APPENDICES

LIME AVENUE SELF STORAGE & COMMERCIAL FACILITY 115-127 EAST LIME AVENUE MONROVIA, CALIFORNIA

PREPARED FOR:

CITY OF MONROVIA
COMMUNITY DEVELOPMENT DEPARTMENT, PLANNING DIVISION
415 SOUTH IVY AVENUE
MONROVIA, CALIFORNIA 91016

PREPARED BY:

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HACIENDA HEIGHTS, CALIFORNIA

AUGUST 21, 2019

MONR 002

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AIR QUALITY STUDY

LIME AVENUE SELF STORAGE AND OFFICE/RETAIL FACILITY
115-127 EAST LIME AVENUE
MONROVIA, CALIFORNIA

PREPARED FOR:

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AUGUST 20, 2019

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1. INTRODUCTION

The purpose of this report is to provide an air quality and noise study related to the construction and operation of a mixed-use project that will consist of 668 storage units and will include 92,249 square feet of gross floor area. Of the total amount of floor area that is provided, 86,729 square feet will consist of self storage and management office space (or 973 square feet of the total) and 5,520 square feet will consist of commercial and commercial hallway space. The proposed project will occupy a 0.73-acre (31,799 square feet) site located along the north side of Lime Avenue. A more detailed description of the proposed project is provided herein Section 4. This report consists of the following sections:

- *Section 1 - Introduction,* provides an overview of the report's format and content.
- *Section 2 - Project Site Location,* describes the project location.
- *Section 3 – Environmental Setting,* describes the project's environmental setting in which the proposed project site is located.
- *Section 4 - Project Description,* includes an overview of the proposed project.
- *Section 5 - Air Quality Analysis,* evaluates the potential air quality impacts associated with the approval and subsequent implementation of the proposed project. The analysis considers both the long-term (operational) and short-term (construction-related) air quality impacts.
- *Section 6 – Greenhouse Gas (GHG) Emissions Analysis,* discusses the potential GHG emissions impacts associated with the proposed project's construction and subsequent occupancy.
- *Section 7 - Noise Analysis,* discusses the potential noise impacts associated with the proposed project's construction and subsequent occupancy.

2. PROJECT SITE LOCATION

The project site is located within the central portion of the City of Monrovia and is located along the north side of Lime Avenue in the "Old Town" portion of Monrovia. Monrovia is located in the San Gabriel Valley, which is located approximately 15.5 miles northeast of Downtown Los Angeles. The City of Monrovia is bounded on the north by the San Gabriel Mountains; on the south by the cities of Arcadia, Bradbury, and Duarte; on the east by the cities of Duarte and Bradbury; and, on the west by Arcadia. The site's legal addresses are 115-127 East Lime Avenue. The site consists of three parcels: 8516-01-2800, 8516-01-2801, and 8516-01-2802. Regional access to the project site is possible from the Foothill Freeway (Interstate 210), located 0.86 miles to the south of the project site. Major roadways in the vicinity of the project site include Foothill Boulevard, located 1,000 feet to the north of the site; Colorado Boulevard, located 926 to the south of the project site; Mountain Avenue, located 0.76 miles to the east of the project site; and, Myrtle Avenue, located 140 feet to the west of the project site.[1] The location of Monrovia in a regional context is shown in Exhibit 2-1. A citywide map is provided in Exhibit 2-2 and a local map is in Exhibit 2-3.

[1] Google Earth. Site accessed March 1, 2019.

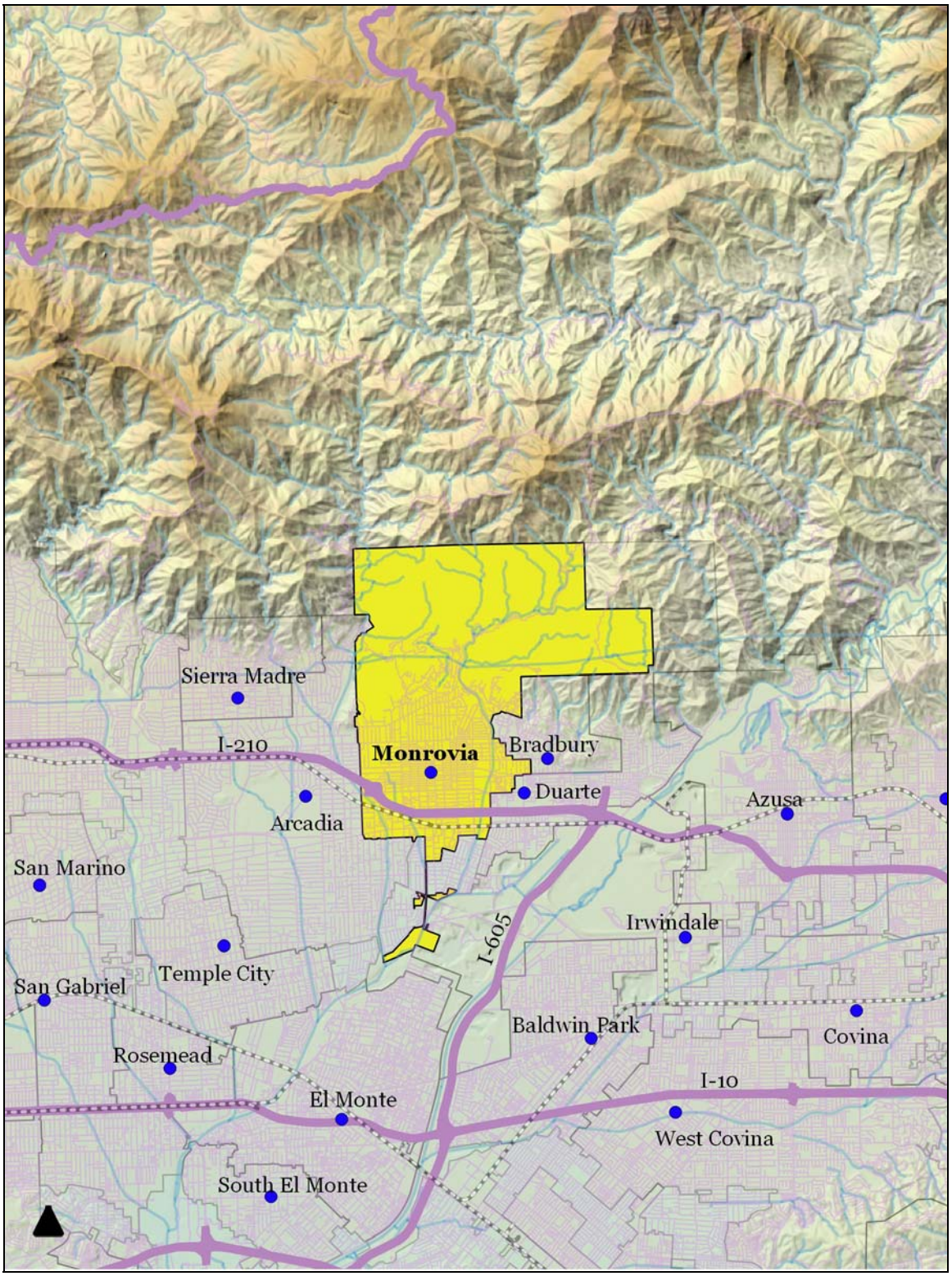

EXHIBIT 2-1
REGIONAL LOCATION MAP
Source: Quantum GIS

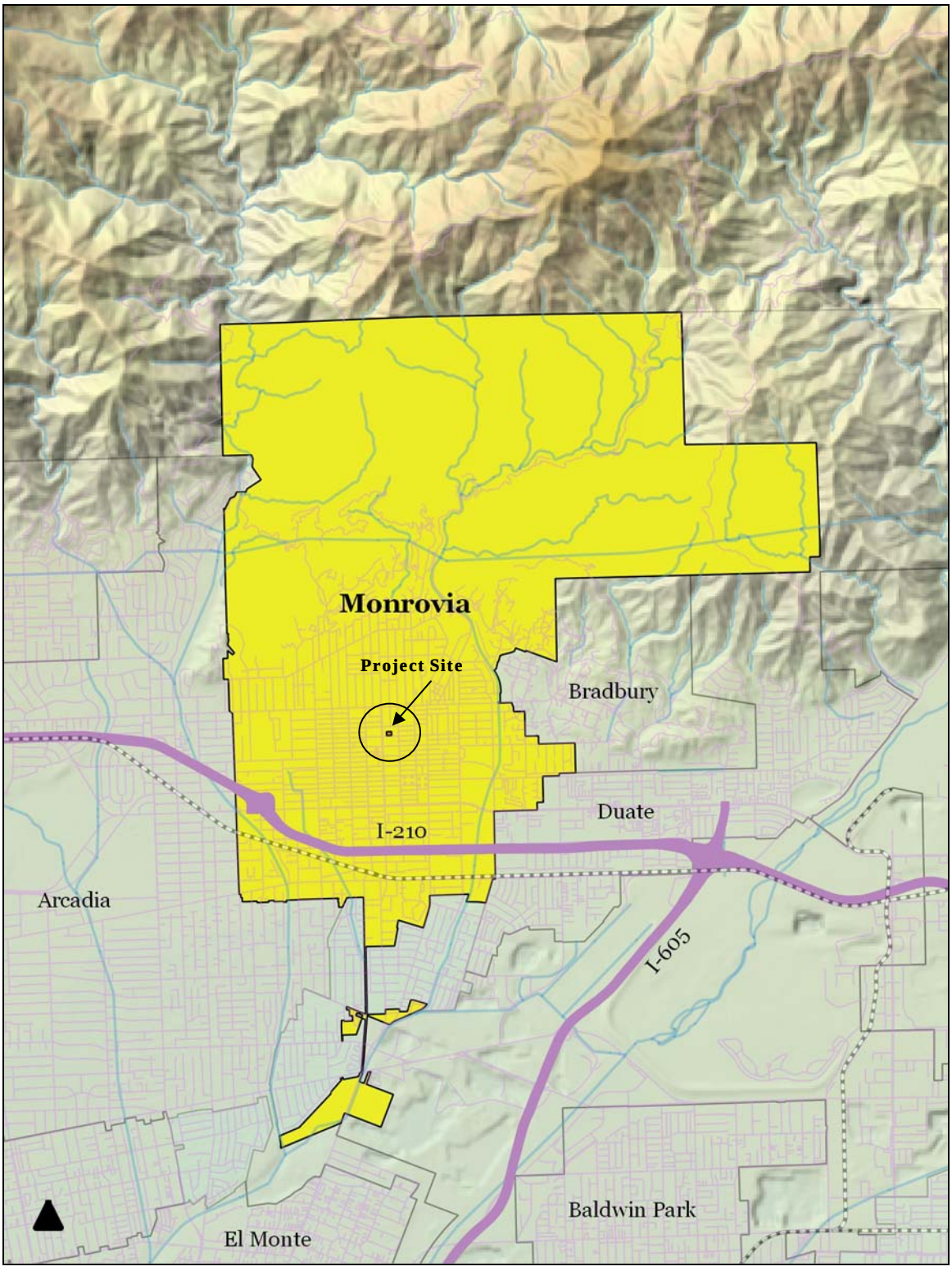

EXHIBIT 2-2
CITYWIDE MAP
Source: Quantum GIS

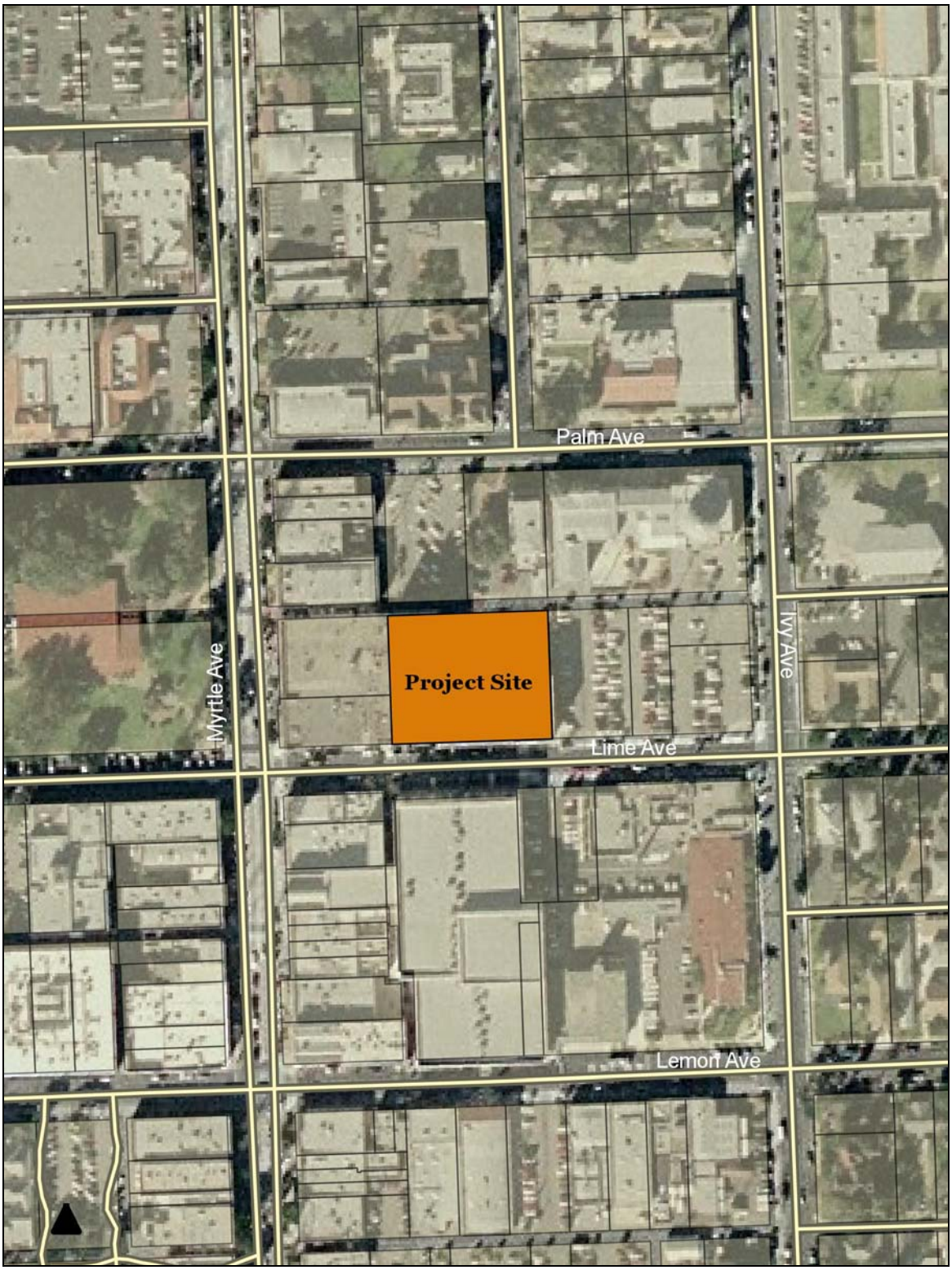

EXHIBIT 2-3
LOCAL MAP
Source: Quantum GIS

3. ENVIRONMENTAL SETTING

The project site is located within Downtown Monrovia. The surrounding land uses are described in detail below:

- *North of the site*. Multiple land uses including a church, surface parking, and retail are located north of the project site. An alley extends along the north side of the site in an east to west orientation.[2]

- *South of the site*. Lime Avenue extends along the south side of the project site in an east to west orientation. Various commercial uses including retail, a movie theater, and restaurants occupy frontage along the south side of Lime Avenue. In addition, the Monrovia Police Department and City Hall are located along the south side of Lime Avenue.[3]

- *East of the site*. A public parking lot abuts the site to the east. This lot is located at the northwest corner of the Ivy Avenue and Lime Avenue intersection.[4]

- *West of the site*. Various commercial uses abut the project site to the west.[5] These uses occupy frontage along the east side of Myrtle Avenue.[6]

The project site is presently occupied by an existing 92,249 square-foot building. The building's tenant is Frontier Communications. The project will adaptively reuse the existing building.

4. PROJECT DESCRIPTION

4.1 PHYSICAL CHARACTERISTICS

The project is an application for the General Plan Code Amendment, Zone Change, Tentative Parcel Map, and Conditional Use Permit (collectively "entitlements") and operation of a 92,249 square feet commercial use consisting of 86,729 square feet of self storage and management office space and 5,520 square feet of commercial space. The project will consist of the following elements:

- *Project Site*. The project will be redeveloped on a 0.73-acre (31,799 square feet) site located along the north side of Lime Avenue. The site consists of three parcels: 8516-01-2800, 8516-01-2801, and 8516-01-2802. The site has a lot depth (north to south) of 160 feet and a lot width (east to west) of 200 feet.

[2] Blodgett Baylosis Environmental Planning. *Site survey*. Survey was conducted on March 1, 2019.

[3] Ibid.

[4] Ibid.

[5] Ibid.

[6] Google Earth. Website Accessed March 1, 2019.

- *Building Overview*. As indicated previously, the proposed project will utilize the existing building. Of the total amount of floor area that is provided, 86,729 square feet will consist of self storage and management office space and 5,520 square feet will consist of commercial and commercial hallway space. This building encompasses 92,249 square feet and contains four floors and a basement. In addition, the building has a floor area ratio (FAR) of 2.90 to 1.0. A total of 668 storage units will be provided.[7]

- *First Floor*. The first floor will total 19,863 square feet and will contain 5,520 square feet of commercial space (4,536 square feet) and commercial hallway (984 square feet), and 13,370 square feet of storage space. The first floor will contain 90 storage units. A total of four commercial units will be provided (referred to herein as Unit 1 through 4). Unit 1 will have a total floor area of 1,334 square feet; Unit 2 will have a total floor area of 796 square feet; Unit 3 will have a total floor area of 977 square feet; and Unit 4 will have a total floor area of 1,429 square feet.

- *Second Floor*. The second floor will consist of 21,146 square feet. The second floor will contain 167 storage units.

- *Third Floor*. The third floor will consist of 21,146 square feet. The third floor will contain 167 storage units.

- *Fourth Floor*. The fourth floor will consist of 9,088 square feet. The fourth floor will contain 81 storage units.

- *Basement*. The basement will consist of 21,006 square feet. The basement will contain 163 storage units.

- *Parking and Access*. Access to the proposed project will be provided by a 30-foot wide driveway located along the south side of the adjacent alley. A total of 19 parking spaces including two spaces compliant with the American's with Disabilities Act (ADA) will be provided. In addition, the proposed project will provide ten bicycle parking spaces.

The proposed project is summarized in Table 4-1 shown on the following pages.

[7] KSP Studio. *Conceptual Site Plan*. Plan dated February 7, 2019.

Table 4-1
Project Summary Table

Project Element	Description
Site Area	0.73 acres (31,799 sq. ft.)
Total Building Area	92,249 sq. ft.
Storage Space	85,756 sq. ft.
Commercial Space	4,536 sq. ft.
Commercial Hallway	984 sq.ft.
Management Office Space	973 sq. ft.
Total No. of Storage Units	668 storage units
Floor Area - First Floor	19,863 sq. ft.
Floor Area - Second Floor	21,146 sq. ft.
Floor Area - Third Floor	21,146 sq. ft.
Floor Area - Fourth Floor	9,088 sq. ft.
Floor Area - Basement	21,006 sq. ft.
No. of Storage Units - First Floor	90 storage units
No. of Storage Units - Second Floor	167 storage units
No. of Storage Units - Third Floor	167 storage units
No. of Storage Units - Fourth Floor	81 storage units
No. of Storage Units - Basement	163 storage units
Floor Area - Commercial Unit 1	1,334 sq. ft.
Floor Area - Commercial Unit 2	796 sq. ft.
Floor Area - Commercial Unit 3	977 sq. ft.
Floor Area - Commercial Unit 4	1,429 sq. ft.
Lot Coverage	62%
FAR	2.90 to 1.0
Parking Spaces	19 stalls

Source: KSP Studio. *Conceptual Site Plan.*

4.2 CONSTRUCTION CHARACTERISTICS

As indicated previously, the project will utilize the existing building located on-site. The building and parking area renovations are anticipated to last for approximately seven months and would include the remodeling of the building's interior and exterior, the addition of new landscaping, and the inclusion of new parking spaces, and the installation of new fencing. The building's façade will be updated and new signage will be installed.

4.3 OPERATIONAL CHARACTERISTICS

The leasing office will be open from 9:00 AM to 6:00 PM Monday through Saturday and 10:00 AM to 5:00 PM on Sunday, with an on-site manager, who will be an employee of the storage facility. The proposed business will employ approximately five employees though no more than two employees will be on-site at any given time.[14] Each storage unit will be individually alarmed and the entire facility will be

[14] Based on a ratio of 0.06 employees per 1,000 square feet derived from the SANDAG.

monitored by 24-hour surveillance cameras. In addition, computer coded gate access will control who can enter the facility. The tenants that will occupy the four office/retail units are not yet known. In addition, the hours of operation cannot be determined until a tenant has been found. The office/retail component of the project is anticipated to add an estimated 18 new jobs based on a ratio of 25.76 employees per acre.[15] Thus, the project's overall employment generation is anticipated to be 23 new jobs.

5. AIR QUALITY ANALYSIS

5.1 THRESHOLDS OF SIGNIFICANCE

According to Appendix G, a project may be deemed to have a significant environmental impact on air quality, if it results in any of the following:

- A conflict with the obstruction of the implementation of the applicable air quality plan;
- A violation of an air quality standard or contribute substantially to result in a cumulatively considerable net increase in an existing or projected air quality violation;
- The exposure of sensitive receptors to substantial pollutant concentrations; or,
- The result in substantial emissions (such as odors or dust) adversely affecting a substantial number of people.

