RESOLUTION NO. 19-8733

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SANTA CLARA, CALIFORNIA, APPROVING AND CERTIFYING A FINAL ENVIRONMENTAL IMPACT REPORT, MAKING FINDINGS WITH RESPECT THERETO, AND ADOPTING A STATEMENT OF OVERRIDING CONSIDERATIONS AND A MITIGATION MONITORING AND REPORTING PROGRAM FOR THE GATEWAY CROSSINGS PROJECT LOCATED AT 1205 COLEMAN AVENUE, SANTA CLARA

SCH#2017022066
CEQ2016-01025 (EIR)
PLN2016-12318 (General Plan Amendment and Rezoning)
PLN2016-12321 (Vesting Tentative Subdivision Map)
PLN2017-12481 (Development Agreement)

BE IT RESOLVED BY THE CITY OF SANTA CLARA AS FOLLOWS:

WHEREAS, on November 9, 2016, TOD Brokaw, LLC ("Owner") made an application for the development of a 21.4-acre site located at 1205 Coleman Avenue (APNs: 230-46-069 and 230-46-070) with 20.4 acres located in Santa Clara and 1.0 acre located in San Jose, CA, which is currently undeveloped and within the Santa Clara Station Focus Area ("Project Site");

WHEREAS, the Project Site was formerly developed with industrial and office/research and development buildings, surface parking lots, landscaping, and site improvements that were demolished between 2016 and 2017;

WHEREAS, a General Plan Amendment is proposed to change the existing land use designations for the Project Site from Santa Clara Station Regional Commercial (commercial up to 3.0 FAR), Santa Clara Station High Density Residential (37-50 du/acre), and Santa Clara Station Very High Density Residential (51-100 du/acre) to Santa Clara Station Very High Density Residential (51-120 du/ac) with a minimum commercial Floor Area Ratio (FAR) of 0.20, and amend the General Plan Land Use Map (Figure 5.4-4) for the Santa Clara Station Focus Area to reflect the General Plan change;

WHEREAS, the General Plan Amendment includes an amendment to the Climate Action Plan setting forth vehicle trip reduction targets for the land use classification;

WHEREAS, Owner simultaneously applied for a Zoning Code text amendment to add a new zoning designation of Very High Density Mixed Use (VHDMU) and a rezone of the Project Site from Light Industrial (ML) to the new zoning designation to allow the construction of 1,600 multi-family dwelling units, a 182,000 square foot full-service hotel with 225 rooms, 15,000 square feet of ground floor ancillary retail, surface and structured parking, private streets, landscaped open space, on- and off-site public right-of-way improvements, and site infrastructure and utilities to support the development ("Project");

WHEREAS, the application included a Vesting Tentative Subdivision Map to create commercial and mixed use development parcels, a neighborhood park, and common lots to facilitate development and serve the land uses on the Project Site;

WHEREAS, the Owner has also requested to enter into a Development Agreement with the City, and City staff have negotiated and recommended a draft Development Agreement for approval;

WHEREAS, on February 21, 2017, the City of Santa Clara ("City") distributed a Notice of Preparation of a Draft Environmental Impact Report ("DEIR") and on February 21, 2017 posted the Notice at the Santa Clara County Clerk's office, and on March 16, 2017, the City conducted a scoping meeting at Santa Clara City Hall, soliciting guidance on the scope and content of the environmental information to be included in the DEIR;

WHEREAS, the DEIR was prepared in accordance with the California Environmental Quality Act (CEQA) and the City circulated copies of the DEIR to the public agencies which have jurisdiction by law with respect to the Project, as well as to other interested persons and agencies, and the City sought the comments of such persons and agencies for forty-five (45) days, beginning on April 10, 2018 and concluding on May 25, 2018 ("Comment Period");

WHEREAS, the City prepared written responses to the comments received during the Comment Period and included these responses in a Final Environmental Impact Report ("FEIR"). The FEIR consists of: a list of agencies and organizations to whom the DEIR was sent, a list of the

comment letters received on the DEIR, revisions to the text of the DEIR, responses to comments received on the DEIR, and copies of comment letters. The FEIR was distributed on September 12, 2018;

WHEREAS, the City received two additional comment letters following the close of the FEIR review period and prepared written responses to comments that do not change the conclusions of the FEIR and are provided as "Responses to FEIR Comments" attached to this Resolution, which was prepared after the initial publication of the FEIR;

WHEREAS, the DEIR, FEIR and FEIR Exhibits constitute the EIR for the Project;

WHEREAS, on November 14, 2018, the Planning Commission conducted a duly noticed public hearing to consider the EIR, at the conclusion of which the Commission voted to recommended that the City Council approve and certify the EIR;

WHEREAS, on December 4, 2018, the City Council conducted a public hearing for review of the EIR, and following public hearing and testimony, continued review of the Project to allow additional public outreach and consideration of revisions to the development proposal;

WHEREAS, the Owner conducted two public outreach meetings and subsequently revised the Project in response to community input to include 1,600 residential units, a 162,000 square foot hotel with 225 rooms, 25,000 square feet of ancillary retail, and two public parks, surface and structured parking, private streets, landscaped open space, on- and off-site public right-of-way improvements, and site infrastructure and utilities to support the development ("Revised Project");

WHEREAS, the Revised Project was submitted on April 15, 2019 and determined to be consistent with land uses, density and intensity of development contemplated with the proposed General Plan Amendment application for the Project Site to Santa Clara Station Very High Density Residential (51-120 du/ac) with a minimum commercial FAR of 0.20;

WHEREAS, an analysis of the environmental impacts of the Revised Project was completed comparing the effects of the Revised Project with the impacts identified in the DEIR and

concluded that the Revised Project would not result in new impacts or a substantial increase in the severity of any significant impacts disclosed previously in the DEIR, and are not considered significant new information pursuant to CEQA Guidelines Section 15088.5;

WHEREAS, the Revised Project description and analysis of environmental impacts are provided as "Supplemental Text Revisions to the FEIR", dated May 14, 2019, and previously attached to the May 21, 2019 City Council agenda report for review and consideration and incorporated into the Final EIR;

WHEREAS, on May 21, 2019, the City Council conducted a public hearing for review of the EIR, and following public testimony, continued the public hearing to the City Council meeting date of July 9, 2019, with the request to the Owner to increase the retail floor area in the project design;

WHEREAS, the Owner subsequently modified the project design to provide 1,565 residential units, a 152,000 square hotel with 225 rooms, and 45,000 square feet of ancillary retail on-site "Final Project";

WHEREAS, an analysis of the environmental impacts of the Final Project was completed comparing the effects of the changes in residential unit count, and commercial floor area with the impacts identified in the DEIR and concluded that the Final Project would not result in new impacts or a substantial increase in the severity of any significant impacts disclosed previously in the DEIR, and are not considered significant new information pursuant to CEQA Guidelines Section 15088.5;

WHEREAS, the Final Project description and analysis of environmental impacts are provided as "Supplemental Text Revisions to the FEIR, dated June 26, 2019" attached to this Resolution and incorporated into the Final EIR;

WHEREAS, the City Council has reviewed the EIR prepared for the Project, the City Staff reports pertaining to the EIR and all evidence received at the public hearing on July 9, 2019. All of these documents and evidence are herein incorporated by reference into this Resolution;

WHEREAS, the EIR identified certain significant and potentially significant adverse effects on the environment that would be caused by the Project;

WHEREAS, the EIR outlined various mitigation measures that would substantially lessen or avoid the Project's significant effects on the environment, as well as alternatives to the Project that would provide some environmental advantages;

WHEREAS, the City is required, whenever possible, to adopt all feasible mitigation measures or feasible project alternatives that satisfy project objectives and that can substantially lessen or avoid any significant environmental effects of the Project;

WHEREAS, Public Resources Code § 21081, subdivision (a) requires a lead agency, before approving a project for which an EIR has been prepared and certified, to adopt findings specifying whether mitigation measures and, in some instances, alternatives discussed in the EIR, have been adopted or rejected as infeasible;

WHEREAS, the "CEQA Findings and Statement of Overriding Considerations" attached to this Resolution is a set of Findings of Fact prepared in order to satisfy the requirements of Public Resources Code § 21081 (a) and CEQA Guidelines § 15901(a);

WHEREAS, as the CEQA Findings explain, the City Council, reflecting the advice of City staff and input from various state and local agencies, has expressed its intention to adopt the proposed Final Project as described;

WHEREAS, the City Council has determined that the alternatives addressed in the EIR would not be feasible and would not sufficiently satisfy the Project Objectives. The details supporting these determinations are set forth in the CEQA Findings;

WHEREAS, in taking this course, the City Council has acted consistent with the CEQA mandate to look to project mitigations and/or alternatives as a means of substantially lessening or avoiding the environmental effects of project;

WHEREAS, many of the significant and potentially significant environmental effects associated with the Final Project, as approved, can either be substantially lessened or avoided through the inclusion of mitigation measures proposed in the EIR;

WHEREAS, the City Council, in reviewing the Project, intends to adopt all mitigation measures set forth in the EIR;

WHEREAS, the significant effects that cannot be avoided or substantially lessened by the adoption of feasible mitigation measures will necessarily remain significant and unavoidable;

WHEREAS, Public Resources Code § 21081 (b) and CEQA Guidelines § 15093 require the City Council to adopt a Statement of Overriding Considerations before approving a project with significant unavoidable environmental effects;

WHEREAS, as detailed in the CEQA Findings, the City Council has determined that, despite the occurrence of significant unavoidable environmental effects associated with the Final Project, as mitigated and adopted, there exist certain overriding economic, social and other considerations for approving the Final Project which justify the occurrence of those impacts and render them acceptable; and,

WHEREAS, the City Council has reviewed the EIR, Mitigation Monitoring and Reporting Program, CEQA Findings and Statement of Overriding Considerations, City Staff reports pertaining to the EIR, and all evidence received at a continued public hearing on July 9, 2019. All of these documents and evidence are incorporated herein by reference into this Resolution.

