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ENVIRONMENTAL CONSULTANTS & PLANNERS

MEMORANDUM

DATE: June 26, 2019

TO: Debby Fernandez, City of Santa Clara

FROM: Kristy Weis, Senior Project Manager
Amy Wang, Associate Project Manager

SUBJECT: Supplemental Text Revisions to the Gateway Crossings Project Final Environmental Impact Report

This memorandum describes changes made to the text of the Final Environmental Impact Report for the Gateway Crossings project ("Final EIR") following publication of the Final EIR on September 12, 2018[1] and Supplemental Text Revisions Memos dated September 26, 2018, October 30, 2018, and May 14, 2019.

At the May 21, 2019 City Council hearing, members of the public, and Councilmembers requested additional reconfiguration of the project design to increase the amount of retail use on-site. To address the request, the applicant refined the project to include 1,565 residential units, 225 hotel rooms, and 45,000 square feet of commercial uses, and 2.6 acres of parkland. Compared to the previous project analyzed in the Draft EIR, the final project reduces the number of residential units by 35 units, reduces the number of hotel rooms by 25 rooms, increases commercial square footage by 30,000 square feet, and increases parkland by 0.6 acres of parkland. The applicant is also committing to construct the hotel during the first phase of the development.

An analysis of the environmental impacts of the final project, by resource area, was completed, comparing the effects of the final project with the impacts identified in the Draft EIR, and found that the final project would not result in new or substantially more severe significant impacts than disclosed previously in the Draft EIR. A description of the final project and analysis of the environmental impacts of the final project are hereby incorporated into the Final EIR as text revisions. These text revisions are not considered "significant new information" pursuant to CEQA Guidelines Section 15088.5; therefore, recirculation of the Draft EIR is not required.

[1] The Final EIR consists of the April 2018 Draft Environmental Impact Report ("Draft EIR") and the September 2018 Final EIR.

Final EIR page 2: **ADD** the following text at the end of Section 1.4:

1.5 FINAL PROJECT

At the May 21, 2019 City Council hearing, members of the public, and Councilmembers requested additional reconfiguration of the project design to increase the amount of retail use on-site. To address the request, the applicant refined the project to include 1,565 residential units, 225 hotel rooms, and 45,000 square feet of commercial uses, and 2.6 acres of parkland. Compared to the previous project analyzed in the Draft EIR, the final project reduces the number of residential units by 35 units, reduces the number of hotel rooms by 25 rooms, increases commercial square footage by 30,000 square feet, and increases parkland by 0.6 acres of parkland. The applicant is also committing to construct the hotel during the first phase of development.

The previous project analyzed in the Draft EIR included two development options. The difference between the two options is the maximum number of residential dwelling units proposed (1,400 under Option 1 vs. 1,600 units under Option 2).

Table 1.5-1 below summarizes the final project and compares it to Option 2 of the previous project evaluated in the Draft EIR.

Table 1.5-1: Project Development Summary

	Residential Units	**Hotel Rooms**	**Retail Square Footage**
A. Final Project	1,565	225	45,000
B. Draft EIR Project (Option 2)	1,600	250	15,000
Difference (A – B)	*-35*	*-25*	*+30,000*

The final project proposes the same land uses as the previous project analyzed in the Draft EIR. The final project proposes 35 fewer residential units, 25 fewer hotel rooms, and 30,000 more square feet of commercial/retail uses than the previous project. The conceptual site plan of the final project compared to the site plan for the previous project analyzed in the Draft EIR are shown in Figure 1.5-1.

1.5.1 Revisions to Buildings 1-4

The maximum residential building height of 150 feet would not change under the final project. The massing of Buildings 1 and 2 would remain the same under the final project as previously proposed.

The massing of Buildings 3 and 4, would change under the final project. Compared to what was proposed under the previous project analyzed in the Draft EIR, the footprint of Building 3 would be reduced to allow for a linear park between Buildings 3 and 4. The height of Building 3 would increase by one story on the northern portion of the building (from seven to eight stories). Building 3 outdoor amenity space on the 3rd floor would be reconfigured as a result of the change in building footprint.

Compared to the previous project analyzed in the Draft EIR, the 13-story tower on Building 4 would be reoriented to front the linear park instead of the neighborhood park as previously proposed. In addition, an additional story would be added to the northwest portion of Building 4 (from seven to eight stories). The outdoor amenity space on the 3rd floor of Building 4 would be reconfigured due to the change in the building footprint. The reconfiguration of Building 4 is intended to break up the building mass fronting the linear park.

In addition, rooftop decks are proposed on the 7th floor of Building 3 and 13th floor of Building 4 facing the linear park. Like the previous project analyzed in the Draft EIR, the final project would provide a total of approximately two acres of amenity space in the residential buildings. The final project would result in a density of about 73 dwelling units per acre.

1.5.2 Revisions to the Hotel and Commercial Retail Space

Under the final project, a total of 197,000 square feet of commercial space is proposed. The final project includes a 152,000-square foot hotel and 45,000 square feet of ancillary commercial space located throughout the project site on the ground floor of Buildings 1-4. The final project would have a commercial floor-area-ratio of 0.21.

Compared to the previous project analyzed in the Draft EIR, the hotel under the final project would have 25 fewer hotel rooms, a reduced building square footage of 152,000 (instead of 200,000 square feet previously analyzed in the Draft EIR), an L-shaped building configuration (instead of the rectangular configuration previously analyzed in the Draft EIR), and a reduced number of stories above grade, from 13 to eight. The outdoor amenity space for the hotel under the final project would be provided on the 2nd floor (approximately 3,000 square feet) and 8th floor (approximately 1,000 square feet). The size of the back-up generator (100 kW) for the hotel would remain the same under the final project as previously analyzed in the Draft EIR.

All the ancillary commercial retail space, including the additional 30,000 square feet, would be integrated into the ground floors of Buildings 1 through 4 fronting the neighborhood and linear park, with 3,500 square feet of free-standing commercial space at the northern end of the neighborhood park.

1.5.3 Revisions to Park Space and Common Amenity Space

Compared to the project analyzed in the Draft EIR, the final project includes a new linear park between Buildings 3 and 4. The linear park would be approximately 0.6 acres. The 3,500 square feet of commercial space and its associated improvements (i.e., walkway) would reduce the size of the neighborhood park by approximately 0.1 acres. Overall, the final project would include a total of approximately 2.6 acres of park space compared to the approximately two acres previously analyzed in the Draft EIR. The increase in recreational space would also result in an increase in landscaping, including 72 additional trees, compared to the previous project analyzed in the Draft EIR.

The previous project analyzed in the Draft EIR included approximately 0.3 acres of common amenity space at-grade throughout the project site. Under the final project, the common amenity space proposed at-grade would be reduced from approximately 0.3 to 0.05 acres compared to the project analyzed in the Draft EIR. The change in park and common amenity space under the final project results in an increase in pervious surfaces from 222,170 square feet (or 24 percent of the site) under the previous project to 271,256 square feet (or 29 percent) under the final project. A summary of the previous and impervious surfaces on-site under the final project compared to the previous project analyzed in the Draft EIR is provided in Table 1.5-2.

Table 1.5-2: Summary of the Approximate Pervious/Impervious Surfaces On-Site

	Draft EIR Project Site Coverage		**Final Project Site Coverage**	
	Square Feet	**Percentage**	**Square Feet**	**Percentage**
Impervious	710,009	76	660,923	71
Pervious	222,170	24	271,256	29
Total	*932,179*	*100*	*932,179*	*100*

1.5.4 Other Project Components

In addition to the maximum building height and Buildings 1 and 2, other project elements that are described in Sections 2.2.13 through 2.2.18 of the Draft EIR including, green building measures, vehicle miles traveled reduction plan, site access, parking, public right-of-way improvements, utility connections and improvements, and construction, would not change under the final project.

DRAFT EIR PROJECT

FINAL PROJECT

DRAFT EIR PROJECT AND FINAL PROJECT CONCEPTUAL SITE PLAN FIGURE 1.5-1

1.5.5 Project Objectives

As described in the Section 1.4.5 of the Final EIR, the applicant's objectives for the project are as follows:

1. Develop the 24-acre project site at the southwest corner of Coleman Avenue and Brokaw Road in Santa Clara into an economically viable mixed use project consisting of commercial spaces and a vibrant residential community, providing a range of product types that will support the diversity of Santa Clara and is designed to be inviting to all.
2. Provide the on-site residential community and public access to a pedestrian friendly site with a variety of on-site recreational amenities including a neighborhood park, BBQ area, children's playground, and various lounge areas.
3. Develop an on-site commercial component of approximately 187,000 square feet, consisting of a hotel and ancillary commercial uses, that will provide services to both the residential community and public at large and will generate tax revenues for the City.
4. Create a transit-oriented development that supports alternative modes of transportation with a direct connection to the Santa Clara Transit Station.
5. Comply with and advance the General Plan goals and policies for the Santa Clara Station Focus Area (General Plan Section 5.4.3).

Based on the final project, Objective 3 has been changed as follows:

3. Develop an on-site commercial component of approximately 197,000 square feet, consisting of a hotel and ancillary commercial uses, that will provide services to both the residential community and public at large and will generate tax revenues for the City.

Compared to objectives listed above, the applicant's objective has been revised to change the total development of hotel and ancillary commercial uses to approximately 197,000 square feet.

As described in the Draft EIR and Section 1.4.5 of this Final EIR, the City's objectives for this key site within the Santa Clara Station Focus Area are as follows:

1. Create a mixed-use neighborhood of high density residential development combined with commercial services to support the residents, businesses and visitors within and around the plan area as well as the users of the abutting Santa Clara Caltrain/BART heavy rail transit node.
2. Promote long term sustainability with an array and arrangement of complementary uses by achieving LEED certification (or equivalent), minimizing vehicle miles traveled, capitalizing on efficient public infrastructure investment and providing convenient amenities for residents and users of the plan area.
3. Maximize housing unit yield on a site with minimal impact on existing neighborhoods that will address the jobs/housing balance, create a critical mass of housing to justify commercial services, particularly retail services, and provide a variety of housing unit types.
4. Provide a suitable affordable housing component that addresses the City's lower income housing needs in close proximity to transit services and commercial services and jobs.

5. Provide a significant hotel component and retail services that support the business travel market, enhance the tax base and contribute other revenues to support City services that serve the development.

The final project meets all of the applicant and City objectives listed above because it would develop a residential mixed-use development with on-site recreational amenities, approximately 197,000 square feet of commercial (i.e., hotel and retail) uses, achieve LEED certification (or equivalent), minimize vehicle miles travelled, maximize the housing unit yield allowed on-site, and provide affordable housing near existing and planned transit.

1.5.6 Environmental Impacts

An analysis of the environmental impacts of the final project, by environmental resource and for each EIR impact, is provided below. Because the final project is very similar in nature to the previous project analyzed in the Draft EIR, readers are referred to the analysis and details in the Draft EIR. Also refer to the Draft EIR for detailed descriptions of the existing environmental setting, thresholds of significance, and mitigation measures. As discussed below, the final project would not result in new or substantially more severe significant impacts than disclosed previously in the Draft EIR. A summary of the final project, previous project analyzed in the Draft EIR, and project alternative impacts is provided at the end of this subsection in Table 1.5-10.

1.5.2.1 *Aesthetic Impacts*

As described in Section 1.5.1, Building 3 and 4 and the hotel would be reconfigured compared to what was analyzed in the Draft EIR. The overall massing of the entire project, however, is similar to the previous project and the maximum building height of 150 feet would not change under the final project. In addition, the final project proposes the same setbacks, lighting, and building materials as the previous project analyzed in the Draft EIR. The final project would include approximately 0.6 more acres of park space and landscaping (including 72 additional trees) than the previous project. For these reasons, the final project would result in the same less than significant project and less than significant cumulative impacts to aesthetics as discussed in the Draft EIR for the previous project. **(Less than Significant Impact, Less than Significant Cumulative Impact)**

1.5.2.2 *Agricultural and Forestry Resources*

As discussed in the Draft EIR, the project site is not designated, used, or zoned for agricultural, forest, or timberland purposes. The project site is not the subject of Williamson Act contract. There are no lands in the vicinity of the site that are used for agricultural, forestry, or timberland purposes. For these reasons, the final project (like the previous project analyzed in the Draft EIR), would not result in project or cumulative impacts to agricultural and forestry resources. **(No Impact, No Cumulative Impact)**

1.5.2.3 *Air Quality*

The final project is subject to the same existing air quality ambient conditions as described for the previous project in the Draft EIR.

Cumulative Contribution to Non-Attainment Criteria Pollutant Emissions

Construction Emissions

The final project would be constructed with the same phases as the previous project (though in a different sequence, with the hotel as the first phase) and within the same timeframe as described in the Draft EIR for the previous project. In addition, the construction of the final project would use the same construction equipment at the same or lesser rate (i.e., quantity and duration) as the previous project analyzed in the Draft EIR. For these reasons, the final project would result in the same or lesser construction emissions as the previous project analyzed in the Draft EIR. The final project would implement the same mitigation measures (see MM AIR-1.1 and AIR-1.2 below) as identified in the Draft EIR to reduce the impact from construction emissions to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

Mitigation Measures:

MM AIR-1.1: During any construction period ground disturbance, the applicant shall ensure that the project contractor implements the following BAAQMD BMPs:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

- Post a publicly visible sign with the telephone number and person to contact at the construction firm regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

MM AIR-1.2: The project shall develop a plan demonstrating that the off-road equipment used on-site to construct the project would achieve a fleet-wide average 92 percent reduction in PM_{10} exhaust emissions or more. The plan shall include, but is not limited to, one or more of the following:

- All mobile diesel-powered off-road equipment larger than 25 horsepower and operating on the site for more than two days continuously shall meet, at a minimum, USEPA particulate matter emissions standards for Tier 4 engines or equivalent and include the use of equipment that includes CARB-certified Level 3 Diesel Particulate Filters.
- Use of alternatively-fueled equipment (i.e., non-diesel), such as electric, biodiesel, or liquefied petroleum gas for example, would meet this requirement.
- Other measures may be the use of added exhaust devices, or a combination of measures, provided that these measures are approved by the City and demonstrated to reduce community risk impacts to less than significant.

Operational Emissions

The operational emissions of the final project in comparison to the previous project analyzed in the Draft EIR are summarized in Table 1.5-3. As shown in Table 1.5-3, the final project would result in slightly lower emissions than the previous project analyzed in the Draft EIR.

Table 1.5-3: Estimated Project Operational Air Emissions (tons/year)

	ROG	**NO_x**	**PM_{10}**	**$PM_{2.5}$**
A. Final Project	11.55	9.87	9.85	2.81
B. Draft EIR Project (Option 2)	11.78	10.09	9.92	2.85
Difference (A – B)	*-0.23*	*-0.22*	*-0.07*	*-0.04*

Source: Illingworth & Rodkin, Inc. *Final Project Criteria Air Pollutant Greenhouse Gas Emissions Modeling.* June 11, 2019.

The final project would implement the same mitigation measures (see MM AIR-2.1 and AIR-2.2 below) as identified in the Draft EIR for the previous project to reduce the impact from operational emissions to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

Mitigation Measures:

MM AIR-2.1: The project shall develop and implement a VMT Reduction Plan that would reduce vehicle trips by 20 percent, half of which (a 10 percent reduction) shall be achieved with TDM measures.

MM AIR-2.2: The project shall use low volatile organic compound or VOC (i.e., ROG) coating, that are below current BAAQMD requirements (i.e., Regulation 8, Rule 3: Architectural Coatings), for at least 50 percent of all residential and nonresidential interior and exterior paints. This includes all architectural coatings applied during both construction and reapplications throughout the project's operational lifetime. At least 50 percent of coatings applied must meet a "super-compliant" VOC standard of less than 10 grams of VOC per liter of paint. For reapplication of coatings during the project's operational lifetime, the Declaration of Covenants, Conditions, and Restrictions shall contain a stipulation for low VOC coatings to be used.

Effects on Air Quality Standards

While the final project would result in slightly more average daily trips (see Table 1.5-7) than the previous project described in the Draft EIR, the final project would result in lower operational emissions (see Table 1.5-3) due to the slight differences in development intensity. For these reasons, the final project would result in similar (though less) exceedance of the BAAQMD O_3 (specifically ROG) air quality standards (as discussed above and mitigated with the implementation of MM AIR-2.1 and AIR-2.2) as described in the Draft EIR for the previous project.

In addition, like the previous project, the final project would not violate other air quality standards (including those for NO_x and CO). **(Less than Significant Impact)**

Exposure of Sensitive Receptors to Pollutant Concentrations

Exposure of Sensitive Receptors from Project Construction Activity

As discussed previously, the final project would be constructed within the same timeframe and number of phases (though in a different sequence) as the previous project analyzed in the Draft EIR. In addition, the construction of the final project would use the same construction equipment at the same or lesser rate as the previous project analyzed in the Draft EIR. For these reasons, the final project would result in the same less than significant health risk impact to off-site sensitive receptors and, with the implementation of mitigation measure MM AIR-1.2, would result in the same less than significant health risk to on-site sensitive receptors as described in the Draft EIR for the previous project. **(Less than Significant Impact)**

Exposure of Sensitive Receptors to Project Emergency Generator Testing and Maintenance

Like the previous project analyzed in the Draft EIR, the final project includes a diesel-fuel emergency backup generator for the hotel. The backup emergency diesel generator would be the same size under the final project (100 kW) as the previous project analyzed in the Draft EIR. For this reason, the health risk from the operation and testing of the generator would be the same as described for the previous project in the Draft EIR. **(Less than Significant Impact)**

Exposure of On-Site Sensitive Receptors from Existing TAC Sources

The final project would be exposed to the same existing TAC sources as described in the Draft EIR for the previous project. The final project would implement the same conditions of approval (see below) identified in the Draft EIR for the previous project to reduce health risks to below the BAAQMD significance thresholds.

Conditions of Approval:

- The final site layout shall locate operable windows and air intakes as far as possible and feasible from TAC sources.
- Install air filtration at all residential units. Air filtration devices shall be rated MERV13 or higher. To ensure adequate health protection to sensitive receptors, a ventilation system shall meet the following minimal design standards:
    a. A MERV13 or higher rating;
    b. At least one air exchange(s) per hour of fresh outside filtered air; and
    c. At least four air exchange(s) per hour recirculation.

    Alternately, at the approval of the City, equivalent control technology may be used if it is shown by a qualified air quality consultant or heating, ventilation, and air conditioning (HVAC) engineer that it would reduce risk below significance thresholds.
- Implement an ongoing maintenance plan for the building's HVAC air filtration system. Recognizing that emissions from air pollution sources are decreasing, the maintenance period shall last as long as significant excess cancer risk or annual $PM_{2.5}$ exposures are predicted. Subsequent studies could be conducted by an air quality expert approved by the City to identify the ongoing need for the filtered ventilation systems as future information becomes available.
- Ensure that the lease agreement and other property documents (1) require cleaning, maintenance, and monitoring of the affected units for air flow leaks; (2) include information on the ventilation system to new owners and tenants; and (3) include provisions that fees associated with owning or leasing a unit(s) in the building include funds for cleaning, maintenance, monitoring, and replacements of the filters, as needed.
- Prior to building occupancy, an authorized air pollutant consultant or HVAC engineer shall verify the installation of all necessary measures to reduce TAC exposure.

Odors

The final project proposes the same land uses as the previous project. For this reason, the final project would result in the same less than significant odors described in the Draft EIR for the previous project. **(Less than Significant Impact)**

Consistency with the 2017 Clean Air Plan

The final project supports the goals of the 2017 Clean Air Plan (CAP) of protecting public health and protecting the climate and is consistent with the 2017 CAP control measures SS20 and SS32 for the same reasons as the previous project, by:

- Implementing mitigation measures to reduce criteria air pollutants during construction and operation,
- Evaluating health risk to nearby receptors from the backup generator proposed on-site,
- Reducing motor vehicle miles traveled by proposing a mixed-use project in proximity to existing/proposed/planned pedestrian, bicycle, and transit facilities,
- Including a TDM program that encourages automobile-alternative transportation, and
- Complying with applicable regulations that would result in energy and water efficiency including Title 24 and California Green Building Standards Code.

The final project would not disrupt or hinder the implementation of applicable CAP control measures. **(Less than Significant Impact)**

Cumulative Impacts

Because the final project would result in the same or lesser air quality impacts as the previous project analyzed in the Draft EIR and would implement the same mitigation measures, the final project would result in the same or lesser contribution to cumulative air quality impacts as the previous project analyzed in the Draft EIR. **(Less than Significant Cumulative Impact)**

1.5.2.4 *Biological Resources*

The final project is proposed on the same site and is subject to the same existing biological resources conditions as described in the Draft EIR. The final project would disturb the same area/site as the previous project described in the Draft EIR.