The South Coast Air Quality Management District (SCAQMD) has established quantitative thresholds for short-term (construction) emissions and long-term (operational) emissions for the following criteria pollutants:

- *Ozone (O_3)* is a nearly colorless gas that irritates the lungs, damages materials, and vegetation. Ozone is formed by photochemical reaction (when nitrogen dioxide is broken down by sunlight).
- *Carbon monoxide (CO)* is a colorless, odorless toxic gas that interferes with the transfer of oxygen to the brain and is produced by the incomplete combustion of carbon-containing fuels emitted as vehicle exhaust.
- *Nitrogen dioxide (NO_2)* is a yellowish-brown gas, which at high levels can cause breathing difficulties. NO_2 is formed when nitric oxide (a pollutant from internal combustion) combines with oxygen.
- *Sulfur dioxide* (SO_2) is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Health effects include acute respiratory symptoms and difficulty in breathing for children.

[15] The Natelson Company, Inc. *Employment Density Study Summary Report*. October 31, 2001.

- *PM_{10} and $PM_{2.5}$* refers to particulate matter less than ten microns and two and one-half microns in diameter, respectively. Particulates of this size cause a greater health risk than larger-sized particles since fine particles can more easily cause irritation.

Projects in the South Coast Air Basin (SCAB) generating construction-related emissions that exceed any of the following emissions thresholds are considered to be significant under CEQA:

- 75 pounds per day of reactive organic compounds;
- 100 pounds per day of nitrogen dioxide;
- 550 pounds per day of carbon monoxide;
- 150 pounds per day of PM_{10};
- 55 pounds per day of $PM_{2.5}$; or,
- 150 pounds per day of sulfur oxides.

A project would have a significant effect on air quality if any of the following operational emissions thresholds for criteria pollutants are exceeded:

- 55 pounds per day of reactive organic compounds;
- 55 pounds per day of nitrogen dioxide;
- 550 pounds per day of carbon monoxide;
- 150 pounds per day of PM_{10};
- 55 pounds per day of $PM_{2.5}$; or,
- 150 pounds per day of sulfur oxides.

5.2 ENVIRONMENTAL ANALYSIS

A. Would the project conflict with or obstruct implementation of the applicable air quality plan? ● Less than Significant Impact.

The project site is located within the South Coast Air Basin, which covers a 6,600 square-mile area within Los Angeles, the non-desert portions of Los Angeles County, Riverside County, and San Bernardino County.[16] Measures to improve regional air quality are outlined in the SCAQMD's Air Quality Management Plan (AQMP).[17] The most recent AQMP was adopted in 2017 and was jointly prepared with the California Air Resources Board (CARB) and the Southern California Association of Governments (SCAG).[18] The AQMP will help the SCAQMD maintain focus on the air quality impacts of major projects associated with goods movement, land use, energy efficiency, and other key areas of growth. Key elements of the 2016 AQMP include enhancements to existing programs to meet the 24-hour $PM_{2.5}$ Federal health standard and a proposed plan of action to reduce ground-level ozone. The primary criteria pollutants that remain non-attainment in the local area include $PM_{2.5}$ and ozone.

[16] South Coast Air Quality Management District, *Final 2016 Air Quality Plan*. Adopted March 2017.

[17] Ibid.

[18] Ibid.

Specific criteria for determining a project's conformity with the AQMP is defined in Section 12.3 of the SCAQMD's CEQA Air Quality Handbook. The Air Quality Handbook refers to the following criteria as a means to determine a project's conformity with the AQMP: *Consistency Criteria 1* refers to a project's potential for resulting in an increase in the frequency or severity of an existing air quality violation or its potential for contributing to the continuation of an existing air quality violation and *Consistency Criteria 2* refers to a project's potential for exceeding the assumptions included in the AQMP or other regional growth projections relevant to the AQMP's implementation.[19]

Criteria 1

In terms of Criteria 1, the proposed project's long-term (operational) airborne emissions will be below levels that the SCAQMD considers to be a significant impact. Refer to the analysis included in the next section where the long-term stationary and mobile emissions for the proposed project are summarized in Table 5-2. In addition, the proposed project's operational emissions will be well within the emissions projections identified in the most recent AQMP. As shown in Table 3-5 of the Final 2016 AQMP, the future 2031 daily operational emissions of the entire City of Monrovia *with* the estimated population, employment, and VMT growth projections are estimated to be: 345 tons per day of VOCs; 214 tons per day of NOx; 1,188 tons per day of CO; 18 tons per day of SOx; and 65 tons per day of $PM_{2.5}$. The proposed project's operational emissions will be well within the emissions projections estimated in the 2016 AQMP.

Criteria 2

The proposed project will also conform to Consistency Criteria 2 since it will not significantly affect any regional population, housing, and employment projections prepared for the City of Monrovia. Projects that are consistent with the projections of employment and population forecasts identified in the SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) are considered consistent with the AQMP growth projections, since the RTP/SCS forms the basis of the land use and transportation control portions of the AQMP. According to the Growth Forecast Appendix prepared by SCAG for the 2016-2040 RTP/SCS, the City of Monrovia is projected to add a total of 3,600 new jobs through the year 2040.[20]

The proposed project will result in a potential employment generation of up to 23 new jobs. The self storage component will employ approximately five employees, though no more than two employees will be on-site at any given time.[21] The tenants that will occupy the commercial units are not yet known. In addition, the hours of operation cannot be determined until a tenant has been found. The commercial component of the proposed project is estimated to add an estimated 18 new jobs based on a ratio of 25.76 employees per acre.[22] The projected number of new jobs is well within SCAG's employment projections for the City of Monrovia and the proposed project will not violate Consistency Criteria 2. Since the

[19] South Coast Air Quality Management District. *CEQA Air Quality Handbook*. April 1993.

[20] Southern California Association of Governments. *Regional Transportation Plan/Sustainable Communities Strategy 2016-2040. Demographics & Growth Forecast*. April 2016.

[21] Based on a ratio of 0.06 employees per 1,000 square feet derived from the SANDAG.

[22] The Natelson Company, Inc. *Employment Density Study Summary Report*. October 31, 2001.

proposed project will not be in violation of either Consistency Criteria, the proposed project's impacts are less than significant.

B. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? ● Less than Significant Impact.

The analysis of daily construction emissions has been prepared utilizing the California Emissions Estimator Model (CalEEMod V.2016.3.2) developed for the SCAQMD (these worksheets are provided under Appendix A). The proposed project's construction will include minor interior demolition, site preparation, minor interior construction, and finishing activities (paving, painting, and the planting of landscaping). The assumptions regarding the construction phases and the length of construction followed those identified herein in Section 4.2. The remodeled building will include 85,756 square feet of self storage space and 973 square feet of self storage office space, for a total of 86,729 square feet dedicated to self-storage uses. Four ground-level commercial tenant spaces and a commercial hallway (totaling 5,520 square feet) not related to the self storage use will also be provided. It is important to note that the 5,520 square feet of commercial space (including the 984 square feet commercial hallway), was analyzed entirely as office in an effort to be more conservative. In order to be consistent with the Traffic Memorandums, 86,729 square feet dedicated to self-storage uses and 5,520 square feet of commercial space (including the 984 square feet commercial hallway) was analyzed in the CalEEMod. As shown in Table 5-1, daily construction emissions will not exceed the SCAQMD's significance thresholds.

Table 5-1
Estimated Daily Construction Emissions

Construction Phase	ROG	NO_2	CO	SO_2	PM_{10}	$PM_{2.5}$
Demolition (on-site)	2.29	22.67	14.89	0.02	1.28	1.20
Demolition (off-site)	0.06	0.04	0.58	--	0.14	0.03
Total Demolition	**2.29**	**22.71**	**15.47**	**0.02**	**1.42**	**1.23**
Site Preparation (on-site)	1.75	21.53	11.91	0.02	1.33	0.83
Site Preparation (off-site)	0.03	0.02	0.35	--	0.09	0.02
Total Site Preparation	**1.78**	**21.55**	**12.26**	**0.02**	**1.42**	**0.85**
Grading (on-site)	2.92	33.41	16.01	0.03	13.89	8.08
Grading (off-site**)**	0.17	0.12	1.61	--	0.75	0.19
Total Grading	**3.09**	**33.53**	**17.62**	**0.03**	**14.64**	**8.27**
Building Construction (on-site)	2.44	19.01	16.60	0.02	1.04	1.00
Building Construction (off-site)	0.44	3.37	3.85	0.01	1.93	0.51
Total Building Construction	**2.88**	**22.38**	**20.45**	**0.03**	**2.97**	**1.51**
Paving (on-site)	1.15	11.58	11.80	0.01	0.65	0.60
Paving (off-site)	0.06	0.04	0.61	--	0.16	0.04
Total Paving	**1.21**	**11.62**	**12.41**	**0.01**	**0.81**	**0.64**
Architectural Coatings (on-site)	20.12	1.68	1.83	--	0.11	0.11
Architectural Coatings (off-site)	0.07	0.04	0.65	--	0.33	0.08
Total Architectural Coatings	**20.19**	**1.72**	**2.48**	**--**	**0.44**	**0.19**
Maximum Daily Emissions	**20.20**	**33.53**	**20.46**	**0.04**	**14.64**	**8.27**
Daily Thresholds	**75**	**100**	**55o**	**150**	**150**	**55**

The proposed project's construction will be required to adhere to all SCAQMD regulations related to fugitive dust generation and other construction-related emissions. A majority of the proposed project's construction will occur indoors. Outdoor construction will be limited to the application of exterior paint, repaving of the rear parking area, the addition of new landscaping, and the installation of new fencing on the east side of the property. Long-term emissions refer to those air quality impacts that will occur once the proposed project has been constructed, is operational, and continue over the operational life of the proposed project.

The long-term air quality impacts associated with the proposed project include mobile emissions associated with vehicular traffic. The analysis of long-term operational impacts also used the CalEEMod computer model. As indicated in Table 5-2, the projected long-term emissions will also be below thresholds of significance. As indicated previously, 86,729 square feet dedicated to self-storage uses and 5,520 square feet of commercial space (including the 984 square feet commercial hallway) was analyzed in the CalEEMod computer model. It is important to note that the 5,520 square feet of commercial space (including the 984 square feet commercial hallway), was analyzed entirely as office in an effort to be more conservative.

Table 5-2
Estimated Operational Emissions in lbs/day - Unmitigated

Emission Source	ROG	NO_2	CO	SO_2	PM_{10}	$PM_{2.5}$
Area-wide (lbs/day)	2.06	--	--	--	--	--
Energy (lbs/day)	--	0.03	0.03	--	--	--
Mobile (lbs/day)	0.41	2.13	5.91	0.02	1.76	0.48
Total (lbs/day)	**2.47**	**2.16**	**5.95**	**0.02**	**1.76**	**0.48**
Daily Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Significant Impact?	**No**	**No**	**No**	**No**	**No**	**No**

Source: California Air Resources Board CalEEMod [computer program].

As indicated in Table 5-2, the projected long-term emissions are below thresholds considered to represent a significant impact. As a result, no mitigation is required beyond the standard regulations required by the SCAQMD, and the impacts will be less than significant.

C. Would the project expose sensitive receptors to substantial pollutant concentrations? ● Less than Significant Impact with Mitigation.

Sensitive receptors refer to land uses and/or activities that are especially sensitive to poor air quality and typically include homes, schools, playgrounds, hospitals, convalescent homes, and other facilities where children or the elderly may congregate.[23] These population groups are generally more sensitive to poor air quality. The nearest sensitive receptors to the project site include the United Methodist Church located 140 feet to the northeast of the project site (refer to Exhibit 5-1). This aforementioned receptor is located along the west side of Ivy Avenue.

[23] South Coast Air Quality Management District. *CEQA Air Quality Handbook, Appendix 9*. As amended 2017.

EXHIBIT 5-1
NEARBY SENSITIVE RECEPTORS
SOURCE: QUANTUM GIS

The SCAQMD requires that CEQA air quality analyses indicate whether a project will result in an exceedance of *localized emissions thresholds* or LSTs. LSTs apply to short-term (construction) emissions at a fixed location and do not include off-site or regional emissions. The approach used in the analysis of the proposed project utilized a number of screening tables that identified maximum allowable emissions (in pounds per day) at a specified distance to a receptor. The pollutants that are the focus of the LST analysis include the conversion of NO_x to NO_2; carbon monoxide (CO) emissions from construction; PM_{10} emissions from construction; and $PM_{2.5}$ emissions from construction. The use of the "look-up tables" is typically used for projects proposed on less than five acres of land area. The project site consists of 0.73 acres. Therefore, for the purposes of the LST analysis, the receptor distance used was 50 meters (roughly 140 feet). The proposed project's LST emissions are shown in Table 5-3.

Table 5-3
Local Significance Thresholds Exceedance SRA 9 for 1-Acre of Disturbance

Emissions	Proposed Project	Type	Allowable Emissions Threshold (lbs/day) and a Specified Distance from Receptor (in meters)				
			25	5o	100	200	500
NO_x	33.53	Construction	89	**112**	159	251	489
CO	20.46	Construction	623	**945**	1,914	4,803	20,721
PM_{10}	7.12*	Construction	5	**14**	34	75	199
$PM_{2.5}$	4.22*	Construction	3	**5**	9	22	94

Source: CalEEMod Version 2016.3.2.
*= Note: These figures take into account the water of the site up to three times per day, which is a standard condition required by the SCAQMD.

As indicated in Table 5-3, the emissions generated by the construction of the proposed project will not exceed the LSTs identified above.

The proposed project will be a remodel of the existing on-site building. Due to the age of the buildings on-site, Asbestos Containing Materials (ACM) may be present and may be released during the interior construction and demolition activities in the absence of mitigation. An Asbestos and Lead Based Paint Survey was conducted for the proposed project by Ardent. The results of the survey were summarized in a report dated December 20, 2018, which is provided in Appendix B. The results of the asbestos survey indicate that ACM and Asbestos Containing Construction Materials (ACCM) are present in the building. The EPA and State of California specify that ACM and ACCM classified as friable, or that could become friable during demolition, are to be removed prior to demolition activities.[24]

According to the EPA, non-friable ACM or ACCM represents a minimal hazard to the occupants of a building as long as the material is in a generally undamaged condition and used for its intended purpose. The National Emission Standards for Hazardous Air Pollutants (NESHAPs) require that both friable and non-friable ACM that could become friable be removed prior to renovation or demolition of buildings. The State of California Department of Occupational Safety and Health requires that friable and non-friable ACCM be removed prior to disturbance. As a result, mitigation measure No. 1 is required.[25] In

[24] Ardent Environmental Group, Inc. *Asbestos and Lead Based Paint Survey*. Report dated December 20, 2018.

[25] Ibid.

addition, standard City conditions have been added later in this section with the identified mitigation measure. The removal of lead based paint and/or asbestos containing materials will also be done in accordance with SCAQMD Rule 1403-Asbestos Emissions from Demolition/Renovation Activities. Therefore, the proposed project's interior renovations will not affect the nearby sensitive receptors since ACM removal will be done in accordance with SCAQMD guidelines. ACMs are removed using special vacuums and the rooms are sealed off to prevent diffusion.

An analysis of construction diesel particulate matter (DPM) was performed although the proposed project will involve only minor interior and exterior alterations. Heavy construction equipment that consumes diesel fuel and produces DPM emissions will be in limited use indoors. Outdoor construction will involve façade improvements, the installation of new lighting, new landscaping, exterior painting, and repaving. The construction and installation of these improvements will occur over a limited duration. In addition, the closest sensitive receptors include the United Methodist Church, located 140 feet to the northeast of the project site.

Work done in the parking areas may require the use of a single backhoe, though medium sized trucks will travel to the site carrying construction materials and workers. An analysis of mobile source emissions was performed for idling trucks, trucks travelling to the project site, and for backhoe operations. The 2017 EMFAC emissions factors for LHD2 vehicles, or Light-Heavy-Duty trucks weighing no more than 14,000 pounds, were utilized in order to perform the analysis for construction trucks. Meanwhile, the emission factors from backhoes were derived from the SCAQMD. Construction vehicles will use the existing alley located along the site's northern boundary. These vehicles will travel approximately 275 feet from the alley's connection with Ivy Avenue to the project site, or a distance of 0.05 miles, at an average speed of ten miles per hour. According to the CalEEMod, there will be no more than 38 workers on-site at a time. Assuming five workers per truck, there will be the potential for up to eight trucks carrying passengers. Table 5-4 shown below depicts the estimated mobile source emissions during construction. As shown in the table, the project's construction will result in negligible construction emissions.

Table 5-4
Mobile Source Emissions from Construction Equipment

Pollutants	Emissions Factors	Number of Hours	Distance in miles	Number of Vehicles	Emissions
Operational Emissions – Backhoe					
PM Exhaust during Backhoe Operations (pounds/hour)	0.0160	8	--	1	0.128 pounds per day
Operational Emissions – Construction Trucks					
PM10 Exhaust at Idle (grams/vehicle/day)	0.27616843	--	--	8	2.20 grams per day, or 0.004 pounds per day
PM10 Exhaust at 10 mph (grams/mile)	0.030146605	--	0.10	8	0.24 grams per day, or 0.0005 pounds per day
PM2.5 Exhaust at Idle (grams/vehicle/day)	0.02642215	--	--	8	0.21 grams per day, or 0.0004 pounds per day
PM2.5 Exhaust at 10 mph (grams/mile)	0.028842476	--	0.10	8	0.02 grams per day, or -- pounds per day

Source: 2017 EMFAC Factors

Once operation, a single loading door will be provided along the building's north facing elevation. This loading door will only have capacity to accommodate one truck at a time. Furthermore, the type of use that is proposed (self-storage, office, and retail) generally does not involve the utilization of large trucks. The trucks that will travel to the site once the project is operational will consist of smaller trucks similar to U-Haul vehicles. These vehicles typically consume regular unleaded gasoline and will have an average length of 20 feet. An analysis of mobile source emissions was performed for idling U-Haul type vehicles and similar vehicles travelling to the site. The 2017 EMFAC emissions factors for LHD2 vehicles, or gasoline powered Light-Heavy-Duty trucks weighing no more than 14,000 pounds, were utilized in order to perform the analysis. These trucks will use the existing alley located along the site's northern boundary and will travel approximately 275 feet from the alley's connection with Ivy Avenue to the project site, or a distance of 0.05 miles, at average speed of ten miles per hour. As stated in Section 3.17.A of the IS/MND, the self-storage portion of the project will result in 131 trips per day. Assuming ten percent of those trips consist of U-Haul type vehicles, there may be up to 13 U-Haul type vehicle trips per day to the site. Table 5-5 shown below depicts the estimated mobile source emissions from future U-Haul type trucks. As shown in the table, the project's operation will result in negligible emissions.

Table 5-5
Mobile Source Emissions from U-Haul Type Vehicles

Pollutants	Emissions Factors	Distance in miles	Number of U-Haul Vehicles	Emissions
PM10 Exhaust at Idle (grams/vehicle/day)	0.0	--	13	--
PM10 Exhaust at 10 mph (grams/mile)	0.000454526	0.10	13	--
PM2.5 Exhaust at Idle (grams/vehicle/day)	0.0	--	13	--
PM2.5 Exhaust at 10 mph (grams/mile)	0.00041792	0.10	13	--

Source: 2017 EMFAC Factors

Most vehicles generate carbon monoxide (CO) as part of the tail-pipe emissions and high concentrations of CO along busy roadways and congested intersections are a concern. The areas surrounding the most congested intersections are often found to contain high levels of CO that exceed applicable standards and are referred to as *hot-spots*. Three variables influence the creation of a CO hot-spot: traffic volumes, traffic congestion, and the background CO concentrations for the source receptor area. Typically, a CO hot-spot may occur near a street intersection that is experiencing severe congestion (a LOS E or LOS F) where idling vehicles result in ground level concentrations of carbon monoxide. However, within the last decade, decreasing background levels of pollutant concentrations and more effective vehicle emission controls have significantly reduced the potential for the creation of hot-spots. The SCAQMD stated in its CEQA Handbook that a CO hot-spot would not likely develop at an intersection operating at LOS C or better. Since the Handbook was written, there have been new CO emissions controls added to vehicles and reformulated fuels are now sold in the SCAB. These new vehicle emissions controls, along with the reformulated fuels, have resulted in a lowering of both ambient CO concentrations and vehicle emissions. As a result, with the aforementioned mitigation, the potential impacts are considered to be less than significant.

D. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? ● Less than Significant Impact.

The SCAQMD has identified land uses that are typically associated with odor complaints. These uses include activities involving livestock, rendering facilities, food processing plants, chemical plants, composting activities, refineries, landfills, and businesses involved in fiberglass molding.[26] The proposed project involves the operation of a self storage facility and four office/retail tenants. Given the nature of the proposed use, no impacts related to odors are anticipated with the proposed project. In addition, the project site is not located in the vicinity of any odor generating use.

The emissions from the equipment that will be used on-site during the construction phase will be minor. Idling from construction vehicles and equipment will be restricted to five minutes or less based on standard SCAQMD protocols. Therefore, odors generated by diesel powered equipment will be less than significant. In addition, the project Applicant will be required to adhere to the following standard conditions, which are mandatory for all projects that are proposed within the City:

- The Applicant must comply with South Coast Air Quality Management District Rule 403, Fugitive Dust, by incorporating best available control measures during construction. This Standard Condition shall be printed on construction drawings and included as a requirement in the construction contract.

- The Applicant must comply with South Coast Air Quality Management District Rule 1403, Asbestos Emissions from Demolition/Renovation Activities, to reduce asbestos containing materials (ACM) or asbestos containing construction materials (ACCM) during demolition or construction.

