



MEMORANDUM

DATE: May 14, 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, 2018¹ and a Supplemental Text Revisions Memos dated September 26, 2018 and October 30, 2018.

At the November 14, 2018 Planning Commission hearing and December 4, 2018 City Council hearing, members of the public, Commissioners, and Councilmembers asked that additional public outreach be conducted in order to explore some ideas for a minor reconfiguration of the project design. Some of the ideas proposed include changing the amount of retail uses, revising the park layout, advancing the schedule for hotel construction, and increasing the number of residential units proposed. In response to the comments, the applicant hosted a community meeting on January 16, 2019 and March 12, 2019. As a result of the feedback received at these meetings, the applicant is proposing to revise the project to include 1,600 residential units, 225 hotel rooms, 25,000 square feet of commercial uses, and 2.6 acres of parkland. The revised project is an increase in 10,000 square feet of commercial uses, an additional 0.6 acres of parkland, and a decrease in 25 hotel rooms. The applicant is also committing to construct the hotel during the first phase of development.

An analysis of the environmental impacts of the revised project, by resource area, was completed, comparing the effects of the revised project with the impacts identified in the Draft EIR, and found that the revised project would not result in new or substantially more severe significant impacts than disclosed previously in the Draft EIR. A description of the revised project and analysis of the environmental impacts of the revised 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.

1.4 REVISED PROJECT

At the November 14, 2018 Planning Commission hearing and December 4, 2018 City Council hearing, members of the public, Commissioners, and Councilmembers asked that additional public outreach be conducted in order to explore some ideas for a minor reconfiguration of the project design. Some of the ideas proposed include changing the amount of retail uses, revising the park layout, advancing the schedule for hotel construction, and increasing the number of residential units proposed. In response to the comments, the applicant hosted a community meeting on January 16, 2019. As a result of the feedback received, the applicant is proposing to revise the project to include 1,600 residential units, 225 hotel rooms, 25,000 square feet of commercial uses and 2.6 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 1.4-1 below summarizes the revised project and compares it to Option 2 of the previous project evaluated in the Draft EIR.

Table 1.4-1: Project Development Summary			
	Residential Units	Hotel Rooms	Retail Square Footage
A. Revised Project	1,600	225	25,000
B. Previous Project (Option 2)	1,600	250	15,000
<i>Difference (A – B)</i>	<i>0</i>	<i>-25</i>	<i>+10,000</i>

The revised project proposes the same land uses as the previous project. The revised project proposes the same number of residential units, 25 fewer hotel rooms, and 10,000 more square feet of commercial retail uses than the previous project. The conceptual site plan of the revised project compared to the site plan for the previous project are shown in Figure 1.4-1.

1.4.1 Revisions to Buildings 1-4

The maximum residential building height of 150 feet would not change under the revised project. The massing of Buildings 1 and 2 would remain the same under the revised project as previously proposed. The massing of Buildings 3 and 4, would change under the revised project. Compared to what was proposed under the previous project, the footprint of Building 3 would be reduced to allow for a linear park between Buildings 3 and 4 and the height of Building 3 would increase by six stories

on the southern portion of the building to create a 13-story tower. Building 3 outdoor amenity space would also change shape as a result of the change in building footprint. Compared to the previous project, the western portion of Building 4 would be reconfigured to break up the building mass fronting the linear park and increase by one story for a total of eight stories.

1.4.2 Revisions to the Hotel and Commercial Retail Space

Under the revised project, a total of 187,000 square feet of commercial space is proposed. The revised project includes a 162,000-square foot hotel and 25,000 square feet of ancillary commercial space located throughout the project site on the ground floor of Buildings 1-4. The revised project would have a commercial floor-area-ratio of 0.20.

Compared to the previous project, the hotel under the revised project would have 25 fewer hotel rooms, a reduced building square footage of 162,000 (instead of 200,000 square feet previously proposed), an L-shaped building configuration (instead of the rectangular configuration previously proposed), and a reduced number of stories above grade, from 13 to eight. The outdoor amenity space for the hotel under the revised project would be provided on the second 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 revised project as previously proposed.

All the ancillary commercial retail space, including the additional 10,000 square feet, would be integrated into the ground floors of Buildings 1 through 4, with 3,500 square feet of free-standing commercial space at the northern end of the neighborhood park.

1.4.3 Revisions to Park Space

As described above, the revised 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 acre. Overall, the revised project would include a total of approximately 2.6 acres of park space compared to the approximately two acres previously proposed. The increase in recreational space would also result in an increase in landscaping, including 68 additional trees, compared to the previous project. The increase in landscaping 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 revised project. A summary of the pervious and impervious surfaces on-site under the revised project compared to the previous project is provided in Table 1.4-2.

Table 1.4-2: Summary of the Approximate Pervious/Impervious Surfaces On-Site				
	Previous Project Site Coverage		Revised Project Site Coverage	
	Square Feet	Percentage	Square Feet	Percentage
Impervious	710,009	76	660,923	71
Pervious	222,170	24	271,256	29
<i>Total</i>	<i>932,179</i>	<i>100</i>	<i>932,179</i>	<i>100</i>

1.4.4 Other Project Components

In addition to the maximum building height, other project elements that are described in Sections 2.2.13 through 2.2.18 of the Draft EIR including common amenity space, 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 revised project.

Figure 1.4-1: Previous Project and Revised Project Conceptual Site Plans

1.4.5 Project Objectives

As described in the Draft 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, dog park, and various lounge areas.
3. Develop an on-site commercial component of approximately 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).

Based on the revised project, Objectives 2 and 3 have been changed as follows:

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.

Compared to objectives for the previous project, the applicant's objective has been revised to remove reference of including a dog park as part of the on-site recreational amenities, and to change the total development of hotel and ancillary commercial uses to approximately 187,000 square feet.

As described in the Draft 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 revised 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 187,000 square feet of commercial (i.e., hotel and retail) uses, achieve LEED certification, minimize vehicle miles travelled, maximize the housing unit yield allowed on-site, and provide affordable housing near existing and planned transit.