Special-Status Species and Sensitive Habitats

<u>Burrowing Owls</u>

The final project would implement the same conditions of approval as the previous project analyzed in the Draft EIR (see below), to survey for the burrowing owl and protect the burrowing owl if it is found present on-site. The final project, therefore, would result in same less than significant impact

to burrowing owls as described for the previous project in the Draft EIR. **(Less than Significant Impact)**

Conditions of Approval:

- Pre-construction surveys for burrowing owls shall be conducted in conformance with CDFW protocols. The initial site visit shall be conducted no more than 14 days prior to the start of any ground-disturbing activity such as clearing and grubbing, excavation, or grading, or any similar activity. If during the initial survey any ground squirrel burrows or other burrows that may be used as nesting or roosting sites by burrowing owls are detected, but no burrowing owls are observed, a second survey shall be conducted within 48 hours of the start of construction to determine whether any burrowing owls are present. If no burrowing owls are located during these surveys, no additional action would be warranted. However, if burrowing owls are located on or immediately adjacent to impact areas the following measures shall be implemented.

- If burrowing owls are present during the nonbreeding season (generally 1 September to 31 January), a 160-foot buffer zone, within which no new project-related activity would be permissible, shall be maintained around the occupied burrow(s) if feasible, though a reduced buffer is acceptable during the non-breeding season as long as construction avoids direct impacts to the burrow(s) used by the owls. During the breeding season (generally 1 February to 31 August), a 250-foot buffer, within which no new project-related activity would be permissible, shall be maintained between project activities and occupied burrows. If owls are present at burrows on the site after 1 February, it will be assumed to be nesting on or adjacent to the site unless evidence indicates otherwise. This protected area shall remain in effect until 31 August, or based upon monitoring evidence, until the young owls are foraging independently.

- If ground-disturbing activities would directly impact occupied burrows, the owls occupying burrows to be disturbed shall be passively relocated during the non-nesting season. Relocation shall occur by a qualified biologist using one-way doors. No burrowing owls shall be evicted from burrows during the nesting season (1 February through 31 August) unless evidence indicates that nesting is not actively occurring (e.g., because the owls have not yet begun nesting early in the season, or because young owls have already fledged late in the season).

Nesting Birds

The final project would have the same impact to nesting birds as the previous project analyzed in the Draft EIR and would implement the same mitigation measure (MM BIO-1.1 below) identified in the Draft EIR for the previous project to reduce the impacts to nesting birds to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

Mitigation Measures:

MM BIO-1.1: Construction shall be scheduled to avoid the nesting season to the extent feasible. The nesting season for most birds, including most raptors, in the San Francisco Bay Area extends from February 1 through August 31.

If it is not possible to schedule construction and tree removal between September and January, then pre-construction surveys for nesting birds shall be completed by a qualified ornithologist to ensure that no nests shall be disturbed during project implementation. This survey shall be completed no more than 14 days prior to the initiation of grading, tree removal, or other demolition or construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August).

During this survey, the ornithologist shall inspect all trees and other possible nesting habitats within and immediately adjacent to the construction area for nests. If an active nest is found sufficiently close to work areas to be disturbed by construction, the ornithologist, in consultation with CDFW, shall determine the extent of a construction-free buffer zone to be established around the nest to ensure that nests of bird species protected by the MBTA or Fish and Game Code shall not be disturbed during project construction.

A final report of nesting birds, including any protection measures, shall be submitted to the Director of Community Development prior to the start of grading or tree removal.

Bird Strikes

The final project proposes buildings of the same materials and maximum building height as the previous project analyzed in the Draft EIR. The final project would have the same potential for bird strikes as the previous project and implement the same conditions of approval as identified in the Draft EIR (see below) for the previous project. The final project, therefore, would have the same less than significant bird strike impact as described for the previous project analyzed in the Draft EIR. **(Less than Significant Impact)**

Conditions of Approval:

- The project shall prepare and submit a plan to implement bird-safe design standards into project buildings and lighting design to minimize hazards to birds. These specific standards shall include the following to minimize hazards to birds:

  - Reduce large areas of transparent or reflective glass.
  - Locate water features and other bird habitat away from building exteriors to reduce reflection.
  - Reduce or eliminate the visibility of landscaped areas behind glass.

- To the extent consistent with the normal and expected operations of the residential and commercial uses of the project, take appropriate measures to avoid use of unnecessary lighting at night, especially during bird migration season (February through May and August through November) through the installation of motion-sensor lighting, automatic light shut-off mechanisms, downward-facing exterior light fixtures, or other effective measures to the extent possible.

Impacts to Trees

Like the previous project analyzed in the Draft EIR, the final project would remove all five existing trees on-site. The final project would plant a total of 722 new trees, which is 72 more trees than were previously proposed to be planted. For this reason, the final project would result in the same less than significant impacts to trees as described in the Draft EIR for the previous project. **(Less than Significant Impact)**

Consistency with the Habitat Plan

Like the previous project, the final project would pay all applicable Habitat Plan fees. The final project, therefore, would result in the same less than significant Habitat Plan impact as the previous project analyzed in the Draft EIR. **(Less than Significant Impact)**

Cumulative Impacts

Because the final project would result in the same biological resources impacts as the previous project described in the Draft EIR and would implement the same mitigation measures, the final project would result in the same contribution to cumulative biological resources impacts as the previous project. **(Less than Significant Cumulative Impact)**

1.5.2.5 *Cultural Resources*

Historic, Paleontological, Tribal Cultural Resources Impacts

The final project is on the same site as the previous project and proposes the same level of ground disturbance (including depth of excavation) at the site. For this reason, the final project would result in the same impact to historic, paleontological, and tribal cultural resources as the previous project. **(No Impact)**

Archaeological Resources Impacts

The final project is on the same site and proposes the same level of ground disturbance as the previous project analyzed in the Draft EIR. The final project would implement the same mitigation measures (see MM CUL-1.1 through -1.3) as the identified in the Draft EIR for the previous project and, therefore, would result in the same impact described for the previous project. **(Less than Significant Impact with Mitigation Incorporated)**

Mitigation Measures:

MM CUL-1.1: Archaeological monitoring by a qualified prehistoric archaeologist shall be completed during soil remediation and presence/absence exploration with a backhoe shall be completed where safe, undisturbed, and possible prior to construction activities. If any potentially CRHR eligible resources are identified, they should be briefly documented, photographed, mapped, and tarped before the area is backfilled. If resources are identified, a research design and treatment plan shall be completed and implemented by the archaeologist and shall include hand excavating the feature(s) or deposits prior to building construction.

MM CUL-1.2: As part of the safety meeting on the first day of construction/ground disturbing activities, the Archaeological Monitor shall brief construction workers on the role and responsibility of the Archaeological Monitor and procedures to follow in the event cultural resources are discovered. The prime construction contractor and any other subcontractors shall be informed of the legal and/or regulatory implications of knowingly destroying cultural resources or removing artifacts, human remains, and other cultural materials from the study area. The archaeological monitor has the authority to stop or redirect construction/remediation work to other locations to explore for potential features.

MM CUL-1.3: In the event that human remains are discovered during excavation and/or grading of the site, all activity within a 50-foot radius of the find shall be stopped. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission NAHC immediately. Once NAHC identifies the most likely descendants, the descendants will make recommendations regarding proper burial, which will be implemented in accordance with Section 15064.5(e) of the CEQA Guidelines.

Cumulative Impacts

Because the final project would result in the same cultural resources impacts as the previous project described in the Draft EIR and implement the same mitigation measures, the final project would result in the same contribution to cumulative cultural resources impacts as the previous project. **(Less than Significant Cumulative Impact)**

1.5.2.6 *Energy*

Energy Use and Efficiency

The final project proposes a similar amount of development as the previous project analyzed in the Draft EIR. For this reason, it is anticipated that the final project would have a similar energy demand during construction and operation as the previous project analyzed in the Draft EIR.

The final project would implement the same construction period mitigation measures (MM AIR-1.1 and AIR-1.2) as the previous project analyzed in the Draft EIR to minimize idling times, require properly maintained construction equipment, and use of alternative fueled construction equipment. In addition, like the previous project analyzed in the Draft EIR, the final project would comply with the City's Construction and Demolition Debris Recycling Program.

A summary of the estimated energy demand of the final project and previous project analyzed in the Draft EIR is provided in Table 1.5-4. As shown in Table 1.5-4, the final project would result in lower electricity and natural gas demand, and a higher gasoline demand than the previous project analyzed in the Draft EIR.

Table 1.5-4: Estimated Annual Operational Energy Demand

	Estimated Electricity Demand (gigawatt-hours)	**Estimated Natural Gas Demand** (billion British thermal units)	**Estimated Gasoline Demand*** (gallons)
A. Final Project	15	28	474,118
B. Draft EIR Project (Option 2)	18	34	398,149
Difference (A – B)	*-3*	*-6*	*+75,969*

Source: Illingworth & Rodkin, Inc. *Final Project Criteria Air Pollutant Greenhouse Gas Emissions Modeling.* June 11, 2019.

While the final project would generate higher gasoline demand than the previous project analyzed in the Draft EIR, the final project would not use fuel or energy in a wasteful manner, given the project features that reduce energy use, including the following:

- Developing an infill site,
- Proposing a mix of uses,
- Proposing high-density residential uses near existing transit,
- Implementing a TDM program to promote automobile-alternative modes of transportation,
- Constructing bike lanes on Coleman Avenue and Brokaw Road,

- Improving an existing bus stop,
- Constructing in conformance with the Title 24 and CALGreen to promote energy and water efficiency,
- Including recycling services on-site to reduce solid waste disposal,
- Planting trees to reduce the heat island effect,
- Connecting to recycled water for landscape irrigation,
- Providing for use of lawn and garden equipment powered by electricity, and
- Incorporating permeable paving.

For these reasons, like the previous project analyzed in the Draft EIR, the construction and operation of the final project would not use fuel or energy in a wasteful manner. **(Less than Significant Impact)**

Increase in Energy Demand

Like the previous project analyzed in the Draft EIR, the final project is consistent with the overall development assumptions in the City's General Plan. The General Plan EIR concluded that the buildout of the General Plan would not result in a significant energy demand impact. For these reasons, the final project would not result in a significant impact on energy demand. **(Less than Significant Impact)**

Cumulative Impacts

Because the final project would result in a similar energy demand as the previous project described in the Draft EIR, the final project would have a similar contribution to cumulative energy impacts as the previous project. **(Less than Significant Cumulative Impact)**

1.5.2.7 *Geology and Soils*

The final project is subject to the same geology and soil conditions as described for the previous project and proposes a similar amount of development as the previous project analyzed in the Draft EIR. Like the previous project, the final project would comply with existing regulations (including implementation of a Stormwater Pollution Prevention Plan and implementation of recommendations in a design-level geotechnical engineering study) to reduce geology and soil impacts to a less than significant level. For these reasons, the final project would result in the same less than significant project and less than significant cumulative geology and soils impacts as the previous project analyzed in the Draft EIR. **(Less than Significant Impact, Less than Significant Cumulative Impact)**

1.5.2.8 *Greenhouse Gas Emissions*

Construction Emissions

The final project proposes a similar amount of development as the previous project and generates 236 more average daily vehicle trips than the previous project analyzed in the Draft EIR (refer to Table 1.5-7). The final project would result in the same or fewer construction-related GHG emissions as the previous project analyzed in the Draft EIR because it would be constructed within the same

timeframe and use the same construction equipment at the same or lesser rate. Like the previous project, the final project reduces GHG emissions in various ways, including:

- Developing an infill site;
- Proposing a mix of uses;
- Proposing high-density residential uses near existing transit;
- Implementing a TDM program to promote automobile-alternative modes of transportation (see MM AIR-2.1);
- Constructing bike lanes on Coleman Avenue and Brokaw Road;
- Improving an existing bus stop;
- Constructing in conformance with the Title 24 and CALGreen to promote energy and water efficiency;
- Installing both EV fixtures and wiring for additional EV stalls in all of the parking garages;
- Including recycling services onsite to reduce solid waste disposal;
- Planting trees to reduce the heat island effect;
- Connecting to recycled water for landscape irrigation;
- Providing for use of lawn and garden equipment powered by electricity; and
- Incorporating permeable paving.

Operational Emissions

A summary of the greenhouse gas emissions and greenhouse gas emissions per service population for the final project compared to the previous project analyzed in the Draft EIR is shown in Table 1.5-5.

Table 1.5-5: Estimated Annual GHG Emissions and GHG Emissions Per Service Population

	GHG Emissions with Implementation of Mitigation Measure MM AIR-2.1 (MT)	**GHG Emissions per Service Population** (MT)
Final Project	12,351	2.59
Draft EIR Project (Option 2)	12,772	2.60

Note: MT = metric tons; The service population was estimated using the following rates: 2.73 average persons per household; and one employee per 400 commercial square feet (Sources: California Department of Finance. "E-5 City/County Population and Housing Estimates." May 2017. Accessed: August 18, 2017. Available at: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/; City of Santa Clara. *City of Santa Clara 2010-2035 General Plan.* Adopted December, 2010, amended December 2013 and December 2014. Page 8.6-12.).

Source: Illingworth & Rodkin, Inc. *Final Project Criteria Air Pollutant Greenhouse Gas Emissions Modeling.* June 11, 2019.

As shown on Table 1.5-5, the final project (with the implementation of mitigation measure MM AIR-2.1) would result in fewer total GHG emissions and a lower GHG emissions per service population than the previous project (Option 2) analyzed in the Draft EIR. Like Option 2 of the previous project, the final project (with the implementation of mitigation measures MM AIR-2.1) would not exceed

the significance threshold of 2.6 MT of CO_2e per year per service population. **(Less than Significant Impact with Mitigation Incorporated)**

Consistency with the 2017 Clean Air Plan, General Plan, and Climate Action Plan

The final project would implement the same air quality mitigation measures, develop the same mix of uses, implement a TDM program, comply with Title 24 and CALGreen, and include the same water conservation, recycling, electric gardening equipment accessibility, construction best management practices, EV fixtures and wiring, shade trees, and permeable pavement as the previous project. For these reasons, the final project would have the same consistency with the 2017 Clean Air Plan, General Plan, and Climate Action Plan as the previous project analyzed in the Draft EIR. **(Less than Significant Impact)**

Cumulative Impacts

The final project would result in similar significant GHG impacts as the previous project as identified in the Final EIR. The final project, therefore, would result in a similar contribution to a significant cumulative greenhouse gas emissions impact as the previous project. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

1.5.2.9 *Hazards and Hazardous Materials*

Routine Transport, Use, or Disposal of Hazardous Materials

Like the previous project analyzed in the Draft EIR, the final project does not propose any on-site use of hazardous materials other than small quantities of herbicides and pesticides for landscaping maintenance and cleaning and pool chemicals. The final project would be implemented in accordance with federal, state, and local laws and regulations. For these reasons, the final project would result in the same less than significant impact regarding the routine transport, use, or disposal of hazardous materials as described in the Draft EIR for the previous project. **(Less than Significant Impact)**

Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials

The final project is subject to the same existing hazards and hazardous materials conditions as described in the Draft EIR and proposes the same land uses and ground disturbance activities as described in the Draft EIR for the previous project. Like the previous project analyzed in the Draft EIR, the final project would implement mitigation measures MM HAZ-1.1 (see below) to reduce the impacts related to the release of hazardous materials to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

Mitigation Measures:

MM HAZ-1.1: The project shall develop and implement a Site Management Plan (SMP) that outlines the measures required to mitigate potential risks (including soil vapor intrusion) to construction workers, future occupants, and the environment from potential exposure to hazardous substances that may be encountered during soil intrusive or construction activities on-site. As part of the SMP, the requirements of a worker health and safety plan be outlined to address potential hazards to construction workers and off-site receptors that may result from construction activities. Each contractor shall be required to develop their own site-specific health and safety plan to protect their workers.

The SMP shall also identify all wells on-site and identify measures to protect and/or abandon existing remediation systems, groundwater monitoring wells, and soil vapor monitoring wells. All wells to be abandoned shall be permitted through the SCVWD.

The SMP prepared as stipulated above was submitted and approved by RWQCB in May 2016. This approved SMP was submitted to the City and a copy is included in Appendix E of the Draft EIR.

Safety Hazards

The final project is proposed on the same site and proposes the same maximum building height as the previous project analyzed in the Draft EIR. For this reason, the final project would result in the same less than significant safety hazards as described for the previous project in the Draft EIR. **(Less than Significant Impact)**

Emergency Plan and Wildland Fires

The final project is proposed on the same site as the previous project. As described in the Draft EIR, the project site is not subject to wildfire hazards. Like the previous project, the final project would not change the local roadway circulation pattern and access or otherwise physically interfere with the Santa Clara Emergency Operations Plan or other emergency response or evacuation plans. **(No Impact)**

Consistency with the Airport Comprehensive Land Use Plan

The final project proposes the same maximum building height of 150 feet and similar building massing as the previous project analyzed in the Draft EIR. The project was considered by the ALUC on June 28, 2017, which acknowledged that with a density of 51-100 du/ac and a minimum FAR of 0.20 for commercial uses, the project would be consistent with the CLUP. The final project remains within the scope of this approval, at 73 du/ac and a commercial FAR of 0.21. **(Less than Significant Impact)**

Cumulative Impacts

Because the final project would result in the same hazards and hazardous materials impacts and implement the same mitigation measure as the previous project described in the Draft EIR, the final project would result in the same less than significant contribution to cumulative hazards and hazardous materials impact as the previous project. **(Less than Significant Cumulative Impact)**

1.5.2.10 *Hydrology and Water Quality*

The final project is subject to the same existing hydrology and water quality site conditions (e.g., groundwater depth, flooding, and inundation) described in the Draft EIR. In addition, the final project proposes the same below ground excavation and would result in less impervious area than described in the Draft EIR for the previous project (76 percent compared to 71 percent under the previous project). Table 1.5-2 summarizes the impervious and pervious surfaces of the final project in comparison to the previous project analyzed in the Draft EIR.

The final project would comply with the same regulations as the previous project and, therefore, result in lesser project and cumulative impacts than described in the Draft EIR for the previous project. **(Less than Significant Impact, Less than Significant Cumulative Impact)**

1.5.2.11 *Land Use and Planning*

The final project is subject to the same existing land use conditions as described in the Draft EIR. The final project would redevelop the site in a similar manner as described for the previous project in the Draft EIR. Because the final project proposes the same land uses and similar site plan, the final project would result in the same less than significant impact of dividing an established community, a generally similar shade and shadow impact because the Building 4 tower would be reoriented with the same maximum building height, and the hotel would be five fewer stories in height while Building 3 would be one story taller in height, similar commercial FAR of 2.0, and same consistency with the Airport Comprehensive Land Use Plan, General Plan, and Habitat Plan as discussed for the previous project in the Draft EIR. The final project, therefore, would result in the similar less than significant project and less than significant cumulative land use impacts as described in the Draft EIR for the previous project. **(Less than Significant Impact, Less than Significant Cumulative Impact)**

1.5.2.12 *Mineral Resources*

The final project is subject to the same existing mineral resources conditions as described in the Draft EIR. Because the project site is not identified as a natural resource area containing mineral resources in the City's General Plan, nor are there any known mineral resources on-site, the final project would not result in project and cumulative impacts to mineral resources, similar to the previous project analyzed in the Draft EIR. **(No Impact, No Cumulative Impact)**

1.5.2.13 *Noise and Vibration*

The final project would be subject to the same existing noise and vibration conditions as described in the Draft EIR. The final project proposes the same land uses as the previous project analyzed in the Draft EIR. The densities of land uses and the site plan are slightly changed under the final project (as described in Section 1.5).

Future Exterior Noise Levels

Parks, Common Amenity Areas At-Grade, and Residential Outdoor Common Amenity Areas

The approximately two-acre neighborhood park is proposed at the same location under the final project as it was under the previous project analyzed in the Draft EIR. For this reason, the exterior noise level at the neighborhood park would not change under the final project. The final project proposes a new approximately 0.6-acre linear park between Buildings 3 and 4. Like the neighborhood park, the linear park would be subject to the City's noise standard of 65 dBA CNEL for recreational exterior noise. The edge of the linear park closest to the train tracks would experience noise levels of 65 dBA CNEL from train and aircraft noise. The center of the linear park would be further set back from the train tracks and partially shielded by the residential buildings, and would experience noise levels of 60 dBA CNEL from train and aircraft noise. For these reasons, noise levels at the linear park would be at or below the City's 65 dBA CNEL goal.