- The Applicant must comply with South Coast Air Quality Rule 1113, Architectural Coatings, to reduce Volatile Organic Compound (VOC) emissions from architectural coating applications. Prior to the issuance of a building permit for the Project, the Applicant shall submit, to the satisfaction of the Planning Division, a Coating Restriction Plan (CRP), consistent with South Coast Air Quality Management District (SCAQMD) guidelines. The Applicant shall include in any construction contracts and/or subcontracts a requirement that project contractors adhere to the requirements of the CRP. The CRP shall include a requirement that all interior and exterior residential and non-residential architectural coatings used in project construction meet the SCAQMD "super compliant" coating VOC content standard of less than 10 grams of VOC per liter of coating. The CRP shall also specify the use of high-volume, low pressure spray guns during coating applications to reduce coating waste.

As a result, the potential impacts are anticipated to be less than significant.

5.3 MINIMIZATION AND REDUCTION MEASURES

The analysis of air quality impacts indicated that the following mitigation will be required with respect to the removal of LBP and ACM:

[26] South Coast Air Quality Management District. *CEQA Air Quality Handbook,* As amended 2017.

Standard Conditions

SC AIR-1. The Applicant must comply with South Coast Air Quality Management District Rule 403, Fugitive Dust, by incorporating best available control measures during construction. This Standard Condition shall be printed on construction drawings and included as a requirement in the construction contract.

SC AIR-2. The Applicant must comply with South Coast Air Quality Management District Rule 1403, Asbestos Emissions from Demolition/Renovation Activities, to reduce asbestos containing materials (ACM) or asbestos containing construction materials (ACCM) during demolition or construction.

SC AIR-3. The Applicant must comply with South Coast Air Quality Rule 1113, Architectural Coatings, to reduce Volatile Organic Compound (VOC) emissions from architectural coating applications. Prior to the issuance of a building permit for the Project, the Applicant shall submit, to the satisfaction of the Planning Division, a Coating Restriction Plan (CRP), consistent with South Coast Air Quality Management District (SCAQMD) guidelines. The Applicant shall include in any construction contracts and/or subcontracts a requirement that project contractors adhere to the requirements of the CRP. The CRP shall include a requirement that all interior and exterior residential and non-residential architectural coatings used in project construction meet the SCAQMD "super compliant" coating VOC content standard of less than 10 grams of VOC per liter of coating. The CRP shall also specify the use of high-volume, low pressure spray guns during coating applications to reduce coating waste.

Mitigation Measures

Mitigation Measure No. 1 (Air Quality). At no time shall the identified asbestos containing materials (ACM) or asbestos containing construction materials (ACCM) be drilled, cut, sanded, scraped, or otherwise disturbed by untrained personnel. These materials shall be removed prior to any activities which will disturb these materials. Asbestos disturbance and/or removal must be conducted by a California Division of Occupational Safety and Health (DOSH) registered and State licensed asbestos removal contractor. Disturbance and/or abatement operations shall be performed under the direct supervision of a California Certified Asbestos Consultant or Certified Site Surveillance Technician.

6. GREENHOUSE GAS EMISSIONS ANALYSIS

6.1 THRESHOLDS OF SIGNIFICANCE

According to Appendix G, a project may be deemed to have a significant environmental impact on air quality, if it results in any of the following:

- The generation of greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and,

- The potential for conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases.

6.2 ENVIRONMENTAL ANALYSIS

A. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? ● Less Than Significant Impact.

The State of California requires CEQA documents to include an evaluation of greenhouse gas (GHG) emissions, or gases that trap heat in the atmosphere. GHG are emitted by both natural processes and human activities. Examples of GHG that are produced both by natural and industrial processes include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). The accumulation of GHG in the atmosphere regulates the earth's temperature. Without these natural GHG, the Earth's surface would be about 61°F cooler.[39] However, emissions from fossil fuel combustion have elevated the concentrations of GHG in the atmosphere to above natural levels. The SCAQMD has established multiple draft thresholds of significance. These thresholds include 1,400 metric tons of CO_2E ($MTCO_2E$) per year for commercial projects, 3,500 $MTCO_2E$ per year for residential projects, 3,000 $MTCO_2E$ per year for mixed-use projects, and 7,000 $MTCO_2E$ per year for industrial projects. The SCAQMD currently has an established threshold of 10,000 $MTCO_2E$ per year for industrial development (according to the SCAQMD, this threshold may be used for all type of development if the lead agency does not have a threshold identified).[40] The 1,400 MTCO2E per year threshold was used in an effort to be conservative.

The remodeled building will include 85,756 square feet of self storage space and 973 square feet of self storage office space, for a total of 86,729 square feet dedicated to self-storage uses. Four ground-level commercial tenant spaces and a commercial hallway (totaling 5,520 square feet) not related to the self storage use will also be provided. In order to be consistent with the Traffic Memorandums, 86,729 square feet dedicated to self-storage uses and 5,520 square feet of commercial space (including the 984 square feet commercial hallway) was analyzed in the CalEEMod.

Table 6-1 summarizes annual greenhouse gas (CO_2E) emissions from the proposed project. Carbon dioxide equivalent, or CO_2E, is a term that is used for describing different greenhouses gases in a common and collective unit. As indicated in Table 6-1, the CO_2E total for the proposed project is 629.94 $MTCO_2E$

[39] California, State of. OPR Technical Advisory – CEQA and Climate Change: Addressing Climate Change through the California Environmental Quality Act (CEQA) Review. June 19, 2008.

[40] Phone Call with Ms. Lijin Sun of the SCAQMD.

per year, which is below the aforementioned threshold. The project's construction will result in an annual generation of 150.68 $MTCO_2E$ per year. When amortized over a 30-year period, these emissions decrease to 5.02 $MTCO_2E$ per year. These amortized construction emissions were added to the project's operational emissions to calculate the proposed project's true GHG emissions. As shown in the table, the proposed project's total operational emissions will be 634.96 $MTCO_2E$ per year, which is still below the thresholds identified for commercial land uses.

Table 6-1
Greenhouse Gas Emissions Inventory

Source	GHG Emissions (tons/year)			
	CO_2	CH_4	N_2O	CO_2E
Long-Term – Area Emissions	--	--	--	--
Long-Term - Energy Emissions	137.71	--	--	138.22
Long-Term - Mobile Emissions	329.38	0.01	--	329.77
Long-Term – Waste Emissions	17.59	1.03	--	43.58
Long-Term – Water Emissions	96.08	0.68	0.01	118.36
Long-Term - Total Emissions	**580.77**	**1.75**	**0.01**	**629.94**
Total Construction Emissions	**150.08**	**0.02**	**0.01**	**150.68**
Construction Emissions Amortized Over 30 Years				**5.02 $MTCO_2E$**
Total Operational Emissions with Amortized Construction Emissions				**634.96 $MTCO_2E$**
Significance Threshold				**1,400 $MTCO_2E$**

The GHG emissions estimates reflect what a self storage warehouse and commercial of the same location and description would generate once fully operational. It is important to note that the 5,520 square feet of commercial space (including the 984 square feet commercial hallway), was analyzed entirely as office in an effort to be more conservative. The type of activities that may be undertaken once the proposed project is operational have been predicted and accounted for in the model for the selected land use type. It is important to note that the proposed project is an "infill" development, which is seen as an important strategy in combating the release of GHG emissions. Infill development provides a regional benefit in terms of a reduction in Vehicle Miles Traveled (VMT) since the proposed project is consistent with the regional and State sustainable growth objectives identified in the State's Strategic Growth Council (SGC).[41] Infill development reduces VMT by recycling existing undeveloped or underutilized properties located in established urban areas. When development is located in a more rural setting, such as further east in the desert areas, employees, patrons, visitors, and residents may have to travel farther since rural development is often located a significant distance from employment, entertainment, and population centers. Consequently, this distance is reduced when development is located in urban areas since employment, entertainment, and population centers tend to be set in more established communities. As a result, the impacts will be less than significant.

[41] California Strategic Growth Council. http://www.sgc.ca.gov/Initiatives/infill-development.html. Promoting and enabling sustainable infill development is a principal objective of the SGC because of its consistency with the State Planning Priorities and because infill furthers many of the goals of all of the Council's member agencies.

B. Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases? ● Less than Significant Impact.

Assembly Bill 32 (AB-32), written by Fran Pavely (Assembly Member) and Fabian Nunez (Assembly Speaker) was signed into law September 27, 2006 which requires the reduction of GHG emissions to 1990 levels, which would require a minimum 28% in "business as usual" GHG emissions for the entire State. Additionally, Governor Edmund G. Brown signed into law Executive Order (E.O.) B-30-15 on April 29, 2015, the Country's most ambitious policy for reducing Greenhouse Gas Emissions. Executive Order B-30-15 calls for a 40% reduction in greenhouse gas emissions below 1990 levels by 2030.[43] The proposed project will not involve or require any variance from an adopted plan, policy, or regulation governing GHG emissions. The emissions generated by the proposed project will be less than the thresholds of significance established for CO_2 (refer to Table 6-1). Furthermore, the proposed project will be in compliance with the City's Building Code requirements and with Part 6 and Part 11 of Title 24 of the California Code of Regulations. Since the proposed project will be in conformance with Part 6 and Part 11 regulations, the impacts will be less than significant.

6.3 MINIMIZATION AND REDUCTION MEASURES

As indicated previously, the proposed project will not result in any significant impacts with regards to the emission of GHG and no mitigation measures are required.

[43] Office of Governor Edmund G. Brown Jr. *New California Goal Aims to Reduce Emissions 40 Percent Below 1990 Levels by 2030.* http://gov.ca.gov/news.php?id=18938.

7. NOISE ANALYSIS

7.1 CHARACTERISTICS OF NOISE

Before discussing the results of the noise measurement findings, an overview of the characteristics of noise is appropriate. Noise is most often defined as unwanted sound. The decibel (dB) scale is most often used to quantify sound intensity or "loudness." Since the human ear is not equally sensitive to all frequencies within the noise spectrum, noise measurements are typically weighted more heavily within the frequencies of maximum human sensitivity using an *A-weighting* which is expressed as *dBA*. The human ear can typically detect changes in sound levels ranging from 3.0 dBA to 5.0 dBA under normal conditions. Changes in noise levels that are less than 3.0 dBA to 5.0 dBA are typically discernible by only a few persons under extremely quiet conditions.[45] Typical noise levels associated with various activities are illustrated in Exhibit 7-1.

Noise may be generated from a point source, such as machinery or from a line source such as a road containing automobile traffic. Because the area of the sound wave increases as the sound gets further and further from the source, less energy strikes any given point over the surface area of the wave. This phenomenon is known as *spreading loss*. Due to spreading loss, noise attenuates (decreases) with distance. Objects that block the line-of-sight attenuate the noise emanating from a source if the receptor is located within the shadow of the blockage (such as behind a sound wall). If a receptor is located behind the wall, but has a view of the source, the wall will do little to attenuate the noise.

Time variation in noise exposure is typically expressed in terms of the average energy over time (called Leq), or alternatively, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, the L_{50} noise level represents the noise level that is exceeded 50 percent of the time. Half the time the noise level exceeds this level and half the time the noise level is less than this level. Other values that are typically noted during a noise survey include the L_{min} and L_{max} that represent the minimum and maximum noise levels obtained over a given period. This technique was used to characterize the existing ambient noise environment discussed later in this report.

7.2 ENVIRONMENTAL SETTING

An *Extech Model 407730* Digital Sound Meter was used to conduct the noise measurements. A series of 100 discrete intervals were recorded at two separate locations (referred to herein as Location 1 and Location 2). Location 1 was situated along the north side of Lime Avenue at the pedestrian crosswalk. Location 2 was positioned at the northwest corner of the intersection of Lime Avenue and Ivy Avenue. The two measurement locations are illustrated in Exhibit 7-2. The measurements were captured five feet above the ground surface and were captured free from any obstructions. The measurements were taken on a Friday morning at 9:00 AM. Table 7-1 indicates the variation in noise levels over time during the measurement period. As indicated previously, the L_{50} noise level represents the noise level that is exceeded 50 percent of the time. Half the time the noise level exceeds this level and half the time the noise level is less than this level.

[45] U. S. Department of Transportation. Highway Traffic Noise: Analysis and Abatement Guidelines. June 2010. (Revised January 2011).

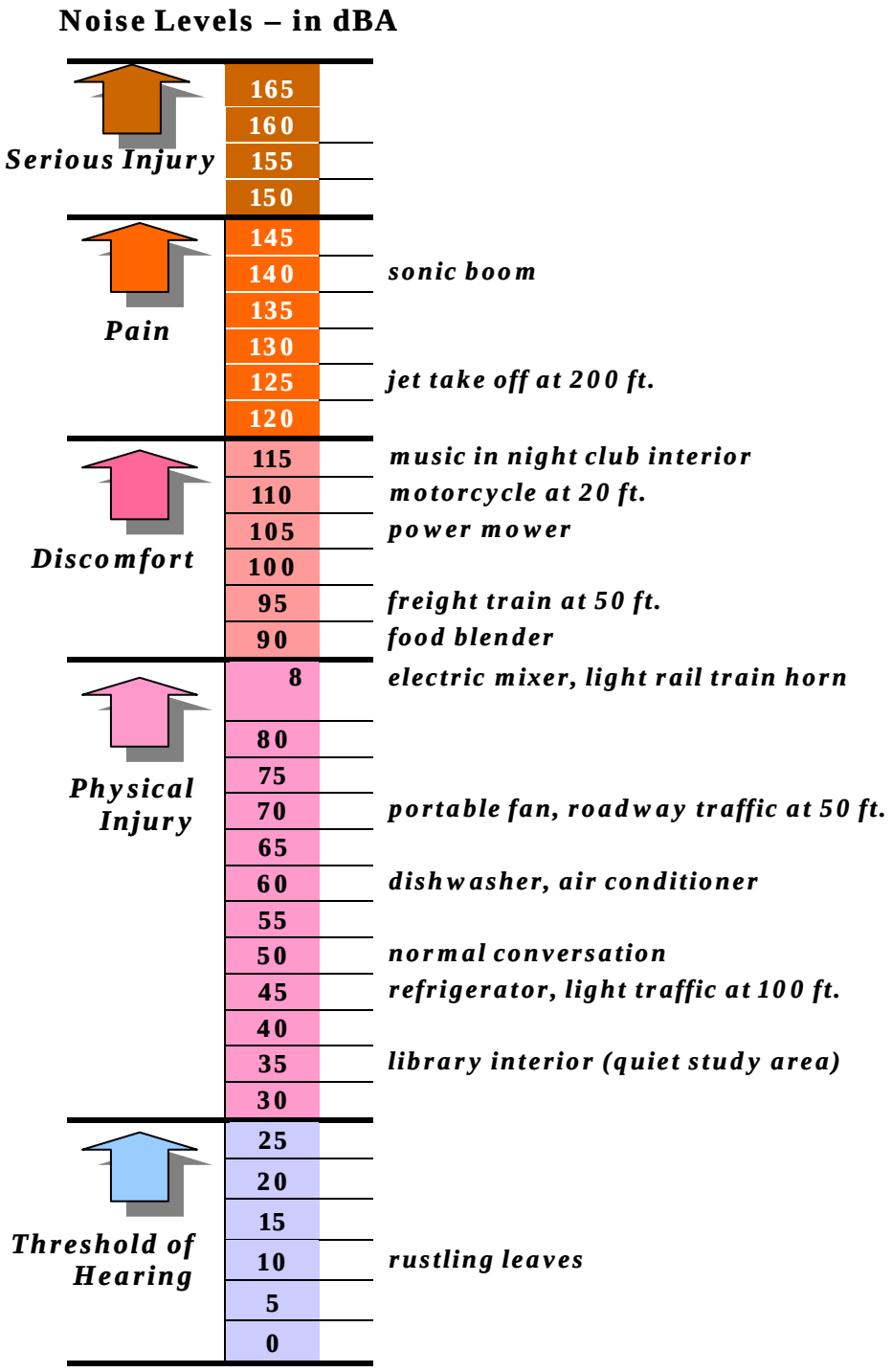

EXHIBIT 7-1
TYPICAL NOISE LEVELS
SOURCE: BLODGETT BAYLOSIS ENVIRONMENTAL PLANNING

The average noise levels during the measurement period were 52.5 dBA for Location 1 and 55.7 dBA for Location 2.

Table 7-1
Noise Measurement Results

Noise Metric	Noise Level (dBA) for Location 1	Noise Level (dBA) for Location 2
L_{max} (Maximum Noise Level)	61.3 dBA	71.4 dBA
L_{99} (Noise levels <99% of time)	60.7 dBA	69.8 dBA
L_{90} (Noise levels <90% of time)	56.7 dBA	61.0 dBA
L_{75} (Noise levels <75% of time)	54.1 dBA	59.1 dBA
L_{50} (Noise levels <50% of time)	51.5 dBA	55.0 dBA
L_{min} (Minimum Noise Level)	49.2 dBA	48.9 dBA
Average Noise Level	52.5 dBA	55.7 dBA

Source: Blodgett Baylosis Environmental Planning.
Measurements were taken in March 2019

7.3 CONSTRUCTION NOISE

As stated in the City's Noise Element short-term, temporary, and intermittent noise impacts associated with construction activities may be considered minimal during daytime hours. However, late evening and weekend disturbances related to construction activities experienced at nearby sensitive receptor locations may cause significant impacts.[46] Chapter 9.44 – Noise of the City of Monrovia Municipal Code regulates noise generation in the City. According to Section 9.44.040 – Allowable Noise Levels, noise levels are not permitted to exceed 55 dBA between the hours of 7:00 in the morning (AM) and 9:00 in the evening (PM) on residential properties located throughout the City. In addition, noise levels are not permitted to exceed 50 dBA during 9:00 PM to 7:00 AM. Table 7-2 depicts the permitted increases in noise levels as identified in Section 9.44.060 of the Municipal Code.

Table 7-2
Section 9.44.060 - Permitted Increases in Noise Levels

Permitted Increase in dBA	Duration of Increase Permitted (in minutes per hour)
5	15
10	5
15	1
20	Less than 1 minute

[46] City of Monrovia General Plan. *Noise Element*. Element was adopted in 2002.

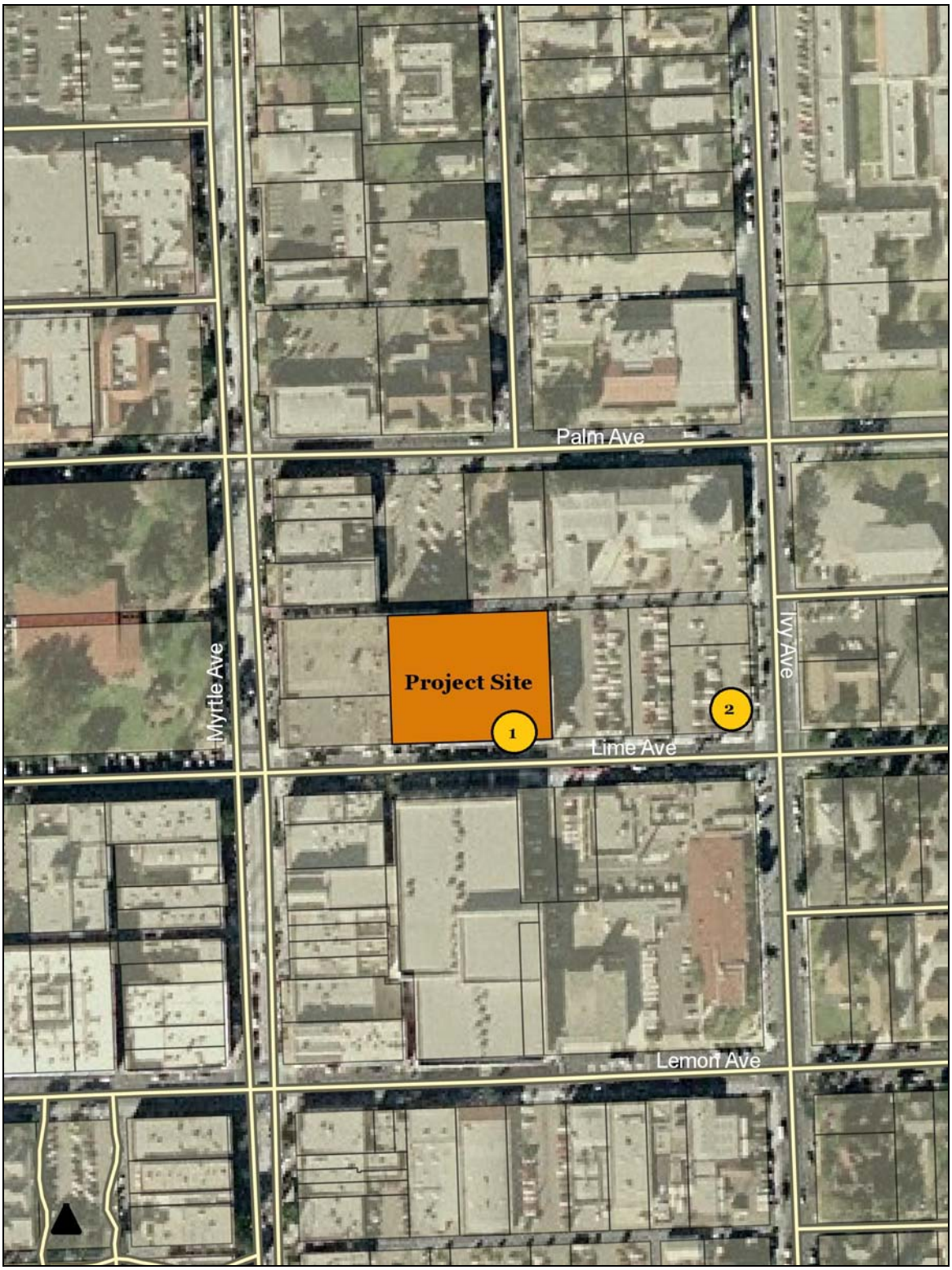

EXHIBIT 7-2
NOISE MEASUREMENT LOCATIONS
SOURCE: QUANTUM GIS

The City Code also includes the following provision in Section 9.44.080.F - Exemptions, which is restated below:

> *The following activities shall be exempt from the provisions of this chapter:*
>
> *(F) Construction or demolition work conducted between the hours of 7:00 a.m. and 7:00 p.m. on weekdays and the hours of 9:00 a.m. and 6:00 p.m. on weekends and holidays.*

Section 9.44.080.F of the City's Municipal Code exempts construction exceeding standards during the specified hours mentioned in Section 9.44.040 of the City's Municipal Code.