1.4.6 Environmental Impacts

An analysis of the environmental impacts of the revised project, by environmental resource and for each EIR impact, is provided below. Because the revised 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 revised project would not result in new or substantially more severe significant impacts than disclosed previously in the Draft EIR. A summary of the revised project, previous project, and project alternative impacts is provided at the end of this subsection in Table 1.4-10.

1.4.2.1 *Aesthetic Impacts*

While the massing of Building 3, Building 4, and hotel would change compared to the previous project (Building 3 would be 13 stories instead of the previously proposed seven stories, the western portion of Building 4 would be eight stories instead of the previously proposed seven, and the hotel would be eight stories instead of the previously proposed 13), the overall massing of the entire project is similar to the previous project and the maximum building height of 150 feet would not change under the revised project. In addition, the revised project proposes the same setbacks, lighting, and building materials as the previous project. The revised project would include approximately 0.6 more acres of park space and landscaping (including 68 additional trees) than the previous project. For these reasons, the revised 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)**

1.4.2.2 *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 revised project (like the previous project), would not result in project or cumulative impacts to agricultural and forestry resources. **(No Impact, No Cumulative Impact)**

1.4.2.3 *Air Quality*

The revised 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 revised 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 revised 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 revised project would result in the same or lesser construction emissions as the previous project. The revised project would implement the same mitigation measures (see MM AIR-1.1 and AIR-1.2 below) as identified in the Draft EIR for the previous project 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 PM₁₀ 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 revised project in comparison to the previous project analyzed in the Draft EIR are summarized in Table 1.4-3. As shown in Table 1.4-3, the revised project would result in slightly lower emissions than the previous project analyzed in the Draft EIR.

Table 1.4-3: Estimated Project Operational Air Emissions (tons/year)				
	ROG	NO_x	PM₁₀	PM_{2.5}
A. Revised Project	11.62	9.81	9.85	2.81
B. Previous Project (Option 2)	11.78	10.09	9.92	2.85
<i>Difference (A – B)</i>	<i>-0.16</i>	<i>-0.28</i>	<i>-0.07</i>	<i>-0.04</i>
Source: Illingworth & Rodkin, Inc. <i>Revised Project Criteria Air Pollutant Greenhouse Gas Emissions Modeling</i> . April 10, 2019.				

The revised 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

The revised project would result in lower operational emissions (see Table 1.4-3) and similar average daily trips (see Table 1.4-7) than the previous project described in the Draft EIR. For these reasons, the revised project would result in similar (though less) exceedance of the BAAQMD O₃ (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 revised 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 revised 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 revised 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 revised 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, the revised project includes a diesel-fuel emergency backup generator for the hotel. The backup emergency diesel generator would be the same size under the revised 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. **(Less than Significant Impact)**

Exposure of On-Site Sensitive Receptors from Existing TAC Sources

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

Recommended Measures:

- 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 revised project proposes the same land uses as the previous project. For this reason, the revised 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 revised 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 revised project would not disrupt or hinder the implementation of applicable CAP control measures. **(Less than Significant Impact)**

Cumulative Impacts

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

1.4.2.4 *Biological Resources*

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

Special-Status Species and Sensitive Habitats

Burrowing Owls

The revised project would implement the same conditions of approval as the previous project, listed below, to survey for the burrowing owl and protect the burrowing owl if it is found present on-site. The revised 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 revised project would have the same impact to nesting birds as the previous project 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 revised project proposes buildings of the same materials and maximum building height as the previous project analyzed in the Draft EIR. The revised 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 revised project, therefore, would have the same less than significant bird strike impact as described for the previous project. **(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, the revised project would removal all five existing trees on-site. The revised project would plant a total of 718 new trees, which is 68 more trees than were previously proposed to be planted. For this reason, the revised 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 revised project would pay all applicable Habitat Plan fees. The revised project, therefore, would result in the same less than significant Habitat Plan impact as the previous project. **(Less than Significant Impact)**

Cumulative Impacts

Because the revised 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 revised project would result in the same contribution to cumulative biological resources impacts as the previous project. **(Less than Significant Cumulative Impact)**

1.4.2.5 Cultural Resources

Historic, Paleontological, Tribal Cultural Resources Impacts

The revised 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 revised project would result in the same impact to historic, paleontological, and tribal cultural resources as the previous project. **(No Impact)**

Archaeological Resources Impacts

The revised project is on the same site as the previous project and proposes the same level of ground disturbance as the previous project. The revised 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 revised 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 revised project would result in the same contribution to cumulative biological resources impacts as the previous project. **(Less than Significant Cumulative Impact)**

1.4.2.6 Energy

Energy Use and Efficiency

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

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

A summary of the estimated energy demand of the revised project and previous project is provided in Table 1.4-4. As shown in Table 1.4-4, the revised 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 1.4-4: Estimated Annual Operational Energy Demand			
	Estimated Electricity Demand (gigawatt-hours)	Estimated Natural Gas Demand (billion British thermal units)	Estimated Gasoline Demand* (gallons)
A. Revised Project	15	28	473,812
B. Previous Project (Option 2)	18	34	398,149
<i>Difference (A – B)</i>	-3	-6	+75,663
Note: * The estimated gasoline demand assumed an average fuel economy of 54.5 mpg, consistent with the assumption in the Draft EIR. Source: Illingworth & Rodkin, Inc. <i>Revised Project Criteria Air Pollutant Greenhouse Gas Emissions Modeling</i> . April 10, 2019.			

While the revised project would generate higher gasoline demand than the previous project, the revised 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, the construction and operation of the revised project would not use fuel or energy in a wasteful manner. **(Less than Significant Impact)**

Increase in Energy Demand

Like the previous project, the revised 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 revised project would not result in a significant impact on energy demand. **(Less than Significant Impact)**

Cumulative Impacts

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

1.4.2.7 *Geology and Soils*

The revised 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 revised 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 revised project would result in the same less than significant project and less than significant cumulative geology and soils impacts as the previous project. **(Less than Significant Impact, Less than Significant Cumulative Impact)**

1.4.2.8 *Greenhouse Gas Emissions*

Construction Emissions

The revised project proposes a similar amount of development as the previous project and generates eight more average daily vehicle trips than the previous project (refer to Table 1.4-7). The revised project would result in the same or fewer construction-related GHG emissions as the previous project because it 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. Like the previous project, the revised 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 revised project compared to the previous project is shown in Table 1.4-5.