The common amenity areas at-grade are proposed at the same or similar locations on-site as they were under the previous project analyzed in the Draft EIR; therefore, the noise exposure at these areas would not change under the final project.

All residential outdoor common amenity areas would be at the same locations as they were under the previous project except for the outdoor amenity areas at Buildings 3 and 4. Under the final project, the outdoor common amenity areas on the 3rd floor of Buildings 3 and 4 would be of a different shape and location than the ones previously analyzed in the Draft EIR. In addition, rooftop decks are proposed on the 7th floor of Building 3 and 13th floor of Building 4 facing the linear park. Similar to the outdoor common amenity areas under the previously project, most of the outdoor common amenity area in Buildings 3 and 4 of the final project remain completed shielded by the proposed buildings themselves and would be exposed to exterior noise levels of at least 59 dBA CNEL due to aircraft noise, which would be above the City's 55 dBA CNEL.[2] The outdoor pool on the 3rd floor of Building 4 would be relocated to the southwest corner of the building under the final project. The pool area would be partially shielded by the proposed building from traffic noise along the roadways and train noise from the train tracks and would be exposed to an exterior noise levels of at least 60 dBA CNEL due to train and also aircraft noise, which would also be above the City's 55 dBA CNEL.[3]

The final project proposes rooftop decks on the 7th floor of Building 3 and 13th floor of Building 4. These rooftop decks would be partially shielded by the proposed buildings from traffic noise along the roadways and train noise from the train tracks. The rooftop decks would be exposed to exterior

[2] Illingworth & Rodkin, Inc. *Gateway Crossings Noise and Vibration Assessment Update*. June 12, 2019. Page 2.
[3] Ibid.

noise levels of at least 59 dBA CNEL due to aircraft noise, which would be above the City's 55 dBA CNEL.[4]

Like the previous project analyzed in the Draft EIR, the exterior noise levels at the neighborhood park and outdoor residential common amenity areas under the final project would exceed the City's exterior land use compatibility goals. The final project would implement the same mitigation measure (see MM NOI-1.1) as the previous project analyzed in the Draft EIR. As discussed in the Draft EIR, there are no feasible measures to reduce aircraft noise levels at the neighborhood park, common outdoor amenity areas in the residential buildings, and at-grade outdoor amenity areas. The impact remains significant and unavoidable under the final project. **(Significant Unavoidable Impact)**

Mitigation Measure:

MM NOI-1.1: Potential residents and buyers shall be provided with a real estate disclosure statement and buyer deed notices which would offer comprehensive information about the noise environment of the project site.

Hotel Outdoor Use Areas

Under the final project, the hotel outdoor use areas would be located on the 2nd and 8th floors. Given the location and setback of the hotel outdoor use areas, the noise environment at the hotel outdoor common use areas would not exceed the City's 65 CNEL threshold for commercial uses.[5] This is the same less than significant impact identified for the previous project in the Draft EIR. **(Less than Significant Impact)**

Future Interior Noise Levels

The locations and footprints of the residential buildings are similar to the previous project analyzed in the Draft EIR, and interior noise levels would be the same as discussed for the previous project analyzed in the Draft EIR. The hotel building would change shape and height under the final project, but the edges of the building would not be closer to or further from the adjacent roadway or project boundaries. Therefore, the interior noise levels in the final hotel would be the same as analyzed in the Draft EIR for the previous project. The final project would implement the same conditions of approval (see below) as identified for the previous project in the Draft EIR to reduce interior noise levels.

Conditions of Approval:

- Provide a suitable form of forced-air mechanical ventilation, as determined by the local building official, so that windows can be kept closed to control noise.

- A qualified acoustical specialist shall prepare a detailed analysis of interior residential noise levels resulting from all exterior sources during the design phase pursuant to requirements set

[4] Illingworth & Rodkin, Inc. *Gateway Crossings Noise and Vibration Assessment Update*. June 12, 2019. Page 3.
[5] Ibid.

forth in the State Building Code. The study will also establish appropriate criteria for noise levels inside the commercial spaces affected by environmental noise. The study will review the final site plan, building elevations, and floor plans prior to construction and recommend building treatments to reduce residential interior noise levels to 45 dBA CNEL or lower. Treatments would include, but are not limited to, STC sound-rated windows and doors, sound-rated wall and window constructions, acoustical caulking, protected ventilation openings, etc. The specific determination of what noise insulation treatments are necessary shall be conducted on a unit-by-unit basis during final design of the project. Results of the analysis, including the description of the necessary noise control treatments, shall be submitted to the City, along with the building plans and approved design, prior to issuance of a building permit.

The commercial uses on the ground floors of Buildings 1 and 4 facing the neighborhood park for the final project are similar in location to the previous project analyzed in the Draft EIR and would have the same interior noise levels as discussed in the Draft EIR. The final project would also include ground floor commercial uses in Buildings 3 and 4 facing the linear park, Building 2 facing the neighborhood park, and a 3,500-square foot free-standing commercial space on the northern edge of the neighborhood park near Brokaw Road between Buildings 1 and 4. Assuming standard commercial construction methods with the windows and doors closed, interior noise levels at all ground floor commercial uses would be below the CALGreen Code standard of 50 dBA $L_{eq(1\text{-}hr)}$.

BART Vibration Effects

The final project would have the same setback from the nearest proposed BART track as described for the previous project analyzed in the Draft EIR and, therefore, would be exposed to the same vibration levels from BART as described in the Draft EIR for the previous project. The vibration levels would be below the threshold level of 72 vibration decibels (VdB).

Construction-Related Impacts

Construction-Related Vibration Impacts

The final project would be constructed within the same timeframe and phases (though in a different sequence) as the previous project analyzed in the Draft EIR. In addition, the construction of the final project would use the same construction equipment at the same or lesser rate (due to the smaller size of the hotel and residential development) as the previous project analyzed in the Draft EIR. For these reasons, the final project would result in the same less or lesser construction-related vibration impact as the previous project analyzed in the Draft EIR. **(Less than Significant Impact)**

Construction-Related Noise Impacts

As discussed above, the final project would be constructed within the same timeframe and use the same construction equipment at the same or lesser rate as the previous project analyzed in the Draft EIR. The final project would adhere to the City Code for construction hours and implement the same mitigation measure (see MM NOI-2.1 below) as the previous project analyzed in the Draft EIR to

reduce construction-related noise impacts to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

Mitigation Measure:

MM NOI-2.1: Develop a construction noise control plan, including, but not limited to, the following available controls:

- Construct temporary noise barriers, where feasible, to screen stationary noise-generating equipment. Temporary noise barrier fences would provide a five dBA noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receiver and if the barrier is constructed in a manner that eliminates any cracks or gaps.
- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines shall be strictly prohibited (i.e., no more than two minutes in duration)
- Locate stationary noise-generating equipment, such as air compressors or portable power generators, as far as possible from sensitive receptors as feasible. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used to reduce noise levels at the adjacent sensitive receptors. Any enclosure openings or venting shall face away from sensitive receptors.
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.
- Construction staging areas shall be established at locations that would create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.
- Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from commercial (and proposed residential) receptors.
- Control noise from construction workers' radios to a point where they are not audible at land uses bordering the project site.
- The contractor shall prepare a detailed construction schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent land uses so that construction activities can be scheduled to minimize noise disturbance.
- Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., bad muffler, etc.) and require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule.

Operational Noise

Like the previous project analyzed in the Draft EIR, the final project would include mechanical equipment and a backup emergency diesel generator. The hotel backup emergency diesel generator would be the same size (100 kW) as proposed under the previous project analyzed in the Draft EIR, but would be located at the ground floor outside of the building, northeast of the back of the house/service area (instead of either the hotel garage or service area as previously analyzed in the Draft EIR). The operation and testing of the backup generator under the final project would produce a noise level of approximately 65 dBA L_{eq} at the shared property line with Coleman Highline adjacent to the south of the site, which would be at the City's noise level threshold for commercial land uses during daytime hours, but would exceed the nighttime hour noise level threshold of 60 dBA. Like the previous project analyzed in the Draft EIR, the backup generator noise level under the final project would exceed the City's daytime and nighttime noise thresholds for residential uses. The final project would implement the same mitigation measure (see MM NOI-3.1) as identified for the previous project in the Draft EIR to reduce operational noise impacts from on-site mechanical equipment to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

Mitigation Measure:

MM NOI-3.1: Mechanical equipment shall be selected and designed to meet the City's noise level requirements. A qualified acoustical consultant shall be retained to review mechanical noise as these systems are selected to determine specific noise reduction measures necessary to reduce noise to comply with the City's noise level requirements. Noise reduction measures could include, but are not limited to, selection of equipment that emits low noise levels, installation of mufflers or sound attenuators, and/or installation of noise barriers such as enclosures and parapet walls to block the line-of-sight between the noise source and the nearest receptors. Alternate measures may include locating equipment in less noise-sensitive areas, where feasible.

Project Generated Traffic

The final project would result in 236 more daily project trips than the previous project analyzed in the Draft EIR (see Table 1.5-7). This incremental increase (2.4 percent increase) in project trips would not be substantial or change the traffic noise levels estimated for the surrounding roadways as described in the Draft EIR for the previous project. For these reasons, the final project would result in the same less than significant permanent noise increase at noise-sensitive receptors from project-generated traffic as described in the Draft EIR for the previous project. **(Less than Significant Impact)**

Consistency with Plans

The final project would have the same consistency with the Norman Y. Mineta San Jose Airport Comprehensive Land Use Plan (CLUP) and the City's General Plan as the described for the previous project in the Draft EIR by:

- Preparing a noise assessment using the CNEL method,
- Proposing compatible land uses consistent with Table 4-1 of the CLUP,
- Providing a real estate disclosure statement and buyer deed notices disclosing the property's noise environment, and
- Including noise attenuation measures to reduce residential and hotel interior noise levels.

Cumulative Impacts

Because the final project would result in the same or lesser noise and vibration impacts than the previous project and implement the same mitigation measures, the final project would result in the same or lesser contribution to cumulative noise and vibration impacts than described in the Draft EIR for the previous project. **(Less than Significant Cumulative Impact)**

1.5.2.14 *Population and Housing*

The Draft EIR concluded that the previous project would not induce substantial population growth in the area. Because the final project proposes a similar amount of development as the previous project analyzed in the Draft EIR, the final project would result in the same less than significant impact to population and housing.

Like the previous project analyzed in the Draft EIR, the final project proposes more residential units and fewer amount of total commercial development than what is assumed for the site in the General Plan; however, the proposed land uses, development, and intensification of the site under the final project are consistent with the General Plan vision and General Plan policies that encourage higher density housing. Table 1.5-5 summarizes the estimated residential population and jobs from the final project and previous project analyzed in the Draft EIR. The final project would result in 95 fewer residents and 45 fewer jobs, compared to the previous project analyzed in the Draft EIR.

As discussed in the Draft EIR, the City is a "job rich" community. Like the previous project analyzed in the Draft EIR, the final project would create a more balanced jobs to housing ratio by constructing more housing compared to what is assumed for the site under the General Plan. For these reasons, the final project would result in the same less than significant and less than significant cumulative population and housing impacts as described in the Draft EIR for the previous project. **(Less than Significant Impact, Less than Significant Cumulative Impact)**

Table 1.5-5: Estimated Population and Jobs		
	Estimated Population	**Estimated Jobs**
A. Final Project	4,273	493
B. Draft EIR Project (Option 2)	4,368	538
Difference (A – B)	*-95*	*-45*

Note: The number of new residents was estimated assuming 2.73 persons per household and the number of commercial jobs was estimated assuming one employee per 400 square feet (Sources: California Department of Finance. "E-5 City/County Population and Housing Estimates." May 2017. Accessed: August 18, 2017. Available at: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/; City of Santa Clara. *City of Santa Clara 2010-2035 General Plan.* Adopted December 2010, amended December 2013 and December 2014. Page 8.6-12).

1.5.2.15 *Public Services*

The final project is subject to the same existing public services conditions as described in the Draft EIR. The final project proposes fewer residential units, less hotel rooms, and more ground floor retail. The final project proposes more park space than the previous project with the addition of an approximately 0.6-acre linear park. The final project also proposes similar amount of common amenity space within the residential buildings as the previous project analyzed in the Draft EIR.

As shown in Table 1.5-5, the final project would result in 95 fewer residents and 45 fewer employees on-site. The previous project would generate approximately 16 elementary school students, seven middle school students, and nine high school students. While the final project would have 35 fewer residential units, it would generate approximately the same number of elementary, middle, and high school students as the previous project analyzed in the Draft EIR.[6]

Given the final project's greater amount of park space and fewer residents and employees, the final project would result in similar less than significant impacts to public services as described in the Draft EIR for the previous project. The final project would comply with the same regulations (including Government Code Section 65996 requiring the payment of school impact fees and City Code Chapter 17.35 requiring the project applicant to provide adequate park and recreational land and/or paying a fee in-lieu of parkland dedication) as the previous project analyzed in the Draft EIR to reduce project and cumulative impacts to public services to a less than significant level. **(Less than Significant Impact, Less than Significant Cumulative Impact)**

[6] Student generation rates of 0.01 for elementary school students, 0.00428 for middle school, and 0.00571 students for high school students were used to estimate the number of students from the project (source: Healy, Michal. Director of Facility Development and Planning, Santa Clara Unified School District. Personal Communication. August 21, 2017.).

1.4.2.16 *Recreation*

Given the final project's greater amount of park space, and fewer residents and employees, the final project would result in a similar less than significant impact to recreational facilities as the previous project analyzed in the Draft EIR. The final project would comply with the same regulations and policies (including City Code Chapter 17.35 that requires the project applicant to provide adequate park and recreational land and/or pay a fee in-lieu of parkland dedication to offset the project's impact on existing neighborhood parks) as the previous project analyzed in the Draft EIR to reduce recreation impacts and cumulative recreation impacts to a less than significant level. **(Less than Significant Impact, Less than Significant Cumulative Impact)**

1.5.2.17 *Transportation/Traffic*

The final project is subject to the same existing transportation conditions as described for the previous project in the Draft EIR. The final project proposes a similar amount of development as the previous project. As shown in Table 1.5-7, the final project generates 236 more average daily trips, 14 fewer AM peak hour trips, and seven more PM peak hour trips than the previous project analyzed in the Draft EIR. Because the final project proposes the same land uses at a similar density as the previous project analyzed in the Draft EIR, the vehicle distribution and assignment for the final project is similar to that of the previous project.

Table 1.5-7: Estimated Project Trip Generation

Net Project Trips	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
A. Final Project	10,067	-44	578	534	626	159	785
B. Draft EIR Project (Option 2)	9,831	-45	593	548	628	150	778
Difference (A – B)	*+236*	*+1*	*-15*	*-14*	*-2*	*-9*	*-7*

Sources:

1. City of Santa Clara. *Gateway Crossings Project Draft Environmental Impact Report.* SCH#2017022066. April 2018. Page 179.
2. Hexagon Transportation Consultants. *Traffic Impact Analysis Consistency Review for the Gateway Crossings Mixed-Use Development Project Description Adjustment.* June 5, 2019.

Existing Plus Project Conditions

As shown in Table 1.5-7, the difference in trip generation between the final project and previous project is minimal and would not result in a new or more severe significant impact than described for the previous project in the Draft EIR.[7] The final project, therefore, would have the same significant impacts at Coleman Avenue/Brokaw Road and De La Cruz Boulevard/Central Expressway as the previous project. The final project would implement the same mitigation measures MM TRAN-1.1 and TRAN-1.2 (see below) as the previous project analyzed in the Draft EIR to reduce the project's traffic impact.

Mitigation Measures:

MM TRAN-1.1: 1. Coleman Avenue/Brokaw Road (City of Santa Clara) – This intersection is under the jurisdiction of the City of Santa Clara. The improvement includes changing the signal for Brokaw Road (the east and west legs of this intersection) from protected left-turn phasing to split phase, adding a shared through/left turn lane to the east and west approaches within the existing right-of-way, changing the existing shared through/right-turn lanes to right-turn only lanes on the east and west approaches, changing the eastbound right-turn coding from "include" to "overlap" indicating that eastbound right turns would be able to turn right on red, prohibiting U-turns on northbound Coleman Avenue, and adding a third southbound through lane on Coleman Avenue, and restriping to provide exclusive southbound through and right turn lanes.

The above described improvements are not fully designed but it is anticipated that the improvements could be accommodated within the existing right-of-way. However, the addition of the proposed bike lanes on Brokaw Road could require approximately 10 feet of additional right-of-way along Brokaw Road. MM TRAN-2.1 could result in short-term construction-related impacts, removal of trees, and impacts to unknown buried cultural resources.

With implementation of this improvement, the intersection of Coleman Avenue/Brokaw Road would operate at an acceptable LOS C during the PM peak hour, and the average delay would improve over existing conditions. For this reason, the final project, with the implementation of mitigation measure MM TRAN-1.1, would result in a less than significant impact at this intersection. **(Less than Significant Impact with Mitigation Incorporated)**

MM TRAN-1.2: 6. De La Cruz Boulevard/Central Expressway (City of Santa Clara/CMP) – This intersection is located in the City of Santa Clara and under the jurisdiction of Santa Clara County. The Comprehensive County Expressway Planning Study identifies the conversion of the single HOV lane in each direction to mixed-flow lanes on Central Expressway as a Tier 1A project.[8] The approved City Place

[7] Hexagon Transportation Consultants. *Traffic Impact Analysis Consistency Review for the Gateway Crossings Mixed-Use Development Project Description Adjustment.* June 5, 2019.
[8] Tier 1A improvements are the County's highest priority improvements in the Comprehensive County Expressway Planning Study and will be fully funded in the near-term.

development also identifies adding a second southbound right-turn lane and a third northbound left-turn lane as a mitigation measure.[9] The project shall make a fair-share contribution towards the HOV lane conversion and additional lane geometry improvements identified as mitigation for the City Place project.

With implementation of the improvements identified in mitigation measure MM TRAN-1.2, the intersection of De La Cruz Boulevard/Central Expressway would operate at an acceptable LOS E during the PM peak hour and the average delay would be better than existing conditions. The project shall implement mitigation measure MM TRAN-1.2, however, the impact is concluded to be significant unavoidable because the improvement at this intersection is not under the jurisdiction of the City of Santa Clara and the City cannot guarantee the implementation of the improvement concurrent with the final project. **(Significant Unavoidable with Mitigation Incorporated)**

Existing Plus Project Freeway Segment Levels of Service

Because the trip generation, assignment, and distribution between the final project and previous project is similar, the final project would have the same significant impacts to freeway segments as the previous project analyzed in the Draft EIR. The final project would implement the same mitigation measure MM TRAN-2.1 (see below) as the previous project analyzed in the Draft EIR to reduce the project's impact.

Mitigation Measure:

MM TRAN-2.1: The project shall pay a fair-share contribution towards the VTA's Valley Transportation Plan (VTP) 2040 express lane program along US 101.

The VTA's VTP 2040 identifies freeway express lane projects along US 101 between Cochrane Road and Whipple Avenue, and along all of SR 87. On all identified freeway segments, the existing HOV lanes are proposed to be converted to express lanes. On US 101, a second express lane is proposed to be implemented in each direction for a total of two express lanes. Converting the HOV lanes to express lanes on I-880 and SR 87 would not mitigate the project's impact. On US 101, converting the existing HOV lane to an express lane and adding an express lane in each direction would increase the capacity of the freeway and would fully mitigate the project's freeway impacts. The project shall pay a fair-share contribution towards the express lane program along US 101; however, the impact is concluded to be significant unavoidable because the express lane project is not fully funded, not under the jurisdiction of the City of Santa Clara, and the City cannot guarantee the implementation of the improvement concurrent with the final project. **(Significant Unavoidable Impact with Mitigation Incorporated)**

[9] The City Place project (including identified mitigation) is approved and will be implemented in the near-term.

Background Plus Project Conditions

Because the trip generation, assignment, and distribution between the final project and previous project analyzed in the Draft EIR is similar, the final project would have the same significant impacts at the same five intersections (1. Coleman Avenue/Brokaw Road; 6. De La Cruz Boulevard/Central Expressway; 7. Lafayette Street/Central Expressway; 13. Coleman Avenue/I-880 (S); and 15. Coleman Avenue/Taylor Street) as the previous project. The final project would implement the same mitigation measures MM TRAN-1.1, -1.2, and -3.1 through -3.3 (see below) as the previous project analyzed in the Draft EIR to reduce the project's impact.