The proposed project's construction noise levels were estimated using the Federal Highway Administration's (FHWA) Roadway Construction Noise Model Version 1.1. The pieces and number of equipment that will be utilized was taken from the CalEEMod worksheets prepared for this project. The distance used between the construction activity and the nearest sensitive receptors varied depending on the individual equipment. As indicated by the model, the proposed project's construction will average 81.4 dBA at the United Methodist Church. Furthermore, no impact generating devices, such as jackhammers, will be used during the project's construction, which will further reduce the amount of vibration the United Methodist Church will be exposed to.

It is important to note that a majority of the construction will occur indoors. Thus, the building's shell will attenuate much of the noise generated within the building's interior. The model reflects a worst case scenario in terms of equipment used and the proposed project's average construction noise levels may be lower than the estimate generated by the model. Nevertheless, the proposed project's construction noise is estimated to average 81.4 dBA at the United Methodist Church. As indicated previously, Section 9.44.080.F of the City's Municipal Code exempts construction exceeding standards during the specified hours identified in Section 9.44.040 of the City's Municipal Code. Therefore, the Applicant will be required to implement Mitigation Measure No. 2 Noise and Mitigation Measure No. 3.

The above-mentioned mitigation measure calls for the use of sound suppressing equipment. The use of sound suppressing equipment such as aforementioned shields and mufflers usually results in an average reduction of 9.0 dBA. For example, a typical excavator will produce noise levels of around 80.5 dBA at a distance of 50 feet. In the quietest configuration, with improved exhaust and intake muffling, fan disengaged, and three sound panels around the engine, the overall level was reduced to 71.5 dBA at a distance of 50 feet.[47] Adherence to the aforementioned mitigation will reduce potential construction impacts to levels that are less than significant.

Once occupied and operational, interior noise generated within the office/retail units and the self-storage building will be attenuated by the building's shell. The building is mostly comprised of brick and concrete, which would reduce noise levels by up to 25 dBA.[48] As a result, operational noise generated within the building will not negatively affect the aforementioned sensitive receptor.

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[47] Laborers' Health and Safety Fund of North America. *Controlling Noise on Construction Sites*. https://www.lhsfna.org/LHSFNA/assets/File/bpguide%202014.pdf

[48] California Department of Transportation. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. Report dated 2013.

Noise generated within the parking lot would include people shouting/laughing, which averages 64.5 dBA; car door slamming, which averages 62.5 dBA; car idling, which averages 61 dBA; car starting, which averages 59.5 dBA; and people talking, which averages 41 dBA. All of these averages were taken at a distance of 50 feet from the source. These distances represented the average distance from the noise source to the property line. This information is based on actual parking lot noise measurements taken by Blodgett Baylosis Environmental Planning. As indicated previously, the closest sensitive receptor includes the United Methodist Church, located 140 feet to the northeast of the project site. As a result, noise emanating from the parking lot is not anticipated to affect the aforementioned sensitive receptor since noise generated within the parking lot would be subject to spreading loss.

Based on the principles of spreading loss, noise levels 50 feet from a source decrease by approximately 3.0 dBA over a hard, unobstructed surface, such as asphalt, and by approximately 4.5 dBA over a soft surface, such as vegetation. For every doubling of distance thereafter, noise levels drop another 3.0 dBA over a hard surface and 4.5 dBA over a soft surface. As a result, the impacts from the proposed project's operation will be less than significant with the implementation of the construction mitigation identified previously in the subsection.

As indicated previously, the average noise levels during the measurement period were 52.5 dBA for Location 1 and 55.7 dBA for Location 2. According to Figure 2 of the City's Noise Element of the General Plan, the site is located within a "Normally Acceptable" dB zone. Therefore, the operation of the proposed project will not expose future employees to excessive noise levels. Lastly, the project's traffic will not be significant enough to result in a doubling of traffic volumes. The Noise Element of the City's General Plan contains daily traffic counts for various roadway segments in the City. Main access to the project site will be provided by Myrtle Avenue, which is located 140 feet to the west of the project site. As indicated in Table 3 – Traffic Data in the City's Noise Element, Myrtle Avenue handled an average of 11,955 trips per day between Colorado Boulevard and Foothill Boulevard. The amount of new trips that is anticipated to be generated by the proposed project will not be enough to lead to a doubling of traffic volumes on the aforementioned street. Furthermore, the trip generation study that was prepared for the project indicates that the project will result in fewer trips than the existing office use. As a result, the potential impacts from the project's operation are expected to be less than significant.

7.4 MINIMIZATION AND REDUCTION MEASURES

The preceding analysis concluded that the project Applicant will be required to implement the following mitigation measures:

Mitigation Measure No 2 (Noise). The Applicant must ensure that the contractors use construction equipment that includes working mufflers and other sound suppression equipment such as silencers and panels around the engine and vents as a means to reduce machinery noise. A Code Enforcement Officer must check and sign off on all construction equipment prior to the issuance of a demolition permit, grading permit, and building permit.

Mitigation Measure No 3 (Noise). Construction will be prohibited from occurring on Sundays.

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APPENDIX

APPENDIX A - AIR QUALITY WORKSHEETS

APPENDIX B – NOISE MEASUREMENT WORKSHEETS

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Monrovia Self Storage

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.52	1000sqft	0.13	5,520.00	0
Unrefrigerated Warehouse-No Rail	86.73	1000sqft	1.99	86,729.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction is anticipated to be short since the Applicant will be using the existing building.

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	220.00	65.00
tblConstructionPhase	NumDays	20.00	11.00
tblConstructionPhase	NumDays	6.00	22.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	3.00	10.00
tblConstructionPhase	PhaseEndDate	11/11/2020	6/30/2020
tblConstructionPhase	PhaseEndDate	10/14/2020	3/31/2020
tblConstructionPhase	PhaseEndDate	11/28/2019	11/16/2019
tblConstructionPhase	PhaseEndDate	12/11/2019	12/31/2019
tblConstructionPhase	PhaseEndDate	10/28/2020	4/30/2020
tblConstructionPhase	PhaseEndDate	12/3/2019	11/30/2019
tblConstructionPhase	PhaseStartDate	10/29/2020	5/1/2020
tblConstructionPhase	PhaseStartDate	12/12/2019	1/1/2020
tblConstructionPhase	PhaseStartDate	12/4/2019	12/1/2019
tblConstructionPhase	PhaseStartDate	10/15/2020	4/1/2020
tblConstructionPhase	PhaseStartDate	11/29/2019	11/17/2019
tblGrading	AcresOfGrading	11.00	3.00
tblGrading	AcresOfGrading	11.00	3.00
tblGrading	AcresOfGrading	15.00	4.50

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					
2019	3.0992	33.5371	17.6372	0.0370	13.0856	1.5603	14.6460	6.8443	1.4355	8.2798	0.0000	3,662.2353	3,662.2353	1.0375	0.0000	3,688.1722
2020	20.2019	22.3917	20.4636	0.0438	1.9169	1.0701	2.9869	0.4954	1.0216	1.5170	0.0000	4,207.5667	4,207.5667	0.6142	0.0000	4,222.9218
Maximum	**20.2019**	**33.5371**	**20.4636**	**0.0438**	**13.0856**	**1.5603**	**14.6460**	**6.8443**	**1.4355**	**8.2798**	**0.0000**	**4,207.5667**	**4,207.5667**	**1.0375**	**0.0000**	**4,222.9218**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.0992	33.5371	17.6372	0.0370	5.5623	1.5603	7.1226	2.7867	1.4355	4.2223	0.0000	3,662.2353	3,662.2353	1.0375	0.0000	3,688.1722
2020	20.2019	22.3917	20.4636	0.0438	1.9169	1.0701	2.9869	0.4954	1.0216	1.5170	0.0000	4,207.5667	4,207.5667	0.6142	0.0000	4,222.9218
Maximum	**20.2019**	**33.5371**	**20.4636**	**0.0438**	**5.5623**	**1.5603**	**7.1226**	**2.7867**	**1.4355**	**4.2223**	**0.0000**	**4,207.5667**	**4,207.5667**	**1.0375**	**0.0000**	**4,222.9218**

	ROG	NOx	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	50.15	0.00	42.67	55.28	0.00	41.42	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	2.0617	9.0000e-005	9.4600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215
Energy	3.9300e-003	0.0357	0.0300	2.1000e-004		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003		42.8420	42.8420	8.2000e-004	7.9000e-004	43.0966
Mobile	0.4128	2.1319	5.9175	0.0217	1.7448	0.0168	1.7616	0.4669	0.0157	0.4826		2,204.4462	2,204.4462	0.1031		2,207.0224
Total	**2.4785**	**2.1677**	**5.9570**	**0.0219**	**1.7448**	**0.0195**	**1.7644**	**0.4669**	**0.0184**	**0.4853**		**2,247.3085**	**2,247.3085**	**0.1039**	**7.9000e-004**	**2,250.1406**

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	2.0617	9.0000e-005	9.4600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215
Energy	3.9300e-003	0.0357	0.0300	2.1000e-004		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003		42.8420	42.8420	8.2000e-004	7.9000e-004	43.0966
Mobile	0.3586	1.7620	4.4477	0.0158	1.2475	0.0124	1.2598	0.3338	0.0116	0.3453		1,608.2165	1,608.2165	0.0784		1,610.1770
Total	**2.4242**	**1.7977**	**4.4872**	**0.0160**	**1.2475**	**0.0151**	**1.2626**	**0.3338**	**0.0143**	**0.3481**		**1,651.0787**	**1,651.0787**	**0.0793**	**7.9000e-004**	**1,653.2951**

	ROG	NOx	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	2.19	17.07	24.67	26.82	28.50	22.67	28.44	28.51	22.46	28.28	0.00	26.53	26.53	23.70	0.00	26.52

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	11/1/2019	11/16/2019	5	11	
2	Site Preparation	Site Preparation	11/17/2019	11/30/2019	5	10	
3	Grading	Grading	12/1/2019	12/31/2019	5	22	
4	Building Construction	Building Construction	1/1/2020	3/31/2020	5	65	
5	Paving	Paving	4/1/2020	4/30/2020	5	22	
6	Architectural Coating	Architectural Coating	5/1/2020	6/30/2020	5	43	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 138,374; Non-Residential Outdoor: 46,125; Striped Parking Area: 0 (Architectural Coating – sqft)

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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
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
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	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	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	38.00	15.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	38.00	15.00	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	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2950	22.6751	14.8943	0.0241		1.2863	1.2863		1.2017	1.2017		2,360.7198	2,360.7198	0.6011		2,375.7475
Total	2.2950	22.6751	14.8943	0.0241		1.2863	1.2863		1.2017	1.2017		2,360.7198	2,360.7198	0.6011		2,375.7475

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/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	0.0637	0.0443	0.5841	1.5400e-003	0.1453	1.1300e-003	0.1464	0.0385	1.0400e-003	0.0396		153.5286	153.5286	4.8000e-003		153.6486
Total	**0.0637**	**0.0443**	**0.5841**	**1.5400e-003**	**0.1453**	**1.1300e-003**	**0.1464**	**0.0385**	**1.0400e-003**	**0.0396**		**153.5286**	**153.5286**	**4.8000e-003**		**153.6486**

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	2.2950	22.6751	14.8943	0.0241		1.2863	1.2863		1.2017	1.2017	0.0000	2,360.7197	2,360.7197	0.6011		2,375.7475
Total	**2.2950**	**22.6751**	**14.8943**	**0.0241**		**1.2863**	**1.2863**		**1.2017**	**1.2017**	**0.0000**	**2,360.7197**	**2,360.7197**	**0.6011**		**2,375.7475**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0637	0.0443	0.5841	1.5400e-003	0.1453	1.1300e-003	0.1464	0.0385	1.0400e-003	0.0396		153.5286	153.5286	4.8000e-003		153.6486
Total	**0.0637**	**0.0443**	**0.5841**	**1.5400e-003**	**0.1453**	**1.1300e-003**	**0.1464**	**0.0385**	**1.0400e-003**	**0.0396**		**153.5286**	**153.5286**	**4.8000e-003**		**153.6486**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4772	0.0000	0.4772	0.0515	0.0000	0.0515			0.0000			0.0000
Off-Road	1.7557	21.5386	11.9143	0.0245		0.8537	0.8537		0.7854	0.7854		2,426.5408	2,426.5408	0.7677		2,445.7341
Total	**1.7557**	**21.5386**	**11.9143**	**0.0245**	**0.4772**	**0.8537**	**1.3309**	**0.0515**	**0.7854**	**0.8369**		**2,426.5408**	**2,426.5408**	**0.7677**		**2,445.7341**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/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	0.0392	0.0273	0.3595	9.5000e-004	0.0894	7.0000e-004	0.0901	0.0237	6.4000e-004	0.0244		94.4791	94.4791	2.9500e-003		94.5530
Total	**0.0392**	**0.0273**	**0.3595**	**9.5000e-004**	**0.0894**	**7.0000e-004**	**0.0901**	**0.0237**	**6.4000e-004**	**0.0244**		**94.4791**	**94.4791**	**2.9500e-003**		**94.5530**

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					0.1861	0.0000	0.1861	0.0201	0.0000	0.0201			0.0000			0.0000
Off-Road	1.7557	21.5386	11.9143	0.0245		0.8537	0.8537		0.7854	0.7854	0.0000	2,426.5408	2,426.5408	0.7677		2,445.7341
Total	**1.7557**	**21.5386**	**11.9143**	**0.0245**	**0.1861**	**0.8537**	**1.0398**	**0.0201**	**0.7854**	**0.8055**	**0.0000**	**2,426.5408**	**2,426.5408**	**0.7677**		**2,445.7341**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/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	0.0392	0.0273	0.3595	9.5000e-004	0.0894	7.0000e-004	0.0901	0.0237	6.4000e-004	0.0244		94.4791	94.4791	2.9500e-003		94.5530
Total	**0.0392**	**0.0273**	**0.3595**	**9.5000e-004**	**0.0894**	**7.0000e-004**	**0.0901**	**0.0237**	**6.4000e-004**	**0.0244**		**94.4791**	**94.4791**	**2.9500e-003**		**94.5530**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.3334	0.0000	12.3334	6.6517	0.0000	6.6517			0.0000			0.0000
Off-Road	2.9229	33.4144	16.0196	0.0327		1.5572	1.5572		1.4326	1.4326		3,237.0793	3,237.0793	1.0242		3,262.6837
Total	**2.9229**	**33.4144**	**16.0196**	**0.0327**	**12.3334**	**1.5572**	**13.8906**	**6.6517**	**1.4326**	**8.0843**		**3,237.0793**	**3,237.0793**	**1.0242**		**3,262.6837**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/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	0.1763	0.1227	1.6176	4.2700e-003	0.7522	3.1300e-003	0.7554	0.1926	2.8900e-003	0.1955		425.1561	425.1561	0.0133		425.4885
Total	**0.1763**	**0.1227**	**1.6176**	**4.2700e-003**	**0.7522**	**3.1300e-003**	**0.7554**	**0.1926**	**2.8900e-003**	**0.1955**		**425.1561**	**425.1561**	**0.0133**		**425.4885**

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					4.8100	0.0000	4.8100	2.5942	0.0000	2.5942			0.0000			0.0000
Off-Road	2.9229	33.4144	16.0196	0.0327		1.5572	1.5572		1.4326	1.4326	0.0000	3,237.0793	3,237.0793	1.0242		3,262.6837
Total	**2.9229**	**33.4144**	**16.0196**	**0.0327**	**4.8100**	**1.5572**	**6.3672**	**2.5942**	**1.4326**	**4.0268**	**0.0000**	**3,237.0793**	**3,237.0793**	**1.0242**		**3,262.6837**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/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	0.1763	0.1227	1.6176	4.2700e-003	0.7522	3.1300e-003	0.7554	0.1926	2.8900e-003	0.1955		425.1561	425.1561	0.0133		425.4885
Total	**0.1763**	**0.1227**	**1.6176**	**4.2700e-003**	**0.7522**	**3.1300e-003**	**0.7554**	**0.1926**	**2.8900e-003**	**0.1955**		**425.1561**	**425.1561**	**0.0133**		**425.4885**

3.5 Building Construction - 2020

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	2.4450	19.0125	16.6070	0.0273		1.0480	1.0480		1.0007	1.0007		2,514.4641	2,514.4641	0.5375		2,527.9017
Total	**2.4450**	**19.0125**	**16.6070**	**0.0273**		**1.0480**	**1.0480**		**1.0007**	**1.0007**		**2,514.4641**	**2,514.4641**	**0.5375**		**2,527.9017**

3.5 Building Construction - 2020

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	0.0985	3.1481	0.7496	7.7200e-003	0.3288	0.0156	0.3444	0.0889	0.0149	0.1038		823.3454	823.3454	0.0517		824.6377
Worker	0.3439	0.2311	3.1070	8.7300e-003	1.5880	6.4400e-003	1.5945	0.4066	5.9400e-003	0.4125		869.7573	869.7573	0.0250		870.3824
Total	**0.4424**	**3.3792**	**3.8566**	**0.0165**	**1.9169**	**0.0220**	**1.9389**	**0.4954**	**0.0209**	**0.5163**		**1,693.1026**	**1,693.1026**	**0.0767**		**1,695.0201**

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	2.4450	19.0125	16.6070	0.0273		1.0480	1.0480		1.0007	1.0007	0.0000	2,514.4641	2,514.4641	0.5375		2,527.9017
Total	**2.4450**	**19.0125**	**16.6070**	**0.0273**		**1.0480**	**1.0480**		**1.0007**	**1.0007**	**0.0000**	**2,514.4641**	**2,514.4641**	**0.5375**		**2,527.9017**

3.5 Building Construction - 2020

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	0.0985	3.1481	0.7496	7.7200e-003	0.3288	0.0156	0.3444	0.0889	0.0149	0.1038		823.3454	823.3454	0.0517		824.6377
Worker	0.3439	0.2311	3.1070	8.7300e-003	1.5880	6.4400e-003	1.5945	0.4066	5.9400e-003	0.4125		869.7573	869.7573	0.0250		870.3824
Total	**0.4424**	**3.3792**	**3.8566**	**0.0165**	**1.9169**	**0.0220**	**1.9389**	**0.4954**	**0.0209**	**0.5163**		**1,693.1026**	**1,693.1026**	**0.0767**		**1,695.0201**

3.6 Paving - 2020

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	1.1547	11.5873	11.8076	0.0178		0.6565	0.6565		0.6051	0.6051		1,709.2180	1,709.2180	0.5417		1,722.7605
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1547**	**11.5873**	**11.8076**	**0.0178**		**0.6565**	**0.6565**		**0.6051**	**0.6051**		**1,709.2180**	**1,709.2180**	**0.5417**		**1,722.7605**

3.6 Paving - 2020

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	0.0679	0.0456	0.6132	1.7200e-003	0.1677	1.2700e-003	0.1689	0.0445	1.1700e-003	0.0456		171.6626	171.6626	4.9400e-003		171.7860
Total	**0.0679**	**0.0456**	**0.6132**	**1.7200e-003**	**0.1677**	**1.2700e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**171.6626**	**171.6626**	**4.9400e-003**		**171.7860**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1547	11.5873	11.8076	0.0178		0.6565	0.6565		0.6051	0.6051	0.0000	1,709.2180	1,709.2180	0.5417		1,722.7605
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1547**	**11.5873**	**11.8076**	**0.0178**		**0.6565**	**0.6565**		**0.6051**	**0.6051**	**0.0000**	**1,709.2180**	**1,709.2180**	**0.5417**		**1,722.7605**

3.6 Paving - 2020

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	0.0679	0.0456	0.6132	1.7200e-003	0.1677	1.2700e-003	0.1689	0.0445	1.1700e-003	0.0456		171.6626	171.6626	4.9400e-003		171.7860
Total	**0.0679**	**0.0456**	**0.6132**	**1.7200e-003**	**0.1677**	**1.2700e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**171.6626**	**171.6626**	**4.9400e-003**		**171.7860**

3.7 Architectural Coating - 2020

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					
Archit. Coating	19.8873					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**20.1295**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

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	0.0724	0.0487	0.6541	1.8400e-003	0.3343	1.3600e-003	0.3357	0.0856	1.2500e-003	0.0868		183.1068	183.1068	5.2600e-003		183.2384
Total	**0.0724**	**0.0487**	**0.6541**	**1.8400e-003**	**0.3343**	**1.3600e-003**	**0.3357**	**0.0856**	**1.2500e-003**	**0.0868**		**183.1068**	**183.1068**	**5.2600e-003**		**183.2384**

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					
Archit. Coating	19.8873					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**20.1295**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

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	0.0724	0.0487	0.6541	1.8400e-003	0.3343	1.3600e-003	0.3357	0.0856	1.2500e-003	0.0868		183.1068	183.1068	5.2600e-003		183.2384
Total	0.0724	0.0487	0.6541	1.8400e-003	0.3343	1.3600e-003	0.3357	0.0856	1.2500e-003	0.0868		183.1068	183.1068	5.2600e-003		183.2384

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive 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	0.3586	1.7620	4.4477	0.0158	1.2475	0.0124	1.2598	0.3338	0.0116	0.3453		1,608.2165	1,608.2165	0.0784		1,610.1770
Unmitigated	0.4128	2.1319	5.9175	0.0217	1.7448	0.0168	1.7616	0.4669	0.0157	0.4826		2,204.4462	2,204.4462	0.1031		2,207.0224

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	60.89	13.58	5.80	149,017	106,541
Unrefrigerated Warehouse-No Rail	145.70	145.70	145.70	624,449	446,454
Total	206.59	159.28	151.50	773,466	552,994

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 Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925
Unrefrigerated Warehouse-No Rail	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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	3.9300e-003	0.0357	0.0300	2.1000e-004		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003		42.8420	42.8420	8.2000e-004	7.9000e-004	43.0966
NaturalGas Unmitigated	3.9300e-003	0.0357	0.0300	2.1000e-004		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003		42.8420	42.8420	8.2000e-004	7.9000e-004	43.0966

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 Office Building	157.433	1.7000e-003	0.0154	0.0130	9.0000e-005		1.1700e-003	1.1700e-003		1.1700e-003	1.1700e-003		18.5216	18.5216	3.5000e-004	3.4000e-004	18.6316
Unrefrigerated Warehouse-No Rail	206.724	2.2300e-003	0.0203	0.0170	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3205	24.3205	4.7000e-004	4.5000e-004	24.4650
Total		**3.9300e-003**	**0.0357**	**0.0300**	**2.1000e-004**		**2.7100e-003**	**2.7100e-003**		**2.7100e-003**	**2.7100e-003**		**42.8420**	**42.8420**	**8.2000e-004**	**7.9000e-004**	**43.0966**

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 Office Building	0.157433	1.7000e-003	0.0154	0.0130	9.0000e-005		1.1700e-003	1.1700e-003		1.1700e-003	1.1700e-003		18.5216	18.5216	3.5000e-004	3.4000e-004	18.6316
Unrefrigerated Warehouse-No Rail	0.206724	2.2300e-003	0.0203	0.0170	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3205	24.3205	4.7000e-004	4.5000e-004	24.4650
Total		**3.9300e-003**	**0.0357**	**0.0300**	**2.1000e-004**		**2.7100e-003**	**2.7100e-003**		**2.7100e-003**	**2.7100e-003**		**42.8420**	**42.8420**	**8.2000e-004**	**7.9000e-004**	**43.0966**

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	2.0617	9.0000e-005	9.4600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215
Unmitigated	2.0617	9.0000e-005	9.4600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215

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	0.2343					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8265					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.8000e-004	9.0000e-005	9.4600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215
Total	**2.0617**	**9.0000e-005**	**9.4600e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0202**	**0.0202**	**5.0000e-005**		**0.0215**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2343					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8265					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.8000e-004	9.0000e-005	9.4600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215
Total	**2.0617**	**9.0000e-005**	**9.4600e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0202**	**0.0202**	**5.0000e-005**		**0.0215**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

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

Monrovia Self Storage

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.52	1000sqft	0.13	5,520.00	0
Unrefrigerated Warehouse-No Rail	86.73	1000sqft	1.99	86,729.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction is anticipated to be short since the Applicant will be using the existing building.