Table 1.4-5: Summary of Revised Project and Previous Project 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)
Revised Project	12,405	2.56
Previous 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. *Revised Project Criteria Air Pollutant Greenhouse Gas Emissions Modeling*. April 10, 2019.

As shown on Table 1.4-5, the revised 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). Like Option 2 of the previous project, the revised project (with the implementation of mitigation measures MM AIR-2.1) would be below the significance threshold of 2.6 MT of CO₂e 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 revised 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 revised project would have the same consistency with the 2017 Clean Air Plan, General Plan, and Climate Action Plan as the previous project. **(Less than Significant Impact)**

Cumulative Impacts

The revised project would result in similar significant GHG impacts as the previous project as identified in the Final EIR. The revised 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)**

1.4.2.9 *Hazards and Hazardous Materials*

Routine Transport, Use, or Disposal of Hazardous Materials

Like the previous project, the revised 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 revised project would be implemented in accordance with federal, state, and local laws and regulations. For these reasons, the revised 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 revised 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, the revised 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 this EIR.

Safety Hazards

The revised project is proposed on the same site and proposes the same maximum building height as the previous project. For this reason, the revised 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 revised 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 revised 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 revised project proposes the same maximum building height of 150 feet and similar building massing as the previous project. For these reasons, the revised project would be conditioned and is expected to receive concurrence from the ALUC for consistency with the CLUP, similar to the previous project. **(Less than Significant Impact)**

Cumulative Impacts

Because the revised 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 revised 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)**

1.4.2.10 Hydrology and Water Quality

The revised 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 revised 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 1.4-2 summarizes the impervious and pervious surfaces of the revised project in comparison to the previous project.

The revised 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)**

1.4.2.11 *Land Use and Planning*

The revised project is subject to the same existing land use conditions as described in the Draft EIR. The revised project would redevelop the site in a similar manner as described for the previous project in the Draft EIR. Because the revised project proposes the same land uses and similar site plan, the revised project would result in the same less than significant impact of dividing an established community, a generally similar shade and shadow impact because the hotel would be five fewer stories in height while Building 3 would be six stories taller in height, same commercial FAR, 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 revised 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)**

1.4.2.12 *Mineral Resources*

The revised 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 revised project would not result in project and cumulative impacts to mineral resources, similar to the previous project. **(No Impact, No Cumulative Impact)**

1.4.2.13 *Noise and Vibration*

The revised project would be subject to the same existing noise and vibration conditions as described in the Draft EIR. The revised project proposes the same land uses as the previous project. The densities of land uses and the site plan are slightly changed under the revised project (as described in Section 1.4).

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 revised project as it was under the previous project. For this reason, the exterior noise level at the neighborhood park would not change under the revised project. The revised 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; therefore, the noise exposure at these areas would not change under the revised 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 space at Building 3. Under the revised project, the outdoor common amenity areas on the 3rd floor of Building 3 would be a different shape compared to the one previously analyzed in the Draft EIR. Similar to the outdoor common amenity areas under the previously project, the revised outdoor common amenity area 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.²

Like the previous project, the exterior noise levels at the neighborhood park and outdoor residential common amenity areas under the revised project would exceed the City's exterior land use compatibility goals. The revised project would implement the same mitigation measure (see MM NOI-1.1) as the previous project. 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 revised 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 revised 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.³ 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, and interior noise levels would be the same as discussed for the previous project. The hotel building would change shape and height under the revised 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 revised hotel would be the same as discussed in the Draft EIR for the previous project. The revised project would implement the same conditions of approval (see below) as identified for the previous project to reduce interior noise levels.

² Illingworth & Rodkin, Inc. *Gateway Crossings Noise and Vibration Assessment Update*. April 1, 2019. Page 2.

³ Illingworth & Rodkin, Inc. *Gateway Crossings Noise and Vibration Assessment Update*. February 15, 2019. Page 3.

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 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 are similar in location to the previous project and would have the same interior noise levels as discussed in the Draft EIR for the previous project. The revised 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 $L_{eq}(1-hr)$.

BART Vibration Effects

The revised project would have the same setback from the nearest proposed BART track as described for the previous project 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 revised 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 revised project would use the same construction equipment at the same or lesser rate (due to the smaller size of the hotel) as the previous project analyzed in the Draft EIR. For these reasons, the revised 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 revised 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 revised 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 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, the revised 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, 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 proposed). The operation and testing of the backup generator under the revised project would produce 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, the backup generator noise level under the revised project would exceed the City’s daytime and nighttime noise thresholds for residential uses. The revised 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 revised project would result in eight more daily project trips (though eight fewer AM and three fewer PM peak hour trips) than the previous project (see Table 1.4-7). This incremental 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 revised 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 revised 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 revised project would result in the same or lesser noise and vibration impacts than the previous project and implement the same mitigation measures, the revised project would result in the same or lesser contribution to cumulative noise and vibration impacts than described in the Draft EIR for the revised project. (**Less than Significant Cumulative Impact**)

1.4.2.14 *Population and Housing*

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

Like the previous project, the revised project proposes the same number of residential units and a lower 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 is consistent with the General Plan vision and General Plan policies that encourage higher density housing. Table 1.4-5 summarizes the estimated residential population and jobs from the revised project and previous project analyzed in the Draft EIR. The revised project would result in the same number of residents and 70 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, the revised project would create a more balanced jobs to housing ratio by constructing more housing. For these reasons, the revised 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 1.4-5: Estimated Population and Jobs		
	Estimated Population	Estimated Jobs
A. Revised Project	4,368	468
B. Previous Project (Option 2)	4,368	538
<i>Difference (A – B)</i>	<i>0</i>	<i>-70</i>
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. <i>City of Santa Clara 2010-2035 General Plan</i> . Adopted December 2010, amended December 2013 and December 2014. Page 8.6-12).		

