4	57.2

15-minute LAeq **62.1**

ATTACHMENT B

Construction Noise Worksheet

Roadway Construction Noise Model (RCNM),Version 1.1

Report dat 4/8/2021
Case Desc Demolition

---- Receptor #1 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 1	Residentia	64.8	64.8	64.8

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	175	0
Dozer	No	40		81.7	175	0
Front End Loader	No	40		79.1	175	0
Front End Loader	No	40		79.1	175	0
Backhoe	No	40		77.6	175	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	78.7	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	70.8	66.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	68.2	64.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	68.2	64.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	66.7	62.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	78.7	74.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 2	Residentia	55.5	55.5	55.5

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	30	0
Dozer	No	40		81.7	30	0
Front End Loader	No	40		79.1	50	0
Front End Loader	No	40		79.1	50	0
Backhoe	No	40		77.6	30	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	94	87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	86.1	82.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	82	78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	94	89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 3	Residentia	73.1	73.1	73.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	355	0
Dozer	No	40		81.7	355	0
Front End Loader	No	40		79.1	355	0
Front End Loader	No	40		79.1	355	0
Backhoe	No	40		77.6	355	0

			Results											
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	72.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	64.6	60.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	62.1	58.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	62.1	58.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	60.5	56.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	72.6	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 5	Residentia	71.1	71.1	71.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	400	0
Dozer	No	40		81.7	400	0
Front End Loader	No	40		79.1	400	0
Front End Loader	No	40		79.1	400	0
Backhoe	No	40		77.6	400	0

			Results											
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	71.5	64.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	61	57.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	61	57.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	59.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	71.5	67.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 6	Residentia	67.4	67.4	67.4

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	455	0
Dozer	No	40		81.7	455	0
Front End Loader	No	40		79.1	455	0
Front End Loader	No	40		79.1	455	0
Backhoe	No	40		77.6	455	0

			Results											
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	70.4	63.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	62.5	58.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	59.9	55.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	59.9	55.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	58.4	54.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	70.4	66	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report dat 4/8/2021
Case Descı Grading

---- Receptor #1 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 1	Residentia	64.8	64.8	64.8

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		175	0
Dozer	No	40		81.7	175	0
Tractor	No	40	84		175	0
Backhoe	No	40		77.6	175	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	74.1	70.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	70.8	66.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	66.7	62.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	74.1	74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 2	Residentia	55.5	55.5	55.5

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		30	0
Dozer	No	40		81.7	30	0
Tractor	No	40	84		30	0
Backhoe	No	40		77.6	30	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	89.4	85.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	86.1	82.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	88.4	84.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	82	78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	89.4	89.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 3	Residentia	73.1	73.1	73.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		355	0
Dozer	No	40		81.7	355	0
Tractor	No	40	84		355	0
Backhoe	No	40		77.6	355	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq

Grader	68	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	64.6	60.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	67	63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	60.5	56.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	68	67.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 5	Residentia	71.1	71.1	71.1

			Equipment			
Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		400	0
Dozer	No	40		81.7	400	0
Tractor	No	40	84		400	0
Backhoe	No	40		77.6	400	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	66.9	63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	65.9	62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	59.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.9	66.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 6	Residentia	67.4	67.4	67.4

			Equipment			
Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		455	0
Dozer	No	40		81.7	455	0
Tractor	No	40	84		455	0
Backhoe	No	40		77.6	455	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	65.8	61.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	62.5	58.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	64.8	60.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	58.4	54.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	65.8	65.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report dat 4/8/2021
Case Descr Building Construction

---- Receptor #1 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 1	Residentia	64.8	64.8	64.8

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Crane	No	16		80.6	175	0
Forklift	No	40		85	175	0
Forklift	No	40		85	175	0
Generator	No	50		80.6	175	0
Backhoe	No	40		77.6	175	0
Welder / Torch	No	40		74	175	0
Welder / Torch	No	40		74	175	0
Welder / Torch	No	40		74	175	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	69.7	61.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	74.1	70.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	74.1	70.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	69.7	66.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	66.7	62.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	63.1	59.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	63.1	59.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	63.1	59.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	74.1	74.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 2	Residentia	55.5	55.5	55.5

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Crane	No	16		80.6	100	0
Forklift	No	40		85	30	0
Forklift	No	40		85	30	0
Generator	No	50		80.6	100	0
Backhoe	No	40		77.6	30	0
Welder / Torch	No	40		74	30	0
Welder / Torch	No	40		74	30	0
Welder / Torch	No	40		74	30	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	74.5	66.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	89.4	85.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	89.4	85.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	74.6	71.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	82	78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	78.4	74.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	78.4	74.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	78.4	74.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	89.4	89.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Descriptio	Land Use	Daytime	Evening	Night
Site 3	Residentia	73.1	73.1	73.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	355	0
Forklift	No	40		85	355	0
Forklift	No	40		85	355	0
Generator	No	50		80.6	355	0
Backhoe	No	40		77.6	355	0
Welder / Torch	No	40		74	355	0
Welder / Torch	No	40		74	355	0
Welder / Torch	No	40		74	355	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	63.5	55.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	68	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	68	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	63.6	60.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	60.5	56.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	57	53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	57	53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	57	53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	68	68.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 5	Residentia	71.1	71.1	71.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	400	0
Forklift	No	40		85	400	0
Forklift	No	40		85	400	0
Generator	No	50		80.6	400	0
Backhoe	No	40		77.6	400	0
Welder / Torch	No	40		74	400	0
Welder / Torch	No	40		74	400	0
Welder / Torch	No	40		74	400	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	62.5	54.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	66.9	63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	66.9	63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	62.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	59.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	55.9	52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	55.9	52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	55.9	52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.9	67.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 6	Residentia	67.4	67.4	67.4

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)

Crane	No	16	80.6	455	0
Forklift	No	40	85	455	0
Forklift	No	40	85	455	0
Generator	No	50	80.6	455	0
Backhoe	No	40	77.6	455	0
Welder / Torch	No	40	74	455	0
Welder / Torch	No	40	74	455	0
Welder / Torch	No	40	74	455	0

			Results											
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	61.4	53.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	65.8	61.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forklift	65.8	61.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	61.4	58.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	58.4	54.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	54.8	50.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	54.8	50.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	54.8	50.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	65.8	66.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report dat 4/8/2021
Case Descr Paving

---- Receptor #1 ----

Descriptio	Land Use	Baselines (dBA) Daytime	Evening	Night
Site 1	Residentia	64.8	64.8	64.8

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Drum Mixer	No	50		80	175	0
Paver	No	50		77.2	175	0
Paver	No	50		77.2	175	0
Roller	No	20		80	175	0
Roller	No	20		80	175	0
Tractor	No	40	84		175	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Drum Mixer	69.1	66.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	66.3	63.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	66.3	63.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	69.1	62.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	69.1	62.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	73.1	73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Descriptio	Land Use	Baselines (dBA) Daytime	Evening	Night
Site 2	Residentia	55.5	55.5	55.5

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Drum Mixer	No	50		80	30	0
Paver	No	50		77.2	30	0
Paver	No	50		77.2	30	0
Roller	No	20		80	30	0
Roller	No	20		80	30	0
Tractor	No	40	84		30	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Drum Mixer	84.4	81.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	81.7	78.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	81.7	78.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	84.4	77.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	84.4	77.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	88.4	84.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	88.4	88.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Descriptio	Land Use	Baselines (dBA) Daytime	Evening	Night
Site 3	Residentia	73.1	73.1	73.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Drum Mixer	No	50		80	355	0

Paver	No	50		77.2	355	0
Paver	No	50		77.2	355	0
Roller	No	20		80	355	0
Roller	No	20		80	355	0
Tractor	No	40	84		355	0

			Results											
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Drum Mixer	63	60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	60.2	57.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	60.2	57.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	63	56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	63	56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	67	63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	67	66.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 5	Residentia	71.1	71.1	71.1

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Drum Mixer	No	50		80	400	0
Paver	No	50		77.2	400	0
Paver	No	50		77.2	400	0
Roller	No	20		80	400	0
Roller	No	20		80	400	0
Tractor	No	40	84		400	0

			Results											
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Drum Mixer	61.9	58.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	59.2	56.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	59.2	56.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	61.9	54.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	61.9	54.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	65.9	62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	65.9	65.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 6	Residentia	67.4	67.4	67.4

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Drum Mixer	No	50		80	455	0
Paver	No	50		77.2	455	0
Paver	No	50		77.2	455	0
Roller	No	20		80	455	0
Roller	No	20		80	455	0
Tractor	No	40	84		455	0

			Results											
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Drum Mixer	60.8	57.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	58	55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	58	55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	60.8	53.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	60.8	53.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Tractor		64.8	60.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	64.8	64.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report dat 4/8/2021
Case Descr Architectural Coating

---- Receptor #1 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 1	Residentia	64.8	64.8	64.8

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)	No	40		77.7	175	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	66.8	62.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.8	62.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 2	Residentia	55.5	55.5	55.5

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)	No	40		77.7	30	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	82.1	78.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	82.1	78.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 3	Residentia	73.1	73.1	73.1

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)	No	40		77.7	355	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	60.6	56.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	60.6	56.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 5	Residentia	71.1	71.1	71.1

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)	No	40		77.7	400	0

			Results											
	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	59.6	55.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	59.6	55.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

		Baselines (dBA)		
Descriptio	Land Use	Daytime	Evening	Night
Site 6	Residentia	67.4	67.4	67.4

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	455	0

			Results											
	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	58.5	54.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	58.5	54.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

ATTACHMENT C

Construction Vibration Worksheet

Equipment		Pieces of Equipment	PPV at 25 feet (in/sec)	Distance from Equipment	PPV at adjusted distance	RMS velocity amplitude in in/sec at adjusted distance[a]	RMS Vibration level in VdB at adjusted distance
Caisson drilling		1	0.089	175	0.005	0.001	62
Jackhammer		1	0.035	175	0.002	0.000	53
Large bulldozer		1	0.089	175	0.005	0.001	62
Loaded trucks		1	0.076	175	0.004	0.001	60
Pile Drive (impact)		1	0.644	175	0.035	0.009	79
Vibratory Roller		1	0.210	175	0.011	0.003	69
Small bulldozer		1	0.003	175	0.000	0.000	32

*** Suggested Vibration Thresholds per the Federal Transit Administration, United States Department of Transportation, Transit Noise and Vibration Impact Assessment (FTA-VA-90-1003-06), May 2006, pg. 12-12.**

-Fragile Buildings- 0.20 in/sec

East End Studios
Construction Vibration Model
Site 2

Equipment		Pieces of Equipment	PPV at 25 feet (in/sec)	Distance from Equipment	PPV at adjusted distance	RMS velocity amplitude in in/sec at adjusted distance[a]	RMS Vibration level in VdB at adjusted distance
Caisson drilling		1	0.089	30	0.068	0.017	85
Jackhammer		1	0.035	30	0.027	0.007	76
Large bulldozer		1	0.089	30	0.068	0.017	85
Loaded trucks		1	0.076	30	0.058	0.014	83
Pile Drive (impact)		1	0.644	30	0.490	0.122	102
Vibratory Roller		1	0.210	30	0.160	0.040	92
Small bulldozer		1	0.003	30	0.002	0.001	55

*** Suggested Vibration Thresholds per the Federal Transit Administration, United States Department of Transportation, Transit Noise and Vibration Impact Assessment (FTA-VA-90-1003-06), May 2006, pg. 12-12.**

-Fragile Buildings- 0.20 in/sec

Equipment		Pieces of Equipment	PPV at 25 feet (in/sec)	Distance from Equipment	PPV at adjusted distance	RMS velocity amplitude in in/sec at adjusted distance[a]	RMS Vibration level in VdB at adjusted distance
Caisson drilling		1	0.089	355	0.002	0.000	52
Jackhammer		1	0.035	355	0.001	0.000	44
Large bulldozer		1	0.089	355	0.002	0.000	52
Loaded trucks		1	0.076	355	0.001	0.000	51
Pile Drive (impact)		1	0.644	355	0.012	0.003	70
Vibratory Roller		1	0.210	355	0.004	0.001	60
Small bulldozer		1	0.003	355	0.000	0.000	23

*** Suggested Vibration Thresholds per the Federal Transit Administration, United States Department of Transportation, Transit Noise and Vibration Impact Assessment (FTA-VA-90-1003-06), May 2006, pg. 12-12.**

-Fragile Buildings- 0.20 in/sec

East End Studios
Construction Vibration Model
Site 5

Equipment		Pieces of Equipment	PPV at 25 feet (in/sec)	Distance from Equipment	PPV at adjusted distance	RMS velocity amplitude in in/sec at adjusted distance[a]	RMS Vibration level in VdB at adjusted distance
Caisson drilling		1	0.089	400	0.001	0.000	51
Jackhammer		1	0.035	400	0.001	0.000	43
Large bulldozer		1	0.089	400	0.001	0.000	51
Loaded trucks		1	0.076	400	0.001	0.000	49
Pile Drive (impact)		1	0.644	400	0.010	0.003	68
Vibratory Roller		1	0.210	400	0.003	0.001	58
Small bulldozer		1	0.003	400	0.000	0.000	21

*** Suggested Vibration Thresholds per the Federal Transit Administration, United States Department of Transportation, Transit Noise and Vibration Impact Assessment (FTA-VA-90-1003-06), May 2006, pg. 12-12.**

-Fragile Buildings- 0.20 in/sec

Equipment		Pieces of Equipment	PPV at 25 feet (in/sec)	Distance from Equipment	PPV at adjusted distance	RMS velocity amplitude in in/sec at adjusted distance[a]	RMS Vibration level in VdB at adjusted distance
Caisson drilling		1	0.089	455	0.001	0.000	49
Jackhammer		1	0.035	455	0.000	0.000	41
Large bulldozer		1	0.089	455	0.001	0.000	49
Loaded trucks		1	0.076	455	0.001	0.000	48
Pile Drive (impact)		1	0.644	455	0.008	0.002	66
Vibratory Roller		1	0.210	455	0.003	0.001	57
Small bulldozer		1	0.003	455	0.000	0.000	20

*** Suggested Vibration Thresholds per the Federal Transit Administration, United States Department of Transportation, Transit Noise and Vibration Impact Assessment (FTA-VA-90-1003-06), May 2006, pg. 12-12.**

-Fragile Buildings- 0.20 in/sec

APPENDIX C

Air Quality Technical Report

Air Quality Study

for the

East End Studios Project

1214, 1215, 1230, 1234 S. Maryland Avenue and 1221, 1229, 1233 S. Glendale Avenue, Glendale, CA 91205

PREPARED FOR:

City of Glendale
Community Development Department
Planning Division
633 E. Broadway, Room 103
Glendale, CA 91206

PREPARED BY:

Westlake Village Office
920 Hampshire Road, Suite A5
Westlake Village, CA 91361

Meridian Consultants

Los Angeles Office
706 S. Hill Street, 11th Floor
Los Angeles, CA 90014

May 2021

TABLE OF CONTENTS

Figures

Tables

EXECUTIVE SUMMARY

This Air Quality Study assesses and discusses the potential air quality impacts that may occur with the East End Studios Project (Project), located in the City of Glendale (City). The analysis estimates future emission levels at surrounding land uses resulting from construction and operation of the Project and identifies the potential for significant impacts. An evaluation of the Project's contribution to potential cumulative air quality impacts is also provided. Air quality worksheets are provided in **Attachment A: CalEEMod Air Quality Emission Output Files**.

This report summarizes the potential for the Project to conflict with an applicable air quality plan; violate an air quality standard or threshold; result in a cumulatively net increase of criteria pollutant emissions; expose sensitive receptors to substantial pollutant concentrations; or create objectionable odors affecting a substantial number of people. The findings of the analyses are as follows:

- The Project would be consistent with air quality policies set forth by the South Coast Air Quality Management District (SCAQMD) and the Air Quality Management Plan.
- Construction and operational emissions would not contribute to short- or long-term emissions that would increase the carcinogenic effects on sensitive receptors. Emissions associated with operation would not exceed the SCAQMD-recommended thresholds. Thus, the Project would not result in a regional violation of applicable air quality standards or jeopardize the timely attainment of such standards in the South Coast Air Basin.
- Operation of the Project will not employ toxic air contaminant–emitting processes. No substantial pollutant concentration would be generated.
- Project construction and operations would not result in significant levels of odors.
- The Project would result in less than significant cumulative air quality impacts during construction and operation of the Project.

INTRODUCTION

This Air Quality Study was prepared to evaluate the potential impacts during construction and operation of the East End Studios Project (Project) in the City of Glendale, California. The report provides a summary of the Project components; describes the existing regulatory framework for air pollutants; discusses the environmental setting of the Project; and assesses the potential environmental impacts pertaining to air quality that may result from Project implementation. Determination of significance for Project impacts is based on analysis in accordance with the applicable regulatory thresholds.

PROJECT DESCRIPTION

The East End Studios site (Project Site) is currently utilized as studio production, office, and sound stage uses with a surface parking lot in the City of Glendale (City). Six (6) one-story stucco buildings used as studio production offices are currently located on the northeast and center of the Project Site. The approximately 96,043 square foot (2.2-acre) Project Site consists of various lots that together are seven Assessor Parcel Numbers (APNs) 5640-015-009, 5640-015-010, 5640-015-036, 560-015-029, 5640-015-030, 5640-015-033, and 5640-015-037. The Project site is commonly referred to as 1214, 1215, 1230, and 1234 South Maryland Avenue and 1221, 1229, and 1233 South Glendale Avenue and is bounded by an alley, commercial uses, and residences to the north; and a vacant lot, residences, and commercial uses to the south; South Glendale Avenue to the east; and South Maryland Avenue to the west, as shown in **Figure 1: Project Site Location**.

The proposed Project would demolish the six (6) stucco buildings totaling approximately 8,622 square feet, the approximately 18,948 square foot sound stage building, and surface parking lot for construction of studio spaces, an ancillary studio production office space along South Glendale Avenue, and a surface parking lot (new grading and asphalt) on the western portion of the Project Site. The proposed uses are generally consistent with the distribution of the existing studios uses (i.e., studio and office in the C3 zone and parking lot uses in the R-2250 zone). The studio spaces would include sound stage space totaling approximately 37,936 square feet. The three (3) story studio production office space would contain 10,710 square feet of first floor studio support space (green rooms, makeup/dressing rooms, storage, and lobby area). Offices, conference and break rooms, and open office space would occupy a mezzanine, second, and third floors of the studio production office, totaling 26,544 square feet. The surface parking lot would contain 113 parking spaces, including five (5) Americans with Disabilities Act (ADA) parking spaces. Four parking spaces would be designated for EV charging stations.

SOURCE: Google Earth - 2021

FIGURE **1**

Meridian Consultants

Project Site Location

314-001-21

REGULATORY SETTING

Ambient air quality emissions present complex environmental issues that require regulatory attention on both large and small scales. The cumulative nature of project-level and localized emissions contributing to greater regional conditions warrants that regulatory policies be instituted on national, State, and regional levels to address air quality concerns. The following sections outline the applicable regulatory framework that exists at the national, State, and regional levels for air quality.

Background

The United States Environmental Protection Agency (USEPA) is responsible for federal oversight and enforcement of air quality management policies under the 1970 Clean Air Act (CAA). Each individual state is tasked with preparing and adhering to State Implementation Plans[1] (SIPs) for achieving the goals set forth within the CAA. California has some of the most stringent air quality policies in the country and, through the California Air Resources Board (CARB) branch of the California Environmental Protection Agency (CalEPA), has developed its own ambient air quality standards (AAQS). The State is divided into air quality jurisdictions; each jurisdiction is governed by a regional air district that oversees policy implementation, permitting of air pollution emission sources, and enforcement of regulatory requirements. Six criteria air pollutants (CAPs) are monitored at the federal, State, and regional levels. These six CAPs—ozone, particulate matter PM10 and PM2.5, nitrogen dioxide, carbon monoxide, lead, and sulfur dioxide—were identified based on a consensus of decades of research that concluded inhalation of each of the chemicals results in adverse health effects in humans. The six pollutants are identified below in **Table 1: Sources and Health Effects of Criteria Air Pollutants**, along with their common sources and primary health effects from inhalation exposure.

Table 1
Sources and Health Effects of Criteria Air Pollutants

Pollutants	Sources	Primary Effects
Ozone (O3)	Formed through chemical reactions between pollutants emitted from vehicles, factories and other industrial sources, fossil fuels, combustion, consumer products, evaporation of paints, and many other sources; VOCs and NOx react in the presence of sunlight	Respiratory symptoms; worsening of lung disease; lung tissue damage; ecosystem damage; damage to rubber and some plastics
Respirable particulate matter (PM10)	Emissions from combustion of gasoline, oil, diesel fuel or wood; dust from construction sites, landfills and agriculture, wildfires and brush/waste burning, industrial sources, wind-blown dust from open lands,	Premature death and hospitalization; worsening of respiratory disease; reduced visibility; surface soiling

1 A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain National Ambient Air Quality Standards.

Pollutants	Sources	Primary Effects
	pollen and fragments of bacteria; chemical reactions of gases and certain organic compounds	
Fine particulate matter (PM2.5)	Emissions from combustion of gasoline, oil, diesel fuel or wood; chemical reactions of gases and certain organic compounds	Premature death; hospitalization; asthma-related emergencies; increased asthma symptoms and inhaler use
Carbon monoxide (CO)	Incomplete combustion of CO-containing fuels such as natural gas, gasoline, or wood; emitted by a wide variety of combustion sources, including motor vehicles, power plants, wildfires, and incinerators	Chest pain in heart disease patients; headaches; light-headedness; reduced mental alertness
Nitrogen dioxide (NO2)	Emitted from combustion sources similar to CO; formed in the atmosphere through reactions between NO and other air pollutants that require the presence of sunlight (photochemical reactions).	Lung irritation; enhanced allergic responses
Lead (Pb)	Present in soils; ore and metals processing; waste incinerators, utilities, and lead-acid battery manufacturers	Impaired mental function; learning disabilities; brain and kidney damage
Sulfur dioxide (SO2)	Emitted when sulfur-containing fuel is burned; industrial processes, such as natural gas and petroleum extraction, oil refining, and metal processing; volcanic activity and from geothermal fields	Worsening of asthma: increased symptoms, increased medication usage, and emergency room visits; acid rain

Source: California Air Resources Board, "Common Air Pollutants", https://ww2.arb.ca.gov/resources/common-air-pollutants (accessed April 2021).

Ozone

Ozone (O3) is a gas formed when volatile organic compounds (VOCs) and oxides of nitrogen (NOx), both byproducts of internal combustion engine exhaust and other sources, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months, when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.