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Energy Mitigation -

Water Mitigation -

Monrovia Self Storage - South Coast AQMD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	220.00	65.00
tblConstructionPhase	NumDays	20.00	11.00
tblConstructionPhase	NumDays	6.00	22.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	3.00	10.00
tblConstructionPhase	PhaseEndDate	11/11/2020	6/30/2020
tblConstructionPhase	PhaseEndDate	10/14/2020	3/31/2020
tblConstructionPhase	PhaseEndDate	11/28/2019	11/16/2019
tblConstructionPhase	PhaseEndDate	12/11/2019	12/31/2019
tblConstructionPhase	PhaseEndDate	10/28/2020	4/30/2020
tblConstructionPhase	PhaseEndDate	12/3/2019	11/30/2019
tblConstructionPhase	PhaseStartDate	10/29/2020	5/1/2020
tblConstructionPhase	PhaseStartDate	12/12/2019	1/1/2020
tblConstructionPhase	PhaseStartDate	12/4/2019	12/1/2019
tblConstructionPhase	PhaseStartDate	10/15/2020	4/1/2020
tblConstructionPhase	PhaseStartDate	11/29/2019	11/17/2019
tblGrading	AcresOfGrading	11.00	3.00
tblGrading	AcresOfGrading	11.00	3.00
tblGrading	AcresOfGrading	15.00	4.50

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					
2019	0.0560	0.6019	0.3389	6.7000e-004	0.1474	0.0285	0.1759	0.0758	0.0263	0.1022	0.0000	60.2613	60.2613	0.0169	0.0000	60.6829
2020	0.5415	0.8958	0.8476	1.7200e-003	0.0700	0.0444	0.1144	0.0181	0.0423	0.0604	0.0000	150.0839	150.0839	0.0241	0.0000	150.6863
Maximum	**0.5415**	**0.8958**	**0.8476**	**1.7200e-003**	**0.1474**	**0.0444**	**0.1759**	**0.0758**	**0.0423**	**0.1022**	**0.0000**	**150.0839**	**150.0839**	**0.0241**	**0.0000**	**150.6863**

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					
2019	0.0560	0.6019	0.3389	6.7000e-004	0.0632	0.0285	0.0917	0.0310	0.0263	0.0574	0.0000	60.2612	60.2612	0.0169	0.0000	60.6828
2020	0.5415	0.8958	0.8476	1.7200e-003	0.0700	0.0444	0.1144	0.0181	0.0423	0.0604	0.0000	150.0838	150.0838	0.0241	0.0000	150.6862
Maximum	**0.5415**	**0.8958**	**0.8476**	**1.7200e-003**	**0.0700**	**0.0444**	**0.1144**	**0.0310**	**0.0423**	**0.0604**	**0.0000**	**150.0838**	**150.0838**	**0.0241**	**0.0000**	**150.6862**

	ROG	NOx	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	38.75	0.00	29.01	47.69	0.00	27.55	0.00	0.00	0.00	0.00	0.00	0.00

Monrovia Self Storage - South Coast AQMD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	11-1-2019	1-31-2020	0.9466	0.9466
2	2-1-2020	4-30-2020	0.6806	0.6806
3	5-1-2020	7-31-2020	0.4779	0.4779
		Highest	0.9466	0.9466

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	0.3762	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2900e-003	2.2900e-003	1.0000e-005	0.0000	2.4400e-003
Energy	7.2000e-004	6.5200e-003	5.4700e-003	4.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	137.7112	137.7112	5.5300e-003	1.2500e-003	138.2206
Mobile	0.0657	0.3795	0.9583	3.5700e-003	0.2939	2.8800e-003	0.2968	0.0788	2.6900e-003	0.0815	0.0000	329.3834	329.3834	0.0158	0.0000	329.7793
Waste						0.0000	0.0000		0.0000	0.0000	17.5912	0.0000	17.5912	1.0396	0.0000	43.5815
Water						0.0000	0.0000		0.0000	0.0000	6.6742	89.4079	96.0821	0.6892	0.0170	118.3631
Total	**0.4427**	**0.3860**	**0.9649**	**3.6100e-003**	**0.2939**	**3.3800e-003**	**0.2973**	**0.0788**	**3.1900e-003**	**0.0820**	**24.2654**	**556.5048**	**580.7702**	**1.7502**	**0.0182**	**629.9468**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3762	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2900e-003	2.2900e-003	1.0000e-005	0.0000	2.4400e-003
Energy	7.2000e-004	6.5200e-003	5.4700e-003	4.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	137.7112	137.7112	5.5300e-003	1.2500e-003	138.2206
Mobile	0.0566	0.3111	0.7273	2.6000e-003	0.2101	2.1200e-003	0.2122	0.0563	1.9800e-003	0.0583	0.0000	240.2197	240.2197	0.0121	0.0000	240.5221
Waste						0.0000	0.0000		0.0000	0.0000	17.5912	0.0000	17.5912	1.0396	0.0000	43.5815
Water						0.0000	0.0000		0.0000	0.0000	5.6330	75.7923	81.4254	0.5817	0.0143	100.2317
Total	0.4336	0.3177	0.7340	2.6400e-003	0.2101	2.6200e-003	0.2127	0.0563	2.4800e-003	0.0588	23.2242	453.7255	476.9497	1.6389	0.0156	522.5583

	ROG	NOx	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	2.06	17.70	23.94	26.87	28.50	22.49	28.44	28.50	22.26	28.26	4.29	18.47	17.88	6.36	14.51	17.05

3.0 Construction Detail

Construction Phase

Monrovia Self Storage - South Coast AQMD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/1/2019	11/16/2019	5	11	
2	Site Preparation	Site Preparation	11/17/2019	11/30/2019	5	10	
3	Grading	Grading	12/1/2019	12/31/2019	5	22	
4	Building Construction	Building Construction	1/1/2020	3/31/2020	5	65	
5	Paving	Paving	4/1/2020	4/30/2020	5	22	
6	Architectural Coating	Architectural Coating	5/1/2020	6/30/2020	5	43	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 138,374; Non-Residential Outdoor: 46,125; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Monrovia Self Storage - South Coast AQMD Air District, Annual

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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
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
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	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	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	38.00	15.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	38.00	15.00	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	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1247	0.0819	1.3000e-004		7.0700e-003	7.0700e-003		6.6100e-003	6.6100e-003	0.0000	11.7789	11.7789	3.0000e-003	0.0000	11.8538
Total	**0.0126**	**0.1247**	**0.0819**	**1.3000e-004**		**7.0700e-003**	**7.0700e-003**		**6.6100e-003**	**6.6100e-003**	**0.0000**	**11.7789**	**11.7789**	**3.0000e-003**	**0.0000**	**11.8538**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	3.5000e-004	2.7000e-004	2.9800e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	1.0000e-005	2.1000e-004	0.0000	0.7288	0.7288	2.0000e-005	0.0000	0.7294
Total	**3.5000e-004**	**2.7000e-004**	**2.9800e-003**	**1.0000e-005**	**7.8000e-004**	**1.0000e-005**	**7.9000e-004**	**2.1000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.7288**	**0.7288**	**2.0000e-005**	**0.0000**	**0.7294**

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	0.0126	0.1247	0.0819	1.3000e-004		7.0700e-003	7.0700e-003		6.6100e-003	6.6100e-003	0.0000	11.7788	11.7788	3.0000e-003	0.0000	11.8538
Total	**0.0126**	**0.1247**	**0.0819**	**1.3000e-004**		**7.0700e-003**	**7.0700e-003**		**6.6100e-003**	**6.6100e-003**	**0.0000**	**11.7788**	**11.7788**	**3.0000e-003**	**0.0000**	**11.8538**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	3.5000e-004	2.7000e-004	2.9800e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	1.0000e-005	2.1000e-004	0.0000	0.7288	0.7288	2.0000e-005	0.0000	0.7294
Total	**3.5000e-004**	**2.7000e-004**	**2.9800e-003**	**1.0000e-005**	**7.8000e-004**	**1.0000e-005**	**7.9000e-004**	**2.1000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.7288**	**0.7288**	**2.0000e-005**	**0.0000**	**0.7294**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.7800e-003	0.1077	0.0596	1.2000e-004		4.2700e-003	4.2700e-003		3.9300e-003	3.9300e-003	0.0000	11.0066	11.0066	3.4800e-003	0.0000	11.0937
Total	**8.7800e-003**	**0.1077**	**0.0596**	**1.2000e-004**	**2.3900e-003**	**4.2700e-003**	**6.6600e-003**	**2.6000e-004**	**3.9300e-003**	**4.1900e-003**	**0.0000**	**11.0066**	**11.0066**	**3.4800e-003**	**0.0000**	**11.0937**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.9000e-004	1.5000e-004	1.6700e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4077	0.4077	1.0000e-005	0.0000	0.4080
Total	**1.9000e-004**	**1.5000e-004**	**1.6700e-003**	**0.0000**	**4.4000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4077**	**0.4077**	**1.0000e-005**	**0.0000**	**0.4080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.3000e-004	0.0000	9.3000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.7800e-003	0.1077	0.0596	1.2000e-004		4.2700e-003	4.2700e-003		3.9300e-003	3.9300e-003	0.0000	11.0066	11.0066	3.4800e-003	0.0000	11.0937
Total	**8.7800e-003**	**0.1077**	**0.0596**	**1.2000e-004**	**9.3000e-004**	**4.2700e-003**	**5.2000e-003**	**1.0000e-004**	**3.9300e-003**	**4.0300e-003**	**0.0000**	**11.0066**	**11.0066**	**3.4800e-003**	**0.0000**	**11.0937**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.9000e-004	1.5000e-004	1.6700e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4077	0.4077	1.0000e-005	0.0000	0.4080
Total	**1.9000e-004**	**1.5000e-004**	**1.6700e-003**	**0.0000**	**4.4000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4077**	**0.4077**	**1.0000e-005**	**0.0000**	**0.4080**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1357	0.0000	0.1357	0.0732	0.0000	0.0732	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0322	0.3676	0.1762	3.6000e-004		0.0171	0.0171		0.0158	0.0158	0.0000	32.3029	32.3029	0.0102	0.0000	32.5584
Total	**0.0322**	**0.3676**	**0.1762**	**3.6000e-004**	**0.1357**	**0.0171**	**0.1528**	**0.0732**	**0.0158**	**0.0889**	**0.0000**	**32.3029**	**32.3029**	**0.0102**	**0.0000**	**32.5584**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.9100e-003	1.5200e-003	0.0165	4.0000e-005	8.1100e-003	3.0000e-005	8.1500e-003	2.0800e-003	3.0000e-005	2.1100e-003	0.0000	4.0364	4.0364	1.3000e-004	0.0000	4.0396
Total	**1.9100e-003**	**1.5200e-003**	**0.0165**	**4.0000e-005**	**8.1100e-003**	**3.0000e-005**	**8.1500e-003**	**2.0800e-003**	**3.0000e-005**	**2.1100e-003**	**0.0000**	**4.0364**	**4.0364**	**1.3000e-004**	**0.0000**	**4.0396**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0529	0.0000	0.0529	0.0285	0.0000	0.0285	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0322	0.3676	0.1762	3.6000e-004		0.0171	0.0171		0.0158	0.0158	0.0000	32.3029	32.3029	0.0102	0.0000	32.5584
Total	**0.0322**	**0.3676**	**0.1762**	**3.6000e-004**	**0.0529**	**0.0171**	**0.0700**	**0.0285**	**0.0158**	**0.0443**	**0.0000**	**32.3029**	**32.3029**	**0.0102**	**0.0000**	**32.5584**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.9100e-003	1.5200e-003	0.0165	4.0000e-005	8.1100e-003	3.0000e-005	8.1500e-003	2.0800e-003	3.0000e-005	2.1100e-003	0.0000	4.0364	4.0364	1.3000e-004	0.0000	4.0396
Total	**1.9100e-003**	**1.5200e-003**	**0.0165**	**4.0000e-005**	**8.1100e-003**	**3.0000e-005**	**8.1500e-003**	**2.0800e-003**	**3.0000e-005**	**2.1100e-003**	**0.0000**	**4.0364**	**4.0364**	**1.3000e-004**	**0.0000**	**4.0396**

3.5 Building Construction - 2020

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	0.0795	0.6179	0.5397	8.9000e-004		0.0341	0.0341		0.0325	0.0325	0.0000	74.1352	74.1352	0.0159	0.0000	74.5314
Total	**0.0795**	**0.6179**	**0.5397**	**8.9000e-004**		**0.0341**	**0.0341**		**0.0325**	**0.0325**	**0.0000**	**74.1352**	**74.1352**	**0.0159**	**0.0000**	**74.5314**

3.5 Building Construction - 2020

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	3.2700e-003	0.1041	0.0258	2.5000e-004	0.0105	5.1000e-004	0.0110	2.8400e-003	4.9000e-004	3.3300e-003	0.0000	23.9803	23.9803	1.5700e-003	0.0000	24.0197
Worker	0.0110	8.4500e-003	0.0936	2.7000e-004	0.0506	2.1000e-004	0.0508	0.0130	1.9000e-004	0.0132	0.0000	24.3954	24.3954	7.0000e-004	0.0000	24.4129
Total	**0.0143**	**0.1125**	**0.1193**	**5.2000e-004**	**0.0611**	**7.2000e-004**	**0.0618**	**0.0158**	**6.8000e-004**	**0.0165**	**0.0000**	**48.3757**	**48.3757**	**2.2700e-003**	**0.0000**	**48.4325**

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	0.0795	0.6179	0.5397	8.9000e-004		0.0341	0.0341		0.0325	0.0325	0.0000	74.1351	74.1351	0.0159	0.0000	74.5313
Total	**0.0795**	**0.6179**	**0.5397**	**8.9000e-004**		**0.0341**	**0.0341**		**0.0325**	**0.0325**	**0.0000**	**74.1351**	**74.1351**	**0.0159**	**0.0000**	**74.5313**

3.5 Building Construction - 2020

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	3.2700e-003	0.1041	0.0258	2.5000e-004	0.0105	5.1000e-004	0.0110	2.8400e-003	4.9000e-004	3.3300e-003	0.0000	23.9803	23.9803	1.5700e-003	0.0000	24.0197
Worker	0.0110	8.4500e-003	0.0936	2.7000e-004	0.0506	2.1000e-004	0.0508	0.0130	1.9000e-004	0.0132	0.0000	24.3954	24.3954	7.0000e-004	0.0000	24.4129
Total	**0.0143**	**0.1125**	**0.1193**	**5.2000e-004**	**0.0611**	**7.2000e-004**	**0.0618**	**0.0158**	**6.8000e-004**	**0.0165**	**0.0000**	**48.3757**	**48.3757**	**2.2700e-003**	**0.0000**	**48.4325**

3.6 Paving - 2020

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	0.0127	0.1275	0.1299	2.0000e-004		7.2200e-003	7.2200e-003		6.6600e-003	6.6600e-003	0.0000	17.0563	17.0563	5.4100e-003	0.0000	17.1915
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0127**	**0.1275**	**0.1299**	**2.0000e-004**		**7.2200e-003**	**7.2200e-003**		**6.6600e-003**	**6.6600e-003**	**0.0000**	**17.0563**	**17.0563**	**5.4100e-003**	**0.0000**	**17.1915**

3.6 Paving - 2020

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	7.4000e-004	5.6000e-004	6.2500e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.6297	1.6297	5.0000e-005	0.0000	1.6308
Total	**7.4000e-004**	**5.6000e-004**	**6.2500e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.6297**	**1.6297**	**5.0000e-005**	**0.0000**	**1.6308**

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	0.0127	0.1275	0.1299	2.0000e-004		7.2200e-003	7.2200e-003		6.6600e-003	6.6600e-003	0.0000	17.0563	17.0563	5.4100e-003	0.0000	17.1915
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0127**	**0.1275**	**0.1299**	**2.0000e-004**		**7.2200e-003**	**7.2200e-003**		**6.6600e-003**	**6.6600e-003**	**0.0000**	**17.0563**	**17.0563**	**5.4100e-003**	**0.0000**	**17.1915**

3.6 Paving - 2020

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	7.4000e-004	5.6000e-004	6.2500e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.6297	1.6297	5.0000e-005	0.0000	1.6308
Total	**7.4000e-004**	**5.6000e-004**	**6.2500e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.6297**	**1.6297**	**5.0000e-005**	**0.0000**	**1.6308**

3.7 Architectural Coating - 2020

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					
Archit. Coating	0.4276					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2100e-003	0.0362	0.0394	6.0000e-005		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	5.4895	5.4895	4.3000e-004	0.0000	5.5001
Total	**0.4328**	**0.0362**	**0.0394**	**6.0000e-005**		**2.3900e-003**	**2.3900e-003**		**2.3900e-003**	**2.3900e-003**	**0.0000**	**5.4895**	**5.4895**	**4.3000e-004**	**0.0000**	**5.5001**

3.7 Architectural Coating - 2020

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	1.5400e-003	1.1800e-003	0.0130	4.0000e-005	7.0500e-003	3.0000e-005	7.0800e-003	1.8100e-003	3.0000e-005	1.8300e-003	0.0000	3.3976	3.3976	1.0000e-004	0.0000	3.4000
Total	**1.5400e-003**	**1.1800e-003**	**0.0130**	**4.0000e-005**	**7.0500e-003**	**3.0000e-005**	**7.0800e-003**	**1.8100e-003**	**3.0000e-005**	**1.8300e-003**	**0.0000**	**3.3976**	**3.3976**	**1.0000e-004**	**0.0000**	**3.4000**

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					
Archit. Coating	0.4276					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2100e-003	0.0362	0.0394	6.0000e-005		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	5.4895	5.4895	4.3000e-004	0.0000	5.5001
Total	**0.4328**	**0.0362**	**0.0394**	**6.0000e-005**		**2.3900e-003**	**2.3900e-003**		**2.3900e-003**	**2.3900e-003**	**0.0000**	**5.4895**	**5.4895**	**4.3000e-004**	**0.0000**	**5.5001**

3.7 Architectural Coating - 2020

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	1.5400e-003	1.1800e-003	0.0130	4.0000e-005	7.0500e-003	3.0000e-005	7.0800e-003	1.8100e-003	3.0000e-005	1.8300e-003	0.0000	3.3976	3.3976	1.0000e-004	0.0000	3.4000
Total	**1.5400e-003**	**1.1800e-003**	**0.0130**	**4.0000e-005**	**7.0500e-003**	**3.0000e-005**	**7.0800e-003**	**1.8100e-003**	**3.0000e-005**	**1.8300e-003**	**0.0000**	**3.3976**	**3.3976**	**1.0000e-004**	**0.0000**	**3.4000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive 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	0.0566	0.3111	0.7273	2.6000e-003	0.2101	2.1200e-003	0.2122	0.0563	1.9800e-003	0.0583	0.0000	240.2197	240.2197	0.0121	0.0000	240.5221
Unmitigated	0.0657	0.3795	0.9583	3.5700e-003	0.2939	2.8800e-003	0.2968	0.0788	2.6900e-003	0.0815	0.0000	329.3834	329.3834	0.0158	0.0000	329.7793

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	60.89	13.58	5.80	149,017	106,541
Unrefrigerated Warehouse-No Rail	145.70	145.70	145.70	624,449	446,454
Total	206.59	159.28	151.50	773,466	552,994

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 Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925
Unrefrigerated Warehouse-No Rail	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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	130.6182	130.6182	5.3900e-003	1.1200e-003	131.0855
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	130.6182	130.6182	5.3900e-003	1.1200e-003	131.0855
NaturalGas Mitigated	7.2000e-004	6.5200e-003	5.4700e-003	4.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	7.0930	7.0930	1.4000e-004	1.3000e-004	7.1351
NaturalGas Unmitigated	7.2000e-004	6.5200e-003	5.4700e-003	4.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	7.0930	7.0930	1.4000e-004	1.3000e-004	7.1351

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	tons/yr										MT/yr					
General Office Building	57463.2	3.1000e-004	2.8200e-003	2.3700e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	3.0665	3.0665	6.0000e-005	6.0000e-005	3.0847
Unrefrigerated Warehouse-No Rail	75454.2	4.1000e-004	3.7000e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.0265	4.0265	8.0000e-005	7.0000e-005	4.0505
Total		**7.2000e-004**	**6.5200e-003**	**5.4800e-003**	**4.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**7.0930**	**7.0930**	**1.4000e-004**	**1.3000e-004**	**7.1351**

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	tons/yr										MT/yr					
General Office Building	57463.2	3.1000e-004	2.8200e-003	2.3700e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	3.0665	3.0665	6.0000e-005	6.0000e-005	3.0847
Unrefrigerated Warehouse-No Rail	75454.2	4.1000e-004	3.7000e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.0265	4.0265	8.0000e-005	7.0000e-005	4.0505
Total		**7.2000e-004**	**6.5200e-003**	**5.4800e-003**	**4.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**7.0930**	**7.0930**	**1.4000e-004**	**1.3000e-004**	**7.1351**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	71704.8	22.8467	9.4000e-004	2.0000e-004	22.9284
Unrefrigerated Warehouse-No Rail	338243	107.7715	4.4500e-003	9.2000e-004	108.1571
Total		130.6182	5.3900e-003	1.1200e-003	131.0855

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	71704.8	22.8467	9.4000e-004	2.0000e-004	22.9284
Unrefrigerated Warehouse-No Rail	338243	107.7715	4.4500e-003	9.2000e-004	108.1571
Total		130.6182	5.3900e-003	1.1200e-003	131.0855

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	0.3762	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2900e-003	2.2900e-003	1.0000e-005	0.0000	2.4400e-003
Unmitigated	0.3762	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2900e-003	2.2900e-003	1.0000e-005	0.0000	2.4400e-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	tons/yr										MT/yr					
Architectural Coating	0.0428					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3333					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2900e-003	2.2900e-003	1.0000e-005	0.0000	2.4400e-003
Total	**0.3762**	**1.0000e-005**	**1.1800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.2900e-003**	**2.2900e-003**	**1.0000e-005**	**0.0000**	**2.4400e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0428					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3333					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2900e-003	2.2900e-003	1.0000e-005	0.0000	2.4400e-003
Total	**0.3762**	**1.0000e-005**	**1.1800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.2900e-003**	**2.2900e-003**	**1.0000e-005**	**0.0000**	**2.4400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	81.4254	0.5817	0.0143	100.2317
Unmitigated	96.0821	0.6892	0.0170	118.3631

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.98109 / 0.601313	6.5102	0.0322	8.1000e-004	7.5565
Unrefrigerated Warehouse-No Rail	20.0563 / 0	89.5720	0.6570	0.0161	110.8066
Total		**96.0821**	**0.6892**	**0.0170**	**118.3631**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.82804 / 0.601313	5.8266	0.0272	6.8000e-004	6.7109
Unrefrigerated Warehouse-No Rail	16.9275 / 0	75.5987	0.5545	0.0136	93.5208
Total		81.4254	0.5817	0.0143	100.2317

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	17.5912	1.0396	0.0000	43.5815
Unmitigated	17.5912	1.0396	0.0000	43.5815

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	5.13	1.0413	0.0615	0.0000	2.5799
Unrefrigerated Warehouse-No Rail	81.53	16.5499	0.9781	0.0000	41.0016
Total		**17.5912**	**1.0396**	**0.0000**	**43.5814**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	5.13	1.0413	0.0615	0.0000	2.5799
Unrefrigerated Warehouse-No Rail	81.53	16.5499	0.9781	0.0000	41.0016
Total		**17.5912**	**1.0396**	**0.0000**	**43.5814**

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

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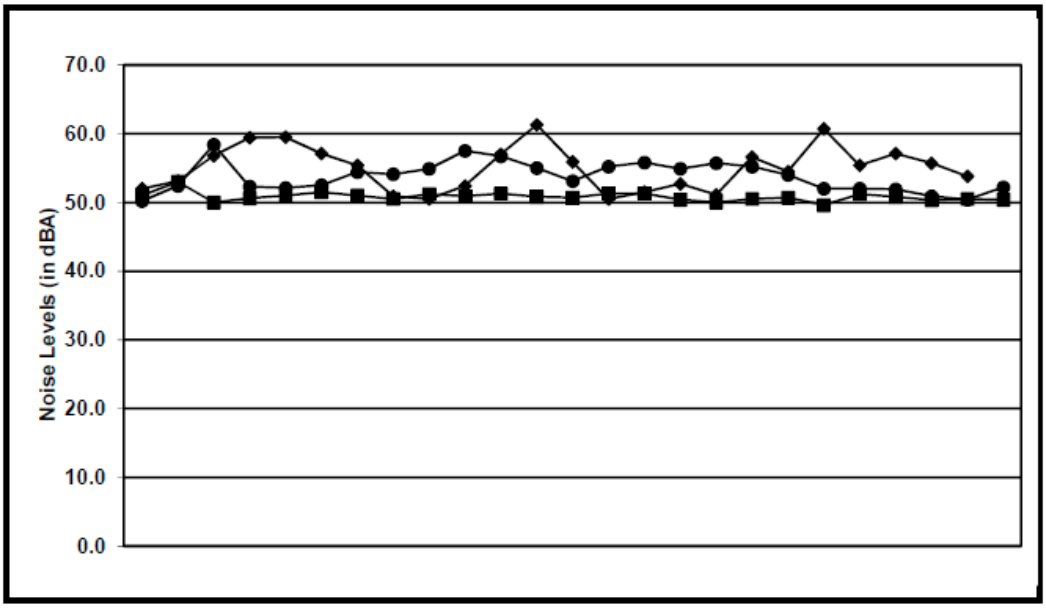
Actual Noise Levels During Measurement				Noise Measurement Results in Leq%				
1-25	26-50	51-75	76-100	L%	1-25	26-50	51-75	76-100
51.5	52.0	51.0	50.2	L_{99}	51.8	61.3	53.0	58.4
50.3	53.1	53.0	52.4		51.8	60.7	51.5	57.5
51.8	56.8	50.0	58.4	L_{90}	51.7	59.5	51.3	56.7
50.0	59.4	50.6	52.3		51.7	59.4	51.3	55.8
50.9	59.5	51.0	52.1		51.5	57.1	51.3	55.7
50.9	57.1	51.5	52.5		51.5	57.1	51.2	55.2
49.2	55.4	51.0	54.4		51.4	57.0	51.2	55.2
49.8	50.9	50.5	54.1		51.0	56.8	51.0	55.0
49.7	50.5	51.2	54.9		51.0	56.6	51.0	54.9
49.8	52.4	50.9	57.5		50.9	55.9	51.0	54.9
51.8	57.0	51.3	56.7		50.9	55.7	50.9	54.4
50.4	61.3	50.8	55.0	L_{50}	50.7	55.4	50.8	54.1
50.5	55.9	50.7	53.1		50.7	55.4	50.8	54.0
51.0	50.5	51.3	55.2		50.7	54.5	50.7	53.1
50.7	51.5	51.3	55.8		50.6	53.8	50.7	52.5
50.6	52.7	50.4	54.9		50.5	53.1	50.6	52.4
51.0	51.1	50.0	55.7		50.4	52.7	50.5	52.3
51.7	56.6	50.5	55.2		50.3	52.5	50.5	52.2
51.4	54.5	50.7	54.0		50.2	52.4	50.5	52.1
49.8	60.7	49.6	52.0	L_{25}	50.0	52.0	50.4	52.0
50.2	55.4	51.2	52.0		49.8	51.5	50.4	52.0
50.7	57.1	50.8	51.9		49.8	51.1	50.3	51.9
51.5	55.7	50.3	50.9	L_{10}	49.8	50.9	50.0	50.9
51.7	53.8	50.5	50.4		49.7	50.5	50.0	50.4
50.7	52.5	50.4	52.2		49.2	50.5	49.6	50.2



Noise Measurements for Location 1 (Lime Ave)

Source: Blodgett Baylosis Environmental Planning

61.3
60.7
59.5
59.4
58.4
57.5
57.1
57.1
57.0
56.8
56.7
56.6
55.9
55.8
55.7
55.7
55.4
55.4
55.2

99%

90%

55.2
55.0
54.9
54.9
54.5
54.4
54.1
54.0
53.8
53.1
53.1
53.0
52.7
52.5
52.5
52.4
52.4
52.3
52.2
52.1
52.0
52.0
52.0
51.9
51.8
51.8
51.7
51.7
51.5
51.5
51.5
51.5
51.4
51.3
51.3
51.3
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51.1
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50.9
50.8
50.8
50.7
50.7
50.7
50.7
50.7
50.6
50.6
50.5

75%

50%

50.5
50.5
50.5
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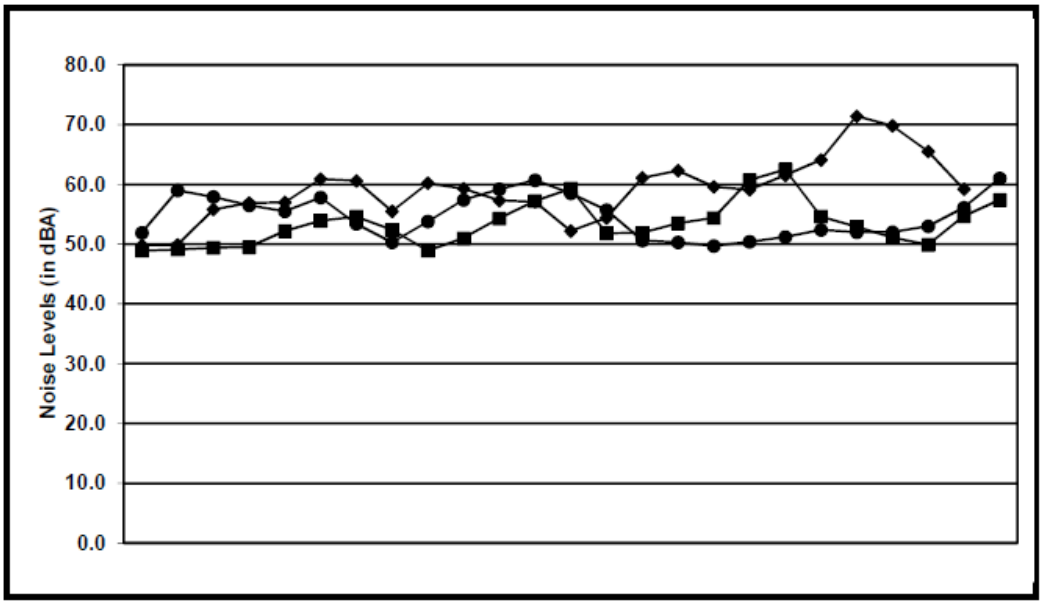
50.4
50.4
50.4
50.4
50.3
50.3
50.2
50.2
50.0
50.0
50.0
49.8
49.8
49.8
49.7
49.6
49.2

5255.3

52.553

Actual Noise Levels During Measurement				Noise Measurement Results in Leq%				
1-25	26-50	51-75	76-100	L%	1-25	26-50	51-75	76-100
53.5	49.8	48.9	51.9	L_{99}	61.9	71.4	62.5	61.0
54.0	49.9	49.1	59.0		61.0	69.8	60.7	60.7
53.1	55.8	49.4	57.9	L_{90}	60.3	65.5	59.3	59.2
52.8	56.9	49.5	56.5		60.0	64.1	57.4	59.0
50.5	57.0	52.2	55.5		59.7	62.3	57.2	58.5
50.1	60.9	53.9	57.8		59.6	61.5	54.7	57.9
52.5	60.6	54.6	53.4		59.0	61.1	54.6	57.8
60.0	55.5	52.4	50.3		58.5	60.9	54.6	57.4
61.9	60.2	48.9	53.8		58.4	60.6	54.4	56.5
59.0	59.3	51.0	57.4		58.4	60.2	54.3	56.1
56.6	57.3	54.3	59.2		58.0	59.6	53.9	55.7
55.0	57.1	57.2	60.7	L_{50}	57.8	59.3	53.5	55.5
54.5	52.2	59.3	58.5		56.6	59.2	52.9	53.8
59.6	54.4	51.8	55.7		55.0	59.1	52.4	53.4
59.7	61.1	51.9	50.6		54.5	57.3	52.2	53.0
58.0	62.3	53.5	50.3		54.0	57.1	51.9	52.4
58.4	59.6	54.4	49.7		53.5	57.0	51.8	52.0
58.4	59.1	60.7	50.4		53.1	56.9	51.1	52.0
57.8	61.5	62.5	51.2		52.8	55.8	51.0	51.9
61.0	64.1	54.6	52.4	L_{25}	52.5	55.5	49.9	51.2
60.3	71.4	52.9	52.0		52.5	54.4	49.5	50.6
58.5	69.8	51.1	52.0		50.5	52.2	49.4	50.4
52.5	65.5	49.9	53.0	L_{10}	50.1	51.4	49.1	50.3
49.4	59.2	54.7	56.1		49.5	49.9	48.9	50.3
49.5	51.4	57.4	61.0		49.4	49.8	48.9	49.7



Noise Measurements for Location 2 (Ivy Ave)

Source: Blodgett Baylosis Environmental Planning

71.4
69.8
65.5
64.1
62.5
62.3
61.9
61.5
61.1
61.0
61.0
60.9
60.7
60.7
60.6
60.3
60.2
60.0
59.7

99%

90%

59.6
59.6
59.3
59.3
59.2
59.2
59.1
59.0
59.0
58.5
58.5
58.4
58.4
58.0
57.9
57.8
57.8
57.4
57.4
57.3
57.2
57.1
57.0
56.9
56.6
56.5
56.1
55.8
55.7
55.5
55.5
55.0
54.7
54.6
54.6
54.5
54.4
54.4
54.3
54.0
53.9
53.8
53.5
53.5
53.4
53.1
53.0
52.9
52.8
52.5
52.5
52.4
52.4
52.2
52.2
52.0
52.0
51.9
51.9

75%

50%

51.8
51.4
51.2
51.1
51.0
50.6
50.5
50.4
50.3
50.3
50.1
49.9
49.9
49.8
49.7
49.5
49.5
49.4
49.4
49.1
48.9
48.9

5570.9
55.709

Construction Noise (At Church)
Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 06/04/2019
Case Description: Lime Ave Self-Storage and Retail

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Church	Residential	55.7	45.0	45.0

Description	Impact Device	Usage (%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Chain Saw	No	20		83.7	140.0	0.0
Compressor (air)	No	40		77.7	140.0	0.0
Concrete Saw	No	20		89.6	140.0	0.0
Crane	No	16		80.6	140.0	0.0
Dozer	No	40		81.7	140.0	0.0
Excavator	No	40		80.7	140.0	0.0
Flat Bed Truck	No	40		74.3	140.0	0.0
Front End Loader	No	40		79.1	140.0	0.0
Generator	No	50		80.6	140.0	0.0
Grader	No	40	85.0		140.0	0.0
Pavement Scarafier	No	20		89.5	140.0	0.0
Paver	No	50		77.2	140.0	0.0
Pneumatic Tools	No	50		85.2	140.0	0.0
Scraper	No	40		83.6	140.0	0.0
Welder / Torch	No	40		74.0	140.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Chain Saw	74.8	67.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compressor (air)	68.7	64.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Saw	80.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	71.6	63.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	72.7	68.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	71.8	67.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck	65.3	61.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Page 1

Construction Noise (At Church)

N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Front End Loader			70.2	66.2	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Generator			71.7	68.7	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Grader			76.1	72.1	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Pavement Scarafier			80.6	73.6	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			68.3	65.3	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Pneumatic Tools			76.2	73.2	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Scraper			74.6	70.7	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			65.1	61.1	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		80.6	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				

**** Receptor #2 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Single Family Residential	Residential	55.7	45.0	45.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Chain Saw	No	20		83.7	350.0	0.0
Compressor (air)	No	40		77.7	350.0	0.0
Concrete Saw	No	20		89.6	350.0	0.0
Crane	No	16		80.6	350.0	0.0
Dozer	No	40		81.7	350.0	0.0
Excavator	No	40		80.7	350.0	0.0
Flat Bed Truck	No	40		74.3	350.0	0.0
Front End Loader	No	40		79.1	350.0	0.0
Generator	No	50		80.6	350.0	0.0
Grader	No	40	85.0		350.0	0.0
Pavement Scarafier	No	20		89.5	350.0	0.0
Paver	No	50		77.2	350.0	0.0
Pneumatic Tools	No	50		85.2	350.0	0.0
Scraper	No	40		83.6	350.0	0.0
Welder / Torch	No	40		74.0	350.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Night		Day		Calculated (dBA) Evening		Day Night		Evening		
Equipment			Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	
Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq				

Construction Noise (At Church)

Chain Saw			66.8	59.8	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Compressor (air)			60.8	56.8	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Concrete Saw			72.7	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				
Crane			63.6	55.7	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			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				
Excavator			63.8	59.8	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Flat Bed Truck			57.3	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				
Front End Loader			62.2	58.2	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Generator			63.7	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				
Grader			68.1	64.1	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Pavement Scarafier			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				
Paver			60.3	57.3	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Pneumatic Tools			68.3	65.3	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Scraper			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			57.1	53.1	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		72.7	73.4	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A				

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ARDENT
ENVIRONMENTAL GROUP, INC.

September 10, 2018
Proposal No. 100835003

Mr. Timur Tecimer
Overton Moore Properties
19300 South Hamilton Avenue, Suite 200
Gardena, California 90248

Subject: Asbestos and Lead Survey Results
115 East Lime Avenue
Monrovia, California

Dear Mr. Tecimer:

Ardent Environmental Group, Inc. (Ardent) performed comprehensive asbestos and lead surveys of the buildings located at 115 East Lime Avenue, Monrovia, California (site; Figure 1). The site comprises approximately 0.73-acres and has been historically used for office purposes. Currently, the site consists of a four-story L-shaped office building (Figure 1). The current building was built in two separated phases with the east-west orientated building along Lime Avenue being constructed first (Building 2) and the north-south orientated portion of the site building being constructed as an addition at a later date (Building 1)

The objective of the survey was to assess the presence and quantity of asbestos-containing materials (ACM), lead-containing surface coatings (LCSCs), lead-bearing substances (LBSs), and lead-based paints (LBPs) in the site buildings.

SCOPE OF SERVICES

The scope of services performed by Ardent consisted of the following:

- Conducted a comprehensive survey of the site buildings to identify suspect ACM. Table 1 summarizes the homogeneous areas identified during the survey.
- Collected 124 representative bulk samples of suspect ACM throughout the site buildings.
- Analyzed 124 samples for bulk asbestos content by polarized light microscopy (PLM) in accordance with EPA method 600/R-93/116 by an NVLAP accredited laboratory. Analyzed seven select samples with trace results by Point Count 1,000 gravimetric reduction method.

1827 Capital Street, Suite 103 • Corona, CA 92880 • (951) 736-5334 • www.ardenteny.com

- Lead testing of building components for the presence and condition of LCSCs, LBSs, and LBPs. The testing was conducted using a Niton XL x-ray fluorescence (XRF) device. Building components determined to be LCSC, LBS, or LBP were quantified.
- Preparation of this Asbestos and Lead Survey Report.

DEFINITION OF TERMS

The terms asbestos-containing material (ACM) and asbestos-containing construction material (ACCM) used in this report are defined below:

- ACM – Asbestos-Containing Material. Defined by the U.S. Department of Labor as any material containing greater than 1 percent asbestos.
- ACCM – Asbestos-Containing Construction Material. Defined by the California Division of Occupational Safety and Health as any manufactured construction material which contains more than 1/10th of 1 percent (0.1 percent) asbestos. In practice, because regulations for ACM cover all materials with greater than 1 percent asbestos, ACCM generally refers to all materials with greater than 0.1 percent asbestos but less than or equal to 1 percent asbestos

ASBESTOS SAMPLING

The asbestos survey and sampling was performed on August 21 and 22, 2018 by Jonathan Anderson, an Asbestos Hazard Emergency Reduction Act (AHERA) Certified Asbestos Building Inspector, and Craig Metheny, a California Certified Asbestos Consultant. The asbestos survey was performed in general accordance with the standard procedures recommended by the U.S. Environmental Protection Agency (EPA) and the requirements of the State of California Division of Occupational Safety and Health (DOSH). The sampling strategy involved the collection of a representative number of samples of homogenous areas of suspect asbestos-containing building materials in the site buildings.

Bulk samples were collected and handled using the following general procedures:

1. The location, type, quantity, and condition of suspect ACM was identified and tabulated.
2. The suspect materials were divided into homogeneous areas. A homogeneous area is defined as being uniform in texture, color, and date of application.
3. A sampling scheme including the number and locations of samples was developed based on the location and quantity of the identified homogeneous areas.
4. Bulk samples were collected by trained and certified personnel using appropriate sampling tools, wet methods, and leak-tight containers. Each sample was recorded on a sampling log.
5. Decontamination of sampling tools between sampling locations.

6. A chain-of-custody record was maintained for the samples from collection to delivery to the laboratory.

A total of 124 bulk samples were collected from the site buildings. Homogeneous areas of suspect materials are summarized in Table 1. Sample locations are depicted on Figures 2 through 7.

ASBESTOS ANALYTICAL METHOD AND RESULTS

The bulk samples were submitted to LA Testing, an NVLAP accredited laboratory, for analysis of asbestos content. The samples were analyzed by polarized light microscopy (PLM) in accordance with EPA method 600/R-93/116. The PLM method used has a quantification limit of 1 percent and asbestos detected at less than 1 percent is reported as "Trace." Materials containing greater than 1 percent asbestos are considered ACM. A material reported to have a "Trace" amount of asbestos (present at less than 1 percent) should be treated as an ACCM unless analyzed by other methods, such as the Point Count 1,000 or gravimetric reduction methods, which have a detection limit of 0.1 percent. Materials reported to contain less than 0.1 percent by this method would be considered non-detect (ND) for asbestos and would therefore not be considered an ACM or ACCM.

Seven select samples that were found to have trace (less than 1%) asbestos content by the PLM method were further analyzed by the gravimetric reduction method. Table 2 summarizes the sample results. The laboratory reports are presented as Attachment A.

LEAD SURVEY

The lead survey was performed on August 21 and 22, 2018 by a Vista representatives working under Ardent subcontract and supervision. Suspect LCSCs, LBPs and LBSs were identified via visual inspection. Representative surface coatings and materials were tested utilizing a hand held XRF device. A copy of a lead survey report by Vista, dated September 5, 2018, is provided as Attachment B.

CONCLUSIONS

Based on the asbestos inspection and analytical testing results, the materials listed in the following tables were found to contain detectable concentrations of greater than 1 percent of asbestos (ACM) or greater than 0.1 percent but less than or equal to 1 percent asbestos (ACCM):

115 East Lime Avenue
Monrovia, California

September 10, 2018
Project No. 100835003

DETECTED ACM (greater than 1% asbestos content)

HA	Description	Building	Location[1]	Estimated Quantity[1]	Condition
B	Black Roofing Penetration Mastic	Building 1	Roof Penetrations	200 SF	Good/Non-Friable
D	Green 12X12 VFT With Black Mastic	Building 1	Storage Rooms and Stairwells	1,880 SF	Good/Non-Friable
G	Tan/Brown VFT With Yellow and Black Mastic	Building 1	Corridors Throughout and Basement Vault	8,000 SF	Good/Non-Friable
K	Yellow and Black Carpet Mastic	Building 1	Throughout Floors Under Carpets	6,900 SF	Good/Non-Friable
N	White Sealant	Building 1	Above Ceiling Tiles in Open Office Area	100 SF	Good/Non-Friable
S	Tan 9X9 VFT With Colored Spots and Black Mastic	Building 2	3rd Floor Kitchen Storage Rooms	160 SF	Good/Non-Friable
T	Green 12X12 VFT With Black Mastic	Building 2	Building 2 Throughout	8,100 SF	Good/Non-Friable
X	Beige 9X9 VFT With Black Mastic	Building 2	3rd Floor Restroom	40 SF	Good/Non-Friable
Y	Yellow and Black Carpet Mastic	Building 2	Throughout Carpeted Areas	22,780 SF	Good/Non-Friable
AB	Green Speckled 12X12 VFT With Yellow and Black Mastic	Building 2	Transistor Relay Room	4,000 SF	Good/Non-Friable
AD	Green 9X9 VFT	Building 2	Basement Training Room	400 SF	Good/Non-Friable
AE	White 8-Inch Wrapped Pipe	Building 2	Basement Maintenance Shop	50 LF	Good/Friable
AG/ AH	Silver Paint With Black Roofing Penetration Mastic	Building 2	Roof Skylights and Penetrations	250 SF	Good/Non-Friable
AL	Black Deck Sealant Under Green Paint	Building 2	3rd Floor Balcony	25 SF	Good/Non-Friable
AM	Grey 9X9 VFT	Building 2	Basement Telephone Room	350 SF	Good/Non-Friable
AN	8-inch Transite Pipe	Building 2	Rear Parking Area	150 LF	Good/Non-Friable

Notes:
1 = Quantities and Locations are estimates only. It is the responsibility of the contractor to verify quantities and locations.
HA = Homogeneous Area (see Table 1)
SF = Square Feet
LF = Linear Feet
VFT = Vinyl Floor Tile
VSF = Vinyl Sheet Flooring
Sample locations and room numbers are shown in Figures 2-7.

115 East Lime Avenue
Monrovia, California

September 10, 2018
Project No. 100835003

DETECTED ACM (greater than 1% asbestos content)

HA	Description	Building	Location[1]	Estimated Quantity[1]	Condition
AK	Brown Mastic/Terrazzo	Building 2	Stairwells Under Blue Rubber Flooring	300 SF	Good/Non-Friable
AO	White Window Putty	Building 2	Rear Windows 1st and 3rd Floors	120 EA	Good/Non-Friable

Notes:
1 = Quantities and Locations are estimates only, it is the sole responsibility of the contractor to verify quantities and locations.
HA = Homogeneous Area (see Table 1)
SF = Square Foot
EA - Each
Sample locations and room numbers are shown in Figures 2-7.

Asbestos was not detected in all other suspect materials sampled and tested (Table 2).

Based on the results of the lead survey, the following LBPs and/or LBSs were identified in the site buildings.

DETECTED LCSCs, LBPs and/or LBSs (greater than 1.0 milligram per square centimeter or greater

MATERIAL	DESCRIPTION (COLOR/SUBSTRATE)	LOCATION	CONDITION	CONTAMINANT	ESTIMATED QUANTITY[1]
Floor Drain	Brass/Metal	Restrooms and Mechanical Rooms	Intact	Lead-Bearing Substance	8 EA
Door	Brown/Metal	Outside Lunch Area	Intact	Lead-Based Paint	2 EA
Door Frame	Brown/Metal	Outside Lunch Area	Intact	Lead-Based Paint	1 EA
Door	Beige/Metal	Room 307	Intact	Lead-Based Paint	2 EA
Door Jamb	Beige/Metal	Room 307	Intact	Lead-Based Paint	1 EA
Floor Drain	White/Porcelain	Room 307, Kitchen, and Mechanical Room	Intact	Lead-Bearing Substance	4 EA
Wall Tile	Light Green/Ceramic	Men's Restroom	Intact	Lead-Bearing Substance	30 SF
Baseboard Tile	Light Green/Ceramic	Men's Restroom	Intact	Lead-Bearing Substance	30 LF
Baseboard Tile	Pink/Ceramic	Women's Restroom	Intact	Lead-Bearing Substance	30 LF
Toilet	White/Ceramic	Building 1 West End	Intact	Lead-Bearing Substance	8 EA
Door Jamb	Blue/Metal	Building 1 West Wing	Intact	Lead-Based Paint	1 EA
Parking Stripe	Yellow/Asphalt	Parking Lot	Intact	Lead-Based Paint	300 LF

Freight Elevator Door Frame	Green/Metal	Exterior	Intact	Lead-Based Paint	3 EA
Vent Pipe	Red/Transite	Exterior	Intact	Lead-Based Paint	150 LF

Notes:
1 = Quantities and Locations are not to be used for bidding purposes. It is the sole responsibility of the contractor to verify quantities and locations.
LF = Linear Feet
SF = Square Feet
EA = Each

RECOMMENDATIONS

The results of the asbestos survey indicate that ACM and ACCM are present in the on-site buildings. The EPA and State of California specify that ACM and ACCM classified as friable, or that could become friable during demolition, are to be removed prior to demolition activities. According to the EPA, nonfriable ACM or ACCM represents a minimal hazard to the occupants of a building as long as the material is in a generally undamaged condition and used for its intended purpose. The National Emission Standards for Hazardous Air Pollutants (NESHAPs) require that both friable and nonfriable ACM that could become friable be removed prior to renovation or demolition of buildings. The State of California Department of Occupational Safety and Health requires that friable and non-friable ACCM be removed prior to disturbance.

At no time should the identified ACM or ACCM be drilled, cut, sanded, scraped, or otherwise disturbed by untrained personnel. These materials should be removed prior to any activities which will disturb these materials. Asbestos disturbance and/or removal must be conducted by a California DOSH registered and State licensed asbestos removal contractor. Disturbance and/or abatement operations should be performed under the direct supervision of a California Certified Asbestos Consultant or Certified Site Surveillance Technician.

As indicated in the Vista report, the results of the lead testing indicate that LBPs and LBS's *are present* at select areas of the site. Please refer to the Vista lead survey report (Attachment B) for specific recommendations regarding LBP and LBS.

QUALIFICATIONS

Ardent team members and subcontractors are qualified or are properly licensed or certified to do the work described herein. Copies of relevant qualifications are provided as Attachment C and in the Vista lead survey report (Attachment B).

LIMITATIONS

The services provided and the information obtained is relevant for the date the services were performed and valid as of the date of this letter. This letter is conclusive with respect to the information obtained. No warranty, express or implied, is intended regarding the results of this report and any subsequent reports, correspondence, or consultation. The information obtained is not intended to address potential impacts related to sources other than those specified herein. The findings and conclusions presented in this letter are relevant to the portions of the structure investigated.

The estimated quantities of ACM, ACCM, LBP and/or LBS provided in this report are for discussion and management purposes only. The actual quantities may vary and should be verified by the asbestos abatement contractor prior to abatement.

The findings and conclusions as presented in this letter are based on the services provided, and should not be interpreted as a warranty that asbestos does not exist elsewhere in the subject structure. All ACM, ACCM, LBP and/or LBS in the site buildings may not have been identified by this survey due to inaccessible or hidden building features. Furthermore, although samples were collected from each identified homogeneous area, the homogeneity of materials cannot be guaranteed. Therefore, additional sampling and testing may be necessary to provide a higher degree of confidence regarding the presence of asbestos and lead in the building.

The services summarized herein were performed in accordance with the local standard of care and state-of-the industry practices in the geographic region at the time the services were rendered.

115 East Lime Avenue
Monrovia, California

September 10, 2018
Project No. 100835003

We appreciate the opportunity to be of service to you on this project.

Sincerely,
Ardent Environmental Group, Inc.

Jonathan Anderson
AHERA Certified Building Inspector

Craig A. Metheny
Certified Asbestos Consultant #08-4421

CM/JPA/aw

Attachments: Table 1 – Homogeneous Areas of Suspect Asbestos-Containing Materials
Table 2 – Asbestos Sample Results
Figure 1 – Site Plan
Figures 2 through 7 – Sample Location Maps
Attachment A – Laboratory Reports
Attachment B – Lead Survey Reports
Attachment C – Qualifications

Distribution: (1) Addressee (via email)

VISTA ENVIRONMENTAL CONSULTING
OAKLAND • SAN JOSE • ANAHEIM • SAN DIEGO

LEAD TESTING SERVICES REPORT
115 EAST LIME AVENUE
MONROVIA, CALIFORNIA 91016

PREPARED FOR:

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SEPTEMBER 5, 2018

VISTA PROJECT NO. 180500010

ARDENT PROJECT NO. 100835003

VISTA ENVIRONMENTAL CONSULTING

TABLE OF CONTENTS

1.0 INTRODUCTION

Vista Environmental Consulting, Inc. (VISTA) performed Lead Testing Services at the building located 115 East Lime Avenue in the City of Monrovia, Los Angeles County, California (Project Site). The building was a 4-story office building with a basement.

The lead testing services were performed to identify and sample accessible representative building components for the presence of lead-based paints (LBPs), lead-bearing substances (LBSs) and lead-containing surface coatings (LCSCs) that may be present at the Project Site.

The purpose of this testing was to identify hazardous building materials (limited to lead content) prior to the planned renovation or demolition of the structures. Identified hazardous materials should be properly removed, waste characterized, and disposed prior to being impacted by any activities that may disturb the identified hazardous materials. The data provided in this report can assist all parties involved in this project make informed decisions with regards to regulatory compliance and the health and safety of their employees. This testing included the following:

- Representative painted and coated building components were assessed and sampled to determine the lead concentrations.

1.1 *Building Description*

The project site building was a 4-story office building with cooling towers and a mechanical room/basement.

2.0 METHODOLOGY

VISTA performed the lead testing services on August 21 and 22, 2018. The testing was performed by VISTA personnel, Mr. Carlos Serrano (CDPH #15250) under the direction of Mr. Stephen Reese (CDPH #13938). Mr. Reese performed report preparation and project management. Mr. Reese and Mr. Serrano are either Lead-Related Construction Sampling Technicians, Inspector-Assessors and/or Project Monitors as issued by the State of California Department of Public Health (CDPH). Consultant certifications are included in Appendix C.

The testing performed was non-intrusive and did not include access and sampling of areas which required reasonable demolition to access. This testing did not include accessing all building materials down to the structural components and/or interstitial spaces where feasible. Quantities and locations are based upon areas that were accessed. Materials similar to those in this report may be present in

areas which were not accessed. VISTA made every reasonable effort to access these areas. Subsurface investigations were not proposed nor performed as part of this testing.

There is a possibility that additional hazardous materials may be encountered in inaccessible areas (e.g., interstitial wall and ceiling spaces) during building demolition or renovation activities. Suspect hazardous materials encountered during demolition or renovation activities that have not been assessed either may be assumed to be hazardous and handled accordingly, or may be properly sampled and analyzed to assess whether they are hazardous.

2.1 *Lead*

Suspect LBP and LBS were identified via visual inspection. Representative surface coatings and materials were tested utilizing an X-Ray Fluorescence (XRF) direct read spectrum analyzer device in accordance with the requirements of the manufacturer's performance characteristics sheet (PCS) to evaluate lead levels. The device used was a NITON Corporation XRF Spectrum Analyzer, Model XLp- 300A. This device is a solid-state detector optimized for lead L-shell and K-shell X-ray detection and uses a 40 mCi 109Cd (1,480 Mbq) isotope for an excitation source.

This testing was a limited screening of paint for the purpose of characterizing the lead content in paint and coatings likely to be disturbed during work activities. For this purpose, XRF analysis was used to screen for lead levels and provides results that are generally representative of typical conditions but are not inclusive of all painted/coated surfaces present at the Project Site. This survey was <u>not</u> a surface by surface inspection as outlined in the U.S. Department of Housing and Urban Development (HUD) *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* pursuant to Title X of the Housing and Community Development Act of 1992. This analytical data can be helpful in evaluation of lead-related environmental risks in general, but cannot be used to calculate worker exposures and is not a substitute for employee exposure monitoring or waste stream sampling.

The U.S. Department of Housing and Urban Development (HUD) specifies that lead-based paint (LBP) is present when paint contains lead equal or greater than 1.0 milligram per square centimeter (by XRF) by area or 0.5 percent by weight or 5,000 parts per million. For the purposes of this lead testing (based on the location of the subject site buildings) in accordance with the Los Angeles County Health and Safety Code that defines "dangerous levels of lead-bearing substances" as "any paint, varnish, lacquer, putty, plaster, or similar coating or structural material which contains lead or its compounds in excess of seven-tenths (0.7) of one milligram per square centimeter," the XRF measurement data results were interpreted as follows:

1. Positive results (LBPs/LBSs present) were determined when analytical results revealed a lead concentration of 0.7 milligram per square centimeter (mg/cm²) or greater.

2. Non lead-based paint were determined when XRF results revealed a lead concentration of <0.7 mg/cm². Due to the limitations of the XRF, materials with results 0.1 mg/cm² or greater must be treated as lead-containing. **Please review the information in the "Recommendations/Conclusions" section prior to any disturbance of materials noted as being negative or LCSC.**

3.0 RESULTS

3.1 *Lead*

VISTA collected 652 XRF readings (including calibration) of paint and coatings located at the Project Site. The results for this testing indicate that the following building components and respective surface coatings ***did have*** lead concentrations defining them as Lead-Based Paint or Lead-Bearing Substance. The XRF results for this survey indicate that some of the remaining building components and respective surface coatings did have lead concentrations in excess of the level for compliance with trigger activities, as defined in 8 CCR 1532.1 (Cal/OSHA).

MATERIAL	DESCRIPTION (COLOR/ SUBSTRATE)	LOCATION	CONDITION	CONTAMINANT	ESTIMATED QUANTITY[1]
Floor Drain	Brass/Metal	Restrooms and Mechanical Room	Intact	Lead-Based Substance	18 EA
Door	Brown/Metal	Outside Lunch Area	Intact	Lead-Based Paint	2 EA
Door Frame	Brown/Metal	Outside Lunch Area	Intact	Lead-Based Paint	1 EA
Door	Beige/Metal	Room 307	Intact	Lead-Based Paint	2 EA
Door Jamb	Beige/Metal	Room 307	Intact	Lead-Based Paint	1 EA
Floor Drain	White/Porcelain	Room 307, Kitchen and Mechanical Room	Intact	Lead-Based Substance	4 EA
Wall Tile	Light Green/Ceramic	Men's Restroom	Intact	Lead-Based Substance	30 SF
Baseboard Tile	Light Green/Ceramic	Men's Restroom	Intact	Lead-Based Substance	30 LF
Baseboard Tile	Pink/Ceramic	Women's Restroom	Intact	Lead-Based Substance	30 LF

Toilet	White/Ceramic	Restrooms West end	Intact	Lead-Based Substance	8 EA
Door Jamb	Blue/Metal	West Wing	Intact	Lead-Based Paint	1 EA
Parking Stripe	Yellow/Asphalt	Parking Lot	Intact	Lead-Based Paint	300 LF
Freight Elevator Door Frame	Green/Metal	Exterior	Intact	Lead-Based Paint	3 EA
Vent Pipe	Red/Transite	Exterior	Intact	Lead-Based Paint	150 LF
Lead-Containing Surface Coatings Detected (See XRF Lead Data Table)					

Notes:
SF = square feet
LF = linear feet
EA = each
Lead-Based Paint = 0.7 milligrams per square centimeter (mg/cm²) of lead or greater is present, as defined by the Los Angeles County Health and Safety Code
Lead-Bearing Substances = 0.70 mg/cm² of lead or greater is present
Lead-Containing Surface Coatings = Greater than limit of detection (0.1) and less than 0.7 mg/cm² of lead present (8 California Code of Regulations [CCR] 1532.1). Refer to the XRF Lead Data Table (Appendix A) for building components and surface coatings considered LCSCs at the Project Site. Contractor is responsible for employee exposure monitoring during disturbance/demolition of LCSCs.
1 Order of Magnitude ESTIMATED Quantities and Locations ARE NOT to be used solely for bidding purposes. It is the sole responsibility of the contractor to verify quantities and locations of hazardous materials in the path of construction through site visits and contractual bid set documents, including, but not limited to all specifications, drawings, and addenda. Any discrepancies between the contractual bid set documents and site visits must be submitted in writing to the Owner or the Owner's representative, PRIOR to bidding.

Refer to *Recommendations Section below for clarification regarding lead related construction.* The XRF data is included in Appendix A and the Positive XRF location maps are included in Appendix B.

4.0 RECOMMENDATIONS

4.1 *Lead*

Based on the lead testing results, lead-based paints, lead-bearings substances and lead-containing surface coatings (Cal/OSHA trigger levels) ***are present*** at the project site building.

Written notification to Cal/OSHA must be accomplished should LBP activities involve equal to or more than 100 square feet or 100 linear feet of removal in accordance with the requirements of 8 CCR 1532.1. Written notification to CDPH may be required.

At present there is no state or federal regulation requiring mandatory lead removal or abatement prior to disturbance of building materials with identified lead paint or coatings. However, there are

applicable Cal/OSHA worker protection and training requirements, Cal/EPA waste disposal requirements, CDPH requirements for public and residential buildings, Federal EPA requirements for residential buildings and child occupied facilities, and SB 460 lead hazard regulations that apply to lead-related construction activities, abatement activities and their associated wastes. The following is a brief discussion and summary of applicable regulatory requirements:

♦ **Cal/OSHA:** Title 8, California Code of Regulation (CCR), Section 1532.1 (8 CCR 1532.1) governs occupational exposure to lead. This regulation requires that prior to initiation of certain activities, referred to as "trigger tasks", workers must be trained, medically evaluated, and properly fitted with respiratory protection, and protective clothing until statistically reliable personal eight-hour time weighted average (TWA) results indicate lead exposure levels below the Personal Exposure Limit (PEL) for each unique task which disturbs lead-based and lead-containing coatings. This process is known as a Negative Exposure Assessment or NEA. If the result of the exposure assessment is above the Action Level (AL) additional monitoring is required and if the result is above the PEL additional exposure monitoring, worker protection (including respirator protection and PPE), training and medical requirements apply. However even where the NEA criteria is met, certain hazard communication training and work practice controls still apply where lead is disturbed. "Trigger tasks" are tasks that are assumed to exceed the PEL pending an exposure assessment and they encompass the majority of construction activities that disturb surface coatings. Examples of "trigger" tasks range from manual paint scraping as a lower expected exposure up to hot work and abrasive blasting as the highest expected exposures, and include any non-listed task that the employer determines may potentially expose employees to lead levels above the AL.