1.4.2.15 Public Services

The revised project is subject to the same existing public services conditions as described in the Draft EIR. The revised project proposes the same number of residential units, less hotel rooms, and more ground floor retail. The revised project proposes more park space than the previous project with the addition of an approximately 0.6-acre linear park. The revised 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 1.4-5, the revised project would result in the same number of total residents and 70 fewer number of employees on-site. The previous project would generate approximately 16 elementary school students, seven middle school students, and nine high school students. Since the revised project would have the same number of total residents, it would generate the same number of elementary, middle, and high school students as the previous project analyzed in the Draft EIR. Given the greater amount of park space, same number of total residents and project-generated students, and fewer employees of the revised project compared to the previous project, it is anticipated that the revised project would result in similar less than significant impacts to public services as described in the Draft EIR for the previous project. The revised 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 to reduce project and cumulative impacts to public services to a less than significant level. **(Less than Significant Impact, Less than Significant Cumulative Impact)**

1.4.2.16 Recreation

Given the greater amount of park space, same number of total residents and project-generated students, and fewer employees of the revised project compared to the previous project, it is anticipated that the revised project would result in a similar less than significant impact to recreational facilities. The revised 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 to reduce recreation impacts and cumulative recreation impacts to a less than significant level. **(Less than Significant Impact, Less than Significant Cumulative Impact)**

1.4.2.17 Transportation/Traffic

The revised project is subject to the same existing transportation conditions as described for the previous project in the Draft EIR. The revised project proposes a similar amount of development as the previous project. As shown in Table 1.4-7, the revised project generates eight more average daily trips though eight fewer AM and three fewer PM peak hour trips than the previous project. Because the revised project proposes the same land uses at a similar density as the previous project, the vehicle distribution and assignment for the revised project is similar to that of the previous project.

Net Project Trips	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
A. Revised Project	9,839	-49	589	540	626	149	775
B. Previous Project (Option 2)	9,831	-45	593	548	628	150	778
<i>Difference (A – B)</i>	+8	-4	-4	-8	-2	-1	-3

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*. March 13, 2019.

Existing Plus Project Conditions

As shown in Table 1.4-7, the difference in trip generation between the revised project and previous project is minimal and would not result in new or more severe significant impact than described for the previous project in the Draft EIR.⁴ The revised project, therefore, would have the same

⁴ Hexagon Transportation Consultants. *Traffic Impact Analysis Consistency Review for the Gateway Crossings*

significant impacts at Coleman Avenue/Brokaw Road and De La Cruz Boulevard/Central Expressway as the previous project. The revised project would implement the same mitigation measures MM TRAN-1.1 and TRAN-1.2 (see below) as the previous project 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 revised project, with the implementation of 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.⁵ The approved City Place development also identifies adding a second southbound right-turn lane and a third northbound left-turn lane as a mitigation measure.⁶ 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.

Mixed-Use Development Project Description Adjustment. January 22, 2019.

⁵ 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.

⁶ The City Place project (including identified mitigation) is approved and will be implemented in the near-term.

With implementation of the improvements identified in 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 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 revised project. **(Significant Unavoidable with Mitigation Incorporated)**

Existing Plus Project Freeway Segment Levels of Service

Because the trip generation, assignment, and distribution between the revised project and previous project is similar, the revised project would have the same significant impacts to freeway segments as the previous project. The revised project would implement the same mitigation measure MM TRAN-2.1 (see below) as the previous project 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 revised project. **(Significant Unavoidable Impact with Mitigation Incorporated)**

Background Plus Project Conditions

Because the trip generation, assignment, and distribution between the revised project and previous project is similar, the revised project would have the 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 revised 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 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.⁷ The project shall make a fair-share contribution towards this improvement.

With the implementation of the improvement identified in 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 revised project shall implement 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 revised 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 revised project shall implement 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 revised 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 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 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 revised 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 revised project. **(Significant Unavoidable with Mitigation Incorporated)**

⁷ The HOV conversion is under a trial program.

With implementation of 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 revised project, with the implementation of 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 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 revised 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 revised project. **(Significant Unavoidable with Mitigation Incorporated)**

Construction-Related Traffic Impacts

The construction duration and activities (including excavation and construction staging) for the revised project would be the same as described in the Draft EIR for the previous project. Like the previous project, the revised 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 revised 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 revised project would generate a similar demand for pedestrian, bicycle, and transit facilities as the previous project; and the revised 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 revised 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 revised 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 revised 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 revised 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 revised 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 revised project and previous project are similar, the revised 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 revised 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 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 revised project shall implement 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 proposed 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 revised project shall implement 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 revised project. **(Significant Unavoidable Cumulative Impact with Mitigation Incorporated)**

The revised project, with the implementation of 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 revised project shall implement 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 revised project. **(Significant Unavoidable Cumulative Impact with Mitigation Incorporated)**

1.4.2.18 *Utilities and Service Systems*

The revised project is subject to the same existing utilities and service systems conditions as described in the Draft EIR for the previous project. Table 1.4-8 summarizes the estimated sewage generation, water demand, and solid waste generation of the revised project and previous project analyzed in the Draft EIR.

Table 1.4-8: 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. Revised Project*	0.3	326	885
B. Previous Project (Option 2)	0.3	335	890

Note: * The sewage generation and water demand for the revised 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. *Revised Project Criteria Air Pollutant Greenhouse Gas Emissions Modeling*. April 10, 2019.