Volatile Organic Compounds

VOCs are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Adverse effects on human health are not caused directly by VOCs, but rather by reactions of VOCs to form secondary air pollutants, including ozone. VOCs themselves are not criteria pollutants; however, they contribute to the formation of ozone and are regulated under State policies.

Respirable Particulate Matter

Respirable particulate matter (PM10) consists of extremely small, suspended particles or droplets 10 micrometers (µm) or smaller in diameter. Some sources of PM10, like pollen and windstorms, are naturally occurring. However, in populated areas, most PM10 is caused by road dust, diesel soot, combustion products, the abrasion of tires and brakes, and construction activities.

Fine Particulate Matter

PM2.5 refers to fine particulate matter that is 2.5 µm or smaller in size. Sources of PM2.5 include fuel combustion from automobiles, power plants, wood burning, industrial processes, and diesel-powered vehicles, such as buses and trucks. These fine particles are also formed in the atmosphere when gases, such as sulfur dioxide (SO2), NOx, and VOCs are transformed in the air by chemical reactions.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, and because motor vehicles operating at slow speeds are the primary source of CO in the South Coast Air Basin (Basin), the highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

Nitrogen Dioxide

Nitrogen dioxide (NO2) is a reddish-brown, highly reactive gas that is formed in the ambient air through the oxidation of nitric oxide (NO). NO2 is also a byproduct of fuel combustion. The principle form of NO2 produced by combustion is NO, but NO reacts quickly to form NO2, creating the mixture of NO and NO2 referred to as NOx. NO2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NOx is only potentially irritating. NO2 absorbs blue light, the result of which is a brownish-red cast to the atmosphere and reduced visibility.

Lead

Lead (Pb) occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne lead in the Basin. The use of leaded gasoline is no longer permitted for on-road motor vehicles, so most such combustion emissions are associated with off-road vehicles, such as race cars, that use leaded gasoline. Other sources of Pb include the manufacturing and recycling of batteries; sanding or removal of lead-based paint; ink; ceramics; ammunition; and secondary lead smelters.

Sulfur Dioxide

SO_2 is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of the burning of high-sulfur-content fuel oils and coal, as well as from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfates (SO_4).

Federal

The USEPA sets national vehicle and stationary source emission standards; oversees approval of all SIPs; provides research and guidance for air pollution programs; and sets National Ambient Air Quality Standards (NAAQS). The NAAQS for the six CAPs are shown in **Table 2: Ambient Air Quality Standards** and were identified from provisions of the 1970 CAA. The sections of the CAA that are most applicable to the Project include Title I: Nonattainment Provisions and Title II: Mobile Source Provisions.

Table 2
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards		Federal Standards		
		Concentration	Method	Primary	Secondary	Method
Ozone (O_3)	1 hour	0.09 ppm (180 µg/m³)	Ultraviolet photometry	—	Same as primary standard	Ultraviolet photometry
	8 hours	0.07 ppm (137 µg/m³)		0.075 ppm (147 µg/m³)		
Respirable particulate matter (PM_{10})	24 hours	50 µg/m³	Gravimetric or beta attenuation	150 µg/m³	Same as primary standard	Inertial separation and gravimetric analysis
	Annual arithmetic mean	20 µg/m³		—		
Fine particulate matter ($PM_{2.5}$)	24 hours	No separate State standard		35 µg/m³	Same as primary standard	Inertial separation and gravimetric analysis
	Annual arithmetic mean	12 µg/m³	Gravimetric or beta attenuation	15 µg/m³		
Carbon monoxide (CO)	8 hours	9.0 ppm (10 mg/m³)	Nondispersive infrared photometry (NDIR)	9 ppm (10 mg/m³)	None	NDIR
	1 hour	20 ppm (23 mg/m³)		35 ppm (40 mg/m³)		
Nitrogen dioxide (NO_2)	Annual arithmetic mean	0.03 ppm (57 µg/m³)	Gas phase chemiluminescence	0.053 ppm (100 µg/m³)	Same as primary standard	Gas phase chemiluminescence
	1 hour	0.18 ppm (339 µg/m³)		0.100 ppm (188 µg/m³)		

Source: California Air Resources Board website at: http://www.arb.ca.gov/research/aaqs/aaqs.htm (accessed April 2021).
Note: ppm = parts per million.

The CAA and the promulgated standards have evolved as a living document over time as research into the effects of air pollution has enhanced regulatory understanding of the associated issues. The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. On the national level, the USEPA designates regions as achieving “attainment” or suffering from “nonattainment” of the NAAQS based on air quality monitoring data. Regions that are designated as being in nonattainment are responsible for devising localized strategies for reducing emissions of CAPs and achieving regional attainment within a predetermined timeframe set by the USEPA.

The NAAQS were further amended in July 1997 to include an 8-hour standard for ozone and to adopt an NAAQS for PM2.5. The NAAQS were amended again in September 2006 to include an established methodology for calculating PM2.5, as well as to revoke the annual PM10 threshold. Additional revisions to the AAQS may be implemented in the future as the science of air quality progresses.

State

The California Clean Air Act, signed into law in 1988, requires all areas of the State to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practicable date. CARB is responsible for the coordination and administration of both State and federal air pollution control programs within California. In this capacity, CARB conducts research, sets CAAQS, compiles emission inventories, develops suggested control measures, and provides oversight of local programs.

CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions and the CAAQS currently in effect for each of the criteria pollutants, as well as other pollutants recognized by the State. The CAAQS are provided in **Table 2**. It should be noted that the CAAQS are generally more stringent than the NAAQS, reflecting California’s diligent efforts toward reducing air pollution and improving air quality.

Regional

In California, jurisdiction over air quality management, enforcement, and planning divided into 35 geographic regions. Within each region, a local air district is responsible for oversight of air quality monitoring, modeling, permitting, and enforcement to ensure that regulatory violations are avoided wherever possible.

The Project site is located within the 6,700-square-mile Basin and is under the SCAQMD's jurisdiction. The Basin includes the southern two-thirds of Los Angeles County, all of Orange County, and the western urbanized portions of Riverside and San Bernardino Counties.

South Coast Air Quality Management District

SCAQMD shares responsibility with CARB for ensuring that all State and federal AAQS are achieved and maintained over an area of approximately 10,743 square miles. This area includes the South Coast and Salton Sea Air Basins, all of Orange County, and the nondesert portions of Los Angeles, Riverside, and San Bernardino Counties. It does not include the Antelope Valley or the nondesert portion of western San Bernardino County.

SCAQMD is responsible for controlling emissions, primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the air basins. SCAQMD, in coordination with the Southern California Association of Governments (SCAG), is also responsible for developing, updating, and implementing the Air Quality Management Plan (AQMP) for the air basins. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as being in nonattainment of the NAAQS or CAAQS. The term "nonattainment area" is used to refer to an air basin in which one or more AAQS are exceeded. SCAQMD also prepares the SIP for its jurisdiction and promulgates rules and regulations. The SIP includes strategies and tactics to be used to attain the federal ozone standards in the South Coast Air Basin. The SIP elements are taken from the most recent AQMP.

SCAQMD approved a Final 2016 AQMP on March 3, 2017.[2] The 2016 AQMP includes transportation control measures developed by SCAG from its 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy, as well as the integrated strategies and measures needed to meet the NAAQS. The 2016 AQMP demonstrates attainment of the 1-hour and 8-hour ozone NAAQS, as well as the latest 24-hour and annual PM2.5 standards. It should be noted that on September 3, 2020, SCAG adopted the 2020–2045 RTP/SCS,[3] which includes a SCS that addresses regional development and growth forecasts.

SCAQMD is responsible for limiting the amount of emissions that can be generated throughout the air basins by various stationary, area, and mobile sources. Specific rules and regulations have been adopted by the SCAQMD Governing Board that limit the emissions that can be generated by various uses/activities

---

2 SCAQMD, "Final 2016 Air Quality Management Plan" (2016), https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15, accessed April 2021.

3 Southern California Association of Governments (SCAG), Connect SoCal: 2020-2045 Regional Transportation Plan/Sustainable Communities Strategies Draft, "Chapter 1," https://www.connectsocal.org/Pages/Connect-SoCal-Draft-Plan.aspx, accessed April 2021.

and identifying specific pollution-reduction measures that must be implemented in association with various uses and activities. These rules regulate not only the emissions of the federal and State criteria pollutants, but also toxic air contaminants (TACs) and acutely hazardous materials. The rules are also subject to ongoing refinement by SCAQMD.

Among the SCAQMD rules applicable to the Project are Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coatings). Rule 403 requires the use of stringent best available control measures (BACMs) to minimize PM10 emissions during grading and construction activities. Rule 1113 limits the VOC content of coatings, with a VOC content limit for flat coatings of 50 grams per liter (g/L).[4] Additional details regarding these rules and other potentially applicable rules are presented as follows.

Rule 402 (Nuisance). This rule states that 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 to the public, or which cause, or have a natural tendency to cause, injury or damage to business or property."[5]

Rule 403 (Fugitive Dust). This rule requires fugitive dust sources to implement BACMs for all sources and prohibits all forms of visible particulate matter from crossing any property line. BACMs may include application of water or chemical stabilizers to disturbed soils covering haul vehicles; restricting vehicle speeds on unpaved roads to 15 miles per hour (mph); sweeping loose dirt from paved site-access roadways; cessation of construction activity when winds exceed 25 mph; and establishing a permanent ground cover on finished sites. SCAQMD Rule 403 is intended to reduce PM10 emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust (see also Rule 1186).

Rule 1113 (Architectural Coatings). This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

Rule 1146.2 (Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters). This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of

---

4 SCAQMD, "Rule 1113 Architectural Coating" (amended September 6, 2013), http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf, accessed April 2021.

5 SCAQMD, "Rule 402—Nuisance," http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-402.pdf, accessed April 2021.

new and existing units to reduce NOx emissions from natural-gas-fired water heaters, boilers, and process heaters as defined in this rule.

Rule 1186 (PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations). This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM10 emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Stationary emissions sources subject to these rules are regulated through SCAQMD's permitting process. Through this permitting process, SCAQMD also monitors the amount of stationary emissions being generated and uses this information in developing AQMPs.

ENVIRONMENTAL SETTING

Regional Air Quality

USEPA is the federal agency responsible for overseeing the country's air quality and setting the NAAQS for the CAPs. The NAAQS were devised based on extensive modeling and monitoring of air pollution across the country; they are designed to protect public health and prevent the formation of atmospheric ozone. Air quality of a region is considered to be in attainment of the NAAQS if the measured ambient air pollutant levels do not exceed the applicable concentration threshold. **Table 2** presents the federal and State AAQS.

As noted previously, CARB is the State agency responsible for setting the CAAQS. Air quality of a region is considered to be in attainment of the CAAQS if the measured ambient air pollutant levels for O3, CO, NO2, SO2, PM10, PM2.5, and Pb are not exceeded, and all other standards are not equaled or exceeded at any time in any consecutive 3-year period. The CAAQS are also presented in **Table 2**.

For evaluation purposes, the SCAQMD territory is divided into 38 source receptor areas (SRAs). These SRAs are designated to provide a general representation of the local meteorological, terrain, and air quality conditions within the particular geographical area.

The Project site is within SRA 7, East San Fernando Valley.[6] The nearest air monitoring station SCAQMD operates is located at 1630 North Main Street.[7] This station monitors O3, NO2, PM10 and PM2.5. **Table 3: Air Quality Monitoring Summary** summarizes published monitoring data from 2017 through 2019, the

---

6 SCAQMD, *General Forecast Areas and Air Monitoring Areas,* map, http://www.aqmd.gov/docs/default-source/default-document-library/map-of-monitoring-areas.pdf, accessed April 2021.

7 South Coast Air Quality Management District, *Site Survey Report for Los Angeles (Central)–North Main Street,* AQS ID 060371103, http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-monitoring-network-plan/aaqmnp-losangeles.pdf?sfvrsn=16, accessed April 2021.

most recent 3-year period available. The data shows that during the past few years, the region has exceeded the O3, and PM10, PM2.5 standards.

Table 3
Air Quality Monitoring Summary

Air Pollutant	Average Time (Units)	2017	2018	2019
Ozone (O3)	State Max 1 hour (ppm)	0.116	0.098	0.093
	Days > CAAQS threshold (0.09 ppm)	6	2	0
	National Max 8 hour (ppm)	0.086	0.073	0.080
	Days > NAAQS threshold (0.075 ppm)	14	4	2
	State Max 8 hour (ppm)	0.086	0.074	0.080
	Days > CAAQS threshold (0.07 ppm)	16	4	2
Carbon monoxide (CO)		—	—	—
Nitrogen dioxide (NO2)	National Max 1 hour (ppm)	0.081	0.070	0.070
	Days > NAAQS threshold (0.100 ppm)	0	0	0
	State Max 1 hour (ppm)	0.080	0.070	0.069
	Days > CAAQS threshold (0.18 ppm)	0	0	0
Respirable particulate matter (PM10)	National Max (µg/m3)	64.6	68.2	62.4
	National Annual Average (µg/m3)	25.7	30.2	23.0
	Days > NAAQS threshold (150 µg/m3)	0	0	0
	State Max (µg/m3)	96.2	81.2	93.9
	State Annual Average (µg/m3)	—	34.0	—
	Days > CAAQS threshold (50 µg/m3)	40	31	15
Fine particulate matter (PM2.5)	National Max (µg/m3)	54.9	61.4	43.5
	National Annual Average (µg/m3)	12.0	12.8	10.8
	Days > NAAQS threshold (35 µg/m3)	6	6	1
	State Max (µg/m3)	61.7	65.3	43.5
	State Annual Average (µg/m3)	16.3	16.0	10.8

Source: CARB, iADAM: Air Quality Data Statistics.
Note: (—) = Data not available.

USEPA and the CARB designate air basins where AAQS are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” Federal nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

The current attainment designations for the Basin are shown in **Table 4: South Coast Air Basin Attainment Status**. The Basin is currently designated as being in nonattainment at the federal level for O3 and PM2.5; and at the State level for O3, PM10, and PM2.5.

Table 4
South Coast Air Basin Attainment Status

Pollutant	State Status	National Status
Ozone (O3)	Nonattainment	Nonattainment
Carbon monoxide (CO)	Attainment	Unclassified/Attainment
Nitrogen dioxide (NO2)	Attainment	Unclassified/Attainment
Sulfur dioxide (SO2)	Attainment	Unclassified/Attainment
Respirable particulate matter (PM10)	Nonattainment	Attainment
Fine particulate matter (PM2.5)	Nonattainment	Nonattainment

Source: California Air Resources Board (CARB) Area Designation Maps / State and National, https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations, accessed April 2021,

Existing Operational Emissions

As mentioned previously, the Project site is currently utilized as studio production, office, and sound stage uses with a surface parking lot. Six (6) one-story stucco buildings used as studio production offices are currently located on the northeast and center of the Project Site. The southeast portion of the Project Site contains sound stage studio spaces. A parking lot currently occupies the west half of the Project Site. The current site usage generates existing vehicle trips and air quality emissions from operations related to these uses. Additionally, the existing site generates approximately 190 daily vehicle trips.[8] **Table 5: Existing Operational Air Quality Emissions** identifies the emissions from the existing use.

Table 5
Existing Operational Air Quality Emissions

Source	VOC	NOx	CO	SOx	PM10	PM2.5
	pounds/day					
Area	1	<1	<1	0	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	<1	2	6	<1	2	<1
Total	**1**	**2**	**6**	**<1**	**2**	**<1**

Source: Refer to the data sheets in ***Attachment A.1 (Existing Summer)*** *and* ***Attachment A.2 (Existing Winter)****.*
Note: Totals may not add up exactly due to rounding in the modeling calculations.

8 Gibson Transportation Consulting, Inc., Transportation Analysis for the East End Studio Project, Glendale, California, April 5, 2021.

Sensitive Receptors

As mentioned previously, the Project Site is bounded by commercial uses and residences to the north along E. Palmer Avenue; residential and commercial uses are located immediately to the south; commercial uses and surface parking to the east; and residential uses and surface parking lot to the west.

SCAQMD considers a sensitive receptor to be a person in the population who is particularly susceptible to health effects due to exposure to an air contaminant. Sensitive receptors are identified near sources of air pollution to determine the potential for health hazards. Locations evaluated for exposure to air pollution include but are not limited to residences, schools, hospitals, and convalescent facilities. **Figure 2: Sensitive Receptor Map** provides a detailed image of the proximal land uses and identifies the sensitive receptors closest to the Project site. These uses represent the nearest sensitive receptors who may be impacted by emissions of air pollutants due to the Project.

METHODOLOGY

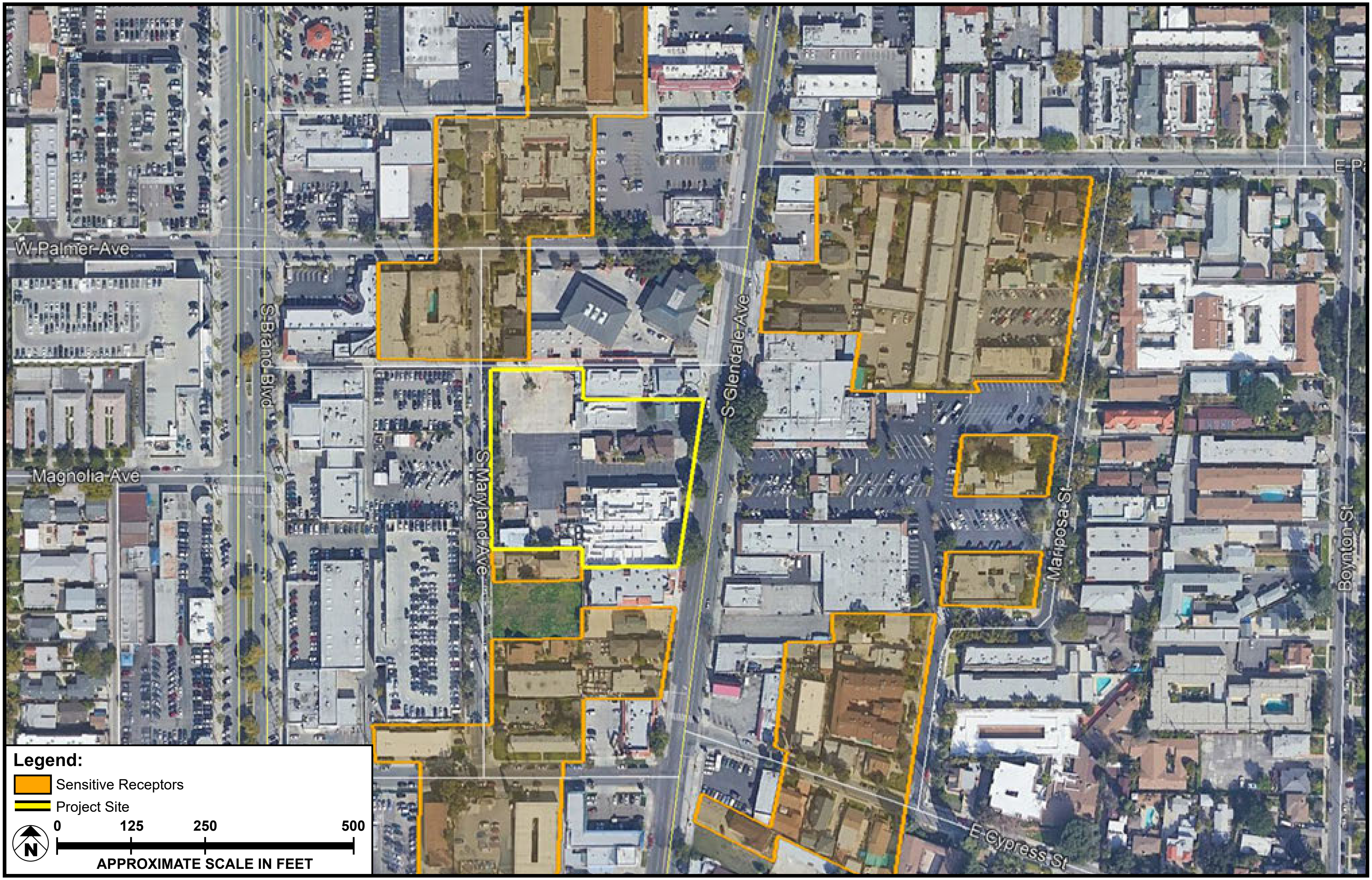
Construction

Construction of the Project has the potential to generate temporary criteria pollutant emissions through the use of heavy-duty construction equipment, such as tractors and forklifts, and through vehicle trips generated from workers and haul trucks traveling to and from the Project site. Mobile-source emissions, primarily NOx, would result from the use of construction equipment, such as dozers and loaders. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

Daily regional emissions during construction are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. The Project would be required comply with SCAQMD Rule 403, which identifies measures to reduce fugitive dust and is required to be implemented at all construction sites located with SCAB. Therefore, the following condition—which would be required to reduce fugitive dust in compliance with SCAQMD Rule 403:

- **Control Efficiency of PM10**. During construction, methods and techniques should be applied to various operations or equipment when appropriate to reduce estimated emissions related to particulate matter. This includes replacing ground cover in disturbed areas as quick as possible, yielding to emission reduction efficiency of 15 – 49 percent.[9]

9 SCAQMD, CEQA Handbook, Tables 11-4, p. 11-15 and A11-9-A, page A11-77, http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-sample-construction-scenario-report.pdf, accessed March 2021.



SOURCE: Google Earth - 2021

FIGURE 2

Meridian Consultants

Sensitive Receptor Map

314-001-21

In addition, SCAQMD Staff recommends that the Lead Agency require the use of Tier 4 construction equipment of 50 horsepower or greater during construction. Alternative, applicable strategies include equipment outfitted with Best Available Control Technology (BACT) devices and CARB certified Level 3 Diesel Particulate Filters (DPF). Level 3 DPFs are capable of achieving at least an 85 percent reduction in particulate matter emissions.[10] Therefore, the following condition would be recommended by SCAQMD:

- **Construction Equipment Controls**. During construction, all off-road construction equipment greater than 50 horsepower shall meet USEPA Tier 3 emission standards with Level 3 DPF to minimize emissions of NOx associated with diesel construction equipment.

The emissions are estimated using the CalEEMod (Version 2016.3.2) software, an emissions inventory software program recommended by SCAQMD. The emissions are estimated using the SCAQMD-recommended CalEEMod software. CalEEMod is based on outputs from the CARB off-road emissions model (OFFROAD) and the CARB on-road vehicle emissions model (EMFAC), which are emissions estimation models developed by CARB and used to calculate emissions from construction activities, including on- and off-road vehicles. The input values used in this analysis are based on conservative assumptions in CalEEMod, with appropriate, Project-specific adjustments based on equipment types and expected construction activities. These values were then applied to the construction phasing assumptions used in the criteria pollutant analysis to generate criteria pollutant emissions values for each construction activity. Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in **Attachment A**.