Mitigation Measures:

MM TRAN-3.1: 7. Lafayette Street/Central Expressway (City of Santa Clara/CMP) – This intersection is located in the City of Santa Clara and under the jurisdiction of Santa Clara County. The Comprehensive County Expressway Planning Study identifies the conversion of the single HOV lane in each direction to mixed-flow lanes on Central Expressway as a Tier 1A project.[10] The project shall make a fair-share contribution towards this improvement.

With the implementation of the improvement identified in mitigation measure MM TRAN-3.1, the intersection of Lafayette Street/Central Expressway would operate at an acceptable LOS E during the AM peak hour and an unacceptable LOS F during the PM peak hour, but the average delay during the PM peak hour would improve over background conditions. The final project shall implement mitigation measure MM TRAN-3.1, however, the impact is concluded to be significant unavoidable because the improvement at this intersection is not under the jurisdiction of the City of Santa Clara and the City cannot guarantee the implementation of the improvement concurrent with the final project. **(Significant Unavoidable with Mitigation Incorporated)**

MM TRAN-3.2: 13. Coleman Avenue/I-880 (S) (City of San José/CMP) – This intersection is located in the City of San José and under the jurisdiction of the City of San José. This improvement includes restriping one of the left-turn lanes to a shared left- and right-turn lane, effectively creating three right-turn lanes. Three receiving lanes currently exist on the north leg of Coleman Avenue.

With implementation of this improvement, the intersection of Coleman Avenue/I-880 (S) would operate at an acceptable LOS D during the AM peak hour. The final project shall implement mitigation measure MM TRAN-3.2, however, the impact is concluded to be significant unavoidable because the improvement at this intersection is not under the jurisdiction of the City of Santa Clara and the City cannot guarantee the implementation of the improvement concurrent with the final project. **(Significant Unavoidable with Mitigation Incorporated)**

MM TRAN-3.3: 15. Coleman Avenue/Taylor Street (City of San José) – This intersection is located in and under the jurisdiction of the City of San José. The widening of Coleman Avenue to six lanes has been identified as a Downtown Strategy 2000

[10] The HOV conversion is under a trial program.

improvement by the City of San José and is an approved project that will be implemented in the near-term. The project shall make a fair-share contribution towards this improvement.

With implementation of the improvement identified in mitigation measure MM TRAN-3.3, the intersection of Coleman Avenue/Taylor Street would operate at an acceptable LOS D during both the AM and PM peak hours. The final project shall implement MM TRAN-3.3, however, the impact is concluded to be significant unavoidable because the improvement at this intersection is not under the jurisdiction of the City of Santa Clara and the City cannot guarantee the implementation of the improvement concurrent with the final project. **(Significant Unavoidable with Mitigation Incorporated)**

With implementation of mitigation measure MM TRAN-1.1, the intersection of Coleman Avenue/Brokaw Road would operate at an acceptable LOS C during the PM peak hour (as well as the AM peak hour), and the average delay would improve over background conditions. For this reason, the final project, with the implementation of mitigation measure MM TRAN-1.1, would result in a less than significant impact at this intersection. **(Less than Significant Impact with Mitigation Incorporated)**

With implementation of the improvements identified in mitigation measure MM TRAN-1.2, the intersection of De La Cruz Boulevard/Central Expressway would operate at an unacceptable LOS F during the PM peak hour, but the average delay would be better than background conditions. The project shall implement MM TRAN-1.2, however, the impact is concluded to be significant unavoidable because the improvement at this intersection is not under the jurisdiction of the City of Santa Clara and the City cannot guarantee the implementation of the improvement concurrent with the final project. **(Significant Unavoidable with Mitigation Incorporated)**

Construction-Related Traffic Impacts

The construction duration and activities (including excavation and construction staging) for the final project would be the same as described in the Draft EIR for the previous project. Like the previous project, the final project would prepare a Construction Management Plan which would include, but is not limited to the following conditions, subject to the City's approval:

- Truck haul routes for construction trucks.
- Signs shall be posed along roads identifying construction traffic access or flow limitations due to lane restrictions during periods of truck traffic.

For these reasons, the final project would result in the same less than significant construction-related traffic impacts as the previous project. **(Less than Significant Impact)**

Pedestrian, Bicycle, and Transit Facilities Impacts

The final project would generate a similar demand for pedestrian, bicycle, and transit facilities as the previous project; and the final project proposes the same pedestrian, bicycle, and transit improvements and connections as described for the previous project in the Draft EIR. For these

reasons, the final project would result in the same less than significant impact to pedestrian, bicycle, and transit facilities described in the Draft EIR for the previous project. **(Less than Significant Impact)**

Other Impacts

As described in the Draft EIR for the previous project, the final project would obtain a "Determination of No Hazard" for each proposed multi-story structure from the FAA and does not include safety hazards or incompatible uses. The final project would implement the same site access and circulation recommendations detailed in Appendix G of the Draft EIR (and as revised in page 81 of the Final EIR) and be designed and constructed per City standards. For these reasons, the final project would result in the same less than significant impacts to air traffic patterns and hazards due to a design feature or incompatible land use as described in the Draft EIR for the previous project. **(Less than Significant Impact)**

Cumulative Plus Project Conditions

Because the final project is subject to the same cumulative conditions described in the Draft EIR for the previous project, and the trip generation, assignment, and distribution between the final project and previous project are similar, the final project would have the cumulatively considerable contributions to significant cumulative impacts at the same seven intersections (1. Coleman Avenue/Brokaw Road; 6. De La Cruz Boulevard/Central Expressway; 7. Lafayette Street/Central Expressway; 8. Scott Boulevard/Central Expressway; 12. Coleman Avenue/I-880 (N) 13. Coleman Avenue/I-880 (S); and 15. Coleman Avenue/Taylor Street) as the previous project. The final project would implement the same mitigation measures MM TRAN-1.1, TRAN-1.2, TRAN-3.1 through TRAN-3.3, C-TRAN-1.1, and C-TRAN-1.2 (see below) as the previous project analyzed in the Draft EIR to reduce the project's impact.

Mitigation Measures:

MM C-TRAN-1.1: 8. Scott Boulevard/Central Expressway – This intersection is located in the City of Santa Clara and under the jurisdiction of the County of Santa Clara. The Comprehensive County Expressway Planning Study identifies the conversion of HOV to mixed-flow lanes on Central Expressway as a Tier 1A project. The revised project shall make a fair-share contribution to this improvement.

With implementation of this improvement, the intersection of Scott Boulevard/Central Expressway would operate at an unacceptable LOS F during the PM peak hour, but the average delay would be better than under cumulative conditions. The final project shall implement mitigation measure MM C-TRAN-1.1, however, the impact is concluded to be significant unavoidable because the improvement at this intersection is not under the jurisdiction of the City of Santa Clara and the City cannot guarantee the implementation of the improvement concurrent with the final project. **(Significant Unavoidable Cumulative Impact with Mitigation Incorporated)**

MM C-TRAN-1.2: 12. Coleman Avenue/I-880 (N) – This intersection is located in the City of San José and under the jurisdiction of the City of San José. This improvement would include restriping one of the left-turn lanes to a shared left- and right-turn lane, effectively creating two right-turn lanes. Three receiving lanes currently exist on the north leg of Coleman Avenue.

With implementation of this improvement, the intersection would operate at better than background conditions at LOS C during the AM peak hour. The final project shall implement mitigation measure MM C-TRAN-1.2, however, the impact is concluded to be significant unavoidable because the improvement at this intersection is not under the jurisdiction of the City of Santa Clara and the City cannot guarantee the implementation of the improvement concurrent with the final project. **(Significant Unavoidable Cumulative Impact with Mitigation Incorporated)**

The final project, with the implementation of mitigation measure MM TRAN-1.1, would improve intersection operations to better than cumulative conditions at LOS D during the PM peak hour and would reduce its cumulative contribution to the significant cumulative impact at Coleman Avenue/Brokaw Road to a less than significant level. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

The final project shall implement mitigation measures MM TRAN-1.2 and -3.1 through -3.3 to reduce its cumulative contribution to the significant cumulative impacts at intersections: 6. De La Cruz Boulevard/Central Expressway (City of Santa Clara/CMP); 7. Lafayette Street/Central Expressway (City of Santa Clara/CMP); 13. Coleman Avenue/I-880 (S) (City of San José/CMP); and 15. Coleman Avenue/Taylor Street (City of San José) to cumulative conditions or better for CMP intersections and background conditions or better for City of San José intersections. However, the impacts are concluded to be significant unavoidable because the improvement at these intersections are not under the jurisdiction of the City of Santa Clara and the City cannot guarantee the implementation of the improvement concurrent with the final project. **(Significant Unavoidable Cumulative Impact with Mitigation Incorporated)**

1.5.2.18 *Utilities and Service Systems*

The final project is subject to the same existing utilities and service systems conditions as described in the Draft EIR for the previous project. Table 1.5-8 summarizes the estimated sewage generation, water demand, and solid waste generation of the final project and previous project analyzed in the Draft EIR.

Table 1.5-8: Estimated Sewage Generation, Water Demand, and Solid Waste Generation

	Estimated Sewage Generation (million gallons per day)	**Estimated Water Demand** (acre feet per year)	**Estimated Solid Waste Generation** (tons per year)
A. Final Project*	0.3	308	890
B. Draft EIR Project (Option 2)	0.3	335	890

Note: * The sewage generation and water demand for the final project was based on the following rates:

- Sewage generation: Apartments: 154 gallons per day/dwelling unit. Commercial: 0.1 gallons per day/square foot. Hotels: 100 gallons per day/room. Source: V&A Consulting Engineers. *Gateway Crossings Mixed Use Sewer Capacity Study.* June 2017.
- Water demand: Apartments: 121 gallons per day/dwelling unit. Commercial: 0.05 gallons per day/square foot. Hotels: 0.48 gallons per day/square foot. Irrigation: 0.077 gallons per day/square foot. Source: City of Santa Clara. Gateway Crossings 1205 Coleman Avenue Development Water Supply Assessment. August 22, 2017.

Source for solid waste generation: Illingworth & Rodkin, Inc. *Final Project Criteria Air Pollutant Greenhouse Gas Emissions Modeling.* June 11, 2019.

Wastewater/Sanitary Sewer System Impact

The final project proposes the same land uses as the previous project analyzed in the Draft EIR. As discussed in the Draft EIR, it is not anticipated that sewage generated by proposed residential and commercial uses would exceed the wastewater treatment requirements of the Regional Water Quality Control Board (RWQCB).

As shown in Table 1.5-8, the final project would generate the same amount of sewage as the previous project. For these reasons, the final project would result in the same impact to wastewater treatment facilities and the sanitary sewer system as described in the Draft EIR for the previous project. **(Less than Significant Impact)**

Stormwater Drainage System Impact

As shown in Table 1.5-2, the final project would result in less impervious surfaces as the previous project. The final project, therefore, would generate less stormwater runoff than the previous project. For these reasons, the final project would have a lesser impact to the stormwater drainage system than described in the Draft EIR for the previous project. **(Less than Significant Impact)**

Water Supply Impact

As shown in Table 1.5-8, final project would have less water demand than the previous project analyzed in the Draft EIR. For this reason, the final project would have a lesser impact on water supply than described in the Draft EIR for the previous project. **(Less than Significant Impact)**

Solid Waste Impacts

Like the previous project analyzed in the Draft EIR, construction and operation of the final project would comply with applicable regulations and policies related to diversion of materials from disposal and appropriate disposal of solid waste. As shown in Table 1.5-8, the final project would generate approximately the same amount of solid waste as the previous project analyzed in the Draft EIR. The final project, therefore, would result in the same solid waste impacts than the previous project analyzed in the Draft EIR. As discussed in the Draft EIR, without a specific plan for disposing of solid waste beyond 2024, solid waste generated by development in the City post 2024 would result in a significant unavoidable cumulative impact. **(Less than Significant Impact, Significant Unavoidable Cumulative Impact)**

Cumulative Impacts

Because the final project would result in the same or less utility and service system impacts as the previous project described in the Draft EIR, the final project would result in the same or lesser contributions to cumulative utility and service system impacts than the previous project. **(Less than Significant Cumulative Impact)**

1.5.2.19 *Growth-Inducing Impacts*

Like the previous project analyzed in the Draft EIR, the final project is considered an "infill" project. A summary of the development allowed in the Santa Clara Station Focus Area and General Plan compared to the development proposed under the final project and previous project analyzed in the Draft EIR is provided in Table 1.5-9. As shown in Table 1.5-9, the amount of development proposed under the final project is within the development allowed by the Santa Clara Station Focus Area Plan. For this reason, the final project would not result in significant growth-inducing impacts beyond what is anticipated for the Santa Clara Station Focus Area in the City's General Plan. **(Less than Significant Impact)**

Table 1.5-9: Allowed and Proposed Residential and Commercial Development				
	Santa Clara Station Focus Area Net New Development	**Allowed On-Site by General Plan Land Use Designations**	**Draft EIR Project**	**Final Project**
Residential Units	1,663	758 - 1,278	1,400 - 1,600	1,565
Commercial Square Footage	1,490,000	1,025,838	215,000	197,000

Table 1.5-10: Summary of Project and Project Alternative Impacts					
Impacts	**Final Project**	**Draft EIR Project**	**No Project Alternatives**		**Reduced Development Alternative**
			No Development	**Development**	
Aesthetics	LTS	LTS	**NI**	**LTS**	**LTS**
Agricultural and Forestry Resources	NI	NI	NI	NI	NI
Air Quality					
• Construction-Related Air Pollutants	SM	SM	**NI**	**SM**	**SM**
• Operational Air Pollutant Emissions	SM	**LTS**/SM*	**NI**	**LTS**	**LTS**
• Cumulative Operational Air Pollutant Emissions	SM	SM	**NI**	**LTS**	**LTS**
Biological Resources (Nesting Birds)	SM	SM	**NI**	SM	SM
Cultural Resources	SM	SM	**NI**	SM	SM
Energy					
• Electricity and Natural Gas	LTS	LTS	**NI**	**LTS**	**LTS**
• Gasoline	LTS	LTS	**NI**	**LTS**	**LTS**
Geology and Soils	LTS	LTS	NI	LTS	LTS
Greenhouse Gas Emissions					
• Operational GHG Emissions	SM	SM	**NI**	SM	LTS
• Cumulative GHG Emissions	SM	SM	**NI**	SM	LTS
Hazards and Hazardous Materials	SM	SM	**NI**	SM	SM
Hydrology and Water Quality	LTS	LTS	**NI**	LTS	LTS
Land Use	LTS	LTS	**NI**	**LTS**	LTS

Table 1.5-10: Summary of Project and Project Alternative Impacts					
Impacts	**Final Project**	**Draft EIR Project**	**No Project Alternatives**		**Reduced Development Alternative**
			No Development	**Development**	
Mineral Resources	NI	NI	NI	NI	NI
Noise and Vibration • Aircraft noise • Construction related noise	 SU SM	 SU SM	 **NI** **NI**	 SU **SM**	 SU **SM**
Population and Housing	LTS	LTS	**NI**	**LTS**	**LTS**
Public Services	LTS	LTS	**NI**	**LTS**	**LTS**
Transportation/Traffic • Freeway Impacts • Intersection LOS • Cumulative Intersection LOS	 SU SM SU	 SU SM SU	 **NI** **NI** **NI**	 **LTS** **LTS** **LTS**	 **LTS** **LTS** **LTS**
Utilities and Service Systems • Other utilities • Cumulative solid waste	 LTS SU	 LTS SU	 **NI** **NI**	 **LTS** **SU**	 **LTS** **SU**
Meets Applicant's Revised Objectives?	Yes	Partially	No	Partially	Partially
Meets City's Objectives?	Yes	Yes	No	No	Partially

Notes: SU = Significant unavoidable impact; SM = Significant impact, but can be mitigated to a less than significant level; LTS = Less than significant impact; and NI = No impact.
* Option 1 would result in LTS operational air pollutant emissions and Option 2 would result in SM operational air pollutant emissions.
Bold text indicates being environmentally superior to the final project.

Final EIR page 2: **REVISE** Table 1.4-10 as follows:

Table 1.4-10: Summary of Project and Project Alternative Impacts					
Impacts	**Revised Project**	**Previous Project**	**No Project Alternatives**		**Reduced Development Alternative**
			No Development	**Development**	
Aesthetics	LTS	LTS	**NI**	**LTS**	**LTS**
Agricultural and Forestry Resources	NI	NI	NI	NI	NI
Air Quality					
• Construction-Related Air Pollutants	SM	SM	**NI**	**SM**	**SM**
• Operational Air Pollutant Emissions	SM	**LTS**/SM*	**NI**	**LTS**	**LTS**
• Cumulative Operational Air Pollutant Emissions	SM	SM	**NI**	**LTS**	**LTS**
Biological Resources (Nesting Birds)	SM	SM	**NI**	SM	SM
Cultural Resources	SM	SM	**NI**	SM	SM
Energy					
• Electricity and Natural Gas	LTS	LTS	**NI**	**LTS**	**LTS**
• Gasoline	LTS	LTS	**NI**	**LTS**	**LTS**
Geology and Soils	LTS	LTS	NI	LTS	LTS
Greenhouse Gas Emissions					
• Operational GHG Emissions	SM	SM	**NI**	SM	LTS
• Cumulative GHG Emissions	SM	SM	**NI**	SM	LTS
Hazards and Hazardous Materials	SM	SM	**NI**	SM	SM
Hydrology and Water Quality	LTS	LTS	**NI**	LTS	LTS
Land Use	LTS	LTS	**NI**	**LTS**	LTS
Mineral Resources	NI	NI	NI	NI	NI
Noise and Vibration					

Table 1.4-10: Summary of Project and Project Alternative Impacts					
Impacts	**Revised Project**	**Previous Project**	**No Project Alternatives**		**Reduced Development Alternative**
			No Development	**Development**	
• Aircraft noise • Construction related noise	SU SM	SU SM	**NI** **NI**	SU **SM**	SU **SM**
Population and Housing	LTS	LTS	**NI**	**LTS**	**LTS**
Public Services	LTS	LTS	**NI**	**LTS**	**LTS**
Transportation/Traffic • Freeway Impacts • Intersection LOS • Cumulative Intersection LOS	 SU SM SU	 SU SM SU	 **NI** **NI** **NI**	 **LTS** **LTS** **LTS**	 **LTS** **LTS** **LTS**
Utilities and Service Systems • Other utilities • Cumulative solid waste	LTS SU	LTS SU	**NI** **NI**	**LTS** **SU**	**LTS** **SU**
Meets Applicant's Revised Objectives?	Yes	~~Yes~~ Partially	No	Partially	Partially
Meets City's Objectives?	Yes	Yes	No	No	Partially
Notes: SU = Significant unavoidable impact; SM = Significant impact, but can be mitigated to a less than significant level; LTS = Less than significant impact; and NI = No impact. * Option 1 would result in LTS operational air pollutant emissions and Option 2 would result in SM operational air pollutant emissions. **Bold** text indicates being environmentally superior to the revised project.					

Final EIR page 5: **ADD** the following text after the last sentence of the second paragraph as follows:

The comments and responses included in this section of the Final EIR pertain to the previous project analyzed in the Draft EIR. Please refer to Section 1.4 of this Final EIR for a description of the revised project and a discussion of its impacts on the environment. Refer to Section 1.5 of this Final EIR for a description of the final project and a discussion of its impacts on the environment.

Final EIR page 76: **REVISE** the following text after the first paragraph:

Page 14 Section 2.3 Project Objectives; **REVISE** the text as follows:

The applicant's objectives for the project are as follows:

1. Develop the 24-acre project site at the southwest corner of Coleman Avenue and Brokaw Road in Santa Clara into an economically viable mixed use project consisting of commercial spaces and a vibrant residential community, providing a range of product types that will support the diversity of Santa Clara and is designed to be inviting to all.
2. Provide the on-site residential community and public access to a pedestrian friendly site with a variety of on-site recreational amenities including a neighborhood park, BBQ area, children's playground~~, dog park~~, and various lounge areas.
3. Develop an on-site commercial component of approximately 197,000 ~~187,000~~ ~~215,000~~ square feet, consisting of a hotel and ancillary commercial uses, that will provide services to both the residential community and public at large and will generate tax revenues for the City.
4. Create a transit-oriented development that supports alternative modes of transportation with a direct connection to the Santa Clara Transit Station.
5. Comply with and advance the General Plan goals and policies for the Santa Clara Station Focus Area (General Plan Section 5.4.3).