Wastewater/Sanitary Sewer System Impact

The revised 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 1.4-8, the revised project would generate the same amount of sewage as the previous project. For these reasons, the revised 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 1.4-2, the revised project would result in less impervious surfaces as the previous project. The revised project, therefore, would generate less stormwater runoff than the previous project. For these reasons, the previous 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 1.4-8, revised project would have less water demand than the previous project. For this reason, the revised 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, construction and operation of the revised 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 1.4-8, the revised project would generate less solid waste than the previous project analyzed in the Draft EIR. The revised project, therefore, would result in reduced 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 revised project would result in the same or less utility and service system impacts as the previous project described in the Draft EIR, the revised 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)**

1.4.2.19 *Growth-Inducing Impacts*

Like the previous project, the revised 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 revised project and previous project is provided in Table 1.4-9. As shown in Table 1.4-9, the amount of development proposed under the revised project is within the development allowed by the Santa Clara Station Focus Area Plan. For this reason, the revised 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 1.4-9: Allowed and Proposed Development				
	Santa Clara Station Focus Area Net New Development	Allowed On-Site by General Plan Land Use Designations	Previous Project	Revised Project
Residential Units	1,663	758 - 1,278	1,400 - 1,600	1,600
Commercial Square Footage	1,490,000	1,025,838	215,000	187,000
Office Square Footage	550,000	0	0	0

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					
<ul style="list-style-type: none"> • Construction-Related Air Pollutants 	SM	SM	NI	SM	SM
<ul style="list-style-type: none"> • Operational Air Pollutant Emissions 	SM	LTS/SM*	NI	LTS	LTS
<ul style="list-style-type: none"> • 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					
<ul style="list-style-type: none"> • Electricity and Natural Gas 	LTS	LTS	NI	LTS	LTS
<ul style="list-style-type: none"> • Gasoline 	LTS	LTS	NI	LTS	LTS
Geology and Soils	LTS	LTS	NI	LTS	LTS
Greenhouse Gas Emissions					
<ul style="list-style-type: none"> • Operational GHG Emissions 	SM	SM	NI	SM	LTS
<ul style="list-style-type: none"> • 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 1.4-10: Summary of Project and Project Alternative Impacts					
Impacts	Revised Project	Previous Project	No Project Alternatives		Reduced Development Alternative
			No Development	Development	
Mineral Resources	NI	NI	NI	NI	NI
Noise and Vibration					
• Aircraft noise	SU	SU	NI	SU	SU
• Construction related noise	SM	SM	NI	SM	SM
Population and Housing	LTS	LTS	NI	LTS	LTS
Public Services	LTS	LTS	NI	LTS	LTS
Transportation/Traffic					
• Freeway Impacts	SU	SU	NI	LTS	LTS
• Intersection LOS	SM	SM	NI	LTS	LTS
• Cumulative Intersection LOS	SU	SU	NI	LTS	LTS
Utilities and Service Systems					
• Other utilities	LTS	LTS	NI	LTS	LTS
• Cumulative solid waste	SU	SU	NI	SU	SU
Meets Applicant's Objectives?	Yes	Yes	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 first paragraph:

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.

Final EIR page 76: **ADD** 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 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: **ADD** 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 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 83: **REVISE** the Greenhouse Gas Emissions row of Table 7.5-2 as follows:

Table 7.5-2: Summary of Project and Project Alternative Impacts				
Impacts	Proposed Project	No Project Alternatives		Reduced Development Alternative
		No Development	Development	
Aesthetics	LTS	NI	LTS	LTS
Agricultural and Forestry Resources	NI	NI	NI	NI
Air Quality				
• Construction-Related Air Pollutants	SM	NI	SM	SM
• Operational Air Pollutant Emissions	LTS/SM*	NI	LTS	LTS
• Cumulative Operational Air Pollutant Emissions	SM	NI	LTS	LTS
Biological Resources (Nesting Birds)	SM	NI	SM	SM
Cultural Resources	SM	NI	SM	SM
Energy				
• Electricity and Natural Gas	LTS	NI	LTS	LTS
• Gasoline	LTS	NI	LTS	LTS
Geology and Soils	LTS	NI	LTS	LTS
Greenhouse Gas Emissions				
• Operational GHG Emissions	LTS/SUSM[†]	NI	SMU	LTS
• Cumulative GHG Emissions	LTS/SUSM[†]	NI	SMU	LTS
Hazards and Hazardous Materials	SM	NI	SM	SM
Hydrology and Water Quality	LTS	NI	LTS	LTS
Land Use	LTS	NI	LTS	LTS
Mineral Resources	NI	NI	NI	NI
Noise and Vibration				
• Aircraft noise	SU	NI	SU	SU
• Construction related noise	SM	NI	SM	SM
Population and Housing	LTS	NI	LTS	LTS
Public Services	LTS	NI	LTS	LTS
Transportation/Traffic				
• Freeway Impacts	SU	NI	LTS	LTS
• Intersection LOS	SM	NI	LTS	LTS
• Cumulative Intersection LOS	SU	NI	LTS	LTS

Table 7.5-2: Summary of Project and Project Alternative Impacts				
Impacts	Proposed Project	No Project Alternatives		Reduced Development Alternative
		No Development	Development	
Utilities and Service Systems				
<ul style="list-style-type: none"> • Other utilities • Cumulative solid waste 	LTS SU	NI NI	LTS SU	LTS SU
Meets Applicant's Objectives?	Yes	No	Partially	Partially
Meets City's Objectives?	Yes	No	No	Partially
<p>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.</p> <p>* Option 1 would result in LTS operational air pollutant emissions and Option 2 would result in SM operational air pollutant emissions.</p> <p>* Option 2 would result in LTS operational and cumulative GHG emissions and Option 1 would result in SMSU operational and cumulative GHG emissions.</p> <p>Bold text indicates being environmentally superior to the proposed project.</p>				

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

Appendix B: Revised Project Air Quality Memo

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality
1 Willowbrook Court, Suite 120
Petaluma, California 94954

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illro@illingworthrodkin.com

MEMO

Date: April 10, 2019

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

From: **James A. Reyff**
Illingworth & Rodkin, Inc.
1 Willowbrook Court, Suite 120
Petaluma, CA 94954

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

SUBJECT: Revised 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. Illingworth & Rodkin, Inc. (I&R) completed an evaluation of the air quality impacts for the Gateway Crossings project in Santa Clara, California¹. 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	Current Proposed Revision
Project Scenarios Modeled		
Residential	1,600 Apartment units	1,600 Apartment units
Hotel	250 rooms	225 rooms
Retail	15,000sf Shopping Center	25,000sf Shopping Center
Parking	2,758 enclosed, 21 parking lot	2,558 enclosed, 24 parking lot
Existing Uses Modeled		
Research & Development	72,840 sf	72,840 sf

Emissions Modeling

Criteria air pollutants (i.e., ROG, NO_x, PM₁₀ and PM_{2.5}) and GHG emissions associated with