Operation

Operation of the Project has the potential to generate criteria pollutant emissions through vehicle trips traveling to and from the Project site. In addition, emissions would result from area sources on site, such as natural gas combustion, landscaping equipment, and use of consumer products.

Operational emissions were estimated using the CalEEMod software, which was used to forecast the daily regional emissions from area sources that would occur during long-term Project operations. In calculating mobile-source emissions, trip-length values were based on the distances provided in CalEEMod.

Area-source emissions are based on natural gas (building heating and water heaters), landscaping equipment, and consumer product (including paint) usage rates provided in CalEEMod. Natural gas usage factors in CalEEMod are based on the California Energy Commission's California Commercial End Use Survey data set, which provides energy demand by building type and climate zone.

10 California Air Resources Board, Verification Procedure: Stationary, https://ww2.arb.ca.gov/our-work/programs/verification-procedure-warranty-and-use-compliance-requirements-use-strategies-4, accessed March 2021.

SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS

Significance Criteria

The determination of a project's significance on air quality shall be made considering the factors provided in the SCAQMD *CEQA Air Quality Handbook* (Handbook). The City has not adopted specific Citywide significance thresholds for air quality impacts; rather, the thresholds and methodologies contained in the SCAQMD Handbook for both construction and operational emissions are utilized for evaluating projects in the City. These thresholds are described below.

Construction Emission Thresholds

The Project will have a significant impact if it exceeds the construction thresholds listed in **Table 6: Construction Thresholds**.

Table 6
Construction Thresholds

Pollutant	Construction Emissions (pounds/day)
Volatile organic compounds (VOCs)	75
Nitrogen dioxide (NO2)	100
Carbon monoxide (CO)	550
Sulfur dioxide (SO2)	150
Respirable particulate matter (PM10)	150
Fine particulate matter (PM2.5)	55

Construction and Operational Localized Significance Thresholds

The local significance thresholds are based on the SCAQMD's Final *Localized Significance Threshold (LST) Methodology* (LST Methodology)[11] guidance document for short-duration construction activities. The SCAQMD recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the Project site because of construction activities. The SCAQMD provides voluntary guidance on the evaluation of localized air quality impacts to public agencies conducting environmental review of projects located within its jurisdiction. Localized air quality impacts are evaluated by examining the on-site generation of pollutants and their resulting downwind concentrations. For construction, pollutant concentrations are compared to significance thresholds for particulates (PM10 and PM2.5), CO, and NO2. The significance threshold for PM10 represents compliance with SCAQMD Rule 403 (Fugitive

11 South Coast Air Quality Management District, *Final Localized Significance Threshold (LST) Methodology,* (June 2003, rev. July 2008).

Dust). The threshold for PM2.5 is designed to limit emissions and to allow progress toward attainment of the AAQS. Thresholds for CO and NO2 represent the allowable increase in concentrations above background levels that would not cause or contribute to an exceedance of their respective AAQS.

The LST Methodology provides lookup tables of emissions that are based on construction projects of up to 5 acres in size. These LST lookup tables were developed to assist lead agencies with a simple tool for evaluating the impacts from small typical projects. Ambient conditions for East San Fernando Valley, as recorded in SRA 7 by the SCAQMD, were used for ambient conditions in determining appropriate threshold levels. Thresholds for each criteria pollutant for construction activity and Project operation of the 2.2-acre Project site are listed in **Table 7: Localized Significance Thresholds**.

Based on the SCAQMD Handbook, thresholds for each criteria pollutant for the operations of the Project are provided in **Table 8: Operational Thresholds.**

Table 7
Localized Significance Thresholds

	Construction	Operational
Pollutant	**pounds/day**	
Nitrogen dioxide (NO2)	112	112
Carbon monoxide (CO)	799	799
Respirable particulate matter (PM10)	7	2
Fine particulate matter (PM2.5)	4	1

Notes:
Based on a distance to sensitive receptors of 25 meters (82 feet). SCAQMD's Localized Significance Threshold (LST) Methodology for CEQA Evaluations *guidance document provides that projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters.*

Table 8
Operational Thresholds

Pollutant	Operational Emissions (pounds/day)
Volatile organic compounds (VOCs)	55
Nitrogen dioxide (NO2)	55
Carbon monoxide (CO)	550
Sulfur dioxide (SO2)	150
Respirable particulate matter (PM10)	150
Fine particulate matter (PM2.5)	55

Toxic Air Contaminants

As set forth in the SCAQMD Handbook, the determination of significance of a project with respect TACs shall be made on a case-by-case basis, considering the following factors:

- Regulatory framework for toxic materials and process involved;
- Proximity of TACs to sensitive receptors;
- Quantity, volume, and toxicity of the contaminants expected to be emitted;
- Likelihood and potential level of exposure; and
- Degree to which project design will reduce risk of exposure.

Consistency with Applicable Air Quality Plans

Section 15125 of the State CEQA Guidelines requires an analysis of project consistency with applicable governmental plans and policies. In accordance with the SCAQMD Handbook, the following criteria were used to evaluate the Project's consistency with SCAQMD and SCAG regional plans and policies, including the AQMP:

- Will the Project result in any of the following:
  - Increase the frequency or severity of existing air quality violations?
  - Cause or contribute to new air quality violations?
  - Delay the timely attainment of the air quality standards or the interim emission reductions specified in the AQMP?
- Will the Project exceed the assumptions utilized in preparing the AQMP?
  - Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based?
  - Does the Project include air quality mitigation measures?
  - To what extent is Project development consistent with the AQMP land use policies?

Cumulative Threshold

SCAQMD recommends that a project be considered to result in a cumulatively considerable impact to air quality if any construction-related emissions and operational emissions from individual development projects exceed the mass daily emissions thresholds for individual projects.[12]

---

12 SCAQMD, *White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions*, board meeting, Agenda No. 29 (September 5, 2003), Appendix D, p. D-3.

The SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects nor provides thresholds of significance to be used to assess the impacts associated with these emissions.

A project is also considered to result in a cumulatively considerable contribution to significant impacts if the population and employment projections for the project exceed the rate of growth defined in SCAQMD's AQMP.

IMPACT ANALYSIS

Emissions of air pollutants were estimated for construction and operation of the Project. In California, the California Air Pollution Control Officer's Association recommends the use CalEEMod to calculate and organize emissions data for new development projects. CalEEMod is a program that relies on project-specific information pertaining to geographic setting, utility service provision, construction scheduling and equipment inventory, and operational design features to generate estimates of air pollutant and GHG emissions. Information needed to parameterize the Project in CalEEMod was obtained from the construction engineer and the Project architect.

Table 8: Project Construction Schedule provides the dates and durations of each of the activities that will take place during construction, as well as a brief description of the scope of work. Future dates represent approximations based on the general Project timeline and are subject to change pending unpredictable circumstances that may arise.

Table 9
Project Construction Schedule

Construction Activity	Approximate Start Date	Approximate End Date[a]	Duration (Days)	Description
Demolition	1/1/2022	2/28/2022	41	Removal of 6 stucco buildings totaling 8,622 square feet and sound stage building totaling 18,948 square feet
Grading	3/1/2022	4/16/2022	34	Grading to ensure a proper base and slope for foundation
Building Construction	4/18/2022	12/31/2022	185	Construction of two new studio spaces and a studio office space
Paving	8/1/2022	12/31/2022	110	Paving of asphalt surfaces
Architectural Coating[b]	8/1/2022	12/31/2022	110	Application of architectural coatings to building materials

*Note: Refer to **Attachment A.3 (Proposed Summer)** and **Attachment A.4 (Proposed Winter),** Section 3.0: Construction Detail.*

[a] *Construction of the proposed Project would occur over approximately 12 months. It is possible the construction period could extend to 18 months. However, given a shorter construction period would result in higher daily emissions and more daily trips, a 12-month construction period was assumed for a conservative air quality impact analysis related to construction.*

[b] *Architectural coating will be taking place intermittently throughout building construction.*

Construction

An assessment of air pollutant emissions was prepared utilizing the construction schedule in **Table 9**. **Table 10: Project Construction Diesel Equipment Inventory** displays the construction equipment required for each activity described in **Table 9**. Under regulatory compliance measures in CalEEMod, construction would be required to adhere to SCAQMD Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coatings). Additionally, regulatory compliance measures would include all heavy-duty diesel equipment engines would meet minimum Tier 3 standards in accordance with CARB fleet requirements.

Table 10
Project Construction Diesel Equipment Inventory

Phase	Off-Road Equipment Type	Amount	Daily Hours	Horsepower [HP] (Load Factor)
Demolition	Concrete/Industrial Saws	1	8	81 (0.73)
	Rubber Tired Dozers	1	8	247 (0.40)
	Tractors/Loaders/Backhoes	3	8	97 (0.37)
Grading	Graders	1	8	187 (0.41)
	Rubber Tired Dozers	1	8	247 (0.40)
	Tractors/Loaders/Backhoes	2	7	97 (0.37)
Building Construction	Cranes	1	8	231 (0.29)
	Forklifts	2	7	89 (0.20)
	Generator Sets	1	8	84 (0.74)
	Tractors/Loaders/Backhoes	1	6	97 (0.37)
	Welders	3	8	46 (0.45)
Architectural Coating	Air compressors	1	6	78 (0.48)
Paving	Cement and Mortar Mixers	1	8	9 (0.56)
	Pavers	1	8	130 (0.42)
	Paving Equipment	1	8	132 (0.36)
	Rollers	2	8	80 (0.38)
	Tractors/Loaders/Backhoes	1	8	97 (0.37)

*Refer to **Attachment A.3 (Proposed Summer)** and **Attachment A.4 (Proposed Winter),** Section 3.0: Construction Detail, for equipment inventory information.*

Maximum daily emissions of air pollutants during construction of the Project were calculated using CalEEMod. **Table 11: Maximum Construction Emissions** identifies daily emissions that are estimated for peak construction days for each construction year. It is important to note, emissions presented in **Table 11** do not include regulatory compliance measures such as construction equipment controls (Tier 3 emissions standards with Level 3 DPF per CARB requirements)[13] or control efficiency of PM10 (dust control measures

13 California Air Resources Board, Guide to Off-Road Vehicle & Equipment Regulations, website: https://ww3.arb.ca.gov/msprog/offroadzone/pdfs/offroad_booklet.pdf, accessed April 2021.

per SCAQMD Rule 403) to provide a worst-case scenario analysis. Based on the modeling, construction of the Project would not exceed regional VOC, NOx, CO, SOx, PM10, and PM2.5 concentration thresholds. All criteria air pollutants would be below SCAQMD construction thresholds. Construction of the Project would not generate any significant environmental impacts associated with air quality compliance.

Table 11
Maximum Construction Emissions

Source	VOC	NOx	CO	SOx	PM10	PM2.5
	pounds/day					
Maximum	9	27	31	<1	7	4
SCAQMD Mass Daily Threshold	75	100	550	150	150	55
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod.
Notes:
CO = carbon monoxide; NOx = nitrogen oxides; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; SOx = sulfur oxides; VOC = volatile organic compounds.
Refer to ***Attachment A.3 (Proposed Summer)*** *and* ***Attachment A.4 (Proposed Winter),*** *Sections 3.2 through 3.7, for maximum on-site plus off-site emissions during both the summer and winter seasons.*

Operation

The results presented in **Table 12: Maximum Operational Emissions** are compared to the SCAQMD-established operational significance thresholds.

Table 12
Maximum Operational Emissions

Source	VOC	NOx	CO	SOx	PM10	PM 2.5
	pounds/day					
Area	2	<1	<1	0	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	1	4	13	<1	4	1
Total	3	4	14	<1	4	1
Existing	*1*	*2*	*6*	*<1*	*2*	*<1*
Net Total	**2**	**2**	**8**	**<1**	**2**	**<1**
SCAQMD Mass Daily Threshold	55	55	550	150	150	55
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod.
Notes: Totals in table may not appear to add exactly due to rounding in the computer model calculations.
CO = carbon monoxide; NOx = nitrogen oxides; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; SOx = sulfur oxides; VOC = volatile organic compounds.
Refer to ***Attachment A.3 (Proposed Summer)*** *and* ***Attachment A.4 (Proposed Winter),*** *Section 2.2, for maximum operational emissions during both the summer and winter seasons.*

Operational emissions would result primarily from passenger vehicles traveling to and from the Project site. More specifically, the proposed Project would generate approximately 527 daily trips.[14] As shown in **Table 12**, the operational emissions would not exceed the regional VOC, NOx, CO, SOx, PM10, and PM2.5 concentration thresholds. Operation of the Project would not generate any significant environmental impacts associated with air quality compliance.

Localized Significance Thresholds

The result of the LST analysis are provided in **Table 13: Localized Construction and Operational Emissions**. These estimates assume the maximum area that would be disturbed during construction on any given day during Project buildout. Construction would comply with the SCAQMD's Rule 403 (Fugitive Dust), which requires watering of the site during dust-generating construction activities, stabilizing disturbed areas with water or chemical stabilizers, and preventing track-out dust from construction vehicles. Additionally, construction would be required to meet USEPA Tier 3 emission standards for equipment greater than 50 horsepower per CARB requirements.[15] As shown in **Table 13**, emissions would not exceed the localized significance construction and operational thresholds.

Table 13
Localized Construction and Operational Emissions

	NOx	CO	PM10	PM2.5
Source	**On-Site Emissions (pounds/day)**			
Construction				
Total maximum emissions	14	15	3	2
LST threshold[a]	112	799	7	4
Threshold Exceeded?	**No**	**No**	**No**	**No**
Operational				
Project area/energy emissions	<1	<1	<1	<1
LST threshold[a]	112	799	2	1
Threshold Exceeded?	**No**	**No**	**No**	**No**

Notes:
Totals in table may not appear to add exactly due to rounding in the computer model calculations.
CO = carbon monoxide; NOx = nitrogen oxide; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns.
*Refer to **Attachment A.3 (Proposed Summer)** and **Attachment A.4 (Proposed Winter),** Sections 3.2 through 3.7, for maximum on-site emissions during both the summer and winter seasons.*
[a] The Project Site is approximately 2.2 acres. Consistent with SCAQMD's Localized Significance Threshold (LST) Methodology, the localized thresholds are based on a 2.2-acre site with a receptor distance of 25 meters (82 feet) in SCAQMD's SRA 7.

14 Gibson Transportation Consulting, Inc., Transportation Analysis for the East End Studio Project, Glendale, California, April 5, 2021.

15 California Air Resources Board, Guide to Off-Road Vehicle & Equipment Regulations, website: https://ww3.arb.ca.gov/msprog/offroadzone/pdfs/offroad_booklet.pdf, accessed April 2021.

Toxic Air Contaminants

Project construction would result in short-term emissions of diesel particulate matter, which is a TAC. Off-road heavy-duty diesel equipment would emit diesel particulate matter over the course of the construction period. Localized diesel particulate emissions (strongly correlated with PM2.5 emissions) would be minimal and would be substantially below localized thresholds, as shown in **Table 13**. Project compliance with the CARB anti-idling measure, which limits idling to no more than 5 minutes at any location for diesel-fueled commercial vehicles, would further minimize diesel particulate matter emissions in the Project area.

Project operations would generate only minor amounts of diesel emissions from delivery trucks and incidental maintenance activities. Trucks would comply with the applicable provisions of the CARB Truck and Bus regulation to minimize and reduce emission from existing diesel trucks. In addition, Project operations would only result in minimal emissions of air toxics from maintenance or other ongoing activities, such as from the use of architectural coatings or household cleaning products. As a result, toxic or carcinogenic air pollutants are not expected to occur in any meaningful amounts in conjunction with operation of the proposed uses within the Project site. Based on the uses expected on the Project site, potential long-term operational impacts associated with the release of TACs would be minimal and would not be expected to exceed the SCAQMD thresholds of significance.

Odors

As shown in **Table 13**, the construction of the Project would result in emissions below the localized significance thresholds. Mandatory compliance with SCAQMD Rule 1113 would limit the amount of VOCs in architectural coatings and solvents. According to SCAQMD, while almost any source may emit objectionable odors, some land uses are more likely to produce odors because of their operation. Land uses more likely to produce odors include agriculture, chemical plants, composting operations, dairies, fiberglass molding manufacturing, landfills, refineries, rendering plants, rail yards, and wastewater treatment plants. The Project does not contain any active manufacturing activities and would not convert current agricultural land to residential land uses. Therefore, objectionable odors would not be emitted by the proposed uses.

Any unforeseen odors generated by the Project will be controlled in accordance with SCAQMD Rule 402. As previously noted, Rule 402 prohibits the discharge of air contaminants that harm, endanger, or annoy individuals or the public; endanger the comfort, health or safety of individuals or the public; or cause injury or damage to business or property. Failure to comply with Rule 402 could subject the offending facility to possible fines and/or operational limitations in an approved odor control or odor abatement plan.

Consistency with AQMP

The Basin is designated nonattainment at the federal level for O3 and PM2.5 and State level for O3, PM10, and PM2.5. SCAQMD developed regional emissions thresholds, as shown in **Table 6** and **Table 8**, to determine whether a project would contribute to air pollutant violations. If a project exceeds the regional air pollutant thresholds, then it would significantly contribute to air quality violations in the Basin.

As shown in **Table 11**, temporary emissions associated with construction of the Project would fall below SCAQMD thresholds for VOCs, NOx, CO, SOx, PM10, and PM2.5.

As shown in **Table 12**, long-term emissions associated with operation of the Project would not exceed SCAQMD thresholds for VOCs, NOx, CO, SOx, PM10, and PM2.5.

The Project's maximum potential NOx, CO, PM10, and PM2.5 daily emissions during construction and operation were analyzed to determine potential effects on localized concentrations and to determine if the potential exists for such emissions to cause or affect a violation of an applicable AAQS. As shown in **Table 13**, NOx, CO, PM10, and PM2.5 emissions would not exceed the SCAQMD localized significance thresholds.

The Project is also located in an urban area, which would reduce vehicle trips and vehicle miles traveled due to the Project's urban infill characteristic and proximity to public transit stops. These measures and features are consistent with existing recommendations to reduce air emissions.

Cumulative

Development of the Project in conjunction with any related projects near the Project would result in an increase in construction and operational emissions in an already urbanized area of the City. However, cumulative air quality impacts from construction, based on SCAQMD guidelines, are not analyzed in a manner similar to project-specific air quality impacts. Instead, SCAQMD recommends that a project's potential contribution to cumulative impacts should be assessed utilizing the same significance criteria as those for project-specific impacts. According to SCAQMD, individual development projects that generate construction or operational emissions that exceed SCAQMD recommended daily regional or localized thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

With the implementation of regulatory compliance measures such as Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coating), the Project's construction and operational emissions are not expected to significantly contribute to cumulative emissions for CO, NOx, PM10, and PM2.5. As such, the Project's contribution to cumulative air quality emissions in combination with any related projects would not be cumulatively considerable.

As discussed previously, the Project would not jeopardize the attainment of air quality standards in the 2016 AQMP for the South Coast Air Basin and the Los Angeles County portion of the South Coast Air Basin. As such, the Project would not have a cumulatively considerable contribution to a potential conflict with or obstruction of the implementation of the AQMP regional reduction plans.

ATTACHMENT A

CalEEMod Air Quality Emission Output Files

A.1

Existing (Summer)

East End Studios - Existing

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	8.00	1000sqft	0.40	8,000.00	0
General Light Industry	18.95	1000sqft	1.00	18,948.00	0
Parking Lot	0.80	Acre	0.80	34,848.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2021
Utility Company	Glendale Water & Power				
CO2 Intensity (lb/MWhr)	1115.33	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site is 2.2 acres in size.

Construction Phase - Existing operation only.

Vehicle Trips - Based on trip generation table.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00

tblLandUse	LotAcreage	0.18	0.40
tblLandUse	LotAcreage	0.43	1.00
tblVehicleTrips	ST_TR	1.32	1.12
tblVehicleTrips	ST_TR	2.46	2.17
tblVehicleTrips	SU_TR	0.68	0.58
tblVehicleTrips	SU_TR	1.05	0.93
tblVehicleTrips	WD_TR	6.97	5.91
tblVehicleTrips	WD_TR	11.03	9.75

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	1.0421	0.0000	0.0000	0.9726	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.0421**	**0.0000**	**0.0000**	**0.9726**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

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

2021	0.0000	0.0000	0.0000	0.0000	0.0000	1.0421	0.0000	0.0000	0.9726	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.0421**	**0.0000**	**0.0000**	**0.9726**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6189	3.0000e-005	2.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.0700e-003	6.0700e-003	2.0000e-005		6.4800e-003
Energy	0.0126	0.1145	0.0962	6.9000e-004		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003		137.3856	137.3856	2.6300e-003	2.5200e-003	138.2020
Mobile	0.3940	1.8939	5.7163	0.0200	1.5890	0.0164	1.6053	0.4253	0.0153	0.4405		2,028.2772	2,028.2772	0.1041		2,030.8795
Total	**1.0254**	**2.0084**	**5.8153**	**0.0206**	**1.5890**	**0.0251**	**1.6140**	**0.4253**	**0.0240**	**0.4492**		**2,165.6689**	**2,165.6689**	**0.1067**	**2.5200e-003**	**2,169.0880**

Mitigated Operational

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

Area	0.6189	3.0000e-005	2.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.0700e-003	6.0700e-003	2.0000e-005		6.4800e-003
Energy	0.0126	0.1145	0.0962	6.9000e-004		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003		137.3856	137.3856	2.6300e-003	2.5200e-003	138.2020
Mobile	0.3940	1.8939	5.7163	0.0200	1.5890	0.0164	1.6053	0.4253	0.0153	0.4405		2,028.2772	2,028.2772	0.1041		2,030.8795
Total	**1.0254**	**2.0084**	**5.8153**	**0.0206**	**1.5890**	**0.0251**	**1.6140**	**0.4253**	**0.0240**	**0.4492**		**2,165.6689**	**2,165.6689**	**0.1067**	**2.5200e-003**	**2,169.0880**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/1/2021	3/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.8

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

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

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Mitigated	0.3940	1.8939	5.7163	0.0200	1.5890	0.0164	1.6053	0.4253	0.0153	0.4405		2,028.2772	2,028.2772	0.1041		2,030.8795
Unmitigated	0.3940	1.8939	5.7163	0.0200	1.5890	0.0164	1.6053	0.4253	0.0153	0.4405		2,028.2772	2,028.2772	0.1041		2,030.8795

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	112.00	21.22	10.99	374,645	374,645
General Office Building	78.00	17.36	7.44	190,895	190,895
Parking Lot	0.00	0.00	0.00		
Total	190.00	38.58	18.43	565,539	565,539

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

General Office Building	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Parking Lot	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0126	0.1145	0.0962	6.9000e-004		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003		137.3856	137.3856	2.6300e-003	2.5200e-003	138.2020
NaturalGas Unmitigated	0.0126	0.1145	0.0962	6.9000e-004		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003		137.3856	137.3856	2.6300e-003	2.5200e-003	138.2020

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	939.613	0.0101	0.0921	0.0774	5.5000e-004		7.0000e-003	7.0000e-003		7.0000e-003	7.0000e-003		110.5427	110.5427	2.1200e-003	2.0300e-003	111.1996
General Office Building	228.164	2.4600e-003	0.0224	0.0188	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003		26.8429	26.8429	5.1000e-004	4.9000e-004	27.0024

Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0126**	**0.1145**	**0.0962**	**6.8000e-004**		**8.7000e-003**	**8.7000e-003**		**8.7000e-003**	**8.7000e-003**		**137.3856**	**137.3856**	**2.6300e-003**	**2.5200e-003**	**138.2020**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0.939613	0.0101	0.0921	0.0774	5.5000e-004		7.0000e-003	7.0000e-003		7.0000e-003	7.0000e-003		110.5427	110.5427	2.1200e-003	2.0300e-003	111.1996
General Office Building	0.228164	2.4600e-003	0.0224	0.0188	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003		26.8429	26.8429	5.1000e-004	4.9000e-004	27.0024
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0126**	**0.1145**	**0.0962**	**6.8000e-004**		**8.7000e-003**	**8.7000e-003**		**8.7000e-003**	**8.7000e-003**		**137.3856**	**137.3856**	**2.6300e-003**	**2.5200e-003**	**138.2020**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6189	3.0000e-005	2.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.0700e-003	6.0700e-003	2.0000e-005		6.4800e-003
Unmitigated	0.6189	3.0000e-005	2.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.0700e-003	6.0700e-003	2.0000e-005		6.4800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0727					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5459					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7000e-004	3.0000e-005	2.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.0700e-003	6.0700e-003	2.0000e-005		6.4800e-003
Total	**0.6189**	**3.0000e-005**	**2.8400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**6.0700e-003**	**6.0700e-003**	**2.0000e-005**		**6.4800e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0727					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5459					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7000e-004	3.0000e-005	2.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.0700e-003	6.0700e-003	2.0000e-005		6.4800e-003
Total	**0.6189**	**3.0000e-005**	**2.8400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**6.0700e-003**	**6.0700e-003**	**2.0000e-005**		**6.4800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

A.2

Existing (Winter)

East End Studios - Existing

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	8.00	1000sqft	0.40	8,000.00	0
General Light Industry	18.95	1000sqft	1.00	18,948.00	0
Parking Lot	0.80	Acre	0.80	34,848.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2021
Utility Company	Glendale Water & Power				
CO2 Intensity (lb/MWhr)	1115.33	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site is 2.2 acres in size.