NOW THEREFORE, BE IT FURTHER RESOLVED BY THE CITY COUNCIL OF THE CITY OF SANTA CLARA AS FOLLOWS:

1. That the City Council hereby finds that the above Recitals are true and correct and by this reference makes them a part hereof.

2. That the City Council hereby finds that the EIR has been completed in compliance with CEQA.

3. That the City Council hereby finds the EIR has been presented to the Council, which reviewed and considered the information and analysis contained therein.

4. That the City Council hereby finds that the EIR reflects the Council's independent judgment and analysis.

5. That the City Council finds, pursuant to Public Resources Code Section 21081 and California Code of Regulations, Title 14, Section 15091, that many of the proposed mitigation measures described in the EIR are feasible, and therefore will become binding upon the City and affected landowners and their assigns or successors in interest when the Revised Project is approved.

6. That the City Council finds that none of the Project Alternatives set forth in the EIR can feasibly substantially lessen or avoid those significant adverse environmental effects not otherwise lessened or avoided by the adoption of all feasible mitigation measures.

7. That in order to comply with Public Resources Code Section 21081.6, the City Council adopts the Mitigation Monitoring and Reporting Program ("MMRP"). The MMRP is designed to ensure that, during project implementation, the City, affected landowners, their assigns and successors in interest and any other responsible parties comply with the feasible mitigation measures identified. The MMRP identifies, for each mitigation measure, the party responsible for implementation.

8. That the FEIR set forth project-level and cumulative environmental impacts that are significant and unavoidable that cannot be mitigated or avoided through the adoption of feasible mitigation measures or feasible alternatives. As to these impacts, the City Council hereby finds that there exist certain overriding economic, social and other considerations for approving the Revised Project that the City Council believes justify the occurrence of those impacts, as detailed in the "CEQA Findings" exhibit attached hereto.

9. Based on the findings set forth in this Resolution and the evidence in the City Staff Report, and the attached CEQA Findings, the City Council hereby approves and certifies the EIR, makes findings concerning mitigation measures, adopts a MMRP, make findings concerning alternatives and make findings that there exist certain overriding economic, social and other considerations for approving the Revised Project that justify the occurrence of those associated impacts, all in accordance with CEQA for the Project.

10. The City Council hereby designates the Planning Division of the Community Development Department as the location for the documents and other material that constitute the record of proceedings upon which this decision is based, and designates the Director of Community Development as the custodian of records.

11. Effective date. This resolution shall become effective immediately.

I HEREBY CERTIFY THE FOREGOING TO BE A TRUE COPY OF A RESOLUTION PASSED AND ADOPTED BY THE CITY OF SANTA CLARA, CALIFORNIA, AT A REGULAR MEETING THEREOF HELD ON THE 9TH DAY OF JULY, 2019, BY THE FOLLOWING VOTE:

AYES:	COUNCILORS:	Chahal, Davis, Hardy, Mahan, O'Neill, and Watanabe, and Mayor Gillmor
NOES:	COUNCILORS:	
ABSENT:	COUNCILORS:	
ABSTAINED:	COUNCILORS:	

ATTEST: _____
NORA PIMENTEL, MMC
ASSISTANT CITY CLERK
CITY OF SANTA CLARA

Attachments Incorporated by Reference:
1. CEQA Findings and Statement of Overriding Considerations
2. Mitigation Monitoring and Reporting Program
3. Responses to FEIR Comments After the Close of the FEIR Review Period
4. Supplemental Text Revisions to the FEIR, dated June 26, 2019

CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS FOR THE GATEWAY CROSSINGS PROJECT

I. INTRODUCTION

The City of Santa Clara (City), as the Lead Agency under California Environmental Quality Act (CEQA), Public Resources Code Section 21000 *et seq.*, has prepared the Final Environmental Impact Report for the Gateway Crossings Project (State Clearinghouse No. 2017022066) (Final EIR or EIR"). The Final EIR is a project EIR pursuant to Section 15161 of the State Guidelines for implementation of the CEQA (CEQA Guidelines).[1] The Final EIR consists of the April 2018 Draft Environmental Impact Report (Draft EIR), September 2018 Final Environmental Impact Report, and supplemental text revisions memos (September 26, 2018, October 30, 2018, May 14, 2019, and June 2019). The EIR addresses the environmental effects associated with implementation of the project. The EIR is intended to serve as an informational document for public agency decision-makers and the general public regarding the objectives and components of the project. The EIR addresses the potential significant adverse environmental impacts associated with the project and identified feasible mitigation measures and alternatives that may be adopted to reduce or eliminate those impacts.

In determining to approve the Gateway Crossings project, which is described in more detail in Section II, the City Council certifies that the EIR reflects the City's own independent judgment and analysis under Public Resources Code Section 21082.1(a)-(c) and CEQA Guidelines Section 15090(a)(3). The City Council further makes and adopts the following findings of fact and statement of overriding considerations, and adopts and incorporates into the project the mitigation measures identified in the EIR, all based on substantial evidence in the whole record of this proceeding ("administrative record"). Pursuant to CEQA Guidelines Section 15090(a), the EIR was presented to the City Council of the City of Santa Clara, and the City Council reviewed and considered the information contained in the EIR prior to making the findings provided in Sections IV to XII, below. The conclusions presented in these findings are based upon the EIR and other evidence in the administrative record. The documents that constitute the administrative record on which the City Council's findings are based are located at the Planning Division office at City Hall, 1500 Warburton Avenue, Santa Clara, California. This information is presented in compliance with CEQA Guidelines Section 15091(e).

II. PROJECT DESCRIPTION

Project Location

The approximately 24-acre project site (Assessor's Parcel Numbers 230-46-069 and 230-46-070) is located at the southwest corner of Coleman Avenue and Brokaw Road in the City of Santa Clara. The project site consists of several addresses: 1205 Coleman Avenue, 328 Brokaw Road, and 340 Brokaw Road. Most of the site (approximately 23 acres) is located in the City of Santa Clara. The southeastern tip (approximately one acre) is located in the City of San José.

[1] The State CEQA Guidelines are found in California Code of Regulations, Title 14, Section 15000 *et seq.*

The majority of the project site located in the City is part of a larger 244-acre area designated as the *Santa Clara Station Focus Area* in the City's General Plan. The Santa Clara Station Focus Area includes land on both the west and east side of the Union Pacific Railroad (UPRR)/Caltrain/Amtrak/ Capitol Corridor/Altamont Corridor Express (ACE) tracks and is generally bounded by De La Cruz Boulevard, Reed Street, and Martin Avenue to the north and northeast, and Franklin Street and El Camino Real to the south and southwest. At the center of this area is the existing Santa Clara Transit Station, which is served by Caltrain, Capitol Corridor, Amtrak, ACE, and Valley Transportation Authority (VTA) bus service. The Transit Station will ultimately include the Bay Area Rapid Transit (BART) terminus of the planned Fremont, San José, and Santa Clara extension (also known as BART Silicon Valley Phase II Extension).

Currently within the Santa Clara Station Focus Area, the project site is designated as *Santa Clara Station Very High Density Residential* (51-100 dwelling units per acre [du/ac]), *Santa Clara Station High Density Residential* (37-50 du/ac), and *Santa Clara Station Regional Commercial* (up to 3.0 floor area ratio [FAR], with an emphasis on office and hotel uses). The project site is zoned *Light Industrial* (ML). The approximately one-acre portion of the site that is located in the City of San José has a San José General Plan designation of *Combined Industrial/Commercial* (CIC) and is part of a larger 92.5-acre area that is zoned *Planned Development* (PD).