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

development of the proposed project would occur over at least 5 years from construction activities, 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 Revised 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 Revised 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 Revised Project were modeled, indicates that the revised 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	Revised Project	Difference (Revised – DEIR Project)
ROG	15.55	15.35	-0.20
NOx	17.03	16.62	-0.43
PM10	0.37	0.37	0.00
PM2.5	0.35	0.35	-0.01
GHG (CO2e)	5,349	5,203	-146

Operational Emissions

The CalEEMod model, along with the project vehicle trip generation rates for the DEIR and Revised 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 Revised 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 Revised 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 Project	Revised Project	Difference (DEIR – Revised Project)
ROG	1.56	11.78	11.62	-0.16
NOx	1.62	10.09	9.81	-0.28
PM10	1.62	9.92	9.85	-0.07
PM2.5	0.46	2.85	2.81	-0.04
GHG (CO ₂ e)	2,469	13,684	13,309	-375
Mitigated GHG*	2,469	12,772	12,405	-367

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

Emergency Backup Generator

The revised 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 Revised Project.

Attachments: CalEEMod Model Output for:

DEIR Project
Revised Project

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

Gateway Crossings - Apr 2019 REVISED 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	2,558.00	Space	0.00	1,023,200.00	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	1,600.00	Dwelling Unit	24.00	1,600,000.00	4576
Strip Mall	25.00	1000sqft	0.00	25,000.00	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	Pacific Gas & Electric Company				
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)

Grading - Soil off haul

Vehicle Trips - computed trip rates APTs=5.96, HOTEL=7.69, RETAIL=32.04

Woodstoves - No wood burning Nat gas = 512

Energy Use -

Water And Wastewater - WTP treatment

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
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	240.00	512.00
tblFireplaces	NumberWood	272.00	0.00
tblGrading	MaterialImported	0.00	90,000.00
tblLandUse	LotAcreage	23.02	0.00
tblLandUse	LotAcreage	0.22	0.00
tblLandUse	LotAcreage	7.50	0.00
tblLandUse	LotAcreage	42.11	24.00
tblLandUse	LotAcreage	0.57	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	5.74
tblVehicleTrips	ST_TR	8.19	7.69
tblVehicleTrips	ST_TR	42.04	30.40
tblVehicleTrips	SU_TR	5.86	5.25
tblVehicleTrips	SU_TR	5.95	5.60
tblVehicleTrips	SU_TR	20.43	14.77
tblVehicleTrips	WD_TR	6.65	5.96
tblVehicleTrips	WD_TR	8.17	7.69
tblVehicleTrips	WD_TR	44.32	32.04

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	AnaerobicandFacultativeLagoonsPerce nt	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPerce nt	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPerce nt	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPerce nt	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPerce nt	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	0.8608	8.0819	6.2552	0.0233	1.3771	0.1881	1.5652	0.4185	0.1759	0.5945	0.0000	2,160.1527	2,160.1527	0.1560	0.0000	2,164.0515
2020	1.1652	8.5004	8.9484	0.0326	1.9954	0.1813	2.1767	0.5381	0.1705	0.7086	0.0000	3,007.3226	3,007.3226	0.1682	0.0000	3,011.5286
2021	13.3265	0.0356	0.1123	3.0000e-004	0.0276	1.7900e-003	0.0294	7.3300e-003	1.7200e-003	9.0500e-003	0.0000	27.3704	27.3704	1.3400e-003	0.0000	27.4040

Maximum	13.3265	8.5004	8.9484	0.0326	1.9954	0.1881	2.1767	0.5381	0.1759	0.7086	0.0000	3,007.3226	3,007.3226	0.1682	0.0000	3,011.5286
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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	0.8608	8.0819	6.2552	0.0233	1.3771	0.1881	1.5652	0.4185	0.1759	0.5945	0.0000	2,160.1523	2,160.1523	0.1560	0.0000	2,164.0511
2020	1.1652	8.5004	8.9484	0.0326	1.9954	0.1813	2.1767	0.5381	0.1705	0.7086	0.0000	3,007.3223	3,007.3223	0.1682	0.0000	3,011.5282
2021	13.3265	0.0356	0.1123	3.0000e-004	0.0276	1.7900e-003	0.0294	7.3300e-003	1.7200e-003	9.0500e-003	0.0000	27.3704	27.3704	1.3400e-003	0.0000	27.4040
Maximum	13.3265	8.5004	8.9484	0.0326	1.9954	0.1881	2.1767	0.5381	0.1759	0.7086	0.0000	3,007.3223	3,007.3223	0.1682	0.0000	3,011.5282

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	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	2.8213	2.8213
3	10-9-2019	1-8-2020	2.8604	2.8604
4	1-9-2020	4-8-2020	2.5663	2.5663
5	4-9-2020	7-8-2020	2.5129	2.5129
6	7-9-2020	10-8-2020	2.5457	2.5457
7	10-9-2020	1-8-2021	3.7559	3.7559
8	1-9-2021	4-8-2021	11.4426	11.4426
		Highest	11.4426	11.4426

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	9.3856	0.1921	11.9184	9.8000e-004		0.0704	0.0704		0.0704	0.0704	0.0000	83.3744	83.3744	0.0199	1.1700e-003	84.2221
Energy	0.1529	1.3495	0.8696	8.3400e-003		0.1057	0.1057		0.1057	0.1057	0.0000	4,127.5707	4,127.5707	0.2285	0.0690	4,153.8521
Mobile	2.0724	8.2530	23.5191	0.0915	9.6008	0.0718	9.6726	2.5696	0.0668	2.6363	0.0000	8,402.5198	8,402.5198	0.2556	0.0000	8,408.9108
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	179.7363	0.0000	179.7363	10.6221	0.0000	445.2891
Water						0.0000	0.0000		0.0000	0.0000	39.5571	144.9927	184.5497	0.1472	0.0883	214.5474
Total	11.6164	9.8101	36.3271	0.1009	9.6008	0.2487	9.8495	2.5696	0.2436	2.8132	219.2934	12,761.0279	12,980.3213	11.2738	0.1585	13,309.4009