Construction Phase - Existing operation only.

Vehicle Trips - Based on trip generation table.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00

tblLandUse	LotAcreage	0.18	0.40
tblLandUse	LotAcreage	0.43	1.00
tblVehicleTrips	ST_TR	1.32	1.12
tblVehicleTrips	ST_TR	2.46	2.17
tblVehicleTrips	SU_TR	0.68	0.58
tblVehicleTrips	SU_TR	1.05	0.93
tblVehicleTrips	WD_TR	6.97	5.91
tblVehicleTrips	WD_TR	11.03	9.75

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	1.0421	0.0000	0.0000	0.9726	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.0421**	**0.0000**	**0.0000**	**0.9726**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

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

2021	0.0000	0.0000	0.0000	0.0000	0.0000	1.0421	0.0000	0.0000	0.9726	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.0421**	**0.0000**	**0.0000**	**0.9726**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6189	3.0000e-005	2.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.0700e-003	6.0700e-003	2.0000e-005		6.4800e-003
Energy	0.0126	0.1145	0.0962	6.9000e-004		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003		137.3856	137.3856	2.6300e-003	2.5200e-003	138.2020
Mobile	0.3829	1.9490	5.3969	0.0190	1.5890	0.0164	1.6054	0.4253	0.0154	0.4406		1,930.7340	1,930.7340	0.1034		1,933.3180
Total	**1.0144**	**2.0635**	**5.4959**	**0.0197**	**1.5890**	**0.0252**	**1.6141**	**0.4253**	**0.0241**	**0.4493**		**2,068.1256**	**2,068.1256**	**0.1060**	**2.5200e-003**	**2,071.5265**

Mitigated Operational

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

Area	0.6189	3.0000e-005	2.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.0700e-003	6.0700e-003	2.0000e-005		6.4800e-003
Energy	0.0126	0.1145	0.0962	6.9000e-004		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003		137.3856	137.3856	2.6300e-003	2.5200e-003	138.2020
Mobile	0.3829	1.9490	5.3969	0.0190	1.5890	0.0164	1.6054	0.4253	0.0154	0.4406		1,930.7340	1,930.7340	0.1034		1,933.3180
Total	**1.0144**	**2.0635**	**5.4959**	**0.0197**	**1.5890**	**0.0252**	**1.6141**	**0.4253**	**0.0241**	**0.4493**		**2,068.1256**	**2,068.1256**	**0.1060**	**2.5200e-003**	**2,071.5265**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/1/2021	3/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.8

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

<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/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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Mitigated	0.3829	1.9490	5.3969	0.0190	1.5890	0.0164	1.6054	0.4253	0.0154	0.4406		1,930.7340	1,930.7340	0.1034		1,933.3180
Unmitigated	0.3829	1.9490	5.3969	0.0190	1.5890	0.0164	1.6054	0.4253	0.0154	0.4406		1,930.7340	1,930.7340	0.1034		1,933.3180

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	112.00	21.22	10.99	374,645	374,645
General Office Building	78.00	17.36	7.44	190,895	190,895
Parking Lot	0.00	0.00	0.00		
Total	190.00	38.58	18.43	565,539	565,539

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

General Office Building	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Parking Lot	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0126	0.1145	0.0962	6.9000e-004		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003		137.3856	137.3856	2.6300e-003	2.5200e-003	138.2020
NaturalGas Unmitigated	0.0126	0.1145	0.0962	6.9000e-004		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003		137.3856	137.3856	2.6300e-003	2.5200e-003	138.2020

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	939.613	0.0101	0.0921	0.0774	5.5000e-004		7.0000e-003	7.0000e-003		7.0000e-003	7.0000e-003		110.5427	110.5427	2.1200e-003	2.0300e-003	111.1996
General Office Building	228.164	2.4600e-003	0.0224	0.0188	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003		26.8429	26.8429	5.1000e-004	4.9000e-004	27.0024

Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0126**	**0.1145**	**0.0962**	**6.8000e-004**		**8.7000e-003**	**8.7000e-003**		**8.7000e-003**	**8.7000e-003**		**137.3856**	**137.3856**	**2.6300e-003**	**2.5200e-003**	**138.2020**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0.939613	0.0101	0.0921	0.0774	5.5000e-004		7.0000e-003	7.0000e-003		7.0000e-003	7.0000e-003		110.5427	110.5427	2.1200e-003	2.0300e-003	111.1996
General Office Building	0.228164	2.4600e-003	0.0224	0.0188	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003		26.8429	26.8429	5.1000e-004	4.9000e-004	27.0024
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0126**	**0.1145**	**0.0962**	**6.8000e-004**		**8.7000e-003**	**8.7000e-003**		**8.7000e-003**	**8.7000e-003**		**137.3856**	**137.3856**	**2.6300e-003**	**2.5200e-003**	**138.2020**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6189	3.0000e-005	2.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.0700e-003	6.0700e-003	2.0000e-005		6.4800e-003
Unmitigated	0.6189	3.0000e-005	2.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.0700e-003	6.0700e-003	2.0000e-005		6.4800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0727					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5459					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7000e-004	3.0000e-005	2.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.0700e-003	6.0700e-003	2.0000e-005		6.4800e-003
Total	**0.6189**	**3.0000e-005**	**2.8400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**6.0700e-003**	**6.0700e-003**	**2.0000e-005**		**6.4800e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0727					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5459					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7000e-004	3.0000e-005	2.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.0700e-003	6.0700e-003	2.0000e-005		6.4800e-003
Total	**0.6189**	**3.0000e-005**	**2.8400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**6.0700e-003**	**6.0700e-003**	**2.0000e-005**		**6.4800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

A.3
Proposed (Summer)

East End Studios - Project

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	26.54	1000sqft	0.40	26,544.00	0
General Light Industry	48.65	1000sqft	0.80	48,646.00	0
Parking Lot	113.00	Space	1.00	45,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2023
Utility Company	Glendale Water & Power				
CO2 Intensity (lb/MWhr)	1115.33	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site is 2.2 acres in size.

Construction Phase - Estimated construction schedule.

Demolition -

Grading -

Vehicle Trips - Based on trip generation table.

Construction Off-road Equipment Mitigation - As recommended by SCAQMD, alternative applicable strategies include construction equipment with Tier 3 emissions standards

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstructionPhase	NumDays	10.00	110.00
tblConstructionPhase	NumDays	220.00	185.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	6.00	34.00
tblConstructionPhase	NumDays	10.00	110.00
tblLandUse	LotAcreage	0.61	0.40
tblLandUse	LotAcreage	1.12	0.80
tblLandUse	LotAcreage	1.02	1.00
tblVehicleTrips	ST_TR	1.32	1.04
tblVehicleTrips	ST_TR	2.46	2.18
tblVehicleTrips	SU_TR	0.68	0.54
tblVehicleTrips	SU_TR	1.05	0.93
tblVehicleTrips	WD_TR	6.97	5.51
tblVehicleTrips	WD_TR	11.03	9.76

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	9.3692	27.2852	30.9213	0.0584	6.6641	1.2812	7.4073	3.3971	1.2136	4.0808	0.0000	5,567.2404	5,567.2404	1.0528	0.0000	5,593.5600
Maximum	**9.3692**	**27.2852**	**30.9213**	**0.0584**	**6.6641**	**1.2812**	**7.4073**	**3.3971**	**1.2136**	**4.0808**	**0.0000**	**5,567.2404**	**5,567.2404**	**1.0528**	**0.0000**	**5,593.5600**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	7.5621	25.7708	33.2717	0.0584	3.0603	1.4514	3.5462	1.5450	1.4508	2.0308	0.0000	5,567.2404	5,567.2404	1.0528	0.0000	5,593.5600
Maximum	**7.5621**	**25.7708**	**33.2717**	**0.0584**	**3.0603**	**1.4514**	**3.5462**	**1.5450**	**1.4508**	**2.0308**	**0.0000**	**5,567.2404**	**5,567.2404**	**1.0528**	**0.0000**	**5,593.5600**

	ROG	**NOx**	**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	**19.29**	**5.55**	**-7.60**	**0.00**	**54.08**	**-13.29**	**52.13**	**54.52**	**-19.55**	**50.23**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6876	1.7000e-004	0.0192	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0412	0.0412	1.1000e-004		0.0439
Energy	0.0342	0.3107	0.2610	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.8656	372.8656	7.1500e-003	6.8400e-003	375.0814
Mobile	0.9169	3.8363	13.2754	0.0508	4.2976	0.0369	4.3346	1.1501	0.0343	1.1844		5,171.9839	5,171.9839	0.2438		5,178.0797
Total	**2.6388**	**4.1472**	**13.5557**	**0.0527**	**4.2976**	**0.0606**	**4.3582**	**1.1501**	**0.0580**	**1.2081**		**5,544.8907**	**5,544.8907**	**0.2511**	**6.8400e-003**	**5,553.2049**

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Area	1.6876	1.7000e-004	0.0192	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0412	0.0412	1.1000e-004		0.0439
Energy	0.0342	0.3107	0.2610	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.8656	372.8656	7.1500e-003	6.8400e-003	375.0814
Mobile	0.9169	3.8363	13.2754	0.0508	4.2976	0.0369	4.3346	1.1501	0.0343	1.1844		5,171.9839	5,171.9839	0.2438		5,178.0797
Total	**2.6388**	**4.1472**	**13.5557**	**0.0527**	**4.2976**	**0.0606**	**4.3582**	**1.1501**	**0.0580**	**1.2081**		**5,544.8907**	**5,544.8907**	**0.2511**	**6.8400e-003**	**5,553.2049**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2022	2/28/2022	5	41	
2	Grading	Grading	3/1/2022	4/16/2022	5	34	
3	Building Construction	Building Construction	4/18/2022	12/31/2022	5	185	
4	Paving	Paving	8/1/2022	12/31/2022	5	110	
5	Architectural Coating	Architectural Coating	8/1/2022	12/31/2022	5	110	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 17

Acres of Paving: 1

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 104,939; Non-Residential Outdoor: 34,980; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	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	8.00	231	0.29
Building Construction	Forklifts	2	7.00	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	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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
Demolition	5	13.00	0.00	125.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	46.00	19.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6619	0.0000	0.6619	0.1002	0.0000	0.1002			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**0.6619**	**0.8379**	**1.4998**	**0.1002**	**0.7829**	**0.8831**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0242	0.7597	0.1898	2.3500e-003	0.0533	2.1800e-003	0.0555	0.0146	2.0900e-003	0.0167		255.0107	255.0107	0.0173		255.4419
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0522	0.0346	0.4831	1.4300e-003	0.1453	1.1400e-003	0.1465	0.0385	1.0500e-003	0.0396		142.8326	142.8326	3.9400e-003		142.9312
Total	**0.0764**	**0.7943**	**0.6729**	**3.7800e-003**	**0.1986**	**3.3200e-003**	**0.2019**	**0.0532**	**3.1400e-003**	**0.0563**		**397.8433**	**397.8433**	**0.0212**		**398.3731**

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Fugitive Dust					0.2979	0.0000	0.2979	0.0451	0.0000	0.0451			0.0000			0.0000
Off-Road	0.5621	12.1033	15.4154	0.0241		0.7182	0.7182		0.7182	0.7182	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**0.5621**	**12.1033**	**15.4154**	**0.0241**	**0.2979**	**0.7182**	**1.0160**	**0.0451**	**0.7182**	**0.7633**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0242	0.7597	0.1898	2.3500e-003	0.0533	2.1800e-003	0.0555	0.0146	2.0900e-003	0.0167		255.0107	255.0107	0.0173		255.4419
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0522	0.0346	0.4831	1.4300e-003	0.1453	1.1400e-003	0.1465	0.0385	1.0500e-003	0.0396		142.8326	142.8326	3.9400e-003		142.9312
Total	**0.0764**	**0.7943**	**0.6729**	**3.7800e-003**	**0.1986**	**3.3200e-003**	**0.2019**	**0.0532**	**3.1400e-003**	**0.0563**		**397.8433**	**397.8433**	**0.0212**		**398.3731**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**6.5523**	**0.7423**	**7.2946**	**3.3675**	**0.6829**	**4.0504**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0402	0.0266	0.3716	1.1000e-003	0.1118	8.7000e-004	0.1127	0.0296	8.1000e-004	0.0305		109.8712	109.8712	3.0300e-003		109.9470
Total	**0.0402**	**0.0266**	**0.3716**	**1.1000e-003**	**0.1118**	**8.7000e-004**	**0.1127**	**0.0296**	**8.1000e-004**	**0.0305**		**109.8712**	**109.8712**	**3.0300e-003**		**109.9470**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000
Off-Road	0.5043	10.2150	12.1450	0.0206		0.4850	0.4850		0.4850	0.4850	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169

Total	0.5043	10.2150	12.1450	0.0206	2.9486	0.4850	3.4336	1.5154	0.4850	2.0004	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0402	0.0266	0.3716	1.1000e-003	0.1118	8.7000e-004	0.1127	0.0296	8.1000e-004	0.0305		109.8712	109.8712	3.0300e-003		109.9470
Total	**0.0402**	**0.0266**	**0.3716**	**1.1000e-003**	**0.1118**	**8.7000e-004**	**0.1127**	**0.0296**	**8.1000e-004**	**0.0305**		**109.8712**	**109.8712**	**3.0300e-003**		**109.9470**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0542	1.7543	0.4563	4.8400e-003	0.1216	3.3000e-003	0.1249	0.0350	3.1500e-003	0.0382		517.7232	517.7232	0.0297		518.4659
Worker	0.1847	0.1224	1.7094	5.0700e-003	0.5142	4.0200e-003	0.5182	0.1364	3.7100e-003	0.1401		505.4077	505.4077	0.0140		505.7564
Total	**0.2389**	**1.8767**	**2.1657**	**9.9100e-003**	**0.6358**	**7.3200e-003**	**0.6431**	**0.1714**	**6.8600e-003**	**0.1783**		**1,023.1309**	**1,023.1309**	**0.0437**		**1,024.2223**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7139	13.6222	15.4081	0.0250		0.8178	0.8178		0.8178	0.8178	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**0.7139**	**13.6222**	**15.4081**	**0.0250**		**0.8178**	**0.8178**		**0.8178**	**0.8178**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

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

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0542	1.7543	0.4563	4.8400e-003	0.1216	3.3000e-003	0.1249	0.0350	3.1500e-003	0.0382		517.7232	517.7232	0.0297		518.4659
Worker	0.1847	0.1224	1.7094	5.0700e-003	0.5142	4.0200e-003	0.5182	0.1364	3.7100e-003	0.1401		505.4077	505.4077	0.0140		505.7564
Total	**0.2389**	**1.8767**	**2.1657**	**9.9100e-003**	**0.6358**	**7.3200e-003**	**0.6431**	**0.1714**	**6.8600e-003**	**0.1783**		**1,023.1309**	**1,023.1309**	**0.0437**		**1,024.2223**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0238					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9650**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**		**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206

Total	**0.0602**	**0.0399**	**0.5574**	**1.6500e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**164.8069**	**164.8069**	**4.5500e-003**		**164.9206**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4208	8.8511	12.9737	0.0179		0.5291	0.5291		0.5291	0.5291	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0238					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.4446**	**8.8511**	**12.9737**	**0.0179**		**0.5291**	**0.5291**		**0.5291**	**0.5291**	**0.0000**	**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
Total	**0.0602**	**0.0399**	**0.5574**	**1.6500e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**164.8069**	**164.8069**	**4.5500e-003**		**164.9206**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Archit. Coating	6.0089					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		281.4481	281.4481	0.0183		281.9062
Total	**6.2135**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0361	0.0240	0.3344	9.9000e-004	0.1006	7.9000e-004	0.1014	0.0267	7.3000e-004	0.0274		98.8841	98.8841	2.7300e-003		98.9523
Total	**0.0361**	**0.0240**	**0.3344**	**9.9000e-004**	**0.1006**	**7.9000e-004**	**0.1014**	**0.0267**	**7.3000e-004**	**0.0274**		**98.8841**	**98.8841**	**2.7300e-003**		**98.9523**

Mitigated Construction On-Site

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

Archit. Coating	6.0089					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**6.0684**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0361	0.0240	0.3344	9.9000e-004	0.1006	7.9000e-004	0.1014	0.0267	7.3000e-004	0.0274		98.8841	98.8841	2.7300e-003		98.9523
Total	**0.0361**	**0.0240**	**0.3344**	**9.9000e-004**	**0.1006**	**7.9000e-004**	**0.1014**	**0.0267**	**7.3000e-004**	**0.0274**		**98.8841**	**98.8841**	**2.7300e-003**		**98.9523**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

Mitigated	0.9169	3.8363	13.2754	0.0508	4.2976	0.0369	4.3346	1.1501	0.0343	1.1844		5,171.9839	5,171.9839	0.2438		5,178.0797
Unmitigated	0.9169	3.8363	13.2754	0.0508	4.2976	0.0369	4.3346	1.1501	0.0343	1.1844		5,171.9839	5,171.9839	0.2438		5,178.0797

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	267.99	50.59	26.27	896,293	896,293
General Office Building	258.99	57.87	24.69	633,938	633,938
Parking Lot	0.00	0.00	0.00		
Total	526.98	108.46	50.95	1,530,231	1,530,231

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
General Office Building	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Parking Lot	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0342	0.3107	0.2610	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.8656	372.8656	7.1500e-003	6.8400e-003	375.0814
NaturalGas Unmitigated	0.0342	0.3107	0.2610	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.8656	372.8656	7.1500e-003	6.8400e-003	375.0814

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	2412.31	0.0260	0.2365	0.1987	1.4200e-003		0.0180	0.0180		0.0180	0.0180		283.8010	283.8010	5.4400e-003	5.2000e-003	285.4875
General Office Building	757.049	8.1600e-003	0.0742	0.0624	4.5000e-004		5.6400e-003	5.6400e-003		5.6400e-003	5.6400e-003		89.0646	89.0646	1.7100e-003	1.6300e-003	89.5939
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0342**	**0.3107**	**0.2610**	**1.8700e-003**		**0.0236**	**0.0236**		**0.0236**	**0.0236**		**372.8656**	**372.8656**	**7.1500e-003**	**6.8300e-003**	**375.0814**

Mitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	kBTU/yr	lb/day										lb/day					
General Light Industry	2.41231	0.0260	0.2365	0.1987	1.4200e-003		0.0180	0.0180		0.0180	0.0180		283.8010	283.8010	5.4400e-003	5.2000e-003	285.4875
General Office Building	0.757049	8.1600e-003	0.0742	0.0624	4.5000e-004		5.6400e-003	5.6400e-003		5.6400e-003	5.6400e-003		89.0646	89.0646	1.7100e-003	1.6300e-003	89.5939
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0342**	**0.3107**	**0.2610**	**1.8700e-003**		**0.0236**	**0.0236**		**0.0236**	**0.0236**		**372.8656**	**372.8656**	**7.1500e-003**	**6.8300e-003**	**375.0814**

6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Mitigated	1.6876	1.7000e-004	0.0192	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0412	0.0412	1.1000e-004		0.0439
Unmitigated	1.6876	1.7000e-004	0.0192	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0412	0.0412	1.1000e-004		0.0439

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

SubCategory	lb/day										lb/day					
Architectural Coating	0.1811					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5048					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7800e-003	1.7000e-004	0.0192	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0412	0.0412	1.1000e-004		0.0439
Total	**1.6876**	**1.7000e-004**	**0.0192**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**0.0412**	**0.0412**	**1.1000e-004**		**0.0439**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1811					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5048					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7800e-003	1.7000e-004	0.0192	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0412	0.0412	1.1000e-004		0.0439
Total	**1.6876**	**1.7000e-004**	**0.0192**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**0.0412**	**0.0412**	**1.1000e-004**		**0.0439**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

A.4
Proposed (Winter)

East End Studios - Project

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	26.54	1000sqft	0.40	26,544.00	0
General Light Industry	48.65	1000sqft	0.80	48,646.00	0
Parking Lot	113.00	Space	1.00	45,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2023
Utility Company	Glendale Water & Power				
CO2 Intensity (lb/MWhr)	1115.33	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site is 2.2 acres in size.