Final EIR page 82: **REVISE** the following text after the edits to Page 220:

Page 221 Section 7.2 Objectives of the project; **REVISE** the text as follows:

The applicant's objectives for the project are as follows:

1. Develop the 24-acre project site at the southwest corner of Coleman Avenue and Brokaw Road in Santa Clara into an economically viable mixed use project consisting of commercial spaces and a vibrant residential community, providing a range of product types that will support the diversity of Santa Clara and is designed to be inviting to all.
2. Provide the on-site residential community and public access to a pedestrian friendly site with a variety of on-site recreational amenities including a neighborhood park, BBQ area, children's playground~~, dog park~~, and various lounge areas.
3. Develop an on-site commercial component of approximately 197,000 ~~187,000~~ ~~215,000~~ square feet, consisting of a hotel and ancillary commercial uses, that will provide services to both the residential community and public at large and will generate tax revenues for the City.
4. Create a transit-oriented development that supports alternative modes of transportation with a direct connection to the Santa Clara Transit Station.
5. Comply with and advance the General Plan goals and policies for the Santa Clara Station Focus Area (General Plan Section 5.4.3).

Final EIR last page: **ADD** the following appendices after the last page of the document:

Appendix E: Final Project Air Quality Memo

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality

429 E. Cotati Avenue
Cotati, CA 94931

Tel: 707-794-0400 *Fax: 707-794-0405*
www.illingworthrodkin.com *illro@illingworthrodkin.com*

M E M O

Date: June 11, 2019

To: **Kristy Weis**, David J. Powers & Associates, Inc.
Amy Wang, David J. Powers & Associates, Inc.

From: **James A. Reyff**
Illingworth & Rodkin, Inc.
429 E. Cotati Avenue
Cotati, CA 94931

RE: **Gateway Crossings, Coleman Brokaw** I&R Job#16-075

SUBJECT: **Final Project Criteria Air Pollutant Greenhouse Gas Emissions Modeling**

The purpose of this memo is to address changes in air quality impacts associated with revisions to the proposed Gateway Crossings project in Santa Clara. The revisions to the proposed project is referred to as the Final project. Illingworth & Rodkin, Inc. (I&R) completed an evaluation of the air quality impacts for the Gateway Crossings project in Santa Clara, California[1]. This assessment evaluated the air quality impacts in terms of emissions from construction and operation of the project and addressed health risks associated with the project. The proposed project includes residential, hotel and retail uses under the existing DEIR evaluation and the proposed revisions. Changes to the project that we evaluated are based on the comparison in Table 1.

Table 1 Summary of Land Use Changes

Land Use Type	DEIR Project	Final Project
Project Scenarios Modeled		
Residential	1,600 Apartment units	1,565 Apartment units
Hotel	250 rooms	225 rooms
Retail	15,000sf Shopping Center	45,000sf Shopping Center
Parking	2,758 enclosed, 21 parking lot	2,395 enclosed, 24 parking lot
Existing Uses Modeled		
Research & Development	72,840 sf	72,840 sf

Emissions Modeling

Criteria air pollutants (i.e., ROG, NOx, PM10 and PM2.5) and GHG emissions associated with development of the proposed project would occur over at least 5 years from construction activities,

[1] I&R. 2017. Gateway Crossings project in Santa Clara, California Draft Air Quality. September 19.

consisting primarily of emissions from equipment exhaust and worker and vendor trips. There would be long-term operational emissions associated with vehicular traffic within the project vicinity, energy and water usage, and solid waste disposal. Emissions for the proposed revisions to the project (under either option) are discussed below and were analyzed using the methodology recommended in the BAAQMD CEQA Air Quality Guidelines.

CalEEMod Modeling

CalEEMod was used to estimate differences in emissions from the DEIR project and the Final project. The project land use types and size and other project-specific information were input to the model, as described above. CalEEMod provides emissions for transportation, areas sources, electricity consumption, natural gas combustion, electricity usage associated with water usage and wastewater discharge, and solid waste land filling and transport. As for the project analyzed in the DEIR, revised project traffic trip generation rates that include adjustments for a mix of uses and proximity to transit were used in the modeling.

Construction Emissions

Detailed construction information for the DEIR project regarding schedule, equipment usage and amounts of soil material hauling were provided by the applicant and used in the modeling. This information represented the best available construction information for the project. According to the applicant, these assumptions would also apply to the Final Project and there is no difference in the overall construction effort noted.

Note that when CalEEMod was used with default conditions, lower construction period emissions were predicted than those reported in the DEIR air quality analysis. Use of CalEEMod default conditions, where the DEIR Project and the Final Project were modeled, indicates that the Final project would have slightly lower construction emissions.

Table 2 Comparison of Total Construction Emissions from the Gateway Crossing Project (in tons/metric tons) using CalEEMod Default Conditions

Modeled Pollutant	DEIR Project	Final Project	Difference (Final – DEIR Project)
ROG	15.55	15.12	-0.43
NOx	17.03	16.10	-0.93
PM10	0.37	0.36	-0.01
PM2.5	0.35	0.34	-0.02
GHG (CO2e)	5,349	5,073	-276

Operational Emissions

The CalEEMod model, along with the project vehicle trip generation rates for the DEIR and Final project scenarios, was used to predict daily emissions associated with operation of the proposed project under either option. The first operational year for the entire project build-out would be 2026. Table 3 compares modeled emissions of the Final project to the DEIR project and Existing land uses. Also included in Table 3 are the mitigated GHG emissions that include the effect of

energy-efficient appliances, low-flow water fixtures and a TDM program that would reduce mobile emission by at least 10 percent. As shown in Table 3, emissions associated with the Final project would be slightly less than those reported for the DEIR project. Note that the primary differences in emissions between the two scenarios result from the slight differences in land uses, and a reduction in the proposed parking. It should be noted that new 2019 Building Energy Efficiency Standards adopted into Title 24, Part 6 of the State building code would apply to the project and reduced energy-related emissions further than those reported. These standards apply to projects filing for building permits beginning January 1, 2020.

Table 3 Comparison of Annual Emissions from the Gateway Crossing Project (in tons/metric tons)

Modeled Pollutant	Existing Uses	Reported DEIR	Final Project	Difference (DEIR – Final Project)
ROG	1.56	11.78	11.55	-0.23
NOx	1.62	10.09	9.87	-0.22
PM10	1.62	9.92	9.85	-0.07
PM2.5	0.46	2.85	2.81	-0.04
GHG (CO2e)	2,469	13,684	13,258	-426
Mitigated GHG*	2,469	12,772	12,351	-421

*Includes 10% reduction for TDM, energy-efficient appliances and low-flow water fixtures.

Emergency Backup Generator

The Final project would include a relatively small emergency generator that would be rated at 100-kilowatts (kW). This generator was assumed to be powered by diesel fuel. The generator was included in the CalEEMod modeling and included in Table 3 for the Final Project.

Attachments: CalEEMod Model Output for:

DEIR Project
Final Project

Gateway Crossings - Apr 2019 REVISED project - Santa Clara County, Annual

Gateway Crossings - June 2019 FINAL project

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	2,395.00	Space	0.00	958,000.00	0
Parking Lot	24.00	Space	0.00	9,600.00	0
Hotel	225.00	Room	0.00	326,700.00	0
Apartments Mid Rise	1,565.00	Dwelling Unit	24.00	1,565,000.00	4476
Strip Mall	45.00	1000sqft	0.00	45,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2026
Utility Company	Silicon Valley Power				
CO2 Intensity (lb/MWhr)	380	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SVP 2020 rate = 380 MT or less

Land Use - DEIR land uses

Construction Phase - Default to comapre construcitoin scenarios (5-year build out)

Off-road Equipment -

Trips and VMT -

Grading - Soil hauling

Vehicle Trips - computed trip rates APTs=5.88/5.65/5.18, HOTEL=7.35/7.37/5.36, RETAIL=32.22/30.56/14.85

Woodstoves - No wood burning Nat gas = 501

Energy Use -

Water And Wastewater - WTP treatment

Construction Off-road Equipment Mitigation -

Area Mitigation - At least 60% of paints have to be super-compliant VOC = effectively 46gm/L interior and 66g/L exterior

Energy Mitigation - energy efficient appliances

Water Mitigation - water efficiency

Operational Off-Road Equipment -

Stationary Sources - Emergency Generators and Fire Pumps - 135-hp generator

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	66
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	46
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	66
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	66
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	46
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	234.75	501.00
tblFireplaces	NumberWood	266.05	0.00
tblGrading	MaterialExported	0.00	90,000.00
tblLandUse	LotAcreage	21.55	0.00
tblLandUse	LotAcreage	0.22	0.00
tblLandUse	LotAcreage	7.50	0.00
tblLandUse	LotAcreage	41.18	24.00
tblLandUse	LotAcreage	1.03	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	380
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	135.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00

tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	ST_TR	6.39	5.65
tblVehicleTrips	ST_TR	8.19	7.37
tblVehicleTrips	ST_TR	42.04	30.56
tblVehicleTrips	SU_TR	5.86	5.18
tblVehicleTrips	SU_TR	5.95	5.36
tblVehicleTrips	SU_TR	20.43	14.85
tblVehicleTrips	WD_TR	6.65	5.88
tblVehicleTrips	WD_TR	8.17	7.35
tblVehicleTrips	WD_TR	44.32	32.22
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

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	0.6133	6.3102	4.4103	0.0169	0.9916	0.1484	1.1400	0.3146	0.1385	0.4531	0.0000	1,573.4486	1,573.4486	0.1230	0.0000	1,576.5236
2020	1.2118	8.8128	9.2688	0.0340	2.0842	0.1862	2.2704	0.5620	0.1754	0.7374	0.0000	3,130.1735	3,130.1735	0.1716	0.0000	3,134.4643
2021	13.2950	0.9727	1.1323	3.9400e-003	0.2427	0.0232	0.2659	0.0653	0.0217	0.0870	0.0000	361.6348	361.6348	0.0240	0.0000	362.2352
Maximum	**13.2950**	**8.8128**	**9.2688**	**0.0340**	**2.0842**	**0.1862**	**2.2704**	**0.5620**	**0.1754**	**0.7374**	**0.0000**	**3,130.1735**	**3,130.1735**	**0.1716**	**0.0000**	**3,134.4643**

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	0.6133	6.3102	4.4103	0.0169	0.9916	0.1484	1.1400	0.3146	0.1385	0.4531	0.0000	1,573.4484	1,573.4484	0.1230	0.0000	1,576.5233
2020	1.2118	8.8128	9.2688	0.0340	2.0842	0.1862	2.2704	0.5620	0.1754	0.7374	0.0000	3,130.1732	3,130.1732	0.1716	0.0000	3,134.4639
2021	13.2950	0.9727	1.1323	3.9400e-003	0.2427	0.0232	0.2659	0.0653	0.0217	0.0870	0.0000	361.6347	361.6347	0.0240	0.0000	362.2351
Maximum	**13.2950**	**8.8128**	**9.2688**	**0.0340**	**2.0842**	**0.1862**	**2.2704**	**0.5620**	**0.1754**	**0.7374**	**0.0000**	**3,130.1732**	**3,130.1732**	**0.1716**	**0.0000**	**3,134.4639**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-11-2019**	**9-10-2019**	3.4790	3.4790
2	**9-11-2019**	**12-10-2019**	2.7817	2.7817

3	12-11-2019	3-10-2020	2.5837	2.5837
4	3-11-2020	6-10-2020	2.5031	2.5031
5	6-11-2020	9-10-2020	2.4900	2.4900
6	9-11-2020	12-10-2020	2.5073	2.5073
7	12-11-2020	3-10-2021	2.6421	2.6421
8	3-11-2021	6-10-2021	12.2508	12.2508
		Highest	12.2508	12.2508

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	9.2992	0.1880	11.6569	9.6000e-004		0.0689	0.0689		0.0689	0.0689	0.0000	81.5741	81.5741	0.0195	1.1500e-003	82.4033
Energy	0.1515	1.3379	0.8656	8.2700e-003		0.1047	0.1047		0.1047	0.1047	0.0000	4,062.1896	4,062.1896	0.2243	0.0680	4,088.0477
Mobile	2.0955	8.3300	23.6302	0.0917	9.6070	0.0720	9.6791	2.5712	0.0670	2.6382	0.0000	8,418.1998	8,418.1998	0.2568	0.0000	8,424.6203
Stationary	5.5400e-003	0.0155	0.0201	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.5704	2.5704	3.6000e-004	0.0000	2.5794
Waste						0.0000	0.0000		0.0000	0.0000	180.7310	0.0000	180.7310	10.6809	0.0000	447.7533
Water						0.0000	0.0000		0.0000	0.0000	39.2744	143.9280	183.2024	0.1462	0.0877	212.9856
Total	**11.5517**	**9.8713**	**36.1728**	**0.1009**	**9.6070**	**0.2464**	**9.8534**	**2.5712**	**0.2414**	**2.8126**	**220.0054**	**12,708.4618**	**12,928.4672**	**11.3280**	**0.1568**	**13,258.3896**

Mitigated Operational

For TDM - Reduce the Mobile emissions below by 10% (ie, post process)

	ROG	NOx	CO	SO2	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	8.5797	0.1880	11.6569	9.6000e-004		0.0689	0.0689		0.0689	0.0689	0.0000	81.5741	81.5741	0.0195	1.1500e-003	82.4033
Energy	0.1515	1.3379	0.8656	8.2700e-003		0.1047	0.1047		0.1047	0.1047	0.0000	4,033.5533	4,033.5533	0.2221	0.0675	4,059.2220
Mobile	2.0955	8.3300	23.6302	0.0917	9.6070	0.0720	9.6791	2.5712	0.0670	2.6382	0.0000	8,418.1998	8,418.1998	0.2568	0.0000	8,424.6203
Stationary	5.5400e-003	0.0155	0.0201	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.5704	2.5704	3.6000e-004	0.0000	2.5794
Waste						0.0000	0.0000		0.0000	0.0000	180.7310	0.0000	180.7310	10.6809	0.0000	447.7533
Water						0.0000	0.0000		0.0000	0.0000	31.4195	120.7574	152.1769	0.1174	0.0702	176.0406
Total	**10.8322**	**9.8713**	**36.1728**	**0.1009**	**9.6070**	**0.2464**	**9.8534**	**2.5712**	**0.2414**	**2.8126**	**212.1505**	**12,656.6549**	**12,868.8054**	**11.2971**	**0.1389**	**13,192.6189**

	ROG	NOx	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	**6.23**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.57**	**0.41**	**0.46**	**0.27**	**11.42**	**0.50**

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	6/11/2019	7/8/2019	5	20	
2	Site Preparation	Site Preparation	7/9/2019	7/22/2019	5	10	
3	Grading	Grading	7/23/2019	9/9/2019	5	35	
4	Building Construction	Building Construction	9/10/2019	2/8/2021	5	370	
5	Paving	Paving	2/9/2021	3/8/2021	5	20	
6	Architectural Coating	Architectural Coating	3/9/2021	4/5/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 0

Residential Indoor: 3,169,125; Residential Outdoor: 1,056,375; Non-Residential Indoor: 557,550; Non-Residential Outdoor: 185,850;

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	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	11,250.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,685.00	387.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	337.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8672
Total	**0.0351**	**0.3578**	**0.2206**	**3.9000e-004**		**0.0180**	**0.0180**		**0.0167**	**0.0167**	**0.0000**	**34.6263**	**34.6263**	**9.6300e-003**	**0.0000**	**34.8672**

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	5.4000e-004	4.1000e-004	4.1900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0531	1.0531	3.0000e-005	0.0000	1.0538
Total	**5.4000e-004**	**4.1000e-004**	**4.1900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0531**	**1.0531**	**3.0000e-005**	**0.0000**	**1.0538**

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	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8671
Total	**0.0351**	**0.3578**	**0.2206**	**3.9000e-004**		**0.0180**	**0.0180**		**0.0167**	**0.0167**	**0.0000**	**34.6263**	**34.6263**	**9.6300e-003**	**0.0000**	**34.8671**

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	5.4000e-004	4.1000e-004	4.1900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0531	1.0531	3.0000e-005	0.0000	1.0538
Total	**5.4000e-004**	**4.1000e-004**	**4.1900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0531**	**1.0531**	**3.0000e-005**	**0.0000**	**1.0538**

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

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	3.3000e-004	2.4000e-004	2.5100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6319	0.6319	2.0000e-005	0.0000	0.6323
Total	**3.3000e-004**	**2.4000e-004**	**2.5100e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6319**	**0.6319**	**2.0000e-005**	**0.0000**	**0.6323**

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195

Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

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	3.3000e-004	2.4000e-004	2.5100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6319	0.6319	2.0000e-005	0.0000	0.6323
Total	**3.3000e-004**	**2.4000e-004**	**2.5100e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6319**	**0.6319**	**2.0000e-005**	**0.0000**	**0.6323**

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					0.1569	0.0000	0.1569	0.0637	0.0000	0.0637	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0829	0.9541	0.5841	1.0900e-003		0.0417	0.0417		0.0384	0.0384	0.0000	97.4773	97.4773	0.0308	0.0000	98.2483
Total	**0.0829**	**0.9541**	**0.5841**	**1.0900e-003**	**0.1569**	**0.0417**	**0.1986**	**0.0637**	**0.0384**	**0.1021**	**0.0000**	**97.4773**	**97.4773**	**0.0308**	**0.0000**	**98.2483**

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	0.0511	1.7513	0.3459	4.4800e-003	0.0953	6.7200e-003	0.1021	0.0262	6.4300e-003	0.0327	0.0000	433.4877	433.4877	0.0203	0.0000	433.9955
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	1.2700e-003	9.5000e-004	9.7800e-003	3.0000e-005	2.7800e-003	2.0000e-005	2.7900e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.4573	2.4573	7.0000e-005	0.0000	2.4590
Total	**0.0524**	**1.7523**	**0.3557**	**4.5100e-003**	**0.0981**	**6.7400e-003**	**0.1049**	**0.0270**	**6.4500e-003**	**0.0334**	**0.0000**	**435.9450**	**435.9450**	**0.0204**	**0.0000**	**436.4545**

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					0.1569	0.0000	0.1569	0.0637	0.0000	0.0637	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0829	0.9541	0.5841	1.0900e-003		0.0417	0.0417		0.0384	0.0384	0.0000	97.4772	97.4772	0.0308	0.0000	98.2482
Total	**0.0829**	**0.9541**	**0.5841**	**1.0900e-003**	**0.1569**	**0.0417**	**0.1986**	**0.0637**	**0.0384**	**0.1021**	**0.0000**	**97.4772**	**97.4772**	**0.0308**	**0.0000**	**98.2482**

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	0.0511	1.7513	0.3459	4.4800e-003	0.0953	6.7200e-003	0.1021	0.0262	6.4300e-003	0.0327	0.0000	433.4877	433.4877	0.0203	0.0000	433.9955
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	1.2700e-003	9.5000e-004	9.7800e-003	3.0000e-005	2.7800e-003	2.0000e-005	2.7900e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.4573	2.4573	7.0000e-005	0.0000	2.4590
Total	**0.0524**	**1.7523**	**0.3557**	**4.5100e-003**	**0.0981**	**6.7400e-003**	**0.1049**	**0.0270**	**6.4500e-003**	**0.0334**	**0.0000**	**435.9450**	**435.9450**	**0.0204**	**0.0000**	**436.4545**

3.5 Building Construction - 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	0.0956	0.8537	0.6951	1.0900e-003		0.0522	0.0522		0.0491	0.0491	0.0000	95.2172	95.2172	0.0232	0.0000	95.7971
Total	**0.0956**	**0.8537**	**0.6951**	**1.0900e-003**		**0.0522**	**0.0522**		**0.0491**	**0.0491**	**0.0000**	**95.2172**	**95.2172**	**0.0232**	**0.0000**	**95.7971**

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	0.0769	1.9792	0.5313	4.3000e-003	0.1031	0.0142	0.1173	0.0298	0.0136	0.0434	0.0000	412.2943	412.2943	0.0205	0.0000	412.8056
Worker	0.2479	0.1846	1.9064	5.3000e-003	0.5412	3.5700e-003	0.5448	0.1440	3.2900e-003	0.1472	0.0000	479.1192	479.1192	0.0131	0.0000	479.4453
Total	**0.3247**	**2.1638**	**2.4377**	**9.6000e-003**	**0.6443**	**0.0178**	**0.6621**	**0.1738**	**0.0169**	**0.1907**	**0.0000**	**891.4135**	**891.4135**	**0.0335**	**0.0000**	**892.2509**

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	0.0956	0.8537	0.6951	1.0900e-003		0.0522	0.0522		0.0491	0.0491	0.0000	95.2171	95.2171	0.0232	0.0000	95.7970
Total	**0.0956**	**0.8537**	**0.6951**	**1.0900e-003**		**0.0522**	**0.0522**		**0.0491**	**0.0491**	**0.0000**	**95.2171**	**95.2171**	**0.0232**	**0.0000**	**95.7970**

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	0.0769	1.9792	0.5313	4.3000e-003	0.1031	0.0142	0.1173	0.0298	0.0136	0.0434	0.0000	412.2943	412.2943	0.0205	0.0000	412.8056
Worker	0.2479	0.1846	1.9064	5.3000e-003	0.5412	3.5700e-003	0.5448	0.1440	3.2900e-003	0.1472	0.0000	479.1192	479.1192	0.0131	0.0000	479.4453
Total	**0.3247**	**2.1638**	**2.4377**	**9.6000e-003**	**0.6443**	**0.0178**	**0.6621**	**0.1738**	**0.0169**	**0.1907**	**0.0000**	**891.4135**	**891.4135**	**0.0335**	**0.0000**	**892.2509**

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	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4091	303.4091	0.0740	0.0000	305.2596
Total	**0.2777**	**2.5134**	**2.2072**	**3.5300e-003**		**0.1463**	**0.1463**		**0.1376**	**0.1376**	**0.0000**	**303.4091**	**303.4091**	**0.0740**	**0.0000**	**305.2596**

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	0.2009	5.7725	1.5374	0.0138	0.3335	0.0286	0.3621	0.0964	0.0274	0.1238	0.0000	1,325.4365	1,325.4365	0.0608	0.0000	1,326.9561
Worker	0.7332	0.5269	5.5242	0.0166	1.7507	0.0113	1.7620	0.4656	0.0104	0.4760	0.0000	1,501.3280	1,501.3280	0.0368	0.0000	1,502.2486
Total	**0.9341**	**6.2994**	**7.0616**	**0.0304**	**2.0842**	**0.0399**	**2.1241**	**0.5620**	**0.0378**	**0.5998**	**0.0000**	**2,826.7644**	**2,826.7644**	**0.0976**	**0.0000**	**2,829.2047**

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	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4087	303.4087	0.0740	0.0000	305.2592

Total	**0.2777**	**2.5134**	**2.2072**	**3.5300e-003**		**0.1463**	**0.1463**		**0.1376**	**0.1376**	**0.0000**	**303.4087**	**303.4087**	**0.0740**	**0.0000**	**305.2592**

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	0.2009	5.7725	1.5374	0.0138	0.3335	0.0286	0.3621	0.0964	0.0274	0.1238	0.0000	1,325.4365	1,325.4365	0.0608	0.0000	1,326.9561
Worker	0.7332	0.5269	5.5242	0.0166	1.7507	0.0113	1.7620	0.4656	0.0104	0.4760	0.0000	1,501.3280	1,501.3280	0.0368	0.0000	1,502.2486
Total	**0.9341**	**6.2994**	**7.0616**	**0.0304**	**2.0842**	**0.0399**	**2.1241**	**0.5620**	**0.0378**	**0.5998**	**0.0000**	**2,826.7644**	**2,826.7644**	**0.0976**	**0.0000**	**2,829.2047**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0257	0.2353	0.2238	3.6000e-004		0.0129	0.0129		0.0122	0.0122	0.0000	31.2710	31.2710	7.5400e-003	0.0000	31.4596
Total	**0.0257**	**0.2353**	**0.2238**	**3.6000e-004**		**0.0129**	**0.0129**		**0.0122**	**0.0122**	**0.0000**	**31.2710**	**31.2710**	**7.5400e-003**	**0.0000**	**31.4596**

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	0.0170	0.5369	0.1429	1.4100e-003	0.0344	1.1900e-003	0.0356	9.9400e-003	1.1400e-003	0.0111	0.0000	135.3299	135.3299	5.9000e-003	0.0000	135.4773
Worker	0.0701	0.0485	0.5204	1.6500e-003	0.1804	1.1400e-003	0.1816	0.0480	1.0500e-003	0.0490	0.0000	149.3469	149.3469	3.4000e-003	0.0000	149.4318
Total	**0.0871**	**0.5854**	**0.6633**	**3.0600e-003**	**0.2148**	**2.3300e-003**	**0.2171**	**0.0579**	**2.1900e-003**	**0.0601**	**0.0000**	**284.6768**	**284.6768**	**9.3000e-003**	**0.0000**	**284.9091**

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	0.0257	0.2353	0.2238	3.6000e-004		0.0129	0.0129		0.0122	0.0122	0.0000	31.2710	31.2710	7.5400e-003	0.0000	31.4596
Total	**0.0257**	**0.2353**	**0.2238**	**3.6000e-004**		**0.0129**	**0.0129**		**0.0122**	**0.0122**	**0.0000**	**31.2710**	**31.2710**	**7.5400e-003**	**0.0000**	**31.4596**

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	0.0170	0.5369	0.1429	1.4100e-003	0.0344	1.1900e-003	0.0356	9.9400e-003	1.1400e-003	0.0111	0.0000	135.3299	135.3299	5.9000e-003	0.0000	135.4773
Worker	0.0701	0.0485	0.5204	1.6500e-003	0.1804	1.1400e-003	0.1816	0.0480	1.0500e-003	0.0490	0.0000	149.3469	149.3469	3.4000e-003	0.0000	149.4318
Total	**0.0871**	**0.5854**	**0.6633**	**3.0600e-003**	**0.2148**	**2.3300e-003**	**0.2171**	**0.0579**	**2.1900e-003**	**0.0601**	**0.0000**	**284.6768**	**284.6768**	**9.3000e-003**	**0.0000**	**284.9091**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

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	4.6000e-004	3.2000e-004	3.4300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9848	0.9848	2.0000e-005	0.0000	0.9854
Total	**4.6000e-004**	**3.2000e-004**	**3.4300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9848**	**0.9848**	**2.0000e-005**	**0.0000**	**0.9854**

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	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

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	4.6000e-004	3.2000e-004	3.4300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9848	0.9848	2.0000e-005	0.0000	0.9854
Total	**4.6000e-004**	**3.2000e-004**	**3.4300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9848**	**0.9848**	**2.0000e-005**	**0.0000**	**0.9854**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	13.1567					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	**13.1589**	**0.0153**	**0.0182**	**3.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.8000e-004**	**0.0000**	**2.5576**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0104	7.1900e-003	0.0771	2.4000e-004	0.0267	1.7000e-004	0.0269	7.1100e-003	1.5000e-004	7.2600e-003	0.0000	22.1255	22.1255	5.0000e-004	0.0000	22.1380
Total	**0.0104**	**7.1900e-003**	**0.0771**	**2.4000e-004**	**0.0267**	**1.7000e-004**	**0.0269**	**7.1100e-003**	**1.5000e-004**	**7.2600e-003**	**0.0000**	**22.1255**	**22.1255**	**5.0000e-004**	**0.0000**	**22.1380**

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	13.1567					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	**13.1589**	**0.0153**	**0.0182**	**3.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.8000e-004**	**0.0000**	**2.5576**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0104	7.1900e-003	0.0771	2.4000e-004	0.0267	1.7000e-004	0.0269	7.1100e-003	1.5000e-004	7.2600e-003	0.0000	22.1255	22.1255	5.0000e-004	0.0000	22.1380
Total	**0.0104**	**7.1900e-003**	**0.0771**	**2.4000e-004**	**0.0267**	**1.7000e-004**	**0.0269**	**7.1100e-003**	**1.5000e-004**	**7.2600e-003**	**0.0000**	**22.1255**	**22.1255**	**5.0000e-004**	**0.0000**	**22.1380**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.0955	8.3300	23.6302	0.0917	9.6070	0.0720	9.6791	2.5712	0.0670	2.6382	0.0000	8,418.1998	8,418.1998	0.2568	0.0000	8,424.6203
Unmitigated	2.0955	8.3300	23.6302	0.0917	9.6070	0.0720	9.6791	2.5712	0.0670	2.6382	0.0000	8,418.1998	8,418.1998	0.2568	0.0000	8,424.6203

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	9,202.20	8,842.25	8106.70	20,773,251	20,773,251
Enclosed Parking Structure	0.00	0.00	0.00		
Hotel	1,653.75	1,658.25	1206.00	3,021,704	3,021,704
Parking Lot	0.00	0.00	0.00		
Strip Mall	1,449.90	1,375.20	668.25	2,044,493	2,044,493
Total	12,305.85	11,875.70	9,980.95	25,839,448	25,839,448

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
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681
Enclosed Parking Structure	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681
Hotel	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681
Parking Lot	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681
Strip Mall	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,533.8453	2,533.8453	0.1934	0.0400	2,550.6020
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,562.4816	2,562.4816	0.1956	0.0405	2,579.4277
NaturalGas Mitigated	0.1515	1.3379	0.8656	8.2700e-003		0.1047	0.1047		0.1047	0.1047	0.0000	1,499.7080	1,499.7080	0.0287	0.0275	1,508.6200
NaturalGas Unmitigated	0.1515	1.3379	0.8656	8.2700e-003		0.1047	0.1047		0.1047	0.1047	0.0000	1,499.7080	1,499.7080	0.0287	0.0275	1,508.6200

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					
Apartments Mid Rise	1.35207e+007	0.0729	0.6230	0.2651	3.9800e-003		0.0504	0.0504		0.0504	0.0504	0.0000	721.5181	721.5181	0.0138	0.0132	725.8058
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	1.44761e+007	0.0781	0.7096	0.5961	4.2600e-003		0.0539	0.0539		0.0539	0.0539	0.0000	772.4986	772.4986	0.0148	0.0142	777.0892
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	106650	5.8000e-004	5.2300e-003	4.3900e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	5.6913	5.6913	1.1000e-004	1.0000e-004	5.7251
Total		**0.1516**	**1.3379**	**0.8656**	**8.2700e-003**		**0.1047**	**0.1047**		**0.1047**	**0.1047**	**0.0000**	**1,499.7080**	**1,499.7080**	**0.0288**	**0.0275**	**1,508.6200**

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					
Apartments Mid Rise	1.35207e+007	0.0729	0.6230	0.2651	3.9800e-003		0.0504	0.0504		0.0504	0.0504	0.0000	721.5181	721.5181	0.0138	0.0132	725.8058
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	1.44761e+007	0.0781	0.7096	0.5961	4.2600e-003		0.0539	0.0539		0.0539	0.0539	0.0000	772.4986	772.4986	0.0148	0.0142	777.0892
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	106650	5.8000e-004	5.2300e-003	4.3900e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	5.6913	5.6913	1.1000e-004	1.0000e-004	5.7251
Total		**0.1516**	**1.3379**	**0.8656**	**8.2700e-003**		**0.1047**	**0.1047**		**0.1047**	**0.1047**	**0.0000**	**1,499.7080**	**1,499.7080**	**0.0288**	**0.0275**	**1,508.6200**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	6.46087e+006	1,113.6281	0.0850	0.0176	1,120.9927
Enclosed Parking Structure	5.43186e+006	936.2631	0.0715	0.0148	942.4548
Hotel	2.48945e+006	429.0950	0.0328	6.7800e-003	431.9327
Parking Lot	3360	0.5792	4.0000e-005	1.0000e-005	0.5830
Strip Mall	481050	82.9162	6.3300e-003	1.3100e-003	83.4646

Total		**2,562.4816**	**0.1956**	**0.0405**	**2,579.4277**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	6.29473e+006	1,084.9919	0.0828	0.0171	1,092.1671
Enclosed Parking Structure	5.43186e+006	936.2631	0.0715	0.0148	942.4548
Hotel	2.48945e+006	429.0950	0.0328	6.7800e-003	431.9327
Parking Lot	3360	0.5792	4.0000e-005	1.0000e-005	0.5830
Strip Mall	481050	82.9162	6.3300e-003	1.3100e-003	83.4646
Total		**2,533.8453**	**0.1934**	**0.0400**	**2,550.6020**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	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	8.5797	0.1880	11.6569	9.6000e-004		0.0689	0.0689		0.0689	0.0689	0.0000	81.5741	81.5741	0.0195	1.1500e-003	82.4033
Unmitigated	9.2992	0.1880	11.6569	9.6000e-004		0.0689	0.0689		0.0689	0.0689	0.0000	81.5741	81.5741	0.0195	1.1500e-003	82.4033

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	1.3157					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.6263					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.3200e-003	0.0540	0.0230	3.4000e-004		4.3700e-003	4.3700e-003		4.3700e-003	4.3700e-003	0.0000	62.5445	62.5445	1.2000e-003	1.1500e-003	62.9162
Landscaping	0.3508	0.1340	11.6339	6.2000e-004		0.0645	0.0645		0.0645	0.0645	0.0000	19.0296	19.0296	0.0183	0.0000	19.4872
Total	**9.2992**	**0.1880**	**11.6569**	**9.6000e-004**		**0.0689**	**0.0689**		**0.0689**	**0.0689**	**0.0000**	**81.5741**	**81.5741**	**0.0195**	**1.1500e-003**	**82.4033**

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	0.5962					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Consumer Products	7.6263					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.3200e-003	0.0540	0.0230	3.4000e-004		4.3700e-003	4.3700e-003		4.3700e-003	4.3700e-003	0.0000	62.5445	62.5445	1.2000e-003	1.1500e-003	62.9162
Landscaping	0.3508	0.1340	11.6339	6.2000e-004		0.0645	0.0645		0.0645	0.0645	0.0000	19.0296	19.0296	0.0183	0.0000	19.4872
Total	**8.5797**	**0.1880**	**11.6569**	**9.6000e-004**		**0.0689**	**0.0689**		**0.0689**	**0.0689**	**0.0000**	**81.5741**	**81.5741**	**0.0195**	**1.1500e-003**	**82.4033**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	152.1769	0.1174	0.0702	176.0406
Unmitigated	183.2024	0.1462	0.0877	212.9856

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	101.966 / 64.2829	169.9567	0.1344	0.0806	197.3252
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	5.70752 / 0.634169	7.7251	7.3900e-003	4.4800e-003	9.2453
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	3.33326 / 2.04297	5.5206	4.3900e-003	2.6300e-003	6.4151
Total		**183.2024**	**0.1462**	**0.0877**	**212.9856**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	81.5728 / 60.3617	141.3558	0.1079	0.0645	163.2863
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	4.56602 / 0.595485	6.2333	5.9100e-003	3.5900e-003	7.4497
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.66661 / 1.91835	4.5878	3.5300e-003	2.1100e-003	5.3045
Total		**152.1769**	**0.1174**	**0.0702**	**176.0406**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	180.7310	10.6809	0.0000	447.7533
Unmitigated	180.7310	10.6809	0.0000	447.7533

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	719.9	146.1332	8.6362	0.0000	362.0388
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Hotel	123.19	25.0065	1.4778	0.0000	61.9524
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	47.25	9.5913	0.5668	0.0000	23.7621
Total		**180.7310**	**10.6809**	**0.0000**	**447.7533**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	719.9	146.1332	8.6362	0.0000	362.0388
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Hotel	123.19	25.0065	1.4778	0.0000	61.9524
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	47.25	9.5913	0.5668	0.0000	23.7621
Total		**180.7310**	**10.6809**	**0.0000**	**447.7533**

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
Emergency Generator	1	0	50	135	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (100 - 175 HP)	5.5400e-003	0.0155	0.0201	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.5704	2.5704	3.6000e-004	0.0000	2.5794
Total	**5.5400e-003**	**0.0155**	**0.0201**	**3.0000e-005**		**8.1000e-004**	**8.1000e-004**		**8.1000e-004**	**8.1000e-004**	**0.0000**	**2.5704**	**2.5704**	**3.6000e-004**	**0.0000**	**2.5794**

11.0 Vegetation

Gateway Crossings - DEIR project

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	2,765.00	Space	0.00	1,106,000.00	0
Parking Lot	21.00	Space	0.00	8,400.00	0
Hotel	250.00	Room	0.00	363,000.00	0
Apartments Mid Rise	1,600.00	Dwelling Unit	24.00	1,600,000.00	4576
Strip Mall	15.00	1000sqft	0.00	15,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2026
Utility Company	Silicon Valley Power				
CO2 Intensity (lb/MWhr)	380	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SVP 2020 rate = 380 MT or less

Land Use - DEIR land uses

Construction Phase - Default to comapre construcitoin scenarios (5-year build out)

Vehicle Trips - computed trip rates APTs=6.00/5.77/5.29, HOTEL=7.92/7.94/5.77, RETAIL=32.01/30.36/14.76

Woodstoves - No wood burning Nat gas = 512

Energy Use -

Water And Wastewater - WTP treatment

Energy Mitigation - energy efficient appliances

Water Mitigation - water efficiency

Stationary Sources - Emergency Generators and Fire Pumps - 135-hp generator

Operational Off-Road Equipment -

Grading - Soil off haul

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	240.00	512.00
tblFireplaces	NumberWood	272.00	0.00
tblGrading	MaterialExported	0.00	90,000.00
tblLandUse	LotAcreage	24.88	0.00
tblLandUse	LotAcreage	0.19	0.00
tblLandUse	LotAcreage	8.33	0.00
tblLandUse	LotAcreage	42.11	24.00
tblLandUse	LotAcreage	0.34	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	380
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	135.00

tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	ST_TR	6.39	5.77
tblVehicleTrips	ST_TR	8.19	7.94
tblVehicleTrips	ST_TR	42.04	30.36
tblVehicleTrips	SU_TR	5.86	5.29
tblVehicleTrips	SU_TR	5.95	5.29
tblVehicleTrips	SU_TR	20.43	14.76
tblVehicleTrips	WD_TR	6.65	6.00
tblVehicleTrips	WD_TR	8.17	7.92
tblVehicleTrips	WD_TR	44.32	32.01
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

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	0.8769	8.2329	6.3746	0.0238	1.4075	0.1893	1.5968	0.4268	0.1771	0.6039	0.0000	2,210.3291	2,210.3291	0.1580	0.0000	2,214.2788
2020	1.1925	8.7639	9.1554	0.0337	2.0544	0.1828	2.2372	0.5541	0.1720	0.7261	0.0000	3,102.9055	3,102.9055	0.1718	0.0000	3,107.2006
2021	13.4810	0.0358	0.1144	3.1000e-004	0.0283	1.8000e-003	0.0301	7.5200e-003	1.7300e-003	9.2500e-003	0.0000	27.9613	27.9613	1.3600e-003	0.0000	27.9952
Maximum	**13.4810**	**8.7639**	**9.1554**	**0.0337**	**2.0544**	**0.1893**	**2.2372**	**0.5541**	**0.1771**	**0.7261**	**0.0000**	**3,102.9055**	**3,102.9055**	**0.1718**	**0.0000**	**3,107.2006**

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	0.8769	8.2329	6.3746	0.0238	1.4075	0.1893	1.5968	0.4268	0.1771	0.6039	0.0000	2,210.3288	2,210.3288	0.1580	0.0000	2,214.2784

2020	1.1925	8.7639	9.1554	0.0337	2.0544	0.1828	2.2372	0.5541	0.1720	0.7261	0.0000	3,102.9051	3,102.9051	0.1718	0.0000	3,107.2002
2021	13.4810	0.0358	0.1144	3.1000e-004	0.0283	1.8000e-003	0.0301	7.5200e-003	1.7300e-003	9.2500e-003	0.0000	27.9613	27.9613	1.3600e-003	0.0000	27.9952
Maximum	**13.4810**	**8.7639**	**9.1554**	**0.0337**	**2.0544**	**0.1893**	**2.2372**	**0.5541**	**0.1771**	**0.7261**	**0.0000**	**3,102.9051**	**3,102.9051**	**0.1718**	**0.0000**	**3,107.2002**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-9-2019	7-8-2019	3.4490	3.4490
2	7-9-2019	10-8-2019	2.9074	2.9074
3	10-9-2019	1-8-2020	2.9479	2.9479
4	1-9-2020	4-8-2020	2.6445	2.6445
5	4-9-2020	7-8-2020	2.5894	2.5894
6	7-9-2020	10-8-2020	2.6231	2.6231
7	10-9-2020	1-8-2021	3.8297	3.8297
8	1-9-2021	4-8-2021	11.5752	11.5752
		Highest	11.5752	11.5752

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	9.5092	0.1922	11.9204	9.8000e-004		0.0704	0.0704		0.0704	0.0704	0.0000	83.3783	83.3783	0.0200	1.1700e-003	84.2263
Energy	0.1615	1.4272	0.9348	8.8100e-003		0.1116	0.1116		0.1116	0.1116	0.0000	4,322.2394	4,322.2394	0.2385	0.0723	4,349.7514
Mobile	2.0745	8.2663	23.5925	0.0919	9.6436	0.0721	9.7157	2.5810	0.0670	2.6480	0.0000	8,436.6089	8,436.6089	0.2565	0.0000	8,443.0202
Stationary	5.5400e-003	0.0155	0.0201	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.5704	2.5704	3.6000e-004	0.0000	2.5794
Waste						0.0000	0.0000		0.0000	0.0000	180.3839	0.0000	180.3839	10.6604	0.0000	446.8934
Water						0.0000	0.0000		0.0000	0.0000	39.5194	144.6619	184.1813	0.1471	0.0882	214.1491
Total	**11.7506**	**9.9011**	**36.4677**	**0.1017**	**9.6436**	**0.2549**	**9.8985**	**2.5810**	**0.2498**	**2.8308**	**219.9032**	**12,989.4590**	**13,209.3622**	**11.3227**	**0.1617**	**13,540.6198**

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	9.5092	0.1922	11.9204	9.8000e-004		0.0704	0.0704		0.0704	0.0704	0.0000	83.3783	83.3783	0.0200	1.1700e-003	84.2263
Energy	0.1615	1.4272	0.9348	8.8100e-003		0.1116	0.1116		0.1116	0.1116	0.0000	4,292.9627	4,292.9627	0.2363	0.0719	4,320.2811
Mobile	2.0745	8.2663	23.5925	0.0919	9.6436	0.0721	9.7157	2.5810	0.0670	2.6480	0.0000	8,436.6089	8,436.6089	0.2565	0.0000	8,443.0202
Stationary	5.5400e-003	0.0155	0.0201	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.5704	2.5704	3.6000e-004	0.0000	2.5794
Waste						0.0000	0.0000		0.0000	0.0000	180.3839	0.0000	180.3839	10.6604	0.0000	446.8934
Water						0.0000	0.0000		0.0000	0.0000	31.6155	123.8263	155.4418	0.1183	0.0707	179.4696

Total	11.7506	9.9011	36.4677	0.1017	9.6436	0.2549	9.8985	2.5810	0.2498	2.8308	211.9994	12,939.3466	13,151.3460	11.2917	0.1437	13,476.4699

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.59	0.39	0.44	0.27	11.12	0.47

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/9/2019	5/6/2019	5	20	
2	Site Preparation	Site Preparation	5/7/2019	5/20/2019	5	10	
3	Grading	Grading	5/21/2019	7/8/2019	5	35	
4	Building Construction	Building Construction	7/9/2019	12/7/2020	5	370	
5	Paving	Paving	12/8/2020	1/4/2021	5	20	
6	Architectural Coating	Architectural Coating	1/5/2021	2/1/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 0

Residential Indoor: 3,240,000; Residential Outdoor: 1,080,000; Non-Residential Indoor: 567,000; Non-Residential Outdoor: 189,000;

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	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	11,250.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,777.00	416.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	355.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8672
Total	**0.0351**	**0.3578**	**0.2206**	**3.9000e-004**		**0.0180**	**0.0180**		**0.0167**	**0.0167**	**0.0000**	**34.6263**	**34.6263**	**9.6300e-003**	**0.0000**	**34.8672**

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	5.4000e-004	4.1000e-004	4.1900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0531	1.0531	3.0000e-005	0.0000	1.0538
Total	**5.4000e-004**	**4.1000e-004**	**4.1900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0531**	**1.0531**	**3.0000e-005**	**0.0000**	**1.0538**

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	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8671
Total	**0.0351**	**0.3578**	**0.2206**	**3.9000e-004**		**0.0180**	**0.0180**		**0.0167**	**0.0167**	**0.0000**	**34.6263**	**34.6263**	**9.6300e-003**	**0.0000**	**34.8671**

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	5.4000e-004	4.1000e-004	4.1900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0531	1.0531	3.0000e-005	0.0000	1.0538
Total	**5.4000e-004**	**4.1000e-004**	**4.1900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0531**	**1.0531**	**3.0000e-005**	**0.0000**	**1.0538**

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

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	3.3000e-004	2.4000e-004	2.5100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6319	0.6319	2.0000e-005	0.0000	0.6323
Total	**3.3000e-004**	**2.4000e-004**	**2.5100e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6319**	**0.6319**	**2.0000e-005**	**0.0000**	**0.6323**

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

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	3.3000e-004	2.4000e-004	2.5100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6319	0.6319	2.0000e-005	0.0000	0.6323
Total	**3.3000e-004**	**2.4000e-004**	**2.5100e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6319**	**0.6319**	**2.0000e-005**	**0.0000**	**0.6323**

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					0.1569	0.0000	0.1569	0.0637	0.0000	0.0637	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0829	0.9541	0.5841	1.0900e-003		0.0417	0.0417		0.0384	0.0384	0.0000	97.4773	97.4773	0.0308	0.0000	98.2483
Total	**0.0829**	**0.9541**	**0.5841**	**1.0900e-003**	**0.1569**	**0.0417**	**0.1986**	**0.0637**	**0.0384**	**0.1021**	**0.0000**	**97.4773**	**97.4773**	**0.0308**	**0.0000**	**98.2483**

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	0.0511	1.7513	0.3459	4.4800e-003	0.0953	6.7200e-003	0.1021	0.0262	6.4300e-003	0.0327	0.0000	433.4877	433.4877	0.0203	0.0000	433.9955
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	1.2700e-003	9.5000e-004	9.7800e-003	3.0000e-005	2.7800e-003	2.0000e-005	2.7900e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.4573	2.4573	7.0000e-005	0.0000	2.4590
Total	**0.0524**	**1.7523**	**0.3557**	**4.5100e-003**	**0.0981**	**6.7400e-003**	**0.1049**	**0.0270**	**6.4500e-003**	**0.0334**	**0.0000**	**435.9450**	**435.9450**	**0.0204**	**0.0000**	**436.4545**

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					0.1569	0.0000	0.1569	0.0637	0.0000	0.0637	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0829	0.9541	0.5841	1.0900e-003		0.0417	0.0417		0.0384	0.0384	0.0000	97.4772	97.4772	0.0308	0.0000	98.2482
Total	**0.0829**	**0.9541**	**0.5841**	**1.0900e-003**	**0.1569**	**0.0417**	**0.1986**	**0.0637**	**0.0384**	**0.1021**	**0.0000**	**97.4772**	**97.4772**	**0.0308**	**0.0000**	**98.2482**

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	0.0511	1.7513	0.3459	4.4800e-003	0.0953	6.7200e-003	0.1021	0.0262	6.4300e-003	0.0327	0.0000	433.4877	433.4877	0.0203	0.0000	433.9955

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	1.2700e-003	9.5000e-004	9.7800e-003	3.0000e-005	2.7800e-003	2.0000e-005	2.7900e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.4573	2.4573	7.0000e-005	0.0000	2.4590
Total	**0.0524**	**1.7523**	**0.3557**	**4.5100e-003**	**0.0981**	**6.7400e-003**	**0.1049**	**0.0270**	**6.4500e-003**	**0.0334**	**0.0000**	**435.9450**	**435.9450**	**0.0204**	**0.0000**	**436.4545**

3.5 Building Construction - 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	0.1488	1.3280	1.0813	1.7000e-003		0.0813	0.0813		0.0764	0.0764	0.0000	148.1156	148.1156	0.0361	0.0000	149.0177
Total	**0.1488**	**1.3280**	**1.0813**	**1.7000e-003**		**0.0813**	**0.0813**		**0.0764**	**0.0764**	**0.0000**	**148.1156**	**148.1156**	**0.0361**	**0.0000**	**149.0177**

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	0.1285	3.3095	0.8884	7.2000e-003	0.1724	0.0238	0.1962	0.0498	0.0228	0.0726	0.0000	689.4062	689.4062	0.0342	0.0000	690.2612
Worker	0.4066	0.3028	3.1275	8.7000e-003	0.8879	5.8600e-003	0.8938	0.2361	5.4000e-003	0.2415	0.0000	785.9893	785.9893	0.0214	0.0000	786.5243
Total	**0.5351**	**3.6122**	**4.0158**	**0.0159**	**1.0603**	**0.0296**	**1.0899**	**0.2860**	**0.0282**	**0.3141**	**0.0000**	**1,475.3955**	**1,475.3955**	**0.0556**	**0.0000**	**1,476.7855**

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	0.1488	1.3280	1.0813	1.7000e-003		0.0813	0.0813		0.0764	0.0764	0.0000	148.1155	148.1155	0.0361	0.0000	149.0175
Total	**0.1488**	**1.3280**	**1.0813**	**1.7000e-003**		**0.0813**	**0.0813**		**0.0764**	**0.0764**	**0.0000**	**148.1155**	**148.1155**	**0.0361**	**0.0000**	**149.0175**

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	0.1285	3.3095	0.8884	7.2000e-003	0.1724	0.0238	0.1962	0.0498	0.0228	0.0726	0.0000	689.4062	689.4062	0.0342	0.0000	690.2612
Worker	0.4066	0.3028	3.1275	8.7000e-003	0.8879	5.8600e-003	0.8938	0.2361	5.4000e-003	0.2415	0.0000	785.9893	785.9893	0.0214	0.0000	786.5243
Total	**0.5351**	**3.6122**	**4.0158**	**0.0159**	**1.0603**	**0.0296**	**1.0899**	**0.2860**	**0.0282**	**0.3141**	**0.0000**	**1,475.3955**	**1,475.3955**	**0.0556**	**0.0000**	**1,476.7855**

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	0.2586	2.3407	2.0555	3.2800e-003		0.1363	0.1363		0.1281	0.1281	0.0000	282.5642	282.5642	0.0689	0.0000	284.2876
Total	**0.2586**	**2.3407**	**2.0555**	**3.2800e-003**		**0.1363**	**0.1363**		**0.1281**	**0.1281**	**0.0000**	**282.5642**	**282.5642**	**0.0689**	**0.0000**	**284.2876**

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	0.2011	5.7788	1.5391	0.0138	0.3339	0.0286	0.3625	0.0965	0.0274	0.1239	0.0000	1,326.8744	1,326.8744	0.0609	0.0000	1,328.3956
Worker	0.7201	0.5175	5.4256	0.0163	1.7194	0.0111	1.7305	0.4573	0.0102	0.4675	0.0000	1,474.5233	1,474.5233	0.0362	0.0000	1,475.4275
Total	**0.9213**	**6.2963**	**6.9646**	**0.0302**	**2.0533**	**0.0397**	**2.0930**	**0.5538**	**0.0376**	**0.5914**	**0.0000**	**2,801.3977**	**2,801.3977**	**0.0970**	**0.0000**	**2,803.8231**

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	0.2586	2.3407	2.0555	3.2800e-003		0.1363	0.1363		0.1281	0.1281	0.0000	282.5638	282.5638	0.0689	0.0000	284.2872
Total	**0.2586**	**2.3407**	**2.0555**	**3.2800e-003**		**0.1363**	**0.1363**		**0.1281**	**0.1281**	**0.0000**	**282.5638**	**282.5638**	**0.0689**	**0.0000**	**284.2872**

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	0.2011	5.7788	1.5391	0.0138	0.3339	0.0286	0.3625	0.0965	0.0274	0.1239	0.0000	1,326.8744	1,326.8744	0.0609	0.0000	1,328.3956
Worker	0.7201	0.5175	5.4256	0.0163	1.7194	0.0111	1.7305	0.4573	0.0102	0.4675	0.0000	1,474.5233	1,474.5233	0.0362	0.0000	1,475.4275
Total	**0.9213**	**6.2963**	**6.9646**	**0.0302**	**2.0533**	**0.0397**	**2.0930**	**0.5538**	**0.0376**	**0.5914**	**0.0000**	**2,801.3977**	**2,801.3977**	**0.0970**	**0.0000**	**2,803.8231**

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	0.0122	0.1266	0.1319	2.1000e-004		6.7800e-003	6.7800e-003		6.2300e-003	6.2300e-003	0.0000	18.0254	18.0254	5.8300e-003	0.0000	18.1711
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0122**	**0.1266**	**0.1319**	**2.1000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2300e-003**	**6.2300e-003**	**0.0000**	**18.0254**	**18.0254**	**5.8300e-003**	**0.0000**	**18.1711**

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	4.5000e-004	3.2000e-004	3.3800e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.9182	0.9182	2.0000e-005	0.0000	0.9188
Total	**4.5000e-004**	**3.2000e-004**	**3.3800e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.9182**	**0.9182**	**2.0000e-005**	**0.0000**	**0.9188**

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	0.0122	0.1266	0.1319	2.1000e-004		6.7800e-003	6.7800e-003		6.2300e-003	6.2300e-003	0.0000	18.0254	18.0254	5.8300e-003	0.0000	18.1711
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0122**	**0.1266**	**0.1319**	**2.1000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2300e-003**	**6.2300e-003**	**0.0000**	**18.0254**	**18.0254**	**5.8300e-003**	**0.0000**	**18.1711**

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	4.5000e-004	3.2000e-004	3.3800e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.9182	0.9182	2.0000e-005	0.0000	0.9188
Total	**4.5000e-004**	**3.2000e-004**	**3.3800e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.9182**	**0.9182**	**2.0000e-005**	**0.0000**	**0.9188**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2600e-003	0.0129	0.0147	2.0000e-005		6.8000e-004	6.8000e-004		6.2000e-004	6.2000e-004	0.0000	2.0024	2.0024	6.5000e-004	0.0000	2.0185
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2600e-003**	**0.0129**	**0.0147**	**2.0000e-005**		**6.8000e-004**	**6.8000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**2.0024**	**2.0024**	**6.5000e-004**	**0.0000**	**2.0185**

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	5.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0985	0.0985	0.0000	0.0000	0.0985
Total	**5.0000e-005**	**3.0000e-005**	**3.4000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0985**	**0.0985**	**0.0000**	**0.0000**	**0.0985**

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	1.2600e-003	0.0129	0.0147	2.0000e-005		6.8000e-004	6.8000e-004		6.2000e-004	6.2000e-004	0.0000	2.0024	2.0024	6.5000e-004	0.0000	2.0185
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2600e-003**	**0.0129**	**0.0147**	**2.0000e-005**		**6.8000e-004**	**6.8000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**2.0024**	**2.0024**	**6.5000e-004**	**0.0000**	**2.0185**

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	5.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0985	0.0985	0.0000	0.0000	0.0985
Total	**5.0000e-005**	**3.0000e-005**	**3.4000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0985**	**0.0985**	**0.0000**	**0.0000**	**0.0985**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	13.4665					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	**13.4687**	**0.0153**	**0.0182**	**3.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.8000e-004**	**0.0000**	**2.5576**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0109	7.5700e-003	0.0812	2.6000e-004	0.0282	1.8000e-004	0.0283	7.4900e-003	1.6000e-004	7.6500e-003	0.0000	23.3072	23.3072	5.3000e-004	0.0000	23.3205
Total	**0.0109**	**7.5700e-003**	**0.0812**	**2.6000e-004**	**0.0282**	**1.8000e-004**	**0.0283**	**7.4900e-003**	**1.6000e-004**	**7.6500e-003**	**0.0000**	**23.3072**	**23.3072**	**5.3000e-004**	**0.0000**	**23.3205**

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	13.4665					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	**13.4687**	**0.0153**	**0.0182**	**3.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.8000e-004**	**0.0000**	**2.5576**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0109	7.5700e-003	0.0812	2.6000e-004	0.0282	1.8000e-004	0.0283	7.4900e-003	1.6000e-004	7.6500e-003	0.0000	23.3072	23.3072	5.3000e-004	0.0000	23.3205
Total	**0.0109**	**7.5700e-003**	**0.0812**	**2.6000e-004**	**0.0282**	**1.8000e-004**	**0.0283**	**7.4900e-003**	**1.6000e-004**	**7.6500e-003**	**0.0000**	**23.3072**	**23.3072**	**5.3000e-004**	**0.0000**	**23.3205**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.0745	8.2663	23.5925	0.0919	9.6436	0.0721	9.7157	2.5810	0.0670	2.6480	0.0000	8,436.6089	8,436.6089	0.2565	0.0000	8,443.0202
Unmitigated	2.0745	8.2663	23.5925	0.0919	9.6436	0.0721	9.7157	2.5810	0.0670	2.6480	0.0000	8,436.6089	8,436.6089	0.2565	0.0000	8,443.0202

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	9,600.00	9,232.00	8464.00	21,675,994	21,675,994
Enclosed Parking Structure	0.00	0.00	0.00		
Hotel	1,980.00	1,985.00	1322.50	3,584,762	3,584,762
Parking Lot	0.00	0.00	0.00		
Strip Mall	480.15	455.40	221.40	677,076	677,076
Total	12,060.15	11,672.40	10,007.90	25,937,832	25,937,832

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681
Enclosed Parking Structure	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681
Hotel	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681
Parking Lot	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681
Strip Mall	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,695.0796	2,695.0796	0.2057	0.0426	2,712.9025
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,724.3562	2,724.3562	0.2079	0.0430	2,742.3728
NaturalGas Mitigated	0.1615	1.4272	0.9348	8.8100e-003		0.1116	0.1116		0.1116	0.1116	0.0000	1,597.8832	1,597.8832	0.0306	0.0293	1,607.3786
NaturalGas Unmitigated	0.1615	1.4272	0.9348	8.8100e-003		0.1116	0.1116		0.1116	0.1116	0.0000	1,597.8832	1,597.8832	0.0306	0.0293	1,607.3786

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					
Apartments Mid Rise	1.38231e+007	0.0745	0.6370	0.2710	4.0700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	737.6543	737.6543	0.0141	0.0135	742.0378
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	1.60845e+007	0.0867	0.7885	0.6623	4.7300e-003		0.0599	0.0599		0.0599	0.0599	0.0000	858.3318	858.3318	0.0165	0.0157	863.4324
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	35550	1.9000e-004	1.7400e-003	1.4600e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8971	1.8971	4.0000e-005	3.0000e-005	1.9084
Total		**0.1615**	**1.4272**	**0.9348**	**8.8100e-003**		**0.1116**	**0.1116**		**0.1116**	**0.1116**	**0.0000**	**1,597.8832**	**1,597.8832**	**0.0306**	**0.0293**	**1,607.3786**

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					
Apartments Mid Rise	1.38231e+007	0.0745	0.6370	0.2710	4.0700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	737.6543	737.6543	0.0141	0.0135	742.0378
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	1.60845e+007	0.0867	0.7885	0.6623	4.7300e-003		0.0599	0.0599		0.0599	0.0599	0.0000	858.3318	858.3318	0.0165	0.0157	863.4324
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	35550	1.9000e-004	1.7400e-003	1.4600e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8971	1.8971	4.0000e-005	3.0000e-005	1.9084
Total		**0.1615**	**1.4272**	**0.9348**	**8.8100e-003**		**0.1116**	**0.1116**		**0.1116**	**0.1116**	**0.0000**	**1,597.8832**	**1,597.8832**	**0.0306**	**0.0293**	**1,607.3786**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	6.60536e+006	1,138.5335	0.0869	0.0180	1,146.0628
Enclosed Parking Structure	6.27102e+006	1,080.9050	0.0825	0.0171	1,088.0532
Hotel	2.76606e+006	476.7722	0.0364	7.5300e-003	479.9252
Parking Lot	2940	0.5068	4.0000e-005	1.0000e-005	0.5101
Strip Mall	160350	27.6387	2.1100e-003	4.4000e-004	27.8215
Total		**2,724.3562**	**0.2079**	**0.0430**	**2,742.3728**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	6.43551e+006	1,109.2569	0.0847	0.0175	1,116.5925
Enclosed Parking Structure	6.27102e+006	1,080.9050	0.0825	0.0171	1,088.0532
Hotel	2.76606e+006	476.7722	0.0364	7.5300e-003	479.9252
Parking Lot	2940	0.5068	4.0000e-005	1.0000e-005	0.5101
Strip Mall	160350	27.6387	2.1100e-003	4.4000e-004	27.8215
Total		**2,695.0795**	**0.2057**	**0.0426**	**2,712.9025**