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	9.3856	0.1921	11.9184	9.8000e-004		0.0704	0.0704		0.0704	0.0704	0.0000	83.3744	83.3744	0.0199	1.1700e-003	84.2221
Energy	0.1529	1.3495	0.8696	8.3400e-003		0.1057	0.1057		0.1057	0.1057	0.0000	4,098.2940	4,098.2940	0.2263	0.0686	4,124.3818
Mobile	2.0724	8.2530	23.5191	0.0915	9.6008	0.0718	9.6726	2.5696	0.0668	2.6363	0.0000	8,402.5198	8,402.5198	0.2556	0.0000	8,408.9108
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	179.7363	0.0000	179.7363	10.6221	0.0000	445.2891

Water						0.0000	0.0000		0.0000	0.0000	31.6457	124.1372	155.7828	0.1184	0.0708	179.8348
Total	11.6164	9.8101	36.3271	0.1009	9.6008	0.2487	9.8495	2.5696	0.2436	2.8132	211.3820	12,710.89	12,922.277	11.2427	0.1405	13,245.21
												57	7			80

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.61	0.39	0.45	0.28	11.35	0.48

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: 527,550; Non-Residential Outdoor: 175,850;

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	1,731.00	398.00	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	346.00	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
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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

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

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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
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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	0.1229	3.1663	0.8500	6.8800e-003	0.1649	0.0228	0.1877	0.0477	0.0218	0.0695	0.0000	659.5761	659.5761	0.0327	0.0000	660.3941
Worker	0.3961	0.2949	3.0465	8.4700e-003	0.8649	5.7100e-003	0.8706	0.2300	5.2600e-003	0.2353	0.0000	765.6429	765.6429	0.0209	0.0000	766.1641
Total	0.5190	3.4612	3.8964	0.0154	1.0299	0.0285	1.0583	0.2777	0.0270	0.3047	0.0000	1,425.2191	1,425.2191	0.0536	0.0000	1,426.5582

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	0.1229	3.1663	0.8500	6.8800e-003	0.1649	0.0228	0.1877	0.0477	0.0218	0.0695	0.0000	659.5761	659.5761	0.0327	0.0000	660.3941
Worker	0.3961	0.2949	3.0465	8.4700e-003	0.8649	5.7100e-003	0.8706	0.2300	5.2600e-003	0.2353	0.0000	765.6429	765.6429	0.0209	0.0000	766.1641
Total	0.5190	3.4612	3.8964	0.0154	1.0299	0.0285	1.0583	0.2777	0.0270	0.3047	0.0000	1,425.2191	1,425.2191	0.0536	0.0000	1,426.5582

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	0.1924	5.5288	1.4725	0.0132	0.3194	0.0274	0.3468	0.0924	0.0262	0.1185	0.0000	1,269.4616	1,269.4616	0.0582	0.0000	1,270.9170
Worker	0.7015	0.5041	5.2851	0.0159	1.6749	0.0108	1.6857	0.4455	9.9700e-003	0.4554	0.0000	1,436.3533	1,436.3533	0.0352	0.0000	1,437.2341
Total	0.8939	6.0328	6.7576	0.0291	1.9943	0.0382	2.0325	0.5378	0.0362	0.5740	0.0000	2,705.8149	2,705.8149	0.0935	0.0000	2,708.1511

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
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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	0.1924	5.5288	1.4725	0.0132	0.3194	0.0274	0.3468	0.0924	0.0262	0.1185	0.0000	1,269.4616	1,269.4616	0.0582	0.0000	1,270.9170
Worker	0.7015	0.5041	5.2851	0.0159	1.6749	0.0108	1.6857	0.4455	9.9700e-003	0.4554	0.0000	1,436.3533	1,436.3533	0.0352	0.0000	1,437.2341
Total	0.8939	6.0328	6.7576	0.0291	1.9943	0.0382	2.0325	0.5378	0.0362	0.5740	0.0000	2,705.8149	2,705.8149	0.0935	0.0000	2,708.1511

3.6 Paving - 2020

Unmitigated Construction On-Site

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

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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
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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	13.3124					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	13.3146	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	0.0107	7.3800e-003	0.0792	2.5000e-004	0.0274	1.7000e-004	0.0276	7.3000e-003	1.6000e-004	7.4600e-003	0.0000	22.7164	22.7164	5.2000e-004	0.0000	22.7293
Total	0.0107	7.3800e-003	0.0792	2.5000e-004	0.0274	1.7000e-004	0.0276	7.3000e-003	1.6000e-004	7.4600e-003	0.0000	22.7164	22.7164	5.2000e-004	0.0000	22.7293

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	13.3124					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	13.3146	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
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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
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	0.0107	7.3800e-003	0.0792	2.5000e-004	0.0274	1.7000e-004	0.0276	7.3000e-003	1.6000e-004	7.4600e-003	0.0000	22.7164	22.7164	5.2000e-004	0.0000	22.7293
Total	0.0107	7.3800e-003	0.0792	2.5000e-004	0.0274	1.7000e-004	0.0276	7.3000e-003	1.6000e-004	7.4600e-003	0.0000	22.7164	22.7164	5.2000e-004	0.0000	22.7293

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated	2.0724	8.2530	23.5191	0.0915	9.6008	0.0718	9.6726	2.5696	0.0668	2.6363	0.0000	8,402.5198	8,402.5198	0.2556	0.0000	8,408.9108
Unmitigated	2.0724	8.2530	23.5191	0.0915	9.6008	0.0718	9.6726	2.5696	0.0668	2.6363	0.0000	8,402.5198	8,402.5198	0.2556	0.0000	8,408.9108

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Apartments Mid Rise	9,536.00	9,184.00	8400.00	21,533,459	21,533,459
Enclosed Parking Structure	0.00	0.00	0.00		
Hotel	1,730.25	1,730.25	1260.00	3,159,721	3,159,721
Parking Lot	0.00	0.00	0.00		
Strip Mall	801.00	760.00	369.25	1,129,559	1,129,559
Total	12,067.25	11,674.25	10,029.25	25,822,738	25,822,738