Construction Phase - Estimated construction schedule.

Demolition -

Grading -

Vehicle Trips - Based on trip generation table.

Construction Off-road Equipment Mitigation - As recommended by SCAQMD, alternative applicable strategies include construction equipment with Tier 3 emissions standards

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstructionPhase	NumDays	10.00	110.00
tblConstructionPhase	NumDays	220.00	185.00
tblConstructionPhase	NumDays	20.00	41.00
tblConstructionPhase	NumDays	6.00	34.00
tblConstructionPhase	NumDays	10.00	110.00
tblLandUse	LotAcreage	0.61	0.40
tblLandUse	LotAcreage	1.12	0.80
tblLandUse	LotAcreage	1.02	1.00
tblVehicleTrips	ST_TR	1.32	1.04
tblVehicleTrips	ST_TR	2.46	2.18
tblVehicleTrips	SU_TR	0.68	0.54
tblVehicleTrips	SU_TR	1.05	0.93
tblVehicleTrips	WD_TR	6.97	5.51
tblVehicleTrips	WD_TR	11.03	9.76

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	9.4044	27.3003	30.7430	0.0578	6.6641	1.2813	7.4073	3.3971	1.2137	4.0808	0.0000	5,508.0607	5,508.0607	1.0534	0.0000	5,534.3964
Maximum	**9.4044**	**27.3003**	**30.7430**	**0.0578**	**6.6641**	**1.2813**	**7.4073**	**3.3971**	**1.2137**	**4.0808**	**0.0000**	**5,508.0607**	**5,508.0607**	**1.0534**	**0.0000**	**5,534.3964**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	7.5972	25.7859	33.0934	0.0578	3.0603	1.4515	3.5462	1.5450	1.4509	2.0308	0.0000	5,508.0607	5,508.0607	1.0534	0.0000	5,534.3964
Maximum	**7.5972**	**25.7859**	**33.0934**	**0.0578**	**3.0603**	**1.4515**	**3.5462**	**1.5450**	**1.4509**	**2.0308**	**0.0000**	**5,508.0607**	**5,508.0607**	**1.0534**	**0.0000**	**5,534.3964**

	ROG	**NOx**	**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	**19.22**	**5.55**	**-7.65**	**0.00**	**54.08**	**-13.29**	**52.13**	**54.52**	**-19.55**	**50.23**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6876	1.7000e-004	0.0192	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0412	0.0412	1.1000e-004		0.0439
Energy	0.0342	0.3107	0.2610	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.8656	372.8656	7.1500e-003	6.8400e-003	375.0814
Mobile	0.8885	3.9447	12.5015	0.0483	4.2976	0.0371	4.3347	1.1501	0.0345	1.1846		4,925.9731	4,925.9731	0.2422		4,932.0278
Total	**2.6103**	**4.2556**	**12.7817**	**0.0502**	**4.2976**	**0.0607**	**4.3584**	**1.1501**	**0.0582**	**1.2082**		**5,298.8799**	**5,298.8799**	**0.2495**	**6.8400e-003**	**5,307.1531**

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Area	1.6876	1.7000e-004	0.0192	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0412	0.0412	1.1000e-004		0.0439
Energy	0.0342	0.3107	0.2610	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.8656	372.8656	7.1500e-003	6.8400e-003	375.0814
Mobile	0.8885	3.9447	12.5015	0.0483	4.2976	0.0371	4.3347	1.1501	0.0345	1.1846		4,925.9731	4,925.9731	0.2422		4,932.0278
Total	**2.6103**	**4.2556**	**12.7817**	**0.0502**	**4.2976**	**0.0607**	**4.3584**	**1.1501**	**0.0582**	**1.2082**		**5,298.8799**	**5,298.8799**	**0.2495**	**6.8400e-003**	**5,307.1531**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2022	2/28/2022	5	41	
2	Grading	Grading	3/1/2022	4/16/2022	5	34	
3	Building Construction	Building Construction	4/18/2022	12/31/2022	5	185	
4	Paving	Paving	8/1/2022	12/31/2022	5	110	
5	Architectural Coating	Architectural Coating	8/1/2022	12/31/2022	5	110	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 17

Acres of Paving: 1

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 104,939; Non-Residential Outdoor: 34,980; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	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	8.00	231	0.29
Building Construction	Forklifts	2	7.00	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	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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
Demolition	5	13.00	0.00	125.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	46.00	19.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6619	0.0000	0.6619	0.1002	0.0000	0.1002			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**0.6619**	**0.8379**	**1.4998**	**0.1002**	**0.7829**	**0.8831**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0248	0.7684	0.2009	2.3100e-003	0.0533	2.2200e-003	0.0555	0.0146	2.1200e-003	0.0167		250.5539	250.5539	0.0178		250.9999
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0582	0.0383	0.4409	1.3500e-003	0.1453	1.1400e-003	0.1465	0.0385	1.0500e-003	0.0396		134.4940	134.4940	3.7000e-003		134.5866
Total	**0.0830**	**0.8067**	**0.6418**	**3.6600e-003**	**0.1986**	**3.3600e-003**	**0.2020**	**0.0532**	**3.1700e-003**	**0.0563**		**385.0479**	**385.0479**	**0.0215**		**385.5865**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2979	0.0000	0.2979	0.0451	0.0000	0.0451			0.0000			0.0000
Off-Road	0.5621	12.1033	15.4154	0.0241		0.7182	0.7182		0.7182	0.7182	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**0.5621**	**12.1033**	**15.4154**	**0.0241**	**0.2979**	**0.7182**	**1.0160**	**0.0451**	**0.7182**	**0.7633**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0248	0.7684	0.2009	2.3100e-003	0.0533	2.2200e-003	0.0555	0.0146	2.1200e-003	0.0167		250.5539	250.5539	0.0178		250.9999
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0582	0.0383	0.4409	1.3500e-003	0.1453	1.1400e-003	0.1465	0.0385	1.0500e-003	0.0396		134.4940	134.4940	3.7000e-003		134.5866
Total	**0.0830**	**0.8067**	**0.6418**	**3.6600e-003**	**0.1986**	**3.3600e-003**	**0.2020**	**0.0532**	**3.1700e-003**	**0.0563**		**385.0479**	**385.0479**	**0.0215**		**385.5865**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**6.5523**	**0.7423**	**7.2946**	**3.3675**	**0.6829**	**4.0504**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0448	0.0295	0.3392	1.0400e-003	0.1118	8.7000e-004	0.1127	0.0296	8.1000e-004	0.0305		103.4570	103.4570	2.8500e-003		103.5282
Total	**0.0448**	**0.0295**	**0.3392**	**1.0400e-003**	**0.1118**	**8.7000e-004**	**0.1127**	**0.0296**	**8.1000e-004**	**0.0305**		**103.4570**	**103.4570**	**2.8500e-003**		**103.5282**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000
Off-Road	0.5043	10.2150	12.1450	0.0206		0.4850	0.4850		0.4850	0.4850	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169

Total	0.5043	10.2150	12.1450	0.0206	2.9486	0.4850	3.4336	1.5154	0.4850	2.0004	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0448	0.0295	0.3392	1.0400e-003	0.1118	8.7000e-004	0.1127	0.0296	8.1000e-004	0.0305		103.4570	103.4570	2.8500e-003		103.5282
Total	**0.0448**	**0.0295**	**0.3392**	**1.0400e-003**	**0.1118**	**8.7000e-004**	**0.1127**	**0.0296**	**8.1000e-004**	**0.0305**		**103.4570**	**103.4570**	**2.8500e-003**		**103.5282**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0569	1.7495	0.5050	4.7100e-003	0.1216	3.4100e-003	0.1251	0.0350	3.2600e-003	0.0383		503.4435	503.4435	0.0316		504.2345
Worker	0.2060	0.1355	1.5602	4.7800e-003	0.5142	4.0200e-003	0.5182	0.1364	3.7100e-003	0.1401		475.9020	475.9020	0.0131		476.2296
Total	**0.2629**	**1.8850**	**2.0652**	**9.4900e-003**	**0.6358**	**7.4300e-003**	**0.6433**	**0.1714**	**6.9700e-003**	**0.1784**		**979.3455**	**979.3455**	**0.0447**		**980.4641**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7139	13.6222	15.4081	0.0250		0.8178	0.8178		0.8178	0.8178	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**0.7139**	**13.6222**	**15.4081**	**0.0250**		**0.8178**	**0.8178**		**0.8178**	**0.8178**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0569	1.7495	0.5050	4.7100e-003	0.1216	3.4100e-003	0.1251	0.0350	3.2600e-003	0.0383		503.4435	503.4435	0.0316		504.2345
Worker	0.2060	0.1355	1.5602	4.7800e-003	0.5142	4.0200e-003	0.5182	0.1364	3.7100e-003	0.1401		475.9020	475.9020	0.0131		476.2296
Total	**0.2629**	**1.8850**	**2.0652**	**9.4900e-003**	**0.6358**	**7.4300e-003**	**0.6433**	**0.1714**	**6.9700e-003**	**0.1784**		**979.3455**	**979.3455**	**0.0447**		**980.4641**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0238					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9650**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**		**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922

Total	**0.0672**	**0.0442**	**0.5088**	**1.5600e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**155.1854**	**155.1854**	**4.2700e-003**		**155.2922**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Off-Road	0.4208	8.8511	12.9737	0.0179		0.5291	0.5291		0.5291	0.5291	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0238					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.4446**	**8.8511**	**12.9737**	**0.0179**		**0.5291**	**0.5291**		**0.5291**	**0.5291**	**0.0000**	**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
Total	**0.0672**	**0.0442**	**0.5088**	**1.5600e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**155.1854**	**155.1854**	**4.2700e-003**		**155.2922**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Archit. Coating	6.0089					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		281.4481	281.4481	0.0183		281.9062
Total	**6.2135**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0265	0.3053	9.3000e-004	0.1006	7.9000e-004	0.1014	0.0267	7.3000e-004	0.0274		93.1113	93.1113	2.5600e-003		93.1754
Total	**0.0403**	**0.0265**	**0.3053**	**9.3000e-004**	**0.1006**	**7.9000e-004**	**0.1014**	**0.0267**	**7.3000e-004**	**0.0274**		**93.1113**	**93.1113**	**2.5600e-003**		**93.1754**

Mitigated Construction On-Site

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

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Archit. Coating	6.0089					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**6.0684**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0265	0.3053	9.3000e-004	0.1006	7.9000e-004	0.1014	0.0267	7.3000e-004	0.0274		93.1113	93.1113	2.5600e-003		93.1754
Total	**0.0403**	**0.0265**	**0.3053**	**9.3000e-004**	**0.1006**	**7.9000e-004**	**0.1014**	**0.0267**	**7.3000e-004**	**0.0274**		**93.1113**	**93.1113**	**2.5600e-003**		**93.1754**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

Mitigated	0.8885	3.9447	12.5015	0.0483	4.2976	0.0371	4.3347	1.1501	0.0345	1.1846		4,925.9731	4,925.9731	0.2422		4,932.0278
Unmitigated	0.8885	3.9447	12.5015	0.0483	4.2976	0.0371	4.3347	1.1501	0.0345	1.1846		4,925.9731	4,925.9731	0.2422		4,932.0278

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	267.99	50.59	26.27	896,293	896,293
General Office Building	258.99	57.87	24.69	633,938	633,938
Parking Lot	0.00	0.00	0.00		
Total	526.98	108.46	50.95	1,530,231	1,530,231

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
General Office Building	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Parking Lot	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0342	0.3107	0.2610	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.8656	372.8656	7.1500e-003	6.8400e-003	375.0814
NaturalGas Unmitigated	0.0342	0.3107	0.2610	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.8656	372.8656	7.1500e-003	6.8400e-003	375.0814

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	2412.31	0.0260	0.2365	0.1987	1.4200e-003		0.0180	0.0180		0.0180	0.0180		283.8010	283.8010	5.4400e-003	5.2000e-003	285.4875
General Office Building	757.049	8.1600e-003	0.0742	0.0624	4.5000e-004		5.6400e-003	5.6400e-003		5.6400e-003	5.6400e-003		89.0646	89.0646	1.7100e-003	1.6300e-003	89.5939
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0342**	**0.3107**	**0.2610**	**1.8700e-003**		**0.0236**	**0.0236**		**0.0236**	**0.0236**		**372.8656**	**372.8656**	**7.1500e-003**	**6.8300e-003**	**375.0814**

Mitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	kBTU/yr	lb/day										lb/day					
General Light Industry	2.41231	0.0260	0.2365	0.1987	1.4200e-003		0.0180	0.0180		0.0180	0.0180		283.8010	283.8010	5.4400e-003	5.2000e-003	285.4875
General Office Building	0.757049	8.1600e-003	0.0742	0.0624	4.5000e-004		5.6400e-003	5.6400e-003		5.6400e-003	5.6400e-003		89.0646	89.0646	1.7100e-003	1.6300e-003	89.5939
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0342**	**0.3107**	**0.2610**	**1.8700e-003**		**0.0236**	**0.0236**		**0.0236**	**0.0236**		**372.8656**	**372.8656**	**7.1500e-003**	**6.8300e-003**	**375.0814**

6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Mitigated	1.6876	1.7000e-004	0.0192	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0412	0.0412	1.1000e-004		0.0439
Unmitigated	1.6876	1.7000e-004	0.0192	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0412	0.0412	1.1000e-004		0.0439

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

SubCategory	lb/day										lb/day					
Architectural Coating	0.1811					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5048					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7800e-003	1.7000e-004	0.0192	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0412	0.0412	1.1000e-004		0.0439
Total	**1.6876**	**1.7000e-004**	**0.0192**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**0.0412**	**0.0412**	**1.1000e-004**		**0.0439**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1811					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5048					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7800e-003	1.7000e-004	0.0192	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0412	0.0412	1.1000e-004		0.0439
Total	**1.6876**	**1.7000e-004**	**0.0192**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**0.0412**	**0.0412**	**1.1000e-004**		**0.0439**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX D

Historical Resources Assessment Report

Sapphos environmental inc.

March 25, 2021
Job Number: 2539-002
Historical Resource Evaluation for
1221–1229 Glendale Avenue, Glendale, CA 91205

TO:	Gonzales Law Group APC (Mr. Michael Gonzales) 800 Wilshire Blvd., Suite 860 Los Angeles, CA 90017
FROM:	Sapphos Environmental, Inc. (Ms. Kasey Conley and Ms. Carrie Chasteen)
SUBJECT:	Historical Resource Evaluation for 1221–1229 Glendale Avenue, Glendale, CA 91205
ATTACHMENT:	1. Resumes of Key Personnel

Corporate Office:
430 North Halstead Street
Pasadena, CA 91107
TEL 626.683.3547
FAX 626.628.1745

Billing Address:
P.O. Box 655
Sierra Madre, CA 91025
Web site:
www.sapphosenvironmental.com

EXECUTIVE SUMMARY

At the request of the property owner and their agent (Glendale Studio I Owner, LLC and Mr. Michael Gonzales), Sapphos Environmental, Inc. (Ms. Kasey Conley and Ms. Carrie Chasteen) conducted an evaluation of the properties located at 1221 and 1229 Glendale Avenue, Glendale (city), Los Angeles County (Assessor's Parcel Numbers [APNs] 5640-015-009; -010) to determine if the subject properties meet the definition of a "historical resource" as defined in Section 15064.5(a) of the California Environmental Quality Act (CEQA) Guidelines. Ms. Chasteen and Ms. Conley meet the Secretary of the Interior's *Professional Qualifications Standards* in the fields of History and Architectural History.

In order to inform this evaluation, a site visit was conducted on October 21, 2020. The subject properties were not identified within the Reconnaissance Survey and Historic Context Statement of Craftsman Style of Architecture completed in 2007[1]nor were they identified in the South Glendale Historic Resources Survey completed in 2019.[2,3] The buildings on these parcels are evaluated in this report using the eligibility criteria for listing in the California Register of Historical Resources (California Register), as articulated in Section 15064.5(a)(3) of the CEQA Guidelines and/or for designation as a City of Glendale (City) Historic Resource. The properties were not evaluated for inclusion in the National Register of Historic Places per the City's guidance.

After careful research and evaluation, Sapphos Environmental, Inc. concluded that the buildings do not appear to be individually eligible for listing in the California Register or for designation of a City Historic Resource. Although the subject properties were constructed early in the 20th century and within the boundaries of the City of Tropico before annexation, the development of these properties has no significant association with the development of the City of Glendale or Tropico or an association with any other significant events which contributed to the development of the surrounding area. Additionally, the subject properties are substantially altered Craftsman-style buildings and although they were built within the period of significance for the architectural style, their significant loss of integrity compromises their ability to convey any historical significance of the type. Any character-defining features of the Craftsman style that do remain are common and not distinctive. Therefore, the subject properties do not meet the criteria to be considered a historical resource pursuant to Section 15064.5(a) of the CEQA Guidelines. Demolition of the subject properties would not result in a substantial adverse change to a historical resource pursuant to Section 15064.5(b) of the CEQA Guidelines.

1 The subject properties are located outside the boundaries of the 2007 Craftsman Style Survey, yet this report was used as a basis for analysis for the buildings.

2 City of Glendale. 2007. City of Glendale Reconnaissance Survey and Historic Context Statement of Craftsman Style Architecture 2006–2007 Certified Local Government Grant. Prepared by: Galvin Preservation Associates, Los Angeles, CA.

3 City of Glendale. 2019. City of Glendale South Glendale Historic Resources Survey. Prepared by: Historic Resources Group, Los Angeles, CA.

INTRODUCTION

At the request of and the property owner and their agent (Glendale Studio I Owner, LLC and Mr. Michael Gonzalez), Sapphos Environmental, Inc. conducted an evaluation of the properties located at 1221 and 1229 Glendale Avenue, Glendale (city), Los Angeles County (APN 5640-015-009; -010), to determine if the subject properties meet the definition of a "historical resource" as defined in Section 15064.5(a) of the California Environmental Quality Act (CEQA) Guidelines. This Historic Resources Assessment Report (HRAR) documents these identification and evaluation efforts.

In order to inform this evaluation, a site visit was conducted on October 21, 2020, by Sapphos Environmental, Inc. (Ms. Kasey Conley). Ms. Conley possess a Bachelor of Arts in English from Rutgers University, New Jersey (2013) and a Masters in Heritage Conservation from the University of Southern California (2019). Ms. Conley meets the Secretary of the Interior's *Professional Qualifications Standards* in the field of Architectural History and has more than four years of experience conducting surveys, research, evaluating properties, and preparing regulatory compliance documents. Ms. Chasteen possesses a Bachelor of Arts in History from the University of South Florida (1997) and a Master of Science in Historic Preservation from the School of the Art Institute of Chicago (2001). Ms. Chasteen meets the Secretary of the Interior's *Professional Qualifications Standards* in the fields of History and Architectural History and has more than 19 years of experience conducting surveys, research, evaluating properties, and preparing regulatory compliance documents (Attachment 1, *Resumes of Key Personnel*).

The 2007 survey of Craftsman-style residences located within the City's neighborhoods that were zoned for multi-family residential buildings, and the 2019 City of Glendale South Glendale Historic Resources Survey were reviewed prior to conducting the site visit.[4,5] Research was conducted using reliable information available through public and non-governmental agencies, libraries, and other sources of published information including:

- Los Angeles County Assessor;
- City of Glendale Building and Safety, building permits;
- historical issues of the *Los Angeles Times*;
- historic aerial photographs and topographic maps;
- Sanborn Fire Insurance Maps; and
- the Internet.

The purpose of this research was to determine if the properties are considered historical resources pursuant to Section 15064.5(a)(3) of the CEQA Guidelines. Properties considered historical resources under Section 15064.5(a)(3) of the CEQA Guidelines must meet one of the following criteria for listing in the California Register:

A. Is associated with events that have made a significant contribution to the broad patterns of history and cultural heritage; or
B. Is associated with the lives of persons important in our past; or

---

[4] City of Glendale. 2007. City of Glendale Reconnaissance Survey and Historic Context Statement of Craftsman Style Architecture 2006–2007 Certified Local Government Grant. Prepared by: Galvin Preservation Associates, Los Angeles, CA.

[5] City of Glendale. 2019. City of Glendale South Glendale Historic Resources Survey. Prepared by: Historic Resources Group, Los Angeles, CA.

C. *Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value; or*

D. *Has yielded or may be likely to yield information important in prehistory or history.*

The property was also evaluated for designation as a City of Glendale (City) Historic Resource. The City Historic Resource eligibility criteria mirror the California Register.[6] The properties were not evaluated for inclusion in the National Register of Historic Places per the City's guidance.

HISTORY

The Glendale Improvement Society was formed in 1883, and the name "Glendale" was formally adopted in 1884. By 1887, the new community was platted and registered with Los Angeles County. According to the Los Angeles County Office of the Assessor the subject properties were constructed in 1912 and 1913, yet the original building permits were not available. The properties are in the northeast corner of the original boundaries of the City of Tropico, which later became part of the City of Glendale. The City of Tropico first appeared on a map in 1887, and similar to Glendale, it saw a boom of development in the 1880s. Tropico developed with some residential tracts and light commercial development in the first years of the 20th century and in 1918, Tropico was annexed into the City of Glendale, five to six years after the subject properties were constructed.[7] According the historic topographic maps, the Los Angeles Terminus Railway ran along Glendale Avenue in front of the subject properties as early as 1894. The Los Angeles Terminus Railway was originally founded in the 1880s as a freight line between Pasadena and the Altadena quarry. In the 1890s, the railroad was extended into Los Angeles, and in 1901, it was incorporated as San Pedro, Los Angeles, Salt Lake Railroad. Although it was advertised as having state of the art passenger accommodations, it was more widely used for freight purposes and was slowly abandoned by passengers in the 1910s for the more favorable Pacific Electric Railway established along Brand Boulevard in 1902.[8] The Pacific Electric Railway depot was constructed in 1906 at the corner of Brand Boulevard and Broadway, approximately 1 mile north of the subject properties. With the ability to commute to Los Angeles for work and shopping, development in Glendale grew at a rapid pace including residential buildings, schools, and churches.[9]

The Craftsman style of architecture was popular from 1905 to 1930 and is largely attributed to the work of Charles and Henry Greene. One of the Greene brothers' most famous buildings is the Gamble House located in Pasadena, California. The common identifying features of the Craftsman style of architecture are low-pitched gabled roofs, full- or partial-width porches, unenclosed eave overhangs supported by tapered, or "battered," columns. The most common wall cladding is wood clapboard followed by wood shingles. Stone is commonly used for porch supports. About one-third of Craftsman residences are of the front-gabled roof subset. Most examples of this subset are 1 story but can be as large as 2 stories.[10] Glendale saw a residential development boom in the early 20th

---

6 Glendale Municipal Code Section 15.20.050, Ord. 5949 § 6, 2020. Accessed December 2020.

7 Masters, Nathan. 16 June 2014. "The Lost City of Tropico California." KCET. Accessed December 2020. Available at: https://www.kcet.org/shows/lost-la/the-lost-city-of-tropico-california

8 Signor, John R. 1988. *The Los Angeles and Salt Lake Railroad Company: Union Pacific's Historic Salt Lake Route*. San Marino, CA: Golden West Books.