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	9.5092	0.1922	11.9204	9.8000e-004		0.0704	0.0704		0.0704	0.0704	0.0000	83.3783	83.3783	0.0200	1.1700e-003	84.2263
Unmitigated	9.5092	0.1922	11.9204	9.8000e-004		0.0704	0.0704		0.0704	0.0704	0.0000	83.3783	83.3783	0.0200	1.1700e-003	84.2263

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	1.3467					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.7971					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Hearth	6.4600e-003	0.0552	0.0235	3.5000e-004		4.4600e-003	4.4600e-003		4.4600e-003	4.4600e-003	0.0000	63.9177	63.9177	1.2300e-003	1.1700e-003	64.2976
Landscaping	0.3589	0.1370	11.8969	6.3000e-004		0.0660	0.0660		0.0660	0.0660	0.0000	19.4606	19.4606	0.0187	0.0000	19.9287
Total	**9.5092**	**0.1922**	**11.9204**	**9.8000e-004**		**0.0704**	**0.0704**		**0.0704**	**0.0704**	**0.0000**	**83.3783**	**83.3783**	**0.0200**	**1.1700e-003**	**84.2263**

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	1.3467					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.7971					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.4600e-003	0.0552	0.0235	3.5000e-004		4.4600e-003	4.4600e-003		4.4600e-003	4.4600e-003	0.0000	63.9177	63.9177	1.2300e-003	1.1700e-003	64.2976
Landscaping	0.3589	0.1370	11.8969	6.3000e-004		0.0660	0.0660		0.0660	0.0660	0.0000	19.4606	19.4606	0.0187	0.0000	19.9287
Total	**9.5092**	**0.1922**	**11.9204**	**9.8000e-004**		**0.0704**	**0.0704**		**0.0704**	**0.0704**	**0.0000**	**83.3783**	**83.3783**	**0.0200**	**1.1700e-003**	**84.2263**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	155.4418	0.1183	0.0707	179.4696
Unmitigated	184.1813	0.1471	0.0882	214.1491

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	104.246 / 65.7206	173.7576	0.1374	0.0824	201.7383
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	6.34169 / 0.704632	8.5835	8.2100e-003	4.9800e-003	10.2725
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000

Strip Mall	1.11109 / 0.680989	1.8402	1.4600e-003	8.8000e-004	2.1384
Total		**184.1813**	**0.1471**	**0.0882**	**214.1491**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	83.3972 / 65.7206	146.9356	0.1105	0.0660	169.3726
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	5.07335 / 0.704632	6.9518	6.5700e-003	3.9800e-003	8.3036
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.88887 / 0.680989	1.5543	1.1800e-003	7.0000e-004	1.7934
Total		**155.4418**	**0.1183**	**0.0707**	**179.4696**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	180.3839	10.6604	0.0000	446.8934
Unmitigated	180.3839	10.6604	0.0000	446.8934

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	736	149.4014	8.8294	0.0000	370.1355
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Hotel	136.88	27.7854	1.6421	0.0000	68.8372
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	15.75	3.1971	0.1889	0.0000	7.9207
Total		**180.3839**	**10.6604**	**0.0000**	**446.8934**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	736	149.4014	8.8294	0.0000	370.1355
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Hotel	136.88	27.7854	1.6421	0.0000	68.8372
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	15.75	3.1971	0.1889	0.0000	7.9207
Total		**180.3839**	**10.6604**	**0.0000**	**446.8934**

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
Emergency Generator	1	0	50	135	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (100 - 175 HP)	5.5400e-003	0.0155	0.0201	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.5704	2.5704	3.6000e-004	0.0000	2.5794
Total	**5.5400e-003**	**0.0155**	**0.0201**	**3.0000e-005**		**8.1000e-004**	**8.1000e-004**		**8.1000e-004**	**8.1000e-004**	**0.0000**	**2.5704**	**2.5704**	**3.6000e-004**	**0.0000**	**2.5794**

11.0 Vegetation

Appendix F: Final Project Noise Memo

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality

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Cotati, California 94931

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M E M O

Date: June 12, 2019

To: Kristy Weis
Senior Project Manager
David J. Powers & Associates, Inc.
1871 The Alameda, Suite 200
San José, CA 95126

From: Casey Divine &
Michael S. Thill
Illingworth & Rodkin, Inc.
429 East Cotati Avenue
Cotati, CA 94931

SUBJECT: Gateway Crossings Noise and Vibration Assessment Update Job#16-075

Illingworth & Rodkin, Inc. prepared the noise and vibration assessment for the Gateway Crossings project,[1] which addressed the noise and vibration impacts caused by the construction and operation of the proposed residential, commercial, and hotel land uses on a 24-acre site in Santa Clara, California. The project land use densities and site plan have since been revised and is referred to as the final project. This memo addresses any changes to the noise and vibration impacts identified in the original report due to the final project.

Project Description

The final project proposes to develop 1,565 residential units in four, six to 14-story, podium mixed-use buildings with 45,000 square feet (SF) of commercial land use. The project also proposes to develop a 225 room, eight-story podium hotel building. The proposed residential and hotel buildings would be situated around a publicly accessible, approximately two-acre neighborhood park. A linear park has been added between Buildings 3 and 4 with additional commercial uses along the Buildings facing the linear park. There would be an additional small commercial building along the northwestern side of the neighborhood park near Brokaw Road between Buildings 1 and 4. The locations and footprints of the revised four residential buildings are similar to the original project. The footprint of Building 3 would be similar but slightly reduced with increased building height to allow for the linear park. The outdoor use areas on the third levels of Buildings 3 and 4

[1] Illingworth & Rodkin, Inc., *Gateway Crossings Project Noise and Vibration Assessment*. 22 January 2018.

have changed shape. In addition, there are rooftop amenity decks on the seventh level of Building 3 and 13th level of Building 4 facing the linear park. The revised hotel building would change shape and height, but the edges of the building would not be closer to or further from the adjacent roadway or project boundaries. The revised hotel project would include up to a 100-kW diesel emergency backup generator as analyzed in the original report, but the located of the generator would change to the ground floor outside of the hotel building northeast of the back of house/service area.

Traffic Noise Increases

The updated traffic report[2] indicates that the final project would result in 236 more daily project vehicle trips than the original project. This 2 percent increase in project vehicle trips would not be substantial or change the traffic noise levels estimated for the surrounding high-volume roadways, as reported in the original noise assessment. Therefore, the permanent noise level increase due to project-generated traffic would continue to be less-than-significant.

Noise and Land Use Compatibility

Future Exterior Noise Environment

As established in Table 5.10-2 of the City's General Plan, exterior noise environments at common outdoor use areas located within residential developments should be maintained at or below 55 dBA CNEL to be considered by the City of Santa Clara to be "normally acceptable." Outdoor use areas located at commercial and recreational land uses should be maintained at or below 65 dBA CNEL to be considered "normally acceptable." The City's exterior noise standards are typically calculated at the center of each outdoor use area.

The noise sources affecting the project site, such as the vehicle traffic on nearby roadways (as discussed above), aircraft, and rail line, would be the same as described in the original report. The outdoor use areas on the third levels of Buildings 3 and 4 have changed shape. Most of the outdoor use areas in Buildings 3 and 4 are still completed surrounded and shielded by the proposed buildings themselves would continue to have exterior noise levels of at least 59 dBA CNEL due to aircraft noise, which as in the original report, would be above the threshold. An outdoor pool is now proposed in the southeast corner of Building 4. The pool area would be partially shielded by the proposed building itself from traffic noise along the roadways and BART/train noise from the tracks south of the site. However, the proposed buildings would not provide any acoustic shielding from aircraft noise. The outdoor pool in Building 4 would have exterior noise levels of at least 60 dBA CNEL due to train and aircraft noise, which would be above the City's 55 dBA CNEL threshold. The recommended features for future exterior noise levels in the original report would again apply to the revised Buildings 3 and 4 outdoor use areas.

There are rooftop amenity decks on the seventh level of Building 3 and 13th level of Building 4 facing the linear park. These outdoor decks would be partially shielded by the proposed buildings

[2] Hexagon Transportation Consultants, Inc., "Traffic Impact Analysis Consistency Review for the Gateway Crossings Mixed-Use Development Project Description Adjustment", June 2019.

themselves from traffic noise along the roadways and BART/train noise from the tracks south of the site. However, the proposed buildings would not provide any acoustic shielding from aircraft noise. The rooftop decks in Buildings 3 and 4 would have exterior noise levels of at least 59 dBA CNEL due to aircraft noise, which would be above the City's 55 dBA CNEL threshold. The recommended features for future exterior noise levels in the original report would again apply to the rooftop amenity decks.

A linear park has been added between Buildings 3 and 4. The southern edge of the linear park would be approximately 375 feet center of the train tracks. At this distance, exterior noise levels from the train and aircraft noise at the edge of the linear park would be 65 dBA CNEL. The center of the linear park would be approximately 580 feet from the center of the train tracks and partially shielded by the proposed buildings. At this distance and with partial shielding, exterior noise levels from the train and aircraft noise at the center of the linear park would be 60 dBA CNEL. Although the portion of the linear park nearest to the train tracks would have exterior noise levels at the City's 65 dBA CNEL threshold for recreational use areas, the majority of the neighborhood park would have exterior noise levels below the City's 65 dBA CNEL goal.

The revised hotel would have outdoor common use areas on the 2nd and 8th floors of the building. The 2nd floor pool area would be set back approximately 225 feet, respectively, from the centerline of Coleman Avenue and would be partially shielded from traffic noise along Coleman Avenue by the proposed hotel building itself. The 8th floor outdoor terrace would be set back approximately 100 feet from the centerline of Coleman Avenue. The setbacks from the nearest roadways, the shielding from the proposed building itself, the height of the 2nd and 8th floor outdoor use areas relative to the adjacent roadways, and the shielding from solid parapet barriers that are assumed to be along the edges of all the outdoor use areas would reduce traffic noise levels to 60 dBA CNEL or below at all outdoor use areas at the hotel. The hotel's outdoor use areas would also be exposed to aircraft noise levels, which would result in a total noise exposure of 64 dBA CNEL or lower at all outdoor use areas. The noise environment at the hotel's 2nd and 8th floor outdoor common use areas would not exceed the City's 65 dBA CNEL threshold for commercial land uses.

Future Interior Noise Environment

The City of Santa Clara requires that interior noise levels be maintained at 45 dBA CNEL or less within residences. The State Building Code requires that interior noise levels within the proposed hotel be maintained at 45 dBA CNEL. In addition, the Cal Green Code requires interior noise levels at commercial uses to be maintained at 50 dBA $L_{eq(1\text{-}hr)}$ or less during hours of operation. Future exterior noise levels at the buildings' facades were calculated and are shown in Figure 3.

The locations and footprints of the residential buildings are similar to the original project, and interior noise levels would be the same as reported in the original assessment. The revised hotel building would change shape and height, but the edges of the building would not be closer to or further from the adjacent roadway or project boundaries. Therefore, the interior noise levels in the revised hotel would be the same as stated in the original report.

The commercial uses on the ground floors of Buildings 1 and 4 facing the neighborhood park would continue to have the same interior noise levels as report in the original assessment. There would be an additional commercial building along the northwestern side of the park near Brokaw Road between Buildings 1 and 4. The exterior noise exposure levels at this small commercial use would range from 52 to 64 dBA L_{eq}. There would be new commercial uses along the ground floors of Buildings 3 and 4 facing the linear park. The exterior noise exposure levels at these commercial uses would range from 54 to 66 dBA L_{eq}. Standard commercial construction provides at least 30 dBA of outdoor to indoor noise reduction assuming that the building includes adequate forced-air mechanical ventilation systems so that the windows and doors may remain closed to control noise. Assuming standard commercial construction methods with the windows and doors closed, interior noise levels are calculated to range from 22 to 34 dBA $L_{eq(1\text{-}hr)}$ during daytime hours at the small commercial building near the neighborhood park and 24 to 36 dBA $L_{eq(1\text{-}hr)}$ during daytime hours at the commercial uses near the linear park, which would be below the Cal Green Code standard of 50 dBA $L_{eq(1\text{-}hr)}$.

Stationary Equipment Noise

Section 9.10.40 of the City's Municipal Code limits noise levels at residences to 55 dBA during daytime hours (7:00 a.m. to 10:00 p.m.) and 50 dBA at night (10:00 p.m. to 7:00 a.m.), noise levels at commercial uses to 65 dBA during daytime hours and 60 dBA during nighttime hours, and noise levels at light industrial uses to 70 dBA at any time. However, these noise limits are not applicable to construction activities that occur within the allowable hours of 7:00 a.m. to 6:00 p.m. on weekdays and 9:00 a.m. to 6:00 p.m. on Saturdays.

The revised hotel project would include up to a 100-kW diesel emergency backup generator as analyzed in the original report, but the located of the generator would change to the ground floor outside of the hotel building northeast of the back of house/service area. This type of generator would produce a noise level of approximately 72 dBA L_{eq} at 23 feet. This would produce noise levels of approximately 53 dBA L_{eq} at the commercial buildings to the northeast across Coleman Avenue and approximately 40 dBA L_{eq} at the commercial buildings to the west across Brokaw Road. Both noise levels would be below the 65 dBA daytime noise limit and 60 dBA nighttime noise limit for commercial uses established in the City Code. The approved Coleman Highline project's property line would be located approximately 50 feet to the east of the generator location. At this distance, the generator would produce noise levels of approximately 65 dBA L_{eq} at the shared property line, which would be at the City's noise level threshold for commercial land uses during daytime hours but would exceed the nighttime hours noise level threshold.

Once the project site is operational, the hotel building's 100-kW diesel emergency backup generator could affect the on-site adjacent residential buildings. The testing of this generator, which is assumed to be during the daytime, would be subject to the City's daytime noise level limit. At a distance of 150 feet from the nearest adjacent residential building, the generator noise is calculated to be 56 dBA L_{eq}. This noise level would be above the City Code's 55 dBA daytime noise limit and 50 dBA nighttime noise limit for residential uses.

As a standard condition of approval, and as previously required in the prior noise assessment, mechanical equipment shall be selected and designed to reduce impacts on-site uses to meet the City's noise level requirements. A qualified acoustical consultant shall be retained to review mechanical noise as these systems are selected to determine specific noise reduction measures necessary to reduce noise to comply with the City's noise level requirements. Noise reduction measures could include, but are not limited to, selection of equipment that emits low noise levels, installation of muffles or sound attenuators, and/or installation of noise barriers such as enclosures and parapet walls to block the line-of-sight between the noise source and the nearest receptors. Alternate measures may include locating equipment further away from noise-sensitive receptors or in less noise-sensitive areas, where feasible.

Mitigation Measure 1: **No further mitigation required.**

Appendix G: Final Project Traffic Impact Analysis Consistency Review

Hexagon Transportation Consultants, Inc.

Memorandum

Date: June 5, 2019

To: Kristy Weis, David J. Powers & Associates, Inc.

From: Gary Black, AICP
Huy Tran, T.E.

Subject: Traffic Impact Analysis Consistency Review for the Gateway Crossings Mixed-Use Development Project Description Adjustment

This memo presents a supplemental evaluation of consistency with the completed traffic impact analysis (TIA) for the proposed Gateway Crossings mixed-use development project description adjustment. A TIA report dated March 13, 2018 was completed for the original project description consisting of 1,600 residential units, 250 hotel rooms, and 15,000 square feet (s.f.) of retail space. The new project description proposes 1,565 residential units, 225 hotel rooms, and 45,000 s.f. of retail space. The supplemental evaluation consists of a comparison of trip generation for the new project description to that of the original project description for which the TIA was completed.

The project trips generated by the new project description were estimated using the same trip generation rates and assumptions as in the TIA for consistency and comparison purposes.

The trip generation comparison indicates that the proposed change in project description would result in a small change in estimated trips to be generated by the proposed project (see Table 1). The adjustment of project description would result in a change of 236 more daily trips, 14 fewer trips during the AM peak-hour, and 7 more trips during the PM peak-hour. The trip generation change is negligible, and no additional traffic analysis is necessary.

Table 1
Trip Generation Comparison

Land Use	ITE Land Use	Size	Daily		AM Peak Hour						PM Peak Hour					
					Pk-Hr	Split		Trip			Pk-Hr	Split		Trip		
			Rate	Trip	Rate	In	Out	In	Out	Total	Rate	In	Out	In	Out	Total
Project Description from TIA dated 03-13-2018																
Proposed Land Use																
Residential	***220 - Apartment***	1,600 dwelling units	6.65	10,640	0.51	20%	80%	163	653	816	0.62	65%	35%	645	347	992
15% housing and retail mixed-use reduction[1]				-96				-1	-1	-2				-4	-4	-8
9% housing near Caltrain station[4]				-949				-15	-59	-74				-58	-31	-89
Hotel	***310 - Hotel***	250 rooms	8.17	2,043	0.53	59%	41%	78	55	133	0.60	51%	49%	77	73	150
10% hotel and retail mixed-use reduction[2]				-64				-1	-1	-2				-3	-3	-6
Retail	***820 - Shopping Center***	15,000 square feet	42.70	641	0.96	62%	38%	9	5	14	3.71	48%	52%	27	29	56
15% housing and retail mixed-use reduction[1]				-96				-1	-1	-2				-4	-4	-8
10% hotel and retail mixed-use reduction[2]				-64				-1	-1	-2				-3	-3	-6
25% pass-by reduction[3]				-11				0	0	0				-5	-6	-11
Project Trips After Reductions				**12,044**				**231**	**650**	**881**				**672**	**398**	**1,070**
Former Land Use																
R&D	***760 - Research & Development***	**272,840 square feet**	**8.11**	**2,213**	**1.22**	**83%**	**17%**	**276**	**57**	**333**	**1.07**	**15%**	**85%**	**44**	**248**	**292**
Net Project Trips (Proposed - Former Land Uses)				***9,831***				***-45***	***593***	***548***				***628***	***150***	***778***
New Project Description as of 06-03-2019																
Proposed Land Use																
Residential	***220 - Apartment***	1,565 dwelling units	6.65	10,407	0.51	20%	80%	160	638	798	0.62	65%	35%	631	339	970
15% housing and retail mixed-use reduction[1]				-288				-2	-4	-6				-13	-12	-25
9% housing near Caltrain station[4]				-911				-14	-57	-71				-56	-29	-85
Hotel	***310 - Hotel***	225 rooms	8.17	1,838	0.53	59%	41%	70	49	119	0.60	51%	49%	69	66	135
10% hotel and retail mixed-use reduction[2]				-184				-2	-3	-5				-7	-7	-14
Retail	***820 - Shopping Center***	45,000 square feet	42.70	1,922	0.96	62%	38%	27	16	43	3.71	48%	52%	80	87	167
15% housing and retail mixed-use reduction[1]				-288				-4	-2	-6				-12	-13	-25
10% hotel and retail mixed-use reduction[2]				-184				-3	-2	-5				-7	-7	-14
25% pass-by reduction[3]				-32				0	0	0				-15	-17	-32
Project Trips After Reductions				**12,280**				**232**	**635**	**867**				**670**	**407**	**1,077**
Former Land Use																
R&D	***760 - Research & Development***	**272,840 square feet**	**8.11**	**2,213**	**1.22**	**83%**	**17%**	**276**	**57**	**333**	**1.07**	**15%**	**85%**	**44**	**248**	**292**
Net Project Trips (Proposed - Former Land Uses)				***10,067***				***-44***	***578***	***534***				***626***	***159***	***785***
Difference in Net Project Trips (New Project Description - TIA Project Description)				**236**				**1**	**-15**	**-14**				**-2**	**9**	**7**

Notes:
Source: ITE Trip Generation, 9th Edition, 2012.

[1]As prescribed by the VTA Transportation Impact Analysis Guidelines (October 2014), the maximum trip reduction for a mixed-use development project with housing and retail components is equal to 15% off the smaller trip generator (retail component generates less trips than the housing component).

[2]As prescribed by the VTA Transportation Impact Analysis Guidelines (October 2014), the maximum trip reduction for a mixed-use development project with hotel and retail components is equal to 10% off the smaller trip generator (retail component generates less trips than the hotel component).

[3]A 25% PM pass-by reduction is typically applied for retail development within Santa Clara County.

[4]As prescribed by the VTA Transportation Impact Analysis Guidelines (October 2014), the maximum trip reduction for housing located within 2,000-foot walk of a Caltrain station is 9%. (The project will have access to the Santa Clara Transit Center from Brokaw Road via the pedestrian undercrossing currently under construction).