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,584.9793	2,584.9793	0.1973	0.0408	2,602.0742

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	59250	3.2000e-004	2.9000e-003	2.4400e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1618	3.1618	6.0000e-005	6.0000e-005	3.1806
Total		0.1529	1.3495	0.8696	8.3500e-003		0.1057	0.1057		0.1057	0.1057	0.0000	1,513.3147	1,513.3147	0.0290	0.0277	1,522.3076

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	5.80154e+006	999.9837	0.0763	0.0158	1,006.5968
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	267250	46.0646	3.5200e-003	7.3000e-004	46.3692
Total		2,614.2560	0.1995	0.0413	2,631.5445

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	5.80154e+006	999.9837	0.0763	0.0158	1,006.5968
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	267250	46.0646	3.5200e-003	7.3000e-004	46.3692
Total		2,584.9793	0.1973	0.0408	2,602.0742

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	9.3856	0.1921	11.9184	9.8000e-004		0.0704	0.0704		0.0704	0.0704	0.0000	83.3744	83.3744	0.0199	1.1700e-003	84.2221
Unmitigated	9.3856	0.1921	11.9184	9.8000e-004		0.0704	0.0704		0.0704	0.0704	0.0000	83.3744	83.3744	0.0199	1.1700e-003	84.2221

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	1.3312				0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.6891				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	0.3588	0.1370	11.8949	6.3000e-004	0.0660	0.0660		0.0660	0.0660	0.0000	19.4567	19.4567	0.0187	0.0000	19.9246
Total	9.3856	0.1921	11.9184	9.8000e-004	0.0704	0.0704		0.0704	0.0704	0.0000	83.3744	83.3744	0.0200	1.1700e-003	84.2221

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	1.3312					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.6891					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	0.3588	0.1370	11.8949	6.3000e-004		0.0660	0.0660		0.0660	0.0660	0.0000	19.4567	19.4567	0.0187	0.0000	19.9246
Total	9.3856	0.1921	11.9184	9.8000e-004		0.0704	0.0704		0.0704	0.0704	0.0000	83.3744	83.3744	0.0200	1.1700e-003	84.2221

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	155.7828	0.1184	0.0708	179.8348
Unmitigated	184.5497	0.1472	0.0883	214.5474

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	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	1.85181 / 1.13498	3.0670	2.4400e-003	1.4600e-003	3.5639
Total		184.5497	0.1472	0.0883	214.5474

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	4.56602 / 0.634169	6.2566	5.9100e-003	3.5900e-003	7.4732
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	1.48145 / 1.13498	2.5906	1.9600e-003	1.1700e-003	2.9890
Total		155.7828	0.1184	0.0708	179.8348

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	179.7363	10.6221	0.0000	445.2891
Unmitigated	179.7363	10.6221	0.0000	445.2891

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	123.19	25.0065	1.4778	0.0000	61.9524
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	26.25	5.3285	0.3149	0.0000	13.2012
Total		179.7363	10.6221	0.0000	445.2891

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	123.19	25.0065	1.4778	0.0000	61.9524
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	26.25	5.3285	0.3149	0.0000	13.2012
Total		179.7363	10.6221	0.0000	445.2891

9.0 Operational Offroad

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

Equipment Type	Number
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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 (135 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 C: Revised Project Noise Memo

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality

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MEMO

Date: April 1, 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. This memo addresses any changes to the noise and vibration impacts identified in the original report due to the revised project.

Project Description

The revised project proposes to develop 1,600 residential units in four, six to 13-story, podium mixed-use buildings with 25,000 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. 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. Footprint of Building 3 would be similar but slightly reduced with increased building height to allow for the linear park; therefore, the outdoor use areas on the third level of Building 3 have changed shape. The revised hotel building would change shape and height, but the edges of the building would not be closer to or further

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

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 location 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 report² indicates that the revised project would result in eight more daily project vehicle trips (though eight fewer AM and three fewer PM peak hour trips) than the original project. This small increase in project vehicle trips would not be substantial or change the traffic noise levels estimated for the surrounding 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 3rd floor of Building 3 have changed shape. The outdoor use areas would be partially or mostly 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. As in the original report, outdoor use areas in Building 3 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 revised Building 3 outdoor use areas.

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

² Hexagon Transportation Consultants, Inc., "1250 Coleman Avenue Mixed-Use Development Traffic Impact Analysis", March 2019.

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 $L_{eq}(1-hr)$ 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} . 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 $L_{eq}(1-hr)$ during daytime hours, which would be below the Cal Green Code standard of 50 dBA $L_{eq}(1-hr)$.

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 location 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 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 further away from noise-sensitive receptors or in less noise-sensitive areas, where feasible.

Mitigation Measure 1: No further mitigation required.

Appendix D: Revised Project Traffic Impact Analysis Consistency Review



Memorandum

Date: March 13, 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 1,600 residential units, 225 hotel rooms, and 25,000 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 8 more daily trips, 8 fewer trips during the AM peak-hour, and 3 fewer 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	AM Peak Hour									PM Peak Hour					
			Daily		Pk-Hr Rate	Split		Trip			Pk-Hr Rate	Split		Trip		Total	
			Rate	Trip		In	Out	In	Out	Total		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																	
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			-160				-1	-2	-3				-7	-7	-14	
	9% housing near Caltrain station ⁴			-943				-15	-59	-74				-57	-31	-88	
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			-107				-1	-2	-3				-5	-5	-10	
Retail	820 - Shopping Center	25,000 square feet	42.70	1,068	0.96	62%	38%	15	9	24	3.71	48%	52%	45	48	93	
	15% housing and retail mixed-use reduction ¹			-160				-2	-1	-3				-7	-7	-14	
	10% hotel and retail mixed-use reduction ²			-107				-2	-1	-3				-5	-5	-10	
	25% pass-by reduction ³			-17				0	0	0				-8	-9	-17	
Project Trips After Reductions				12,052				227	646	873				670	397	1,067	
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)				9,839				-49	589	540				626	149	775	
Difference in Net Project Trips (New Project Description - TIA Project Description)				8				-4	-4	-8				-2	-1	-3	
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).																	