9 City of Glendale. 2007. City of Glendale Reconnaissance Survey and Historic Context Statement of Craftsman Style Architecture 2006–2007 Certified Local Government Grant. Prepared by: Galvin Preservation Associates, Los Angeles, CA.

10 McAlester, Virginia and Lee. 2015. *A Field Guide to American Houses*. New York, NY: Alfred A. Knopf.

century because of the Pacific Electric Railway and much of the single-family housing that was built during this time was in the popular Craftsman style of architecture. According to *A Field Guide of American Houses* by Virginia Savage McAlester, the Craftsman style became the most popular and fashionable smaller house in the country by the 1910s.[11] The *Glendale Evening News* cited that between January 1913 and fall of 1914, over a million dollars had been completed in new home construction within the city, with the predominant style of housing being Craftsman.[12] The style of home could be found in abundance throughout the city with over 500 Craftsman-style buildings identified in the 2007 Craftsman Survey. The subject properties; however, were not identified in the 2007 survey.

Based on historic aerial photographs and Sanborn Fire Insurance Maps of the area, Glendale Avenue remained a predominantly residential street into the 1950s when it then began to transition into a commercial district. The area today is densely commercialized with strip malls, restaurants, and retail spaces.

In 2007, the City completed a Historic Resources Survey of Craftsman-style architecture located within the city's neighborhoods zoned for multi-family residential. The survey identified single-family Craftsman-style buildings located in zones designated for multi-family residential to assist the Department of Planning in the permit review process. These single-family residences are located in areas zoned for denser development and therefore subject to a higher rate of demolition applications. Along with the Historic Resources Survey of Craftsman-style architecture, a historic context statement was developed to better understand the history of Craftsman architecture in the city along with evaluation criteria for identified potential resources. The subject property is located in a Commercial/Industrial Zone (C31), although multi-family uses are allowed, and although not included in the project survey area, the criteria established for the report and history of Craftsman architecture within the city were used to evaluate the properties, which were properties zoned R-1250, R16540, and R-2250.

In 2019, Historic Resources Group completed the South Glendale Historic Resources Survey. The report identified potential historic resources within the South Glendale Community Plan area, or all neighborhoods south of SR 134. These neighborhoods include the original industrial and commercial centers of the City along with some of the oldest residential neighborhoods. The report included research methodology and evaluation criteria which were used to identify 404 potential resources, with 82 of those resources associated with Early Single-Family Residential Development. The subject properties are within the area assessed in the South Glendale Historic Resources Survey. The subject properties were not identified in the South Glendale Historic Resources Survey as potential historical resources.

---

11 McAlester, Virginia Savage. 18 November 2013. *A Field Guide to American Houses: The Definitive Guide to Identifying and Understanding America's Domestic Architecture*. New York, NY: Knopf Doubleday Publishing Group.

12 McAlester, Virginia Savage. 18 November 2013. *A Field Guide to American Houses: The Definitive Guide to Identifying and Understanding America's Domestic Architecture*. New York, NY: Knopf Doubleday Publishing Group.

Ownership History

Due to the closure of public buildings, research at the Assessor's office was not completed for the subject properties. Ownership history was compiled from building permits and other available sources (Table 1, *1221 Glendale Avenue Ownership History*; Table 2, *1229 Glendale Avenue Ownership History*).

TABLE 1
1221 GLENDALE AVENUE
OWNERSHIP HISTORY

Date	Name
1934	E. Carlson
1939	E.L. Stevens
1950	Catherine A. Glora
1961	Foster & Kleiser Co.
2002	Glendale Studios

Foster & Kleiser Co. was an advertising agency.[13] No information in City directories, census records, historic issues of the *Los Angeles Times* and *Los Angeles Sentinel,* or local publications pertaining to the remaining previous owners was available.

TABLE 2
1229 GLENDALE AVENUE
OWNERSHIP HISTORY

Date	Name
1922	Butterfield
1924	Earl E. Hitchcock
1942	Rosabel Schefeik
1950	Carl O. Anderson
1973	John Anderson Realty Co.

Earl E. Hitchcock was a public-school teacher and lived at the subject property until at least 1933 based on census data.[14] Rosabel Schefeik was a dress maker and lived at the subject property until at least 1962 based on census data, although permit records show ownership of the property changed to Carl O. Anderson in 1950.[15,16] No information in City directories, census records, historic issues of the *Los Angeles Times* and *Los Angeles Sentinel,* or local publications pertaining to the remaining previous owners was available. The current owner is Glendale Studio I Owner, LLC.

13 *Los Angeles Times,* 4 September 1957.

14 Ancestry.com. 2011. *U.S. City Directories, 1822–1995*. Provo, UT: Ancestry.com Operations, Inc.

15 Ancestry.com. 2011. *U.S. City Directories, 1822–1995*. Provo, UT: Ancestry.com Operations, Inc.

16 City of Glendale. Issued 27 April 1950. Permit No. 37572.

Building Permit History

1221 Glendale Avenue

According to the Los Angeles County Office of the Assessor online portal, the subject property located at 1221 Glendale Avenue was constructed in 1913. The original building permit was not available through the City thus making the architect, if any, and builder unknown. Additionally, the Glendale and/or Tropico permits dating to this period typically do not identify architects. The Sanborn Fire Insurance Map from June 1919 shows the area and footprint of the subject property, dating the building to at least this year.[17] The Sanborn Fire Insurance Map from November 1912 does not show this area of the city. A permit was issued in 1968 to re-roof the building.[18] No other building permits have been issued for the building. Based upon visual inspections, unpermitted alterations to the building include the addition of a second-floor balcony on the primary façade with French doors, enclosure of a rear porch as a kitchen addition, intermittent replacement of wood clapboard with vinyl siding (presumably were wood was deteriorating), tiling on the primary façade porch, replacement of some original windows and windowpanes, and alteration of the primary façade porch support posts. Alterations are evident based upon visible scarring where replacement material is obvious, comparison of current footprint for Sanborn Fire Insurance Maps, and the use of modern materials. Additionally, based on the Sanborn Fire Insurance Maps, an ancillary building at the rear of the property was demolished at an unknown date (See Figure 6, *Sanborn Fire Insurance Map of 1221 Glendale Avenue, 1919* below).

According to available building permits and Sanborn Fire Insurance Maps, the building was used as a single-family residence until the early 1960s. Based on permit history records, it was then converted to office space for varying businesses and is now part of the Shamrock Studio complex and used as production offices for the studios.

1229 Glendale Avenue

According to the Los Angeles County Office of the Assessor online portal, the subject property located at 1229 Glendale Avenue was constructed in 1912. The original building permit was not available through the City thus making the architect, if any, and builder unknown. Additionally, the Glendale/Tropico permits dating to this period typically do not identify architects. The Sanborn Fire Insurance Map from June 1919 shows the area and footprint of the subject property, dating the building to at least this year.[19] The Sanborn Fire Insurance Map from November 1912 does not show this area of the city. In 1924, a permit was issued for an addition to the building with sliding glass windows and infill, yet it is unclear where this addition was built and is potentially the enclosed southern portion of the porch with vinyl sliding windows and paneled wood door, which is yet a further alteration.[20] In 1942, a permit issued states that the porch was enclosed with the addition of French doors. The infill is potentially referring to the southern end of the porch and the French doors are no longer extant on the facade, again more evidence of alterations.[21] The apartment units at the rear of the building were added in 1950.[22] No other building permits have been issued for the

---

17 Sanborn Fire Insurance Map, Glendale June 1919.

18 City of Glendale. Issued 15 January 1968. Permit No. 30889.

19 Sanborn Fire Insurance Company. June 1919. Sanborn Fire Insurance Map, Glendale.

20 City of Glendale. Issued 28 February 1924. Permit No. N/A.

21 City of Glendale. Issued 12 November 1942. Permit No. 20734.

22 City of Glendale. Issued 19 April 1950. Permit No. 37572.

building. However, the building has been substantially altered with unpermitted alterations over the years. These alterations include stucco and vinyl siding, the alteration of the primary façade with paired metal doors at the northern end and the enclosure/infill of the southern end (possibly from 1942), a wood pedestrian door oriented to the north on the enclosure/infill of the porch, replacement of the original porch roof supports, repointing of the brick roof supports, metal railings between posts, replacement of the original porch with concrete porch, and replacement of original windows with vinyl and aluminum. Based upon visual inspection, alterations are evident based upon visible scarring where replacement material is obvious, comparison of current footprint for Sanborn Fire Insurance Maps, and the use of modern materials. Additionally, based on the Sanborn Fire Insurance Maps an additional dwelling, 1229 ½ Glendale Avenue and a detached garage, were located at the rear of the property which were demolished at an unknown date (See Figure 10, *Sanborn Fire Insurance Map for 1229 Glendale Avenue, 1919* below). The buildings appear on the site plan drawing for the 1950 permit for the addition of apartment units on the western façade of the extant building and were presumably demolished when those units were constructed.

According to available building permits and Sanborn Fire Insurance Maps, the building was originally constructed as a single-family residence and is currently being used as production office space for Shamrock Studios.

PROPERTY DESCRIPTION

The properties located at 1221 and 1229 Glendale Avenue are improved with a substantially altered Craftsman-style residences constructed in 1912 and 1913 (Figure 1, *View of 1221–1229 Glendale Avenue*). The buildings are located on two separate parcels which front onto S. Glendale Avenue and are now located within the Shamrock Studios production lot. The buildings are clad in a mix of wood clapboard, wood shingles, stucco, and vinyl siding with side- and crossed-gabled roofs. The buildings are in fair condition but have been substantially altered since originally constructed and minimally convey the character-defining features of the Craftsman style of architecture.

Figure 1. View of 1221–1229 Glendale Avenue (view west)
SOURCE: *Sapphos Environmental, Inc., 2020*

1221 Glendale Avenue

Primary Façade

The building located at 1221 Glendale Avenue is clad in horizontal wood clapboard on the first story which alternates between narrow and wide sizing, and wood shingles on the second story with a wood string course separating the materials. The building has a high-pitched, side-gabled roof. The primary façade has a substantial central porch which spans most of the façade. The porch is covered by an extension of the roof, which is supported by four square, wood posts. Based on the age of the material and out of scale design, these posts appear to have replaced the original porch posts at an unknown date. There is a large, shed-roof dormer above the porch. Wood French doors were added to the dormer when the balcony was added to the roof of the porch at an unknown date. The porch posts were potentially added to support the weight of the balcony addition. Two sets of wood single-pane casement windows are located on either side of the entrance on the first story of the primary façade. Multi-light casement windows were more common for Craftsman buildings during this period, and the single pane of glass in the casement units appears to be an alteration (Figure 2, *Primary Façade, 1221 Glendale Avenue*).

Figure 2. Primary Façade, 1221 Glendale Avenue (view west)
SOURCE: *Sapphos Environmental, Inc., 2020*

Entrance and Porch Detail

The entrance and primary façade porch are accessed by three centrally located steps. The steps and porch deck are clad in terracotta tile, and based on material and incompatibility with architectural style, is not original to the building. The entrance door is central on the façade and is a multi-light wood door with a prominent wood surround. An approximately 2-foot-tall wall encloses the porch on all sides (Figures 3A–C, *Entrance and Porch Detail, 1221 Glendale Avenue*).

Figure 3A. Entrance and Porch Detail, 1221 Glendale Avenue (view west)
SOURCE: *Sapphos Environmental, Inc., 2020*

Figure 3B. Entrance and Porch Detail, 1221 Glendale Avenue (view northwest)
SOURCE: *Sapphos Environmental, Inc., 2020*

Figure 3C. Entrance and Porch Detail, 1221 Glendale Avenue (view southwest)
SOURCE: *Sapphos Environmental, Inc., 2020*

Northern Façade

The northern façade of the building closely abuts the property to the north. The façade has a wide eave overhang with exposed rafters, and a wood louver vent is located high in the gable. A double-hung wood window and a multi-light wood casement window can be seen towards the eastern end of the façade. A brick end-wall chimney is located towards the center of the façade which extends up through the eave. No alterations were noted on this façade (Figure 4, *Northern Façade, 1221 Glendale Avenue*).

Figure 4. Northern Façade, 1221 Glendale Avenue (view southwest)
SOURCE: *Sapphos Environmental, Inc., 2020*

Western Rear Façade

The western rear façade is only 1 story in height with a central shed roof dormer, which matches the primary façade, with a wood casement window. Dotted lines on the Sanborn Fire Insurance Map convey open porches and according to the 1919 map, an open porch was located at the northern end of the façade. This open porch was enclosed at an unknown date and converted into a kitchen addition. The addition is accessed by an unenclosed porch with three steps oriented to the south with a wood-paneled door. The unenclosed porch is also an alteration from an unknown date but was likely added when the original porch was enclosed. The addition has a sliding vinyl window and there are two additional double-hung wood windows on the first story, south of the addition (Figures 5A–B, *Western Rear Façade, 1221 Glendale Avenue;* Figure 6, *Sanborn Fire Insurance Map of 1221 Glendale Avenue, 1919*).

Figure 5A. Western Rear Façade, 1221 Glendale Avenue (view east)
SOURCE: *Sapphos Environmental, Inc., 2020*

Figure 5B. Western Rear Façade, 1221 Glendale Avenue (view northeast)
SOURCE: *Sapphos Environmental, Inc., 2020*

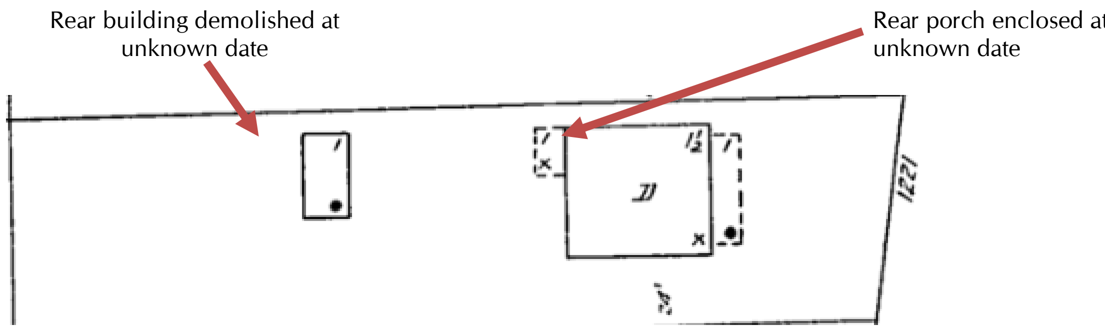


Figure 6. Sanborn Fire Insurance Map of 1221 Glendale Avenue, 1919
SOURCE: *Los Angeles Public Library*

Southern Façade

The southern façade is similar to the northern façade with a wide eave overhang with exposed rafters, a wood louver vent high in the gable, and a brick end-wall chimney which extends through the eave. The façade has two double-hung wood windows at the second story and a double-hung wood and wood casement windows (of varying sizes) along the first story. No alterations were noted on this façade, with the exception of a large, flush-mounted security light near the gable vent (Figure 7, *Southern Façade, 1221 Glendale Avenue*).

Figure 7. Southern Façade, 1221 Glendale Avenue (view northeast)
SOURCE: *Sapphos Environmental, Inc., 2020*

1229 Glendale Avenue

Primary Façade

The building located at 1229 Glendale Avenue is 1 story in height with a low-pitched cross-gabled roof and stucco and vinyl siding, which is an alteration. The building has been substantially altered and minimally conveys the characteristics of the Craftsman style. The primary façade has a full-façade porch constructed with concrete, which has been infilled and reconfigured since its original construction. The façade has two vinyl single-hung windows to the north and a vinyl sliding window to the south, which are also alterations. (Figure 8, *Primary Façade, 1229 Glendale Avenue*).

Figure 8. Primary Façade, 1229 Glendale Avenue (view west)
SOURCE: *Sapphos Environmental, Inc., 2020*

Entrance and Porch Detail

The primary façade porch spans much of the façade and is substantially altered with modern building materials (i.e., stucco, vinyl siding, concrete, etc.). The southern end of the porch has been infilled for use as an interior space and a wood-paneled door has been added for access. Based on the Sanborn Fire Insurance Maps, the porch also originally wrapped around to the northern façade and no longer does so, which is a major alteration. Alterations to the porch and entrances include paired metal doors with vinyl single-hung windows that have been added at the northern end of the façade, non-original brick columns supporting the porch roof that have been repointed, and metal railings added between each post. Based on the reconfiguration of the porch, the posts do not appear to be original to the construction of the building due to irregular spacing and modern building materials. The original wood entrance door is generally centrally located with a Prairie-style central light flanked by wood fixed windows with a check rail top (Figures 9A–C, *Entrance and Porch Detail;* Figure 10, *Sanborn Fire Insurance Map of 1229 Glendale Avenue, 1919*).

Figure 9A. Entrance and Porch Detail, 1229 Glendale Avenue (view west)
SOURCE: *Sapphos Environmental, Inc., 2020*

Figure 9B. Entrance and Porch Detail, 1229 Glendale Avenue (view west)
SOURCE: *Sapphos Environmental, Inc., 2020*

Figure 9C. Entrance and Porch Detail, 1229 Glendale Avenue (view west)
SOURCE: *Sapphos Environmental, Inc., 2020*

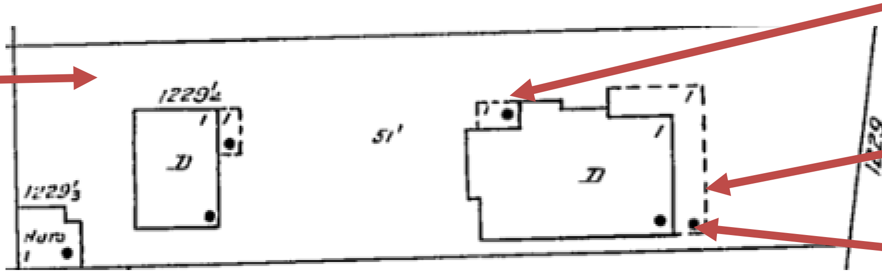


Figure 10. Sanborn Fire Insurance Map of 1229 Glendale Avenue, 1919
SOURCE: *Los Angeles Public Library*

Northern Façade

The northern façade of the building is clad in stucco, an alteration, with a double-gabled roof. Between the gables, the façade slightly recesses and there is a band of wood casement windows. The façade also has a vinyl window, an alteration, located towards the western end. According to the Sanborn Fire Insurance Maps, a small open porch was located at the western end of the façade, which was removed or enclosed at an unknown date, possibly when the apartment units were added adjacent to the western façade in 1950. A metal pedestrian door and wood pedestrian door allow access to the interior at the western end. Additionally, the primary façade porch wrapped around to this façade, but was removed/altered at an unknown date (Figures 11A–B, *Northern Façade, 1229 Glendale Avenue*).

Figure 11A. Northern Façade, 1229 Glendale Avenue (view southwest)
SOURCE: *Sapphos Environmental, Inc., 2020*

Figure 11B. Northern Façade, 1229 Glendale Avenue (view south)
SOURCE: *Sapphos Environmental, Inc., 2020*

Western Rear Façade

Apartment units were added to the western façade of the building in 1950 making the western façade no longer visible. The interiors of the buildings are not connected. There is a slight breezeway recession on the southern façade between the buildings which appears to be a void resulting from adjacent construction.

Southern Façade

The southern façade is clad in stucco, an alteration, with a wide eave overhang and wood brackets. The façade has multiple single-hung and sliding vinyl windows, also alterations. A brick end-wall chimney is located near the center of the façade and extends through the eave (Figure 12, *Southern Façade, 1229 Glendale Avenue*).

Figure 12. Southern Façade, 1229 Glendale Avenue (view northwest)
SOURCE: *Sapphos Environmental, Inc., 2020*

EVALUATION

The evaluation of the subject properties was completed based upon California Register and Glendale Register designation criteria. Designation criteria for listing in the California Register and the Glendale Register can be found in the *Introduction* section of the report. Significance of the properties was determined using the historic context statements found in the 2007 Craftsman Historic Resources Survey and 2019 South Glendale Historic Resources Survey as well as additional independent research completed for the area including, but not limited to, City of Glendale building permits, the Glendale Public Library, the Los Angeles County Assessor Online Portal, the Los Angeles Public Library, and historic issues of local and regional newspaper publications.[23,24] A review of the historic context statements and history of the area can be found in the *History* section of the report.

1221 Glendale Avenue

Based upon a review of the historic context prepared for the City of Glendale Craftsman Survey and the 2019 South Glendale Historic Resources Survey, previous ownership, and the construction history of this property, no historically significant events are known to have occurred at this site pursuant to Criterion A. The subject property was constructed in 1913 within the original boundaries of Tropico, five years before it was annexed into the city. Although residential development associated with the early development of Tropico is rare, the subject property does not individually convey any significant association with Tropico's early development as the improvement of the property in 1913 is not associated with the initial development of the City of Tropico nor any significant events associated with its early history. Additionally, the subject property has lost a high level of integrity and therefore, does not convey an association with Tropico. The subject property is part of Tract No. 314, which does not appear within historic issues of the *Los Angeles Times* or other local newspapers and was not significant in the development of the area. The subject property was also constructed 11 years after the development of the Pacific Electric Railway line on Brand Boulevard and is not significantly associated with the residential development which followed its construction. Therefore, the subject property is ineligible for listing pursuant to Criterion A.

Persons who made demonstrably significant contributions to the nation, state, or region are not known to be associated with this property. Ownership information for the property was available dating back to 1934 and no information found in City directories, census records, or historic issues of the *Los Angeles Times* and *Los Angeles Sentinel* suggested that any of the known owners or residents were persons who made significant contributions to the history of the nation, state, or city. Therefore, the subject property is ineligible for listing pursuant to Criterion B.

The residence was constructed during the Craftsman style's period of significance, but the subject property is a common example of Craftsman architecture and has been substantially altered which is most evident in the primary façade with alterations including the addition of the balcony over the primary porch, recladding of the porch in terracotta tiles, and replacement of porch roof supports. The addition of the balcony over the primary façade porch and the replacement of the original porch supports alters the initial design intent of the original building and changes the entire feeling of scale and proportion on the primary façade. The terracotta tiles are not a common material used in

---

23 City of Glendale. 2007. City of Glendale Reconnaissance Survey and Historic Context Statement of Craftsman Style Architecture 2006–2007 Certified Local Government Grant. Prepared by: Galvin Preservation Associates, Los Angeles, CA.