Project Overview

The project requires a General Plan Amendment (GPA) to change the land use designation on the site to *Very High Density Residential* to allow residential development at 51 to 120 du/ac in conjunction with a minimum commercial FAR of 0.20; an amendment to the General Plan Land Use Map for the Santa Clara Station Focus Area to reflect the General Plan change; and an amendment to Appendix 8.13 to the General Plan (the Climate Action Plan) to establish a 20 percent reduction in Vehicle Miles Traveled (VMT), half of which (a 10 percent reduction) would be achieved with a Transportation Demand Management (TDM) program. In addition, the project requires a Zoning Code text amendment to add a new zoning designation of *Very High Density Mixed Use* to facilitate the development of the land uses and building types contemplated for the project site; and a rezoning of the project site to the new zoning designation. The project also includes Architectural Review, Vesting Tentative Subdivision Map, and Development Agreement. Submittal of a Site Development Permit will be required for the proposed landscape improvements on the approximately one-acre portion of the site located in the City of San José. Encroachment permits may be required from the City of San José and the California Department of Transportation for transportation improvements.

The project would develop up to 1,565 dwelling units and up to 197,000 square feet of commercial uses. The proposed maximum building height on the site is 206 feet means sea level (MSL) and subject to the Federal Aviation Administration (FAA) Regulations Part 77 height restrictions. The project would have a minimum setback of 25 feet from Coleman Avenue and Brokaw Road. The project components are described in more detail below.

Residential Development

The residential dwelling units would consist of studio, one bedroom, one bedroom plus den, two bedrooms, and two bedrooms plus den units. The units would range in size from approximately 600 to 1,355 square feet.

The proposed residential units would be located in four, six to 13-story podium buildings located around the perimeter of the site. The residential buildings would total approximately2.0 million square feet. Residential units would include private balconies. Buildings 1 and 2 would consist of one level of semi-subterranean parking, two levels of above ground parking with units lining the exterior of the parking and capped by a podium structure, and four to seven levels of units above the podium. Buildings 3 and 4 would consist of one level of semi-subterranean parking, two levels of above ground parking with units lining the exterior of the parking and capped by a podium structure. The podium structure on Buildings 3 and 4 would have five to seven and eleven levels of units above the podium. From the street level, Buildings 3 and 4 would appear as eight to thirteen stories tall plus varied amounts of exposed semi-subterranean garage. Up to 1,565 dwelling units would be constructed, resulting in a density of 73.13 du/ac.

All the residential buildings would include landscaping, common courtyards, and recreational areas on top of the podium structures. Parking for the residential units would be provided in the structured parking integrated into each residential building and along internal streets.

Commercial Development

Up to 197,000 square feet of commercial uses would be constructed on-site and primarily consist of a hotel and other ancillary commercial spaces throughout the site. The hotel would be located at the southeast corner of the site in a seven-story building above a podium with one level of above ground parking and at grade parking (a total of 8 stories above grade). The hotel would include up to 225 rooms, and up to 16,400 square foot amenity space, including a restaurant and rooftop amenity, and up to 8,000 square feet of conference/meeting space for a total gross floor area of up to 152,000 square feet. The hotel would also include a 100 kilowatt (kW) diesel emergency back-up generator with an approximately 220-gallon diesel tank.

Up to 45,000 square feet of ancillary commercial space would be located throughout the project site on the ground floor of the residential buildings. Parking for the ancillary commercial uses would be provided along internal streets and in the residential parking structures. The development of 197,000 square feet of commercial uses on-site would result in a FAR of 0.21.

Neighborhood and Linear Park/Common Amenity Space and Landscaping

The proposed residential and hotel buildings would be situated around a publically accessible, approximately two-acre neighborhood park. The neighborhood park could include amenities such as a natural grass play field, fitness stations, picnic areas, and a children's playground. Additionally, the development proposes a 0.53-acre linear park between Buildings 3 and 4 with retail uses lining the hardscape. This linear park could include gardens, seating areas, and a bocce ball court.

A total of approximately two acres of active and passive recreation areas would be provided in the residential buildings on top of the podium structures. The common outdoor amenity space area for

each residential building could include seating areas, a fireplace, picnic areas, a pool and spa, and fitness and game areas. Common indoor amenity areas could include a fitness center, a recreation clubhouse, and restroom facilities.

The proposed hotel would include a total of approximately 3,000 square feet of outdoor amenity space on the 2nd and approximately 1,000 square feet rooftop deck on the 8th floor. The amenity space on the 2nd could include landscaping, a pool and spa, seating and lounge areas, and a fireplace. The hotel rooftop deck could include landscaping, bar area, and seating areas.

The project includes new landscaping including trees, ornamental plants, and shrubs. Benches, paseos, and other hardscape elements would be integrated into the landscaping. The new landscaping would primarily be located around the perimeter of the site, perimeter of the buildings, and within the proposed neighborhood park and podium open space areas.

Green Building Measures and Vehicle Miles Traveled Reduction Plan

The project proposes to achieve a minimum of 80 points (or silver certification) on the GreenPoint Rated New Home Multi-family certification system by incorporating green building measures. Project green building measures could include permeable pavement, filtration and/or bio-retention features, water-efficient landscaping, minimal turf, shade trees, recycled water irrigation system, community gardens, outdoor electrical outlets for gardening equipment, Electric Vehicle (EV) fixtures and wiring for additional EV stalls in all parking garages, water-efficient fixtures, and energy-efficient lighting and appliances.

As part of the project, a Vehicle Miles Traveled (VMT) Reduction Plan shall be developed and implemented. The VMT Reduction Plan shall achieve a 20 percent reduction in project VMT, half of which (a 10 percent reduction) shall be achieved with TDM measures. The VMT reductions may be achieved through project design characteristics, land use, parking, access, and TDM best practices (e.g., on-site bicycle parking and Eco Passes for residents).

Site Access and Parking

Vehicle access to the project site would be provided via two driveways on Coleman Avenue and three driveways with residential garage access from Brokaw Road. The main entrance of the project site is proposed midblock on Coleman Avenue and would allow for right-in and right-out access only. Internal private streets throughout the site would serve the uses on the site. Pedestrian access to the site would be provided via sidewalks on the site perimeter on Coleman Avenue, Brokaw Road, the planned Champions Way, and walkways throughout the site.

Vehicle parking for the residential uses would be provided in a structured parking garage that would be integrated into each residential building. Parallel parking spaces and loading areas are proposed along the internal private street adjacent to the neighborhood park and residential and commercial uses. Retail parking would be shared among the open parallel parking spaces on-site and provided in the residential parking structures. Vehicle parking for the hotel use would be provided in a structured parking garage that is integrated into the hotel building.

EV charging stations (a minimum of six percent of total parking spaces) would be provided for the proposed uses throughout the project site, including within the parking garages. The project proposes one Class I bicycle parking space per two residential units and one Class II bicycle parking space per 15 residential units. The bicycle parking spaces would be provided within the residential parking garages and near the proposed neighborhood park.

Public Right-of-Way Improvements

The City would require the project to widen Coleman Avenue along the project site frontage to provide for a third northbound through-lane for vehicular traffic, new bike lane, and relocation of the existing VTA bus duck-out. As part of the project, the crosswalk on Coleman Avenue at Brokaw Road would be restriped, and new bike lanes would also be included on Brokaw Road west of Coleman Avenue.

The project includes other public street improvements including replacement and widening of the existing sidewalks, installation of park strips, standard driveway construction and/or removals, and new curb and sidewalks as necessary along Coleman Avenue and Brokaw Road frontages.

Utility Connections and Improvements

The project would utilize existing utility connections to the site where feasible and construct new utility service laterals to existing utility service systems (potable water, recycled water, fire protection, sanitary sewer, storm drain, gas, and electric) in Coleman Avenue and Brokaw Road to serve the project. The project also proposes to underground the existing overhead electrical lines along the project site frontage on Brokaw Avenue.

Construction

Construction of the project is estimated to take approximately seven years to complete, possibly starting as early as late 2019 and concluding as early as mid-2026. Project construction would likely be completed in multiple phases. The project would excavate a total of approximately 90,000 cubic yards of soil. The project proposes a temporary traffic control plan with a flagger during construction and all construction workers would park on-site in designated staging areas.

Project Objectives

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

1. Develop the 24-acre project site at the southwest corner of Coleman Avenue and Brokaw Road in Santa Clara into an economically viable mixed-use project consisting of commercial spaces and a vibrant residential community, providing a range of product types that will support the diversity of Santa Clara and is designed to be inviting to all.
2. Provide the on-site residential community and public access to a pedestrian friendly site with a variety of on-site recreational amenities including a neighborhood park, BBQ area, children's playground, and various lounge areas.
3. Develop an on-site commercial component of approximately 197,000 square feet, consisting of a hotel and ancillary commercial uses, that will provide services to both the residential community and public at large and will generate tax revenues for the City.
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).

The EIR identifies conditions of approval, in addition to identifying mitigation measures to be adopted. Conditions of approval are not mitigation measures. They are required of the project by the City, but do not necessarily reduce an environmental impact.

III. ENVIRONMENTAL REVIEW PROCESS

In accordance with Section 15082 of the CEQA Guidelines, the City prepared a Notice of Preparation ("NOP") of an EIR for the Gateway Crossings project. The NOP was sent to state and local responsible and trustee agencies and federal agencies on February 21, 2017. The 30-day comment period concluded on March 23, 2017. The NOP provided a description of the project and identified probable environmental effects that could result from implementation of the project. The City also held a public scoping meeting on March 16, 2017, during the NOP comment period to discuss the project and solicit public input as to the scope and content of the EIR. The meeting was held at the City Hall City Council Chambers at 1500 Warburton Avenue, Santa Clara.

The City prepared the Draft EIR for the Gateway Crossings project in compliance with the CEQA and the CEQA Guidelines. The Draft EIR was circulated for public review and comment for 45 days from April 9, 2018 through May 25, 2018. During this period, the Draft EIR was available to the public and local, state, and federal agencies for review and comment. Notice of the availability and completion of the Draft EIR was sent directly to every agency, person, and organization that

commented on the NOP, as well as to the Office of Planning and Research. Written comments from public agencies, organizations, and individuals concerning the environmental review contained in the Draft EIR were sent to the City during the 45-day public review period on the Draft EIR.

Following the conclusion of the 45-day public review period on the Draft EIR, the City prepared a Final EIR in conformance with CEQA Guidelines Section 15132. The Final EIR includes responses to comments received by the City on the Draft EIR and any necessary text revisions to the Draft EIR. These revisions do not require recirculation of the EIR because none of the revisions constitute "significant new information" pursuant to CEQA Guidelines Section 15088.5 in as much as these changes would not result in a new environmental impact and would not cause a substantial increase in the severity of an environmental impact; and the project sponsor would adopt the mitigation measures. Responses to public agency comments on the EIR were sent to the commenting agencies on September 12, 2018.

On November 14, 2018, at a duly noticed public hearing, the Planning Commission recommended that the City Council certify the Final EIR.

IV. FINDINGS

These findings summarize the environmental determinations of the EIR about project impacts before and after mitigation, and do not attempt to repeat the full analysis of each environmental impact contained in the EIR. Instead, these findings provide a summary description of and basis for each impact in the EIR, describe the applicable mitigation measures identified in the EIR, and state the City's findings and rationale therefore on the significance of each impact with the adopted mitigation measures. A full explanation of these environmental findings and conclusions can be found in the EIR, and these findings hereby incorporate by reference the discussion and analysis in the EIR supporting the EIR's determinations regarding mitigation measures and the project's impacts.

In adopting the mitigation measures outlined below, the City intends to adopt each of the mitigation measures identified in the Final EIR. Accordingly, in the event a mitigation measure identified in the Final EIR has been inadvertently omitted from these findings, such mitigation measure is hereby referred to, adopted, and incorporated in the findings below by reference. In addition, in the event the language of a mitigation measure set forth below fails to accurately reflect the mitigation measure in the Final EIR due to a clerical error, the language of the mitigation measure as set forth in the Final EIR shall control unless the language of the mitigation measure has been specifically and expressly modified by these findings.

Sections V through IX, below, provide brief descriptions of the impacts the Final EIR identifies as either significant and unavoidable or less than significant with adopted mitigation. These descriptions also reproduce the full text of the mitigation measures identified in the Final EIR for each significant impact.

V. SIGNIFICANT AND UNAVOIDABLE DIRECT IMPACTS

The City Council, having reviewed and considered the information contained in the EIR, hereby finds that the Noise and Transportation environmental impacts described below are significant and

unavoidable and that there is no feasible mitigation for those impacts. "Feasible" is defined in CEQA Guidelines Section 15364 to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." The City may reject a mitigation measure or alternative to the project because of specific economic, legal, social, technological or other considerations, including consideration for the provision of employment opportunities for highly trained workers. These findings are based on Section 3.0 of the Draft EIR and Section 5.0 of the Final EIR, the discussion and analysis of which are hereby incorporated in full by this reference.

Noise

Impact NOI-1: Exterior noise levels at the proposed neighborhood park and outdoor residential common amenity areas would exceed the City's exterior land use compatibility goal of 65 "A-weighted" decibels (dBA) community noise equivalent level (CNEL) for recreational uses and 55 dBA CNEL for residential uses.

Findings NOI-1: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant noise impact. Specifically, implementation of MM NOI-1.1, set forth below, which is hereby adopted and incorporated into the project, would notify potential residents and buyers of the noise environment at the site.

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.

This change, however, will not reduce all noise impacts to below a level of significance. Since airport operations are not under the jurisdiction of the City and since no other feasible mitigation measures exist to reduce aircraft noise levels at the proposed neighborhood park, at-grade outdoor amenity areas and common outdoor amenity areas in the residential buildings, the impact is concluded to be significant and unavoidable.

The City therefore finds that specific economic, legal, social, technological or other considerations, including consideration for the provision of employment opportunities for highly trained workers, make infeasible any other mitigation measure or any of the alternatives outlined in the EIR. As described in the concurrent Statement of Overriding Considerations (SOC), the City has determined that this impact is acceptable because of the project benefits identified in the SOC.

Transportation

Impact TRAN-1: The project would have a significant impact under existing plus project conditions at the following intersection: 6. De La Cruz Boulevard/Central Expressway (City of Santa Clara/CMP).

Findings TRAN-1: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant transportation impact. Specifically, implementation of MM TRAN-1.2, set forth below, which is hereby adopted and incorporated into the project, would reduce

the impact but not to a less than significant level. Therefore, the impact would remain significant and unavoidable.

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.[2] 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.[3] The project shall make a fair-share contribution towards the HOV lane conversion and additional lane geometry improvements identified as mitigation for the City Place project.

With implementation of the improvements identified in 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 and 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.

The City therefore finds that specific economic, legal, social, technological or other considerations, including consideration for the provision of employment opportunities for highly trained workers, make infeasible any other mitigation measure or any of the alternatives outlined in the EIR. As described in the concurrent SOC, the City has determined that this impact is acceptable because of the project benefits identified in the SOC.

Impact TRAN-2: The project would result in a significant impact to mixed-flow lanes on 21 directional freeway segments during at least one peak hour.

Findings TRAN-2: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant transportation impact. Specifically, implementation of MM TRAN-2.1, set forth below, which is hereby adopted and incorporated into the project, would reduce freeway impacts, but not to a less than significant level, 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 proposed project. Therefore, the impact would remain significant and unavoidable.

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.

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[2] 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.

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

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 high occupancy vehicle (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 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 and 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 proposed project.

The City therefore finds that specific economic, legal, social, technological or other considerations, including consideration for the provision of employment opportunities for highly trained workers, make infeasible any other mitigation measure or any of the alternatives outlined in the EIR. As described in the concurrent SOC, the City has determined that this impact is acceptable because of the project benefits identified in the SOC.

Impact TRAN-3: The project would have a significant impact under background plus project conditions at the following 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).

Findings TRAN-3: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant transportation impact. Specifically, implementation of MM TRAN--1.2, and -3.1 through -3.3, set forth below, which are hereby adopted and incorporated into the project, would reduce freeway impacts but not to a less than significant level, 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 proposed project. Therefore, the impacts would remain significant and unavoidable.

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.[4] 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.[5] The project shall make a

[4] 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.
[5] The City Place project (including identified mitigation) is approved and will be implemented in the near-term.

fair-share contribution towards the HOV lane conversion and additional lane geometry improvements identified as mitigation for the City Place project.

With implementation of the improvements identified in MM TRAN-1.2, the intersection of De La Cruz Boulevard/Central Expressway would operate at an unacceptable LOS F during the PM peak hour, but the average delay would be better than background conditions. The project shall implement MM TRAN-1.2, however, the impact is concluded to be significant and 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.

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.[6] 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 project shall implement MM TRAN-3.1, however, the impact is concluded to be significant and 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.

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 project shall implement MM TRAN-3.2, however, the impact is concluded to be significant and 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.

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.

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

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 project shall implement MM TRAN-3.3, however, the impact is concluded to be significant and 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.

The City therefore finds that specific economic, legal, social, technological or other considerations, including consideration for the provision of employment opportunities for highly trained workers, make infeasible any other mitigation measure or any of the alternatives outlined in the EIR. As described in the concurrent SOC, the City has determined that this impact is acceptable because of the project benefits identified in the SOC.

VI. SIGNIFICANT AND UNAVOIDABLE CUMULATIVE IMPACTS

The City Council, having reviewed and considered the information contained in the EIR, hereby finds that the Transportation and Utilities and Service Systems environmental impacts described below are significant and unavoidable and that there is no feasible mitigation for those impacts. These findings are based on Section 3.0 of the Draft EIR and Section 5.0 of the Final EIR, the discussion and analysis of which are hereby incorporated in full by this reference.

Transportation

Impact C-TRAN-1: The project would have a cumulatively considerable contribution to significant cumulative impacts at the following intersections: 6. De La Cruz Boulevard/Central Expressway (City of Santa Clara/CMP); 7. Lafayette Street/Central Expressway (City of Santa Clara/CMP); 8. Scott Boulevard/Central Expressway (City of Santa Clara/CMP); 12. Coleman Avenue/I-880 (N) (City of San José/CMP); 13. Coleman Avenue/I-880 (S) (City of San José/CMP); and 15. Coleman Avenue/Taylor Street (City of San José).

Findings C-TRAN-1: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant transportation impacts. Specifically, implementation of MM TRAN-1.2, -3.1 through -3.3, MM C-TRAN-1.1, and MM C-TRAN-1.2, set forth below, which are hereby adopted and incorporated into the project, would reduce the project's cumulative contribution to cumulatively significant impacted intersections, but not to a less than significant level.

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. 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. The project shall make a fair-share contribution towards the HOV lane conversion and additional lane geometry improvements identified as mitigation for the City Place project.

With implementation of the improvements identified in MM TRAN-1.2, the intersection of De La Cruz Boulevard/Central Expressway in the cumulative plus project analysis would operate at an acceptable LOS D 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 project shall implement MM TRAN-1.2, however, the impact is concluded to be significant and 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.

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. 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 in the cumulative plus project analysis 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 project shall implement MM TRAN-3.1, however, the impact is concluded to be significant and 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.

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) in the cumulative plus project analysis would operate at an acceptable LOS D during the AM peak hour and an acceptable LOS C during the PM peak hour. The project shall implement MM TRAN-3.2, however, the impact is concluded to be significant and 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.

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 in the cumulative plus project analysis would operate at an acceptable LOS D during both the AM and PM peak hours. The project shall implement MM TRAN-3.3, however, the impact is concluded to be significant and 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.

The project shall implement MM TRAN-1.2 and -3.1 through -3.3 to reduce its cumulative contribution to the significant cumulative impacts at the following 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 nevertheless concluded to be significant and 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 proposed project.

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 project shall make a fair-share contribution to this improvement.

With implementation of this improvement, the intersection of Scott Boulevard/Central Expressway in the cumulative plus project analysis would operate at an unacceptable LOS F during the PM peak hour, but the average delay would be better than under cumulative conditions. The project shall implement MM C-TRAN-1.1, however, the impact is concluded to be significant and 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.

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 of Coleman Avenue/I-880 (N) in the cumulative plus project analysis would operate at better than background conditions during the AM peak hour (LOS C) and during the PM peak hour (LOS B). The 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 proposed project.

The City therefore finds that specific economic, legal, social, technological or other considerations, including consideration for the provision of employment opportunities for highly trained workers,

make infeasible any other mitigation measure or any of the alternatives outlined in the EIR. As described in the concurrent SOC, the City has determined that this impact is acceptable because of the project benefits identified in the SOC.

Utilities and Service Systems

Impact C-UTIL-1: Without a specific plan for disposing of solid waste beyond 2024, solid waste generated by development in the City post 2024 (including waste from the proposed project) would result in a significant unavoidable cumulative impact.

Findings C-UTIL-1: Buildout of the City and the proposed project would generate solid waste that would need to be disposed of appropriately. Consistent with the conclusion in the certified General Plan Final EIR and City Place Santa Clara Project Final EIR,[7] without a specific plan for disposing of solid waste beyond 2024, the solid waste generated by development in the City post 2024 (including waste from the proposed project and other cumulative projects such as City Place Santa Clara) would result in a significant unavoidable impact. The City does not currently have a specific plan for disposing of solid waste generated by development in the City post 2024. No feasible mitigation measures have been identified to lessen the significance of this impact.

The City therefore finds that specific economic, legal, social, technological or other considerations, including consideration for the provision of employment opportunities for highly trained workers, make infeasible any other mitigation measure or any of the alternatives outlined in the EIR. As described in the concurrent SOC, the City has determined that this impact is acceptable because of the project benefits identified in the SOC.

VII. SIGNIFICANT ADVERSE IMPACTS IDENTIFIED IN THE FINAL EIR THAT ARE REDUCED TO A LESS THAN SIGNIFICANT LEVEL BY MITIGATION MEASURES ADOPTED AND INCORPORATED INTO THE PROJECT

The City Council, having reviewed and considered the information contained in the EIR, hereby finds, pursuant to Public Resources Code Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), that the following potentially significant impacts will be reduced below a level of significance with implementation of the identified mitigation measures. These findings are based on Section 3.0 of the Draft EIR and Section 5.0 of the Final EIR, the discussion and analysis of which are hereby incorporated in full by this reference.

Air Quality

Impact AIR-1: The project would result in significant construction air pollutant emissions without the implementation of the Bay Area Air Quality Management District's (BAAQMD) standard construction best management practices (BMPs).

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[7] City of Santa Clara. *City Place Santa Clara Project Draft Environmental Impact Report.* SCH# 2014072078. Certified June 2016. Pages 3.14-38 and 3.14-39.

Findings AIR-1: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant air quality impact. Specifically, implementation of MM AIR-1.1 and MM AIR-1.2, set forth below, which are hereby adopted and incorporated into the project, would reduce construction emissions to a less than significant level by controlling dust and exhaust, limiting exposed soil surfaces, and reducing respirable particulate matter (PM10) exhaust emissions from construction equipment.

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

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the construction firm regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

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

- All mobile diesel-powered off-road equipment larger than 25 horsepower and operating on the site for more than two days continuously shall meet, at a minimum, USEPA particulate matter emissions standards for Tier 4

engines or equivalent and include the use of equipment that includes CARB-certified Level 3 Diesel Particulate Filters.

- Use of alternatively-fueled equipment (i.e., non-diesel), such as electric, biodiesel, or liquefied petroleum gas for example, would meet this requirement.
- Other measures may be the use of added exhaust devices, or a combination of measures, provided that these measures are approved by the City and demonstrated to reduce community risk impacts to less than significant.

Impact AIR-2: The operation of the project would result in significant operational reactive organic gases (ROG) emissions.

Findings AIR-2: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant air quality impact. Specifically, implementation of MM AIR-2.1 and MM AIR-2.2, set forth below, which are hereby adopted and incorporated into the project, would reduce operational ROG emissions to a less than significant level by reducing ROG emissions below the annual and average daily thresholds for operational emissions.

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.

Biological Resources

Impact BIO-1: Project construction could impact nesting birds on or adjacent to the site, if present.

Findings BIO-1: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant biological resource impact. Specifically, implementation of MM BIO-1.1, set forth below, which is hereby adopted and incorporated into the project, would reduce biological resource impacts to a less than significant level by ensuring that construction activities will not disturb a nesting bird or raptor on-site or immediately adjacent to the construction zone.

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 the California Department of Fish and Wildlife (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 Migratory Bird Treaty Act (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.

Cultural Resources

Impact CUL-1: Unknown buried archaeological resources could be impacted during project construction.

Findings CUL-1: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant cultural resource impact. Specifically, implementation of MM CUL-1.1 through -1.3, set forth below, which are hereby adopted and incorporated into the project, would avoid and/or reduce significant impacts to unknown buried archaeological resources to a less than significant level by completing a presence/absence exploration and/or monitoring excavation activities and identifying the procedures necessary to protect resources if found.

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 California Register of Historical Resources (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.

Greenhouse Gas Emissions

Impact GHG-2: The proposed project could result in significant greenhouse gas (GHG) emissions.

Findings GHG-2: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant GHG emissions impact. Specifically, implementation of MM AIR-2.1, set forth below, which is hereby adopted and incorporated into the project, would reduce GHG emission impacts to a less than significant level by ensuring that GHG emissions would not exceed the significance threshold of 2.6 metric tons of carbon dioxide equivalent (MT of CO_2e) per service population per year.

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.

Impact C-GHG-1: The proposed project would generate significant cumulative GHG emissions.

Findings C-GHG-1: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant GHG emissions impact. Specifically, implementation of MM AIR-2.1 and MM GHG-1.1, set forth below, which are hereby adopted and incorporated into the project, would reduce GHG emission impacts to a less than significant level by ensuring that GHG

emissions would not exceed the significance threshold of 2.6 MT of CO_2e per service population per year.

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.

Hazards and Hazardous Materials

Impact HAZ-1: Construction workers, future occupants, and the surrounding environment could be exposed to contaminated soils and subject to soil vapor intrusion.

Findings HAZ-1: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant hazards and hazardous material impact. Specifically, implementation of MM HAZ-1.1, set forth below, which is hereby adopted and incorporated into the project, would reduce construction worker, future occupant, and surrounding environment exposure to on-site contaminated soil and vapor intrusion impacts to a less than significant level by implementing a plan to address potential hazards that may result from construction activities.

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 shall 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 Santa Clara Valley Water District (SCVWD).

The SMP prepared as stipulated above was submitted and approved by Regional Water Quality Control Board (RWQCB) in May 2016. This approved SMP was submitted to the City and a copy is included in Appendix E of the EIR.

Noise

Impact NOI-2: Existing land uses in the project vicinity would be exposed to an increase in ambient noise levels due to project construction activities.

Findings NOI-2: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant noise impact. Specifically, implementation of MM NOI-2.1, set forth below, which is hereby adopted and incorporated into the project, would reduce construction noise levels emanating from the site in order to minimize disruption and annoyance. With the implementation of this mitigation measure, as well as the City Code limits on allowable construction hours, and considering that construction is temporary, the impact would be reduced to a less than significant level.

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.

Impact NOI-3: On-site mechanical equipment (including the backup generator) would exceed the noise limits identified in the City Code.

Findings NOI-3: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant noise impact. Specifically, implementation of MM NOI-3.1, set forth below, which is hereby adopted and incorporated into the project, would reduce the operational noise impacts from onsite mechanical equipment to noise-sensitive receptors to a less than significant level.

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.

Transportation

Impact TRAN-1: The project would have a significant impact under existing plus project conditions at the following intersection: 1. Coleman Avenue/Brokaw Road (City of Santa Clara).

Findings TRAN-1: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant transportation impact. Specifically, implementation of MM TRAN-1.1, set forth below, which is hereby adopted and incorporated into the project, would reduce the impact to a less than significant level. 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.

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.

Impact TRAN-3: The project would have a significant impact under background plus project conditions at the following intersection: 1. Coleman Avenue/Brokaw Road (City of Santa Clara).

Findings TRAN-3: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant noise impact. Specifically, implementation of MM TRAN-1.1, set forth below, which is hereby adopted and incorporated into the project, would reduce the impact to a less than significant level. 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.

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.

Impact C-TRAN-1: The project would have a cumulatively considerable contribution to a significant cumulative impact at the following intersection: 1. Coleman Avenue/Brokaw Road (City of Santa Clara).

Findings C-TRAN-1: Changes or alterations, which have been incorporated into the project, will reduce the severity of the significant noise impact. Specifically, implementation of MM TRAN-

1.1, set forth below, which is hereby adopted and incorporated into the project, would reduce the project's cumulative contribution to the significant cumulative impact at Coleman Avenue/Brokaw Road to a less than significant level. With implementation of MM TRAN-1.1, the intersection of Coleman Avenue/Brokaw Road would operate at better than cumulative conditions at LOS D during the PM peak hour.

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.

VIII.. GROWTH INDUCING IMPACTS

An EIR is required to discuss growth inducing impacts, which consist of the ways in which the project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. (CEQA Guidelines Section 15126.2(d); Pub. Resources Code Section 21100(b)(5).)

Direct growth inducement would result, for example, if a project involves the construction of substantial new housing that would support increased population in a community or establishes substantial new permanent employment opportunities. This additional population could, in turn, increase demands for public utilities, public services, roads, and other infrastructure. Indirect growth inducement would result if a project stimulates economic activity that requires physical development or removes an obstacle to growth and development (e.g., increasing infrastructure capacity that would enable new or additional development). CEQA Guidelines Section 15126.2(d) cautions that it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

These findings are based on the discussion of growth inducing impacts in Section 4.0 of the Draft EIR, the discussion and analysis of which is hereby incorporated in full by this reference.

Direct Growth Inducement

Under the existing General Plan land use designations, 758 to 1,279 dwelling units and up to 1,025,838 square feet of commercial uses could be developed on-site. However, as discussed in the EIR, the project site is part of the Santa Clara Station Focus Area. The net new development from the Santa Clara Station Area Plan is 1,663 dwelling units and 1,490,000 square feet of office space. The project proposes 1,565 dwelling units and up to 197,000 square feet of commercial uses. The project, therefore, proposes development within what is currently allowed by the Santa Clara Station Area Plan. For this reason, the proposed project would not result in significant direct growth-inducing impacts, beyond what is anticipated for the Santa Clara Station Focus Area in the City's General Plan.

Indirect Growth Inducement

The proposed project is considered an "infill" project, meaning that with the exception of approximately 1.0 acres of the project site located in the City of San Jose proposed as landscaped area, the remaining portion of the project site proposed for development is within the City's existing boundaries, already served by existing infrastructure, and planned for urban uses even though the site is currently vacant and undeveloped. The project includes infrastructure improvements to mitigate the impacts on community service facilities to a less than significant level. In addition, the project would pay all applicable impact fees, which would offset impacts to public facilities and services, schools and parks. As a result, growth associated with the implementation of the project would not have a significant impact on community service facilities, nor would it make a cumulatively considerable contribution to such impacts, requiring construction of new facilities that could cause significant environmental effects. Thus, the indirect impact would be less than significant.

IX. SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines Section 15126(c) requires that an EIR also address significant and irreversible environmental changes that may occur as a result of project implementation. Significant irreversible changes include the use of nonrenewable resources, the commitment of future generations to similar use, irreversible damage resulting from environmental accidents associated with the project and the irretrievable commitment of resources.

These findings are based on the discussion of significant and irreversible environmental changes in Section 5.0 of the Draft EIR, the discussion and analysis of which is hereby incorporated in full by this reference.

Use of Nonrenewable Resources; Commitment of Future Generations to Similar Use

The project, during construction and operation, would require the use, irretrievable commitment and consumption of nonrenewable resources, including lumber and other wood products, energy, concrete, metals, plastics and glass. The project, which includes both residential and commercial uses, would commit a substantial amount of resources to the site. Although development would result in a substantial increase in demand for nonrenewable recourse, the project is subject to the standard California Code of Regulations, Title 24, Part 6 and CAL Green energy efficiency

requirements. Moreover, as explained in Section 3.6 of the EIR, the project is consistent with the City's General Plan policies regarding energy use, which foster development that reduces the use, irretrievable commitment and consumption of nonrenewable resources in transportation, buildings and urban services (utilities).

Irreversible Damage Resulting from Environmental Accidents Associated with the Project

The project does not propose any new or uniquely hazardous uses and operation of the project would not be expected to cause environmental accidents that would impact other areas. Implementation of the SMP required in MM HAZ-1.1 will ensure that construction workers, future occupants and the environment are protected from potential exposure to hazardous substances. Further, there are no significant on-site or off-site sources of contamination that would substantially affect the proposed uses on the project site, and there are no significant geology and soils impacts that would occur with project implementation. Therefore, the project would not likely result in irreversible damage that may result from environmental accidents.

X. ALTERNATIVES

CEQA requires that an EIR identify alternatives to a project as it is proposed. Section 15126.6 of the CEQA Guidelines specifies that the EIR should identify alternatives which "would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project." The EIR considered alternatives of design, scope, or location, which would substantially lessen the project's significant impacts, even if those alternatives "impede to some degree the attainment of the project objectives" or are more expensive. While CEQA does not require that alternatives must be capable of meeting all of the project objectives, an alternative's ability to meet most of the objectives is considered relevant to its consideration.

The Project Objectives

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

1. Develop the 24-acre project site at the southwest corner of Coleman Avenue and Brokaw Road in Santa Clara into an economically viable mixed-use project consisting of commercial spaces and a vibrant residential community, providing a range of product types that will support the diversity of Santa Clara and is designed to be inviting to all.
2. Provide the on-site residential community and public access to a pedestrian friendly site with a variety of on-site recreational amenities including a neighborhood park, BBQ area, children's playground, and various lounge areas.
3. Develop an on-site commercial component of approximately 197,000 square feet, consisting of a hotel and ancillary commercial uses, that will provide services to both the residential community and public at large and will generate tax revenues for the City.
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).

CEQA, the CEQA Guidelines and applicable case law have determined that feasibility can be based on a wide range of factors and influences. Section 15126.6(f)(1) of the CEQA Guidelines advises that such factors can include, but are not limited to, the suitability of an alternate site, economic viability, availability of infrastructure, consistency with planning documents or regulatory limitations, jurisdictional boundaries or whether the project proposed can "reasonably acquire, control or otherwise have access to the alternative site."

The City Council, having reviewed and considered the information contained in the EIR, hereby finds that the alternatives described below are not feasible. The City finds that there are specific economic, legal, social, technological or other considerations, including consideration for the provision of employment opportunities for highly trained workers, and important matters of public policy that render these alternatives infeasible.

As explained above, "feasible" is defined in CEQA Guidelines Section 15364 to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." According to CEQA Guidelines Section 15091(a)(3), the City may reject an alternative to the project if the City finds that it would be infeasible to implement that alternative because of "[s]pecific economic, legal, social, technological, or other considerations, including the provision of employment opportunities for highly trained workers." An agency also may reject an alternative that does not meet the public policy goals of the agency. In *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal.App.4th 899, 947, the City of Rialto approved a project while rejecting as infeasible a reduced-density alternative that stripped out the portions of the project that would have created a synergistic mix of retail and restaurant tenants. Additionally, in *Environmental Council of Sacramento v. City of Sacramento* (2006) 142 Cal.App.4th 1018, 1039, the appellate court upheld the City of Sacramento's findings that

additional preservation of open space would be infeasible because it would "at the very least [slow] 'the progress of necessary development such that the public's health and welfare is harmed through the lack of economic growth and productivity and a shortage of housing supply."[8]

These findings are based on the discussion of alternatives in Section 7.0 of the Draft EIR and Section 5.0 of the Final EIR, the discussion and analysis of which are hereby incorporated in full by this reference.

Alternatives Considered but Rejected

The City considered an alternative location for the proposed project that would lessen or avoid the project's nesting bird, construction-related air quality, cultural resources, hazards and hazardous materials, and/or construction-related noise impacts. The alternative location needed to be of similar size to the project site, within the urban service area of the City, near existing transit, and have the appropriate General Plan land use designation(s). There are no vacant or available sites of approximately 24 acres in the City. In addition, there are no sites of similar size that have the appropriate land use designation. Further, the project applicant does not have control of alternative sites of similar size in the City. For these reasons, an alternative location to the project was considered but rejected as infeasible.

No Project Alternative

The CEQA Guidelines specifically require consideration of a "No Project" Alternative. The purpose of including a No Project Alternative is to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project. CEQA Guidelines Section 15126.6 specifically advises that the No Project Alternative is "what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services," and emphasizes that an EIR should take a practical approach, and not "...create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment."

Currently, the project site is undeveloped. Under the No Project Alternative, the project site could remain as it is or it could be developed consistent with the existing General Plan and zoning designations. The existing General Plan and zoning allows for the development of 758 to 1,278 residential units and up to 1,025,838 square feet of commercial uses. For these reasons, the EIR analyzed two No Project alternatives: 1) a No Project/No Development Alternative and 2) a No Project/Development Alternative.

No Project/No Development Alternative

The No Project/No Development Alternative assumes that the project site would remain as it is today, undeveloped and unoccupied. Because the No Project/No Development Alternative would not result in any development on the site, this Alternative would avoid all of the environmental impacts

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[8] Similarly, courts have upheld an agency's infeasibility finding on a policy-based rationale in the following cases: *Gilroy Citizens for Responsible Planning v. City of Gilroy* (2006) 140 Cal.App.4th 911, 936, and *Defend the Bay v. City of Irvine* (2004) 119 Cal.App.4th 1261, 1270.

from the project. However, this Alternative would not meet any of the applicant's or City's project objectives.

The City finds that specific economic, legal, social, technological or other considerations, including matters of public policy, render the No Project/No Development Alternative infeasible, and rejects the alternative on such grounds.

Therefore, due to this alternative's failure to satisfy any of the applicant's or City's objectives, most notably, compliance with and advancement of the General Plan goals and policies for the Santa Clara Station Focus Area, the No Project/No Development Alternative is infeasible as a matter of public policy.

No Project/Development Alternative

For the purposes of the No Project/Development Alternative, it is assumed that the project site would be developed with 605,070 square feet of R&D uses consistent with the existing Light Industrial (ML) zoning designation for the project site.

The No Project/Development Alternative would result in less severe aesthetics, air quality, energy, land use and planning, noise and vibration, population and housing, public services, recreation, transportation, and utilities and service systems impacts compared to the proposed project. The No Project/Development Alternative would result in the same or similar impacts to agricultural and forestry resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, and mineral resources. The No Project/Development Alternative would result in greater GHG emissions per service population than the proposed project.

The No Project/Development Alternative could meet the applicant's objective 4; however, it would not meet the applicant's objectives 1, 2, 3, or 5, each of which calls for residential and commercial mixed-use development on the project site. Further, the No Project/Development Alternative would not meet any of the City's objectives, which focus on transit-oriented residential mixed-used development.

The City finds that specific economic, legal, social, technological or other considerations, including matters of public policy, render the No Project/No Development Alternative infeasible, and rejects the alternative on such grounds.

Therefore, due to this alternative's failure to satisfy any of the City's objectives, most notably, compliance with and advancement of the General Plan goals and policies for the Santa Clara Station Focus Area, the No Project/No Development Alternative is infeasible as a matter of public policy.

Reduced Development Alternative

The Reduced Development Alternative assumes the development of 880 residential units and 118,250 square feet of commercial uses. The Reduced Development Alternative would avoid the

project's significant unavoidable freeway and intersection (under existing plus project and background plus project conditions) level of service impacts.

The Reduced Development Alternative would result in lesser aesthetics, energy, public services, utilities, air quality, construction-related noise, and population and housing impacts compared to the proposed project. The Reduced Development Alternative would result in the same or similar impacts to the proposed project for all other resource areas (i.e., agricultural and forestry resources, nesting birds, cultural resources, geology and soils, GHG, hazards and hazardous materials, hydrology and water quality, land use, and mineral resources).

The Reduced Development Alternative could meet the applicant's project objectives 1, 2, and 4, but because it includes 45 percent less commercial square footage than the proposed project, this alternative would not meet the applicant's project objective 5 since it will not 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. It is possible the Reduced Development Alternative could meet City objectives 2 and 4, but this alternative would not meet City objectives 1 or 3 since it would not provide a high-density residential development and a significant commercial/retail component on-site. This alternative also would not meet City objective 5 since it would not advance the General Plan goals and policies for the Santa Clara Station Focus Area, which include developing high-intensity uses and maximizing residential development, to the same extent as the proposed project.

The City finds that specific economic, legal, social, technological or other considerations, including matters of public policy, render the No Project/No Development Alternative infeasible, and rejects the alternative on such grounds.

Therefore, due to this alternative's failure to satisfy any of the City's objectives, most notably, compliance with and advancement of the General Plan goals and policies for the Santa Clara Station Focus Area, the No Project/No Development Alternative is infeasible as a matter of public policy. Environmentally Superior Alternative

The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative. Based on the above discussion, the environmentally superior alternative to the proposed project is the No Project/No Development Alternative because all of the project's significant environmental impacts would be avoided. However, Section 15126.6(e)(2) states that "if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." In addition to the No Project/No Development Alternative (as well as the No Project/Development Alternative), the Reduced Development Alternative would avoid or result in lesser impacts than the proposed project.

XI. STATEMENT OF OVERRIDING CONSIDERATIONS

CEQA requires decision makers to balance, as applicable, the economic, legal, social, technological and/or other benefits of a project against its significant and unavoidable environmental impacts when determining whether to approve the project. If the specific economic, legal, social, technological

and/or other benefits of the project outweigh the significant and unavoidable impacts, those impacts may be considered "acceptable" (CEQA Guidelines Section 15093(a)). When significant impacts are not avoided or lessened, CEQA requires the agency to state, in writing, the specific reasons for considering a project acceptable. Those reasons must be based on substantial evidence in the Final EIR or elsewhere in the administrative record (CEQA Guidelines Section 15093(b)).

The City finds that all feasible mitigation measures identified in the Final EIR within the purview of the City will be implemented with the project, and that the remaining significant and unavoidable impacts are outweighed and are found to be acceptable due to the following specific overriding economic, legal, social, technological and/or other benefits based upon the facts set forth in the above Findings, the Final EIR and the administrative record, as follows, each of which outweighs the project's remaining significant and unavoidable impacts:

- The project will create a transit-oriented, high-density residential mixed-use development within the Santa Clara Station Focus Area that will 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;
- The project will promote long-term sustainability with an array of complementary uses that meet LEED standards, minimize vehicle miles traveled, capitalize on efficient public infrastructure and provide convenient amenities for occupants;
- The project will maximize the housing unit yield on a site with minimal impact on existing neighborhoods;
- The project's housing component will address the City's jobs/housing balance, create a critical mass of housing to justify commercial services, particularly retail services, and provide a variety of housing unit types;
- The project will 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; and
- The project will include a significant hotel component and retail services supporting the business travel market, enhancing the tax base and contributing other revenues to support City services that serve the development.

DRAFT

MITIGATION MONITORING AND REPORTING PROGRAM

Gateway Crossings

CITY OF SANTA CLARA

July 2019

PREFACE

Section 21081 of the California Environmental Quality Act (CEQA) requires a Lead Agency to adopt a Mitigation Monitoring or Reporting Program whenever it approves a project for which measures have been required to mitigate or avoid significant effects on the environment. The purpose of the monitoring or reporting program is to ensure compliance with the mitigation measures during project implementation.

On July 9, 2019, the City Council certified the Environmental Impact Report (EIR) for the Gateway Crossings project. The Final EIR concluded that the implementation of the project could result in significant effects on the environment and mitigation measures were incorporated into the proposed project or are required as a condition of project approval. This Mitigation Monitoring or Reporting Program addresses those measures in terms of how and when they will be implemented.

This document does *not* discuss those subjects for which the EIR concluded that mitigation measures would not be required to reduce significant impacts.