"OSHA does not consider any method that relies solely on the analysis of bulk materials or surface content of lead (or other toxic material) to be acceptable for safely predicting employee exposure to airborne contaminates. Without air monitoring results or without the benefit of historical or objective data (including air sampling which clearly demonstrates that the employee cannot be exposed above the action level during any process, operation, or activity) the analysis of bulk or surface samples cannot be used to determine employee exposure."- OSHA Standard Interpretation May 8, 2000. OSHA states that these rules apply to "any detectable concentration of lead" without a specified detection level. Due to the Consumer Product Safety Commission currently allowing paint to contain up to 600 parts per million (ppm) or 0.06 wt% of lead, the variation of lead content due to aging and weathering, and the variation of detection limits associated with analysis of bulk materials, such as paint chips and surface content analysis via XRF, it is recommended that all painted or coated surfaces be treated as potentially containing lead. Positive analytical results by either method can be used to indicate that detectable lead is present but negative results cannot be interpreted as conclusively demonstrating the absence of lead. Analytical data from analysis of bulk materials or surface content of lead can be

helpful in evaluation of lead-related environmental risks in general but cannot be used to calculate worker exposures and are not a substitute for employee exposure monitoring. As a result of the above, any employee that works around potential lead-based or lead-containing coatings must have HAZCOM training and personal exposure air monitoring is additionally required for employees that disturb such coatings. Significant additional certification, notification, and work practices are required for materials found to be lead-based. Any welding, cutting or heating of metal surfaces containing surface coatings should be conducted in accordance with 29 CFR 1926.354 and 8 CCR 1537. These regulations require surfaces covered with toxic preservatives, and in enclosed areas, be stripped of all toxic coatings for a distance of at least 4 inches, in all directions, from the area of heat application prior to the initiation of such heat application.

♦ **Federal EPA Renovation, Repair and Painting Rule 40 CFR 745:** Effective April 22, 2010 this rule covers all non-abatement renovation, repair or painting work in pre-1978 child occupied facilities and housing. Work which disturbs more than 6 square feet per room, or 20 square feet per exterior, of paint or other surface coatings that contain lead in concentrations equal to or in excess of 1.0 mg/cm^2 or 0.5% by weight are covered by this rule. Paint or surface coatings, in pre-1978 child occupied facilities and housing, that have not been tested, or were tested using non-approved methods are also covered under this rule. Renovation, remodeling, painting, window replacement, plumbing, electrical work, heating & air-conditioning, demolition, plus work performed by trades like carpenters, electricians and handymen are all covered under this rule. The rule applies to persons working for rental property owners, schools, day care providers, non-profits and governmental agencies. These regulations require notifications to owners & tenants, special training, certifications (for both companies & individuals), work practices, and clearance verification for such activities.

♦ **Cal/EPA** through the Division of Toxic Substance Control (DTSC) regulates disposal of lead hazardous waste (22 CCR Division 4.5, Minimum Standards for Management of Hazardous and Extremely Hazardous Wastes). DTSC has issued guidance indicating that architectural debris with intact lead paint is normally expected to be handled as general construction waste. However, waste stream segregation and analysis is still required for all lead painted or coated debris regardless of if the paint or coating is intact on a building component or not. The resulting wastes may be hazardous under California and federal RCRA standards for lead and therefore require proper handling, packaging, labeling, and transportation under a proper manifest to a permitted hazardous waste storage, treatment and disposal facility.

♦ **CDPH**: The Department of Public Health (CDPH) has specific requirements (Title 17 Sections 35001 thru 36100 et. al.) for hazard assessment and work in public or residential structures in regards

to lead-based paint. These regulations require special certifications, work practices, and notification for such activities.

♦ **Senate Bill 460 (SB 460)**: An act to amend Section 1941.1 of the Civil Code, and to amend Sections 17961, 17980, and 124130 of, and to add Sections 17920.10, 105251, 105252, 105253, 105254, 105255, 105256, and 105257 to, the Health and Safety Code, relating to lead abatement. This bill allows for fines and criminal penalties to be levied on any person who is found to have performed lead abatement without containment or created a measurable "lead hazard" based upon current CDPH standards. A "lead hazard" means deteriorated lead-based paint, lead contaminated dust, lead contaminated soil, disturbing lead-based paint or presumed lead-based paint without containment, or any other nuisance which may result in persistent and quantifiable lead exposure. VISTA recommends that all parties who come into contact with paint or soil that have detectable lead concentrations follow all applicable federal, state and local regulations relating to employee health and safety and proper disposal of generated wastes.

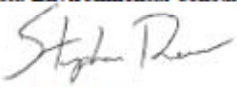
5.0 LIMITATIONS & EXCLUSIONS

VISTA's scope of work was to perform lead testing services prior to the planned renovation or demolition of the project site building. Sub-surface investigations were not accomplished as part of this scope of work. Quantities and locations are based upon areas that were accessed. Materials similar to those in this report may be present in areas which were not accessed. Because of this VISTA recommends including line item pricing, allowances, and/or additive/deductive wording to bid sheets for unforeseen conditions. All material quantities reported herein are rough order of magnitude estimates and should not be used for bidding purposes. All contractors are responsible for accurately determining quantities and locations of materials identified in this report. Findings, conclusions, recommendations and analytical data offered in this report have been derived from reviewing existing information provided by the client, visual survey of the building materials and systems, and the outcome of sampling and analysis of suspected hazardous materials.

Should materials similar to those identified in this report, or if other forms of suspect hazardous materials are discovered during work activities, maintenance personnel and/or contractors should be instructed to immediately cease work activities which may initiate an exposure episode, and notify the appropriate management personnel. All such materials should be assumed to be hazardous and handled accordingly until properly tested and assessed.

Respectfully Submitted,

Vista Environmental Consulting, Inc.



Stephen S. Reese
Senior Project Manager
CDPH Lead Inspector-Assessor/Project Monitor #13938 (Expires 11/25/2018)

From: Administration Gabrieleno [mailto:admin@gabrielenoindians.org]
Sent: Wednesday, April 17, 2019 5:11 PM
To: Austin Arnold; Sheri Bermejo
Cc: gabrielenoindians@yahoo.com; Matthew Teutimez; Andy Salas
Subject: Re: 115-127 East Lime Avenue Self-Storage Project-City of Monrovia

Mr. Arnold,

Thank you for your time discussing the proposed project at 115-127 East Lime Ave. We thank you for providing the project specific ground disturbing activities. After reviewing the project activities we have concluded that your project has a low potential to impact Tribal Cultural Resources (TCR). Therefore, additional mitigation for monitoring for TCR's is not necessary for this project. However, as our standard caveat, there is always a chance for discoveries, so if something is inadvertently found please have the project staff contact our Tribal Government. We thank you for your time and effort in this matter and please contact us if you require anything further.

Admin Specialist
Gabrieleno Band of Mission Indians - Kizh Nation
PO Box 393
Covina, CA 91723
Office: 844-390-0787
website: www.gabrielenoindians.org

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FEHR PEERS

MEMORANDUM

Date: February 6, 2019 *[Revised August 7, 2019]*

To: Timur Tecimer, Overton Moore Properties

From: Michael Kennedy and Drew Heckathorn, Fehr & Peers

Subject: ***Monrovia Self-Storage Trip Generation Study***

Ref: LA18-3080

This technical memorandum summarizes the results of a trip generation analysis conducted by Fehr & Peers for the Monrovia self-storage facility project, located at 115-127 E. Lime Avenue in the City of Monrovia. To assess the traffic impact of the new self-storage facility, trip generation estimates were developed using the ITE *Trip Generation, 10th Edition* for both the existing and proposed on-site land uses.

PROJECT DESCRIPTION

This mixed-use project will consist of 668 self-storage units (comprising 85,756 square feet of gross floor area), a 973 square foot office for the self-storage management company, and 4 units of commercial space (comprising 5,520 square feet of gross floor area). The project will utilize the existing on-site building, which is currently permitted for use as a single-tenant office building. **Table 1** shows the square footage breakdown for each proposed new land use and the total gross floor area for the entire facility.

Table 1 – Project Description

Floor	Use	Square Feet	Number of Storage Units
1st	Self-Storage Office	973	-
1st	Commercial and Commercial Hallways	5,520	-
1st	Storage	13,370	90
2nd	Storage	21,146	167
3rd	Storage	21,146	167
4th	Storage	9,088	81
Basement	Storage	21,006	163
	Subtotal Storage	85,756	668
	Total	**92,249**	

Overton Moore Properties, 2019

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TRIP GENERATION ANALYSIS

The Institute of Transportation Engineers (ITE) maintains an informational report, *Trip Generation*, based on trip generation studies submitted to ITE by public agencies; consulting firms (including Fehr & Peers); universities and colleges; developers; associations; and local sections, districts and student chapters of ITE. The data in the report is periodically updated, and is currently in its 10th Edition, published in 2017[1]. The analysis presented in this memorandum uses data from the *Trip Generation, 10th Edition* report. The data used in this analysis are empirically collected hourly trip demand count data from a variety of self-storage and office facilities in the U.S. and Canada.

Based on the compiled trip data, daily (weekday) and one-hour AM/PM peak period trip generation can be estimated at similar facilities using independent variables specified in the ITE report and either fitted curve or average demand rates. The independent variable selected for this analysis is gross floor area (reported in 1,000 square feet – KSF – increments) since the greatest number of ITE data points use this variable and this information is easy to obtain and quantify for this study. In order to estimate the trips generated for both the existing office use and the proposed Monrovia self-storage facility, this analysis uses the gross floor area for these uses and the demand rates from the ITE report to estimate daily and peak period trip generation.

Table 2 provides a summary of estimated trip generation for the existing land use – single-tenant office building. Single-tenant office buildings are typically smaller than multi-tenant office buildings and have slightly higher trip generation due to an increased efficiency in space (fewer lobbies, kitchens, conference rooms, etc.) allowing for more employees per KSF. Details of the trip generation calculations are included in the **Appendix** of this memorandum.

Table 2 – Trip Generation Estimate for the Existing Office Facility

ITE Land Use Code	Independent Variable	Rate Type [1]	Equation [2]	Size	Daily	AM [3]	PM [3]
715 – Single-Tenant Office Building	Gross Floor Area	Average Rate (Daily), Fitted Curve (AM/PM)	T = 11.25X (Daily) T = 1.68X + 17.26 (AM) T = 1.54X + 27.59 (PM)	92.25 KSF	**1,038**	**172**	**170**

Trip Generation, 10th Edition, Institute of Transportation Engineers, 2017 and Fehr & Peers, 2019
[1] – Fitted curve equations were used whenever feasible per ITE guidelines. ITE does not include a fitted curve equation for the daily rate of this land use
[2] – T = Trips Generated, X = 1,000 square feet increments of gross floor area
[3] – AM and PM peak periods are based on one-hour peak periods for each ITE data point (aka Peak Hour of Generator). The ITE manual does not include trip generation rates specifically within the 7 to 9 AM and 4 to 6 PM commute periods for this land use. However, the peak periods for office buildings usually align with the typical commuting periods, so using Peak Hour of Generator in this case is a reasonable approximation of commute period impact.

Table 3 provides a summary of estimated trip generation for the proposed land use – self-storage facility and commercial space. The proposed commercial space is about 5 KSF (much smaller than a typical office building) therefore the Small Office Building ITE land use code is used for this analysis. Details of the trip generation calculations are included in the **Appendix** of this memorandum.

[1] *Trip Generation, 10th Edition*, Institute of Transportation Engineers, Washington D.C., 2017

Table 3 – Trip Generation Estimate for the Proposed Self-Storage Facility

ITE Land Use Code	Independent Variable	Rate Type	Equation [2]	Size	Daily	AM [3]	PM [3]
151 – Mini-Warehouse [1]	Gross Floor Area	Average Rate	T = 1.51X (Daily) T = 0.1X (AM) T = 0.17X (PM)	86.73 KSF	131	9	15
712 – Small Office Building	Gross Floor Area	Average Rate	T = 16.19X (Daily) T = 1.92X (AM) T = 2.45X (PM)	5.52 KSF	89	11	14
Total				92.25 KSF	**220**	**20**	**29**

Trip Generation, 10th Edition, Institute of Transportation Engineers, 2017 and Fehr & Peers, 2019
[1] – The ITE manual specifies Mini-Warehouse to be "typically referred to as 'self-storage' facilities."
[2] – T = Trips Generated, X = 1,000 square feet increments of gross floor area
[3] – AM and PM one-hour peak periods are within 7 to 9 AM and 4 to 6 PM commute periods, respectively

SUMMARY OF RESULTS

Based on the ITE trip generation estimates, the proposed Monrovia self-storage facility development will generate about 80% fewer daily trips, 90% fewer AM peak period trips and 85% fewer PM peak period trips than the existing single-tenant office building use. This is primarily due to the self-storage facility use which generates significantly fewer trips per KSF than the office building uses.

FEHR & PEERS

MEMORANDUM

Date: December 20, 2018 *[Revised August 7, 2019]*

To: Timur Tecimer, Overton Moore Properties

From: Michael Kennedy and Drew Heckathorn, Fehr & Peers

Subject: ***Monrovia Self-Storage Facility Parking Demand Study***

Ref: LA18-3080

This technical memorandum summarizes the results of a parking demand analysis conducted by Fehr & Peers for the Monrovia self-storage facility project, located at 115-127 E. Lime Avenue in the City of Monrovia. To assess the adequacy of the proposed parking supply for use with the new self-storage facility, parking demand estimates were developed using the ITE *Parking Generation, Fourth Edition*. Additionally, a review of nearby municipalities' parking requirements is included since the City of Monrovia does not have a parking requirement rate specifically for self-storage facilities.

PROJECT DESCRIPTION

This mixed-use project will consist of 668 storage units (comprising 85,756 square feet of gross floor area), a 973 square foot office for the self-storage management company, and 5,520 square feet of ground floor commercial space, as shown in Table 1. Since the on-site parking will be restricted to self-storage patrons/employees, the ground floor commercial space component of the project is not included in the remainder of this memorandum's analysis. The project proposes 19 parking spaces to serve the self-storage facility.

Table 1 – Project Description

Floor	Use	Square Feet	Number of Storage Units
1st	Self-Storage Office [1]	973	-
1st	Commercial and Commercial Hallways	5,520	-
1st	Storage	13,370	90
2nd	Storage	21,146	167
3rd	Storage	21,146	167
4th	Storage	9,088	81
Basement	Storage	21,006	163
	Subtotal Storage	85,756	668
	Total	**92,249**	

Overton Moore Properties, 2019
[1] – 973 square feet of the first-floor office is for the self-storage management company and is included in parking demand estimate calculations for this analysis.

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www.fehrandpeers.com

PARKING ANALYSES

Municipal Code Required Parking

The City of Monrovia does not provide a specific self-storage parking requirement rate in its municipal code[1]. In a later section of this memorandum, a review of self-storage parking requirements from nearby cities is included in order to add a local municipality context to this study.

Parking Demand Analysis

The Institute of Transportation Engineers (ITE) maintains an informational report, *Parking Generation*, based on parking demand studies submitted to ITE by public agencies; consulting firms (including Fehr & Peers); universities and colleges; developers; associations; and local sections, districts and student chapters of ITE. The data in the report is periodically updated, and is currently in its 4th Edition, published in 2010[2]. The analysis presented in this memorandum uses data from the *Parking Generation, Fourth Edition* report. The data that were used in this analysis are empirically collected hourly parking demand count data from a variety of self-storage facilities in the U.S. and Canada.

Based on the compiled parking data, peak period parking demand can be estimated at similar facilities using independent variables specified in the ITE report and either fitted curve or average demand rates. For self-storage facilities, the specified independent variables are gross floor area (reported in 1,000 square feet – KSF – increments) and number of storage units (reported in 100 unit increments). In order to evaluate the number of spaces needed at the Monrovia self-storage facility, this analysis uses the gross floor area and number of units from the proposed site and the demand rates from the ITE report to estimate peak period parking demand.

Table 1 provides a summary of estimated parking demand using the data from the ITE report. As shown in the table, the report includes estimates for both weekday and Saturday demand. However, Saturday demand is only derived from the gross floor area independent variable.

Table 1 – Peak Period Parking Demand Estimate for the Monrovia Self-Storage Facility

ITE Land Use Code	Number of Studies	Independent Variable	Average Study Size	Day	Rate Type	Equation [2]	Monrovia Site Size	Demand
151 – Mini-Warehouse [1]	7	Gross Floor Area	72 KSF	Weekday	Fitted Curve	P = 0.07x + 4	87 KSF	**10**
151 – Mini-Warehouse	3	Gross Floor Area	109 KSF	Saturday	Average	P = 0.11x	87 KSF	**10**
151 – Mini-Warehouse	6	Units	648 Units	Weekday	Fitted Curve	P = 0.9x + 2	668 Units	**8**

Parking Generation, Fourth Edition, Institute of Transportation Engineers, 2010 & Fehr and Peers, 2018
[1] – The ITE report specifies Mini-Warehouse to be "typically referred to as 'self-storage' facilities."
[2] – P = Parked Vehicles, x = 1,000 square feet increments of gross floor area or 100 unit increments of storage units

Nearby Municipalities' Parking Requirements

A review of nearby municipalities' parking codes found a variety of requirements for self-storage facilities, including some municipalities like Monrovia which do not specify a self-storage parking requirement rate.

Table 2 provides a summary of self-storage parking requirement rates for nearby municipalities. Included in the table is the amount of parking the proposed Monrovia facility would have to provide if it were to adhere to each requirement.

Table 2 – Nearby Municipalities' Self-Storage Parking Requirements

Municipality	Independent Variable	Requirement	Monrovia Site Size	Amount Required
City of Alhambra	Gross Floor Area	"1 for each employee, plus 1 for each 20,000 sf. of gfa. and 1 for each vehicle or boat storage space. 2 spaces in an enclosed garage for a manger or caretaker's dwelling unit. A minimum of 3 customer spaces shall be provided for a project." [1] [2]	87 KSF	**6**
City of Baldwin Park	N/A	"4 spaces, plus 2 spaces for management and employees." [3]	N/A	**6**
City of Pomona	Gross Floor Area	"One space for every 250 square feet of office facilities but not less than six spaces, plus two spaces for the resident owner or manager." [4]	1 KSF for office	**6**
City of Duarte/City of Rosemead/City of San Dimas	Gross Floor Area	"1 per 4,000 sf, 10 minimum plus 1 per 250 sf for office plus 2 covered for caretaker, if appropriate, plus adequate loading and unloading areas as required by the Director." [5]	87 KSF (1 KSF for office)	**26**
City of San Gabriel/City of Azusa	Gross Floor Area	"1 space/2,500 SF-GFA of warehouse area, plus additional spaces as required for any associated residential use." [6]	87 KSF	**35**
City of Los Angeles/City of Irwindale/City of Arcadia/City of Sierra Madre/City of Pasadena/City of Temple City	N/A	No self-storage parking requirement. [7]	N/A	**N/A**

Fehr and Peers, 2018
[1] – *City of Alhambra Municipal Code, Chapter 23.52.040*, City of Alhambra, 2018
[2] – The proposed Monrovia self-storage facility does not include a manager or caretaker's dwelling unit. Therefore, any reference to such dwelling units is not considered in calculating parking requirements.
[3] – *City of Baldwin Park Municipal Code, Chapter 153.150.040*, City of Baldwin Park, 2018
[4] – *City of Pomona Zoning Ordinance, Section .503-H*, City of Pomona, 2018
[5] – *City of Duarte Municipal Code, Chapter 19.38.050*, City of Duarte, 2018/*City of Rosemead Municipal Code, Chapter 17.112.040*, City of Rosemead, 2018/*City of San Dimas Municipal Code, Chapter 18.156.050*, City of San Dimas, 2018
[6] – *City of San Gabriel Municipal Code, Chapter 153.220*, City of San Gabriel, 2018/*City of Azusa Municipal Code, Chapter 88.36.050*, City of Azusa, 2018
[7] – *City of Los Angeles Municipal Code, Chapter 12.21A4*, City of Los Angeles, 2018/*City of Irwindale Municipal Code, Chapter 17.64.030*, City of Irwindale, 2018/*City of Arcadia Municipal Code, Chapter 9103.07.060*, City of Arcadia, 2018/*City of Sierra Madre Municipal Code, Chapter 17.68.020*, City of Sierra Madre, 2018/*City of Pasadena Municipal Code, Chapter 17.46.040*, City of Pasadena, 2018/*City of Temple City Municipal Code, Title 9-1J-2*, City of Temple City, 2018

SUMMARY OF RESULTS

Based on the ITE parking demand estimates, the proposed 19 parking spaces for the Monrovia self-storage facility are more than adequate to handle parking demand. As shown in Table 1, the ITE method estimates peak parking demand at the site to be no more than 10.

The review of nearby municipalities' parking requirements found a wide range of methods in use. As shown in Table 2, if these requirements were applicable to the Monrovia self-storage facility, the required parking would range from 6 to 35 spaces. The proposed 19 parking spaces falls roughly in the middle of this range.

The ITE report is the industry standard for estimating parking demand and includes the most comprehensive collection of data on the subject. The findings from the ITE estimation and the fact that the proposed parking supply falls roughly in the middle of nearby municipalities' parking requirements support the adequacy of the 19 spaces to accommodate parking demand.

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Will McPhee

From: Kathy Collett <KCollett@athensservices.com>
Sent: Thursday, January 24, 2019 9:14 AM
To: Will McPhee
Subject: From Athens Services Monrovia OMP Self Storage

Hello Will,
My suggestion for service would be 1-3yd bin picked up 3x per week to start with. We can always make adjustments if needed once we know what retail will be going in and no large storage items will be placed in bin.

Kathy Collett | Account Executive-Franchise
Athens Services Salt Lake Office | 15045 Salt Lake Ave | City of Industry, CA 91746
Office (626) 934-4665 | Cell (626) 705-6716
Email KCollett@athensservices.com

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