24 City of Glendale. 2019. City of Glendale South Glendale Historic Resources Survey. Prepared by: Historic Resources Group, Los Angeles, CA.

Craftsman-style buildings and is incompatible with the type. According to the 2019 South Glendale Historic Resources Survey, it is vital for resources from this period to retain integrity of the primary façade, which based on these alterations, the subject property does not.[25] The materials and design, including the wood clapboard and shingle siding and full-façade porch, are not distinctive and are traits that commonly recur in this building type. The building is not known to be the work of a master and does not embody the distinct characteristics of a type, period, or method of construction. Therefore, the subject property is ineligible for listing pursuant to Criterion C.

The building was constructed using common building materials and techniques, and the site was graded during construction of the building. Therefore, the property is not likely to yield significant information regarding the prehistory and history of the area pursuant to Criterion D.

1229 Glendale Avenue

Based upon a review of the historic context prepared for the City of Glendale Craftsman Survey and the 2019 South Glendale Historic Resources Survey, previous ownership, and the construction history of this property, no historically significant events are known to have occurred at this site pursuant to Criterion A. The subject property was constructed in 1912 within the original boundaries of Tropico, six years before it was annexed into the city. Although residential development associated with the early development of Tropico is rare, the subject property does not individually convey any significant association with Tropico's early development as the improvement of the property in 1912 is not associated with the initial development of the City of Tropico nor any significant events associated with its early history. Additionally, the subject property has lost a significantly high level of integrity and therefore, does not convey an association with Tropico. The subject property is part of Tract No. 314, which does not appear within historic issues of the *Los Angeles Times* or other local newspapers and was not significant in the development of the area. The subject property was also constructed 10 years after the development of the Pacific Electric Railway line on Brand Boulevard and is not significantly associated with the residential development which followed its construction. Therefore, the subject property is ineligible for listing in Criterion A.

Persons who made demonstrably significant contributions to the nation, state, or region are not known to be associated with this property. Ownership information for the property was available dating back to 1922 and no information found in City directories, census records, historic issues of the *Los Angeles Times* and *Los Angeles Sentinel*, or local publications suggested that any of the known owners or residents were persons were made significant contributions to the history of the nation, state, or city. Therefore, the subject property is ineligible for listing pursuant to Criterion B.

The residence was constructed during the Craftsman style's period of significance, but the subject property is a common example of Craftsman architecture and is substantially altered leaving minimal character-defining features of the type intact. The building has been reclad in stucco and vinyl siding, its primary façade porch has been considerably reconfigured and altered, additional entrance doors have been added to the primary façade, the western façade porch was removed, apartment units were added to the western façade of the building in 1950, and original windows have been replaced. The primary façade of the building retains very little design features from the original construction of the building and the reconfiguration of the primary façade porch substantially compromises the original design intent of the building. According to the 2019 South Glendale Historic Resources Survey, it is vital for resources from this period to retain integrity of the primary façade, which the

[25] City of Glendale. 2019. City of Glendale South Glendale Historic Resources Survey. Prepared by: Historic Resources Group, Los Angeles, CA.

subject property does not.[26] The building is not known to be the work of a master, and does not embody the distinct characteristics of a type, period, or method of construction pursuant to Criterion C.

The building was constructed using common building materials and techniques, and the site was graded during construction of the building. Therefore, the property is not likely to yield significant information regarding the prehistory and history of the area pursuant to Criterion D.

Integrity Considerations

The subject properties were evaluated against the seven aspects of integrity as outlined in the California Code of Regulations (Section 4852 [C]) and described by the National Parks Service. The seven aspects of integrity include *location, design, setting, materials, workmanship, feeling*, and *association*.

1221 Glendale Avenue

The subject property has lost integrity of design, materials, workmanship, feeling, and association based on the following identified alterations:

- Addition of a second-floor balcony over the primary façade porch with French doors;
- Enclosure of rear porch/addition on rear western façade;
- Intermittent replacement of wood clapboard with vinyl siding (presumably where wood was deteriorating);
- Tiling on primary façade porch; and
- Replacement/alteration of primary façade porch support posts.

The alterations of the primary façade compromise the integrity of design and workmanship of the building and the alterations of materials including windows and windowpanes and terracotta tiles compromise the integrity of materials. Additionally, the setting surrounding the subject property has dramatically changed from predominantly single-family residential to substantially commercial. The cumulative impact of the loss of these aspects of integrity compromises the building's integrity of feeling and association as it is no longer able to convey itself as a single-family residential development. The building has not been moved and thus also retains integrity of location.

1229 Glendale Avenue

The subject property has lost integrity of design, materials, workmanship, feeling, and association based on the following identified alterations:

- Stucco and vinyl siding;
- Alteration of the primary façade with paired metal doors at the northern end and the enclosure/infill of the southern end;
- Wood pedestrian door oriented to the north on the enclosure/infill of the porch;
- Repointing of the brick roof supports;
- Metal railings between posts;

[26] City of Glendale. 2019. City of Glendale South Glendale Historic Resources Survey. Prepared by: Historic Resources Group, Los Angeles, CA.

- Replacement of original porch with concrete porch; and
- Replacement of original windows with vinyl and aluminum.

The alterations of the whole of the building, specifically the primary façade and the primary façade porch, compromise the integrity of design and workmanship of the building. The alterations of materials including windows, stucco, porch supports, and metal railings, compromise the integrity of materials. Additionally, the setting surrounding the subject property has dramatically changed from predominantly single-family residential to substantially commercial. The cumulative impact of the loss of these aspects of integrity compromises the building's integrity of feeling and association as it is no longer able to convey itself as a single-family residential development. The building has not been moved and thus also retains integrity of location.

CONCLUSION

The buildings located at 1221 and 1229 Glendale Avenue, Glendale, Los Angeles County, California are not eligible for listing in the California Register or for designation as City Historic Resources, because they are not considered to be "historical resources" as defined in Section 15064.5(a) of the CEQA Guidelines. While the buildings were originally constructed in the Craftsman style, they have been substantially altered overtime and no longer retain the necessary integrity to be considered significant examples of the architectural type and do not embody the distinctive characteristics of a type, period, region, or method of construction. Demolition of these buildings would not result in a substantial adverse change to a historical resource pursuant to Section 15064.5(b) of the CEQA Guidelines.

Should there be any questions regarding the information contained in this HRAR, please contact Ms. Kasey Conley at (626) 683-3547, extension 135.

ATTACHMENT 1
RESUMES OF KEY PERSONNEL

Sapphos
environmental inc.

Carrie E. Chasteen, MS

Cultural Resources Manager

Master of Science (Historic Preservation), School of the Art Institute of Chicago, Chicago, Illinois, 2001
Bachelor of Arts (History and Political Science), University of South Florida, Tampa, Florida, 1997

- *Cultural resources management and legal compliance*
- *History of California*
- *Identification and evaluation of the built environment*
- *Archival documentation*
- *Historic preservation consultation*

Years of Experience: 19+

- *Oregon Transportation Investment Act (OTIA) III CS3 Technical Lead*
- *Chair, Historic Preservation Commission, City of Pasadena*
- *Design Commission, City of Pasadena*
- *Phi Alpha Theta*
- *Extensive experience documenting and evaluating parks and recreational facilities*
- *Extensive experience in the City of Riverside*

Ms. Carrie Chasteen has more than 19 years of experience in the field of cultural resources and the built environment, including project management, agency coordination, archival research, managing large surveys, preparation of compliance reports, preparation of Environmental Impact Statement / Environmental Impact Report (EIS/EIR) sections, peer review, and regulatory compliance. She meets and exceeds the Secretary of the Interior's *Professional Qualification Standards* in the fields of History and Architectural History.

On behalf of the County of Los Angeles Department of Parks and Recreation (DPR), Ms. Chasteen managed the documentation and evaluation of 54 parks, golf courses, and arboreta. The historic evaluations assess County facilities that were identified as priorities due to the age of the facility, architect of record, or affiliation with event of importance to the history of development of Los Angeles County. The historic evaluations consider eligibility for listing on the National Register of Historic Places, the California Register of Historical Resources, the County Register of Landmarks and Historic Districts, and standards provided in CEQA. The results were used by the County DPR to address future projects in the facilities, alter plans as needed, and to inform a Cultural Resources Treatment Plan (CRTP) and Worker Environmental Awareness Program (WEAP) training. She also provided consultation services for the Arcadia County Park Pool and Bathhouse Replacement Project, which included documenting and evaluating the park as a historic district for eligibility for inclusion in the National Register of Historic Places and the California Register of Historical Resources. Because the park was found to be eligible for listing in both registers, Ms. Chasteen provided additional consultation services to ensure the replacement pools and bathhouse were incompliance with the Secretary of the Interior's *Standards for the Treatment of Historic Properties* in order to minimize potential impacts to the historic district. This project received a Los Angeles Conservancy Preservation Award in 2020.

Additionally, Ms. Chasteen serves as project manager and point of contact for a Master Services Agreement for historic preservation services for Los Angeles County Regional Planning. Task orders completed to date include preparing and peer reviewing Landmark and Mills Act applications; preparation of the Altadena African American Historic Resources Survey, which included preparation of a Historic Context Statement, community-wide survey, extensive public outreach, and presentations to the community, Regional Planning staff, and the County of Los Angeles Historical Landmarks and Records Commission; and coordination with the Regional Planner who administers the program.

Kasey M. Conley, MHC

Architectural Historian

Master of Heritage Conservation, USC, Los Angeles, CA

- *Identification and evaluation of built environment*
- *Cultural history*
- *History of California*
- *Archival documentation*
- *Historic preservation*

Years of Experience: 4+

Relevant Experience:

- *CEQA documentation for Exposition Park and Descanso Master Plans*
- *Descanso Garden Historic District National Register Nomination*
- *Jane's Village Historic District Survey and Evaluation*
- *Manhattan Beach Context Statement*

Ms. Kasey Conley has more than four years of experience in the field of cultural resources management and the built environment, including archival research, district and resource surveys, preparation of National Register of Historic Places nominations, and regulatory compliance. She meets and exceeds the Secretary of the Interior's *Professional Qualification Standards* in the fields of History and Architectural History.

Ms. Conley has served on projects in Los Angeles County and has experience with the California Office of Historic Preservation; the County of Los Angeles Department of Parks and Recreation; the City of Los Angeles; and various other state, county, and local government agencies.

Ms. Conley has prepared National Register nomination forms for historic districts such as Leimert Park in South Los Angeles and the Descanso Gardens Historic District in Pasadena and individual resources such as Engine Co. 54 in Hyde Park. Ms. Conley has supported the preparation of CEQA documents for the Exposition Park Master Plan and the Descanso Gardens Master Plan. Ms. Conley has worked on several historic resource assessment reports within the cities of Los Angeles, Glendale, San Marino, and Rancho Cucamonga. Ms. Conley has also worked with the County of Los Angeles in the survey and evaluation of the Jane's Village Historic District.

APPENDIX E
Energy Calculations

Table 1. Summary of Energy Use During Construction

Fuel Type	**Quantity**
Diesel	
On-Site Construction Equipment	36,251 Gallons
Off-Site Motor Vehicles	8,719 Gallons
Total	44,970 Gallons
Gasoline	
On-Site Construction Equipment	0 Gallons
Off-Site Motor Vehicles	6,370 Gallons
Total	6,370 Gallons
Electricity	499.4 kWh

Table 2. Summary of Annual Energy Use During Operation

Source	Units	Buildout	Existing
Electricity	kWh/yr		
Studio Office	kWh/yr	342,497	103,920
Stage/Production	kWh/yr	539,971	210,323
Parking Lot	kWh/yr	15,820	12,197
Total Building	kWh/yr	898,288	326,440
Water	kWh/yr	181,859	87,442
Total Electricty	kWh/yr	1,080,147	413,882
Natural Gas			
Studio Office	kBTU/yr	276,323	83,280
Stage/Production	kBTU/yr	880,493	342,959
Parking Lot	kBTU/yr	0	-
Total	kBTU/yr	1,156,816	426,239
Transportation/On-Site Sources			
Diesel	gallons	9,295	3,656
Gasoline	gallons	57,762	19,958
Total	gallons	67,057	23,614

Table 3. Water by Land Use "Regulatory Compliance"

		Project			Existing		
Land Use	**Units**	**Indoor/Outdoor Use**	**Indoor Use**	**Outdoor Use**	**Indoor/Outdoor Use**	**Indoor Use**	**Outdoor Use**
Buildout	Mgal	11.95662/2.35571	11.95662	2.35571	5.91425/0.939008	5.91425	0.939008

Water and Wastewater Electricity Intensity (kWh/gallon)

Supply Water	0.009727
Treat Water	0.000111
Distribute Water	0.001272
Wastewater Treatment	0.001911

Source: CalEEMod User's Guide, Appendix D, Table 9.2 Los Angeles - South Coast

Indoor Water Factor	0.013021	kWh/gallon (supply, treat, distribute, wastewater treatment)
Outdoor Water Factor	0.01111	kWh/gallon (supply, treat, and distribute)

Notes:

Electricity and Natural Gas for the Proposed Project is total operational usage.
Electricity, natural gas, and mobile usage was calculated from CalEEMod.
Indoor water factor used for entire Project Site for conservative analysis.

Table 4. Off-Road Equipment Fuel Usage During Construction

Phase Name	Off-road Equipment Type	Amount	Hours per Day	Horsepower	Load Factor	Number of Days	Diesel Fuel Usage (Gallons per Project)
Demolition	Concrete/Industrial Saws	1	8	81	0.73	41	970
Demolition	Rubber Tired Dozers	1	8	247	0.4	41	1,620
Demolition	Tractors/Loaders/Backhoes	3	8	97	0.37	41	1,766
Grading	Graders	1	8	187	0.41	34	1,043
Grading	Rubber Tired Dozers	1	8	247	0.4	34	1,344
Grading	Tractors/Loaders/Backhoes	2	7	97	0.37	34	854
Building Construction	Cranes	1	8	231	0.29	185	4,957
Building Construction	Forklifts	2	7	89	0.2	185	2,305
Building Construction	Generator Sets	1	8	84	0.74	185	4,600
Building Construction	Tractors/Loaders/Backhoes	1	6	97	0.37	185	1,992
Building Construction	Welders	3	8	46	0.45	185	4,595
Architectural Coating	Air Compressors	1	6	78	0.48	110	1,236
Paving	Cement and Mortar Mixers	1	8	9	0.56	110	222
Paving	Pavers	1	8	130	0.42	110	2,402
Paving	Paving Equipment	1	8	132	0.36	110	2,091
Paving	Rollers	2	8	80	0.38	110	2,675
Paving	Tractors/Loaders/Backhoes	1	8	97	0.37	110	1,579
Total							**36,251**

Notes:

Equipment assumptions from CalEEMod.

Fuel usage estimate of 0.05 gallons per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3 E.

Table 5. On-Road Vehicle Fuel Usage During Construction

Sub Area 1	Days	Daily Trips		Total			Trip Length (Miles)			Total Length (Miles)			Fuel Consumption (Gallons)	
		Worker	Vendor	Worker Trips	Vendor Trips	Haul Trips	Worker	Vendor	Hauling	Worker	Vendor	Hauling	Gasoline	Diesel
Demolition	41	13	0	533	0	125	14.7	6.9	20	7,835	0	2,500	282	585
Grading	34	10	0	340	0	0	14.7	6.9	20	4,998	0	0	180	132
Building Construction	185	46	19	8,510	3,515	0	14.7	6.9	20	125,097	24,254	0	4,509	6,975
Architectural Coating	110	9	0	990	0	0	14.7	6.9	20	14,553	0	0	525	385
Paving	110	15	0	1,650	0	0	14.7	6.9	20	24,255	0	0	874	642
Total	**480**	**93**	**19**	**12,023**	**3,515**	**125**	**n/a**	**n/a**	**n/a**	**176,738**	**24,254**	**2,500**	**6,370**	**8,719**

Fuel Efficiency	Gas	DSL
Workers	27.75	37.81
Vendor/Haul Trucks	0	6.62

Notes:

Fuel efficiency calculated in ***Table 7: EMFAC2017 Results - Construction.***

Table 6. Water Usage for Control of Fugitive Dust During Construction

Phase Name	Total Acres	Gallons for Project	Electricity (kWh)
Project	17.0	**51,340**	**499.4**

Notes:

Total acres graded based on CalEEMod output sheets.

Water Usage

3,020 gallons per acre per day

Source: Air & Waste Management Association, Air Pollution Engineering Manual, 1992 Editi

Supply Water Electricity Intensity

0.009727 kWh/gallons (CalEEMod default for South Coast Air Basin)

Table 7. EMFAC2017 Results - Construction

Vehicle Class	Fuel	VMT (miles per day)	Fuel (1,000 gal per day)	Fuel Efficiency (miles per gallon)	Fuel	VMT (miles per day)	Fuel (1,000 gal per day)	Fuel Efficiency (miles per gallon)
LDA	GAS	154,312,637	5,096.55	30.28	DSL	1,405,949	29.72	47.31
LDT1	GAS	17,402,686	666.55	26.11	DSL	6,756	0.31	21.82
LDT2	GAS	52,851,239	2,173.39	24.32	DSL	384,253	11.04	34.80
			Average (LDA, LDT1, LDT2)	**27.75**				**37.81**
T7 Tractor Construction	DSL	250,084	37.80	6.62				

Construction Worker Fleet Mix

LDA	50%
LDT1	25%
LDT2	25%

Vendor and Delivery/Haul Truck Fleet Mix

HHDT	100%

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: County
Region: LOS ANGELES
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption.

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Trips	Fuel_Consumption
LOS ANGELES	2022	LDA	Aggregated	Aggregated	GAS	4040504.833	154312636.5	19063483.35	5096.55014
LOS ANGELES	2022	LDA	Aggregated	Aggregated	DSL	35580.70761	1405948.594	168445.7609	29.71915281
LOS ANGELES	2022	LDA	Aggregated	Aggregated	ELEC	79346.01523	3237232.352	396260.3789	0
LOS ANGELES	2022	LDT1	Aggregated	Aggregated	GAS	466456.294	17402686.02	2155709.822	666.5509097
LOS ANGELES	2022	LDT1	Aggregated	Aggregated	DSL	276.3592923	6755.981354	979.1709586	0.309652997
LOS ANGELES	2022	LDT1	Aggregated	Aggregated	ELEC	3550.873409	146697.1661	17760.7296	0
LOS ANGELES	2022	LDT2	Aggregated	Aggregated	GAS	1395327.914	52851239.49	6550846.129	2173.392058
LOS ANGELES	2022	LDT2	Aggregated	Aggregated	DSL	9029.025545	384253.17	44544.01587	11.04279173
LOS ANGELES	2022	T7 tractor constr	Aggregated	Aggregated	DSL	3625.325785	250084.1249	16389.95692	37.80397958
									8015.368685
									8015368.685
		Gas	7936.493108	7936493.108	2896819984	35,378,625.00		2,925,609,569.96	
		Diesel	78.87557712	78875.57712	28789585.65	10,548,851.00			
						45,927,476.00			

Table 8. On road Vehicles - Operational

Scenario	Annual VMT	Fuel Consumption (gal)		
		Gasoline	Diesel	Total
Existing	565,539	19,958	3,656	23,614
Project	1,530,231	57,762	9,295	67,057

Table 9. Fuel Consumption Summary

Existing		
Fuel	**Fuel Efficiency (MPG)**	**%Fleet**
Gasoline	26.4	93.0%
Diesel	10.8	7.0%
Project		
Fuel	**Fuel Efficiency (MPG)**	**%Fleet**
Gasoline	24.9	94.0%
Diesel	9.9	6.0%

Notes:

Percent fleet and fuel efficiency based on ***Table 10: EMFAC2017 Emissions Inventory-Operations***

Annual VMT obtained from the CalEEMod Output files.

Table 10. EMFAC2017 Emissions Inventory - Operations

Fuel	VMT (miles/day)	Fuel Consumption (1,000 gal/day)	Fuel Efficiency (miles per gallon)	Fuel Percentage
GAS	264,927,412	10,053	26.4	93
DSL	18,845,472	1,741	10.8	7

Existing VMT	Fuel Consumption	Fuel Efficiency	Fuel Percentage
264,803,057	10,634	24.9	94
17,596,625	1,781	9.9	6

Note: Fuel percentage based on VMT.
Fuel efficiency calculated using fuel consumption and VMT from EMFAC2017.

Buildout
EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: County
Region: LOS ANGELES
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption.