MITIGATION MONITORING OR REPORTING PROGRAM GATEWAY CROSSINGS (FINAL PROJECT)				
Impacts	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
Air Quality				
Impact AIR-1: The project would result in significant construction air pollutant emissions without the implementation of BAAQMD's standard construction BMPs.	**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. • 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. 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	During all phases of construction period	Project applicant and contractors	Director of Community Development

MITIGATION MONITORING OR REPORTING PROGRAM GATEWAY CROSSINGS (FINAL PROJECT)				
Impacts	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations. **MM AIR-1.2:** The project shall develop a plan demonstrating that the off-road equipment used on-site to construct the project would achieve a fleet-wide average 92 percent reduction in PM_{10} exhaust emissions or more. The plan shall include, but is not limited to, one or more of the following: • All mobile diesel-powered off-road equipment larger than 25 horsepower and operating on the site for more than two days continuously shall meet, at a minimum, USEPA particulate matter emissions standards for Tier 4 engines or equivalent and include the use of equipment that includes CARB-certified Level 3 Diesel Particulate Filters. • Use of alternatively-fueled equipment (i.e., non-diesel), such as electric, biodiesel, or liquefied petroleum gas for example, would meet this requirement. Other measures may be the use of added exhaust devices, or a combination of measures, provided that these measures are approved by the City and demonstrated to reduce community risk impacts to less than significant.			
Impact AIR-2: The operation of the project would result in significant operational ROG emissions.	**MM AIR-2.1:** The project shall develop and implement a Transportation Demand Management (TDM) plan that would reduce vehicle trips by 20 percent, half of which (a 10 percent reduction) shall be achieved with TDM measures.	Develop the TDM plan prior to issuance of occupancy permits; implement the TDM plan during project operations	Project applicant	Director of Community Development

MITIGATION MONITORING OR REPORTING PROGRAM GATEWAY CROSSINGS (FINAL PROJECT)				
Impacts	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	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.	During all phases of construction	Project applicant and contractors	Director of Community Development
	Biology			
Impact BIO-1: Project construction could impact nesting birds on or adjacent to the site, if present.	**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	During construction, if feasible. If construction activities are initiated between February and April, conduct the pre-construction survey no more than 14 days prior to construction activities. If construction activities are initiated between	Project applicant Project applicant	Director of Community Development Director of Community Development

MITIGATION MONITORING OR REPORTING PROGRAM GATEWAY CROSSINGS (FINAL PROJECT)				
Impacts	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	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.	May and August, conduct preconstruction surveys no more than 30 days prior to construction activities.		
	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.	Prior to start of grading or tree removal	Project applicant	Director of Community Development
	Cultural Resources			
Impact CUL-1: Unknown buried archaeological resources could be impacted during project construction.	**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.	During soil remediation	Project applicant	Director of Community Development
	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	Prior to start of construction activities	Project applicant	Director of Community Development

MITIGATION MONITORING OR REPORTING PROGRAM GATEWAY CROSSINGS (FINAL PROJECT)				
Impacts	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	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.	At the time a discovery is made	Project applicant	Director of Community Development
Greenhouse Gas Emissions				
Impact GHG-2: The project would result in significant GHG emissions.	See mitigation measure MM AIR-2.1			
Hazards and Hazardous Materials				
Impact HAZ-1: Construction workers, future occupants, and the surrounding environment could be exposed to contaminated soils and subject to soil vapor intrusion.	**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 shall be outlined to address potential hazards to construction workers and off-site receptors that may result from construction	Develop the SMP prior to the start of construction activities and submit the SMP to the City and RWQCB for approval prior to the start of	Project applicant and contractors	Director of Community Development, Regional Water Quality Control Board, and Santa Clara Valley Water District

MITIGATION MONITORING OR REPORTING PROGRAM GATEWAY CROSSINGS (FINAL PROJECT)				
Impacts	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	activities. Each contractor shall be required to develop their own site-specific health and safety plan to protect their workers. 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.	construction activities. Implement the SMP during construction activities		
Noise and Vibration				
Impact NOI-1: Future residents would be exposed to exterior noises from aircraft above the City's exterior land use compatibility goal of 55 dBA CNEL.	**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.	At the time of sale/lease of the residential units	Project applicant	Director of Community Development
Impact NOI-2: Existing land uses in the project vicinity would be exposed to an increase in ambient noise levels due to project construction activities.	In addition to adhering to the City Code for construction hours, the project proposes to implement the following standard construction noise control measures: **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.	Develop a construction noise control plan prior to issuance of grading permits. Implement the construction noise control plan during construction activities.	Project applicant and contractors	Director of Community Development

MITIGATION MONITORING OR REPORTING PROGRAM GATEWAY CROSSINGS (FINAL PROJECT)				
Impacts	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	• 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			

MITIGATION MONITORING OR REPORTING PROGRAM GATEWAY CROSSINGS (FINAL PROJECT)				
Impacts	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule.			
Impact NOI-3: On-site mechanical equipment (including the backup generator) would exceed on and off-site noise limits identified in the City Code.	**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 muffles or sound attenuators, and/or installation of noise barriers such as enclosures and parapet walls to block the line-of-sight between the noise source and the nearest receptors. Alternate measures may include locating equipment in less noise-sensitive areas, where feasible.	During the final design phase	Project applicant	Director of Community Development
Transportation/Traffic				
Impact TRAN-1: The project would have a significant impact under existing plus project conditions at the following two intersections: 1. Coleman Avenue/Brokaw Road (City of Santa Clara) and 6. De La Cruz Boulevard/Central Expressway (City of Santa Clara/CMP).	**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.	Prior to issuance of occupancy permits	Project applicant	Director of Community Development

MITIGATION MONITORING OR REPORTING PROGRAM GATEWAY CROSSINGS (FINAL PROJECT)				
Impacts	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	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. 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. 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.			
Impact TRAN-2: The project would result in a significant impact to mixed-flow lanes on 21 directional freeway segments during at least one peak hour.	**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.	Prior to Issuance of occupancy permits	Project applicant and contractors	Director of Community Development
Impact TRAN-3: The project would have a significant impact under background plus project conditions at the following five intersections: 1. Coleman Avenue/Brokaw Road (City of Santa Clara); 6. De La Cruz	The project proposes to implement MM TRAN-1.1 and -1.2 and the following 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. The project shall make a fair-share contribution towards this improvement.	Prior to issuance of occupancy permits	Project applicant	Director of Community Development

MITIGATION MONITORING OR REPORTING PROGRAM GATEWAY CROSSINGS (FINAL PROJECT)				
Impacts	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
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)	**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. **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.			
Impact C-TRAN-1: The project would have a cumulatively considerable contribution to significant cumulative impacts at the following intersections: 1. Coleman Avenue/Brokaw Road (City of Santa Clara); 6. De La Cruz Boulevard/Central Expressway (City of Santa Clara/CMP); 7. Lafayette Street/Central Expressway (City of	The project proposes to implement MM TRAN-1.1, -1.2, and -3.1 through -3.3 and the following two 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 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. **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	Prior to issuance of occupancy permits	Project applicant	Director of Community Development

MITIGATION MONITORING OR REPORTING PROGRAM GATEWAY CROSSINGS (FINAL PROJECT)				
Impacts	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
Santa Clara/CMP); 8. Scott Boulevard/Central Expressway (City of Santa Clara/CMP); 12. Coleman Avenue/I-880 (N) (City of San José/CMP); 13. Coleman Avenue/I-880 (S) (City of San José/CMP); and 15. Coleman Avenue/Taylor Street (City of San José).	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 an acceptable LOS C during the AM peak hour.			

In addition to mitigation measures listed above, there are also other conditions of approval the project shall implement, including the following:

CONDITIONS OF APPROVAL GATEWAY CROSSINGS (FINAL PROJECT)
Health Risks to On-site Residences
• 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.
Burrowing Owl
• 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).

Bird Strikes

- 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.

Interior Noise Levels

- Incorporate the following noise insulation features shall be incorporated into the proposed project to reduce interior noise levels to 45 dBA CNEL or less:
  - 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.

Resources Board (CARB) Airborne Toxic Control Measures (ATCM) Phase II or Toxic Substances Control Act (TSCA) Title VI compliant.

Similar comments and modeling by SWAPE regarding project operational air pollutant emissions were raised in the comment letter submitted by Adams Broadwell Joseph & Cardozo on the Draft EIR. Refer to the Responses E.11, E.10, and E.9 in the Final EIR.

The EIR evaluates the "whole of the action." The project's construction and operational (including project generated trips and operation of the land uses) air pollutant emissions are evaluated in Section 3.3 of the Draft EIR, in accordance with the Bay Area Air Quality Management District *California Environmental Quality Act Air Quality Guidelines* (BAAQMD CEQA Guidelines, May 2017). There is no established methodology or threshold of significance for evaluating construction emissions with operational emissions. See Response E.11 in the Final EIR.

Similar comments and modeling by SWAPE regarding cancer risk impacts were raised in the comment letter submitted by Adams Broadwell Joseph & Cardozo on the Draft EIR. Refer to the Response E.15. The health risk assessment for the project was completed in conformance with the current California Office of Environmental Health Hazard Assessment (OEHHA) methodology. The health risk impacts from the proposed diesel generator on-site was modeled and the results showed the cancer risk would be below the BAAQMD threshold of significance for on- and off-site receptors (Draft EIR page 50).

Biological Resources Comments

- Potential for burrowing owls and bald eagles on-site
- Potential for predators to use project buildings to prey on burrowing owls
- Potential for bird collisions with large glass windows
- Potential for project to interfere with wildlife movement and traffic generated by the project could result in the death of special status species, including Alameda whipsnake, California red-legged frog, California tiger salamander, and American badger, from vehicular collisions

Response: Burrowing owls are found in open, dry grasslands, deserts, and ruderal areas that have vegetation and suitable burrows. The project site was fully developed and the improvements were recently removed in late 2016/early 2017. At the time the Notice of Preparation (NOP) was published in