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Trips	Fuel_Consumption
LOS ANGELES	2023	All Other Buses	Aggregated	Aggregated	DSL	2453.780294	150763.0391	20611.754	14.3102964
LOS ANGELES	2023	LDA	Aggregated	Aggregated	DSL	37620.08952	1468847.201	178324.71	30.2306847
LOS ANGELES	2023	LDT1	Aggregated	Aggregated	DSL	257.6434833	6250.546569	911.04472	0.28261215
LOS ANGELES	2023	LDT2	Aggregated	Aggregated	DSL	9886.840992	410652.3194	48611.006	11.4787561
LOS ANGELES	2023	LHD1	Aggregated	Aggregated	DSL	71099.52621	2976582.9	894342.6	134.836453
LOS ANGELES	2023	LHD2	Aggregated	Aggregated	DSL	28768.3231	1158887.819	361869.31	58.2880015
LOS ANGELES	2023	MDV	Aggregated	Aggregated	DSL	21713.14607	843603.3965	106464.32	30.499951
LOS ANGELES	2023	MH	Aggregated	Aggregated	DSL	6442.422087	66663.72302	644.24221	6.25380248
LOS ANGELES	2023	Motor Coach	Aggregated	Aggregated	DSL	671.8209096	94677.5948	9808.5853	14.1077668
LOS ANGELES	2023	PTO	Aggregated	Aggregated	DSL	0	79942.02847	0	15.4668659
LOS ANGELES	2023	SBUS	Aggregated	Aggregated	DSL	3895.844354	123040.6457	44957.504	16.0165185
LOS ANGELES	2023	T6 Ag	Aggregated	Aggregated	DSL	11.67476155	97.073849	51.368951	0.0110802
LOS ANGELES	2023	T6 CAIRP heavy	Aggregated	Aggregated	DSL	349.6383777	68307.70048	5104.7203	5.74152969
LOS ANGELES	2023	T6 CAIRP small	Aggregated	Aggregated	DSL	184.7839559	9654.963816	2697.8458	0.8645498
LOS ANGELES	2023	T6 instate construct	Aggregated	Aggregated	DSL	2618.326334	172411.6153	11837.352	16.1624662
LOS ANGELES	2023	T6 instate construct	Aggregated	Aggregated	DSL	8139.325817	456545.5656	36797.576	42.3939241
LOS ANGELES	2023	T6 instate heavy	Aggregated	Aggregated	DSL	10786.51244	1499120.793	124474.86	130.47955
LOS ANGELES	2023	T6 instate small	Aggregated	Aggregated	DSL	38175.77868	2025192.578	440543.19	186.745695
LOS ANGELES	2023	T6 OOS heavy	Aggregated	Aggregated	DSL	202.1917854	39591.65831	2952.0001	3.32562707
LOS ANGELES	2023	T6 OOS small	Aggregated	Aggregated	DSL	105.7912941	5491.948334	1544.5529	0.4922964

LOS ANGELES	2023	T6 Public	Aggregated	Aggregated	DSL	4562.406266	71552.48965	13839.299	8.60435221
LOS ANGELES	2023	T6 utility	Aggregated	Aggregated	DSL	1029.350505	17254.27294	11837.531	1.75155867
LOS ANGELES	2023	T7 Ag	Aggregated	Aggregated	DSL	5.450542727	89.56607012	23.982388	0.01574504
LOS ANGELES	2023	T7 CAIRP	Aggregated	Aggregated	DSL	6343.347191	1154320.568	92612.869	161.461909
LOS ANGELES	2023	T7 CAIRP constructi	Aggregated	Aggregated	DSL	679.1643287	123844.761	3070.4755	16.390596
LOS ANGELES	2023	T7 NNOOS	Aggregated	Aggregated	DSL	7121.061939	1407158.417	103967.5	187.176984
LOS ANGELES	2023	T7 NOOS	Aggregated	Aggregated	DSL	2513.987908	453542.0471	36704.223	65.0452228
LOS ANGELES	2023	T7 POLA	Aggregated	Aggregated	DSL	8519.119436	1135875.96	64745.308	176.124541
LOS ANGELES	2023	T7 Public	Aggregated	Aggregated	DSL	5566.242618	112766.4506	16884.269	19.1172428
LOS ANGELES	2023	T7 Single	Aggregated	Aggregated	DSL	6149.267846	402604.0345	70961.698	58.130993
LOS ANGELES	2023	T7 single constructi	Aggregated	Aggregated	DSL	4427.380162	307236.0732	20016.014	43.2796886
LOS ANGELES	2023	T7 SWCV	Aggregated	Aggregated	DSL	1267.904477	51803.41871	4944.8275	25.530032
LOS ANGELES	2023	T7 tractor	Aggregated	Aggregated	DSL	12343.86745	1684212.129	156767.12	222.039606
LOS ANGELES	2023	T7 tractor construct	Aggregated	Aggregated	DSL	3720.516306	253442.7111	16820.31	35.8399978
LOS ANGELES	2023	T7 utility	Aggregated	Aggregated	DSL	410.896106	8338.939625	4725.3052	1.31476872
LOS ANGELES	2023	UBUS	Aggregated	Aggregated	DSL	37.1389	5105.145298	148.5556	0.80713293
LOS ANGELES	2023	LDA	Aggregated	Aggregated	ELEC	93246.42895	3877173.285	464969.64	0
LOS ANGELES	2023	LDT1	Aggregated	Aggregated	ELEC	4694.098206	199559.1454	23532.522	0
LOS ANGELES	2023	LDT2	Aggregated	Aggregated	ELEC	18529.7361	593086.5511	93526.447	0
LOS ANGELES	2023	MDV	Aggregated	Aggregated	ELEC	10527.8392	347358.5519	53662.769	0
LOS ANGELES	2023	UBUS	Aggregated	Aggregated	ELEC	14	1217.553685	56	0
LOS ANGELES	2023	LDA	Aggregated	Aggregated	GAS	4079718.343	153812691.8	19249547	4943.66007
LOS ANGELES	2023	LDT1	Aggregated	Aggregated	GAS	480759.8328	17733493.57	2225422.9	661.890074
LOS ANGELES	2023	LDT2	Aggregated	Aggregated	GAS	1420577.957	53205335.05	6674512.8	2111.83515
LOS ANGELES	2023	LHD1	Aggregated	Aggregated	GAS	107353.7456	3873368.206	1599410.9	366.240002
LOS ANGELES	2023	LHD2	Aggregated	Aggregated	GAS	18246.17882	636806.1143	271840.88	69.1165959
LOS ANGELES	2023	MCY	Aggregated	Aggregated	GAS	188536.3972	1317299.67	377072.79	36.8471368
LOS ANGELES	2023	MDV	Aggregated	Aggregated	GAS	951148.1238	33069618.91	4413707.2	1617.67266
LOS ANGELES	2023	MH	Aggregated	Aggregated	GAS	19632.08957	198292.6633	1963.9942	38.1180307
LOS ANGELES	2023	OBUS	Aggregated	Aggregated	GAS	4020.759353	164000.6212	80447.353	32.3899635
LOS ANGELES	2023	SBUS	Aggregated	Aggregated	GAS	1498.084511	60378.45107	5992.338	6.5052723
LOS ANGELES	2023	T6TS	Aggregated	Aggregated	GAS	14791.98296	816335.0055	295958	159.420823
LOS ANGELES	2023	T7IS	Aggregated	Aggregated	GAS	53.11282542	6012.489383	1062.6814	1.42846594
LOS ANGELES	2023	UBUS	Aggregated	Aggregated	GAS	466.4659792	33779.50019	1865.8639	7.76462999
LOS ANGELES	2023	T7 SWCV	Aggregated	Aggregated	NG	2800.075382	114024.8235	10920.294	50.2408577
LOS ANGELES	2023	UBUS	Aggregated	Aggregated	NG	4202.367788	445285.1383	16809.471	113.219219

	VMT Sum	Fuel Sum	Fuel Sum/Year
Diesel	18845472.09	1740.618799	**635,325,862**
Gas	264927412.1	10052.88887	**3,669,304,439**
			4,304,630,301

Existing

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: County
Region: LOS ANGELES
Calendar Year: 2021
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption.

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Trips	Fuel_Consumption
LOS ANGELES	2021	All Other Buses	Aggregated	Aggregated	DSL	2395.753094	142177.9043	20124.326	14.3259165
LOS ANGELES	2021	LDA	Aggregated	Aggregated	DSL	33364.94911	1336170.355	157695.71	28.995514
LOS ANGELES	2021	LDT1	Aggregated	Aggregated	DSL	297.0410267	7338.123275	1055.646	0.34019744
LOS ANGELES	2021	LDT2	Aggregated	Aggregated	DSL	8126.390234	355535.4183	40234.87	10.5057561
LOS ANGELES	2021	LHD1	Aggregated	Aggregated	DSL	61698.84585	2667214.83	776093.86	124.558738
LOS ANGELES	2021	LHD2	Aggregated	Aggregated	DSL	24847.529	1035822.88	312550.66	53.6927664
LOS ANGELES	2021	MDV	Aggregated	Aggregated	DSL	18030.2644	734378.7436	88958.853	28.1215299
LOS ANGELES	2021	MH	Aggregated	Aggregated	DSL	5837.585418	61474.42824	583.75854	5.91762863
LOS ANGELES	2021	Motor Coach	Aggregated	Aggregated	DSL	703.2457106	91424.80552	10267.387	14.43958
LOS ANGELES	2021	PTO	Aggregated	Aggregated	DSL	0	78431.86638	0	16.376071
LOS ANGELES	2021	SBUS	Aggregated	Aggregated	DSL	3836.738425	121324.4844	44275.429	16.1045611
LOS ANGELES	2021	T6 Ag	Aggregated	Aggregated	DSL	12.13095267	104.3587548	53.376192	0.01245006
LOS ANGELES	2021	T6 CAIRP heavy	Aggregated	Aggregated	DSL	334.3089902	65862.4333	4880.9113	5.8875751
LOS ANGELES	2021	T6 CAIRP small	Aggregated	Aggregated	DSL	176.7171664	9271.232452	2580.0706	0.87953936
LOS ANGELES	2021	T6 instate construct	Aggregated	Aggregated	DSL	2463.579926	167642.3835	11137.749	17.1513201
LOS ANGELES	2021	T6 instate construct	Aggregated	Aggregated	DSL	8566.238267	443239.724	38727.63	44.5959743
LOS ANGELES	2021	T6 instate heavy	Aggregated	Aggregated	DSL	10455.48502	1410072.143	120654.85	133.21754
LOS ANGELES	2021	T6 instate small	Aggregated	Aggregated	DSL	38393.79645	1920331.232	443059.09	191.398187
LOS ANGELES	2021	T6 OOS heavy	Aggregated	Aggregated	DSL	191.6398006	38081.09496	2797.9411	3.39693993
LOS ANGELES	2021	T6 OOS small	Aggregated	Aggregated	DSL	101.7297612	5283.650628	1485.2545	0.50224621
LOS ANGELES	2021	T6 Public	Aggregated	Aggregated	DSL	4497.854571	69891.41772	13643.492	8.72661111
LOS ANGELES	2021	T6 utility	Aggregated	Aggregated	DSL	1007.559291	16957.30385	11586.932	1.7773803
LOS ANGELES	2021	T7 Ag	Aggregated	Aggregated	DSL	4.854707518	113.1890197	21.360713	0.02033268
LOS ANGELES	2021	T7 CAIRP	Aggregated	Aggregated	DSL	6279.132793	1115075.522	91675.339	165.030438
LOS ANGELES	2021	T7 CAIRP constructi	Aggregated	Aggregated	DSL	666.4134286	120418.9803	3012.8292	16.8216232
LOS ANGELES	2021	T7 NNOOS	Aggregated	Aggregated	DSL	6776.419057	1359344.742	98935.718	192.91627
LOS ANGELES	2021	T7 NOOS	Aggregated	Aggregated	DSL	2465.53665	438114.9058	35996.835	66.3671614
LOS ANGELES	2021	T7 POLA	Aggregated	Aggregated	DSL	8055.06441	1016317.432	61218.49	181.646039
LOS ANGELES	2021	T7 Public	Aggregated	Aggregated	DSL	5442.962372	110265.6618	16510.319	19.2585814
LOS ANGELES	2021	T7 Single	Aggregated	Aggregated	DSL	5864.858433	394998.5563	67679.653	62.68356
LOS ANGELES	2021	T7 single constructi	Aggregated	Aggregated	DSL	4248.667003	298737.3414	19208.058	46.1272664
LOS ANGELES	2021	T7 SWCV	Aggregated	Aggregated	DSL	1524.436923	62284.87901	5945.304	30.711876
LOS ANGELES	2021	T7 tractor	Aggregated	Aggregated	DSL	12117.53918	1643190.233	153892.75	238.492637

LOS ANGELES	2021	T7 tractor construct	Aggregated	Aggregated	DSL	3547.888701	246432.0056	16039.867	38.3201864
LOS ANGELES	2021	T7 utility	Aggregated	Aggregated	DSL	403.9712025	8195.988304	4645.6688	1.3089764
LOS ANGELES	2021	UBUS	Aggregated	Aggregated	DSL	37.1389	5105.145298	148.5556	0.80713293
LOS ANGELES	2021	LDA	Aggregated	Aggregated	ELEC	67210.71775	2697315.265	336259.36	0
LOS ANGELES	2021	LDT1	Aggregated	Aggregated	ELEC	2539.277034	100849.3946	12618.758	0
LOS ANGELES	2021	LDT2	Aggregated	Aggregated	ELEC	11051.44449	368949.9062	56028.94	0
LOS ANGELES	2021	MDV	Aggregated	Aggregated	ELEC	4837.670599	167248.7908	24796.004	0
LOS ANGELES	2021	UBUS	Aggregated	Aggregated	ELEC	14	1217.553685	56	0
LOS ANGELES	2021	LDA	Aggregated	Aggregated	GAS	3998082.55	154957028.3	18859046	5253.03608
LOS ANGELES	2021	LDT1	Aggregated	Aggregated	GAS	451923.1455	17065391.26	2083892.5	670.361256
LOS ANGELES	2021	LDT2	Aggregated	Aggregated	GAS	1370275.92	52553142.22	6426189.2	2238.86259
LOS ANGELES	2021	LHD1	Aggregated	Aggregated	GAS	108025.983	3955472.057	1609426.2	382.697692
LOS ANGELES	2021	LHD2	Aggregated	Aggregated	GAS	17947.14388	636046.3967	267385.7	70.6194273
LOS ANGELES	2021	MCY	Aggregated	Aggregated	GAS	174733.5483	1259345.847	349467.1	35.1842513
LOS ANGELES	2021	MDV	Aggregated	Aggregated	GAS	932036.8903	33105798.77	4313561.3	1730.98692
LOS ANGELES	2021	MH	Aggregated	Aggregated	GAS	19738.38855	198097.0268	1974.6284	39.1762534
LOS ANGELES	2021	OBUS	Aggregated	Aggregated	GAS	4043.633604	172164.4313	80905.021	34.9094023
LOS ANGELES	2021	SBUS	Aggregated	Aggregated	GAS	1289.957091	53467.22336	5159.8284	5.87033195
LOS ANGELES	2021	T6TS	Aggregated	Aggregated	GAS	14589.7762	807949.859	291912.24	162.461531
LOS ANGELES	2021	T7IS	Aggregated	Aggregated	GAS	58.22843706	5770.219973	1165.0346	1.44358329
LOS ANGELES	2021	UBUS	Aggregated	Aggregated	GAS	458.4288176	33383.22271	1833.7153	8.03586891
LOS ANGELES	2021	T7 SWCV	Aggregated	Aggregated	NG	2453.780525	99862.0129	9569.744	45.3680742
LOS ANGELES	2021	UBUS	Aggregated	Aggregated	NG	4152.468621	439987.1908	16609.874	111.654151

	VMT Sum	Fuel Sum	Fuel Sum/Year
Diesel	17596625.4	1781.436102	**650,224,177**
Gas	264803056.8	10633.64519	**3,881,280,493**
			4,531,504,670
Difference		28253.34612	2.27572784

APPENDIX F

CalEEMod Greenhouse Gas Emission Output Files

East End Studios - Existing
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	8.00	1000sqft	0.40	8,000.00	0
General Light Industry	18.95	1000sqft	1.00	18,948.00	0
Parking Lot	0.80	Acre	0.80	34,848.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2021
Utility Company	Glendale Water & Power				
CO2 Intensity (lb/MWhr)	1115.33	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site is 2.2 acres in size.

Construction Phase - Existing operation only.

Vehicle Trips - Based on trip generation table.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00

tblLandUse	LotAcreage	0.18	0.40
tblLandUse	LotAcreage	0.43	1.00
tblVehicleTrips	ST_TR	1.32	1.12
tblVehicleTrips	ST_TR	2.46	2.17
tblVehicleTrips	SU_TR	0.68	0.58
tblVehicleTrips	SU_TR	1.05	0.93
tblVehicleTrips	WD_TR	6.97	5.91
tblVehicleTrips	WD_TR	11.03	9.75

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

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

2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1129	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.9000e-004	6.9000e-004	0.0000	0.0000	7.3000e-004
Energy	2.3000e-003	0.0209	0.0176	1.3000e-004		1.5900e-003	1.5900e-003		1.5900e-003	1.5900e-003	0.0000	187.8932	187.8932	4.7300e-003	1.3100e-003	188.4005
Mobile	0.0517	0.2736	0.7553	2.6500e-003	0.2146	2.2600e-003	0.2169	0.0575	2.1100e-003	0.0597	0.0000	244.5764	244.5764	0.0129	0.0000	244.8986
Waste						0.0000	0.0000		0.0000	0.0000	6.3983	0.0000	6.3983	0.3781	0.0000	15.8515
Water						0.0000	0.0000		0.0000	0.0000	1.8763	44.2373	46.1136	0.1939	4.7900e-003	52.3872
Total	**0.1669**	**0.2945**	**0.7732**	**2.7800e-003**	**0.2146**	**3.8500e-003**	**0.2185**	**0.0575**	**3.7000e-003**	**0.0612**	**8.2746**	**476.7076**	**484.9822**	**0.5896**	**6.1000e-003**	**501.5385**

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Area	0.1129	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.9000e-004	6.9000e-004	0.0000	0.0000	7.3000e-004
Energy	2.3000e-003	0.0209	0.0176	1.3000e-004		1.5900e-003	1.5900e-003		1.5900e-003	1.5900e-003	0.0000	187.8932	187.8932	4.7300e-003	1.3100e-003	188.4005
Mobile	0.0517	0.2736	0.7553	2.6500e-003	0.2146	2.2600e-003	0.2169	0.0575	2.1100e-003	0.0597	0.0000	244.5764	244.5764	0.0129	0.0000	244.8986
Waste						0.0000	0.0000		0.0000	0.0000	6.3983	0.0000	6.3983	0.3781	0.0000	15.8515
Water						0.0000	0.0000		0.0000	0.0000	1.8763	44.2373	46.1136	0.1939	4.7900e-003	52.3872
Total	**0.1669**	**0.2945**	**0.7732**	**2.7800e-003**	**0.2146**	**3.8500e-003**	**0.2185**	**0.0575**	**3.7000e-003**	**0.0612**	**8.2746**	**476.7076**	**484.9822**	**0.5896**	**6.1000e-003**	**501.5385**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/1/2021	3/31/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.8

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0517	0.2736	0.7553	2.6500e-003	0.2146	2.2600e-003	0.2169	0.0575	2.1100e-003	0.0597	0.0000	244.5764	244.5764	0.0129	0.0000	244.8986
Unmitigated	0.0517	0.2736	0.7553	2.6500e-003	0.2146	2.2600e-003	0.2169	0.0575	2.1100e-003	0.0597	0.0000	244.5764	244.5764	0.0129	0.0000	244.8986

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	112.00	21.22	10.99	374,645	374,645
General Office Building	78.00	17.36	7.44	190,895	190,895
Parking Lot	0.00	0.00	0.00		
Total	190.00	38.58	18.43	565,539	565,539

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
General Office Building	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Parking Lot	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	165.1475	165.1475	4.2900e-003	8.9000e-004	165.5196
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	165.1475	165.1475	4.2900e-003	8.9000e-004	165.5196
NaturalGas Mitigated	2.3000e-003	0.0209	0.0176	1.3000e-004		1.5900e-003	1.5900e-003		1.5900e-003	1.5900e-003	0.0000	22.7457	22.7457	4.4000e-004	4.2000e-004	22.8809
NaturalGas Unmitigated	2.3000e-003	0.0209	0.0176	1.3000e-004		1.5900e-003	1.5900e-003		1.5900e-003	1.5900e-003	0.0000	22.7457	22.7457	4.4000e-004	4.2000e-004	22.8809

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	kBTU/yr	tons/yr										MT/yr					
General Light Industry	342959	1.8500e-003	0.0168	0.0141	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	18.3016	18.3016	3.5000e-004	3.4000e-004	18.4103
General Office Building	83280	4.5000e-004	4.0800e-003	3.4300e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.4441	4.4441	9.0000e-005	8.0000e-005	4.4706
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.3000e-003**	**0.0209**	**0.0176**	**1.2000e-004**		**1.5900e-003**	**1.5900e-003**		**1.5900e-003**	**1.5900e-003**	**0.0000**	**22.7457**	**22.7457**	**4.4000e-004**	**4.2000e-004**	**22.8809**

Mitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	kBTU/yr	tons/yr										MT/yr					
General Light Industry	342959	1.8500e-003	0.0168	0.0141	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	18.3016	18.3016	3.5000e-004	3.4000e-004	18.4103
General Office Building	83280	4.5000e-004	4.0800e-003	3.4300e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.4441	4.4441	9.0000e-005	8.0000e-005	4.4706
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.3000e-003**	**0.0209**	**0.0176**	**1.2000e-004**		**1.5900e-003**	**1.5900e-003**		**1.5900e-003**	**1.5900e-003**	**0.0000**	**22.7457**	**22.7457**	**4.4000e-004**	**4.2000e-004**	**22.8809**

5.3 Energy by Land Use - Electricity

Unmitigated

Land Use	Electricity Use	Total CO2	CH4	N2O	CO2e
	kWh/yr	MT/yr			

General Light Industry	210323	106.4034	2.7700e-003	5.7000e-004	106.6431
General Office Building	103920	52.5737	1.3700e-003	2.8000e-004	52.6921
Parking Lot	12196.8	6.1704	1.6000e-004	3.0000e-005	6.1843
Total		**165.1475**	**4.3000e-003**	**8.8000e-004**	**165.5196**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	210323	106.4034	2.7700e-003	5.7000e-004	106.6431
General Office Building	103920	52.5737	1.3700e-003	2.8000e-004	52.6921
Parking Lot	12196.8	6.1704	1.6000e-004	3.0000e-005	6.1843
Total		**165.1475**	**4.3000e-003**	**8.8000e-004**	**165.5196**

6.0 Area Detail

6.1 Mitigation Measures Area

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

Mitigated	0.1129	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.9000e-004	6.9000e-004	0.0000	0.0000	7.3000e-004
Unmitigated	0.1129	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.9000e-004	6.9000e-004	0.0000	0.0000	7.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0133					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0996					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.9000e-004	6.9000e-004	0.0000	0.0000	7.3000e-004
Total	**0.1129**	**0.0000**	**3.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**6.9000e-004**	**6.9000e-004**	**0.0000**	**0.0000**	**7.3000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0133					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0996					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.9000e-004	6.9000e-004	0.0000	0.0000	7.3000e-004

Total	**0.1129**	**0.0000**	**3.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**6.9000e-004**	**6.9000e-004**	**0.0000**	**0.0000**	**7.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	46.1136	0.1939	4.7900e-003	52.3872
Unmitigated	46.1136	0.1939	4.7900e-003	52.3872

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.38219 / 0	30.2575	0.1435	3.5300e-003	34.8971
General Office Building	1.53206 / 0.939008	15.8562	0.0503	1.2600e-003	17.4901
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**46.1136**	**0.1939**	**4.7900e-003**	**52.3872**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.38219 / 0	30.2575	0.1435	3.5300e-003	34.8971
General Office Building	1.53206 / 0.939008	15.8562	0.0503	1.2600e-003	17.4901
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**46.1136**	**0.1939**	**4.7900e-003**	**52.3872**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.3983	0.3781	0.0000	15.8515
Unmitigated	6.3983	0.3781	0.0000	15.8515

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	23.5	4.7703	0.2819	0.0000	11.8182
General Office Building	8.02	1.6280	0.0962	0.0000	4.0333
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**6.3983**	**0.3781**	**0.0000**	**15.8515**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	23.5	4.7703	0.2819	0.0000	11.8182
General Office Building	8.02	1.6280	0.0962	0.0000	4.0333
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**6.3983**	**0.3781**	**0.0000**	**15.8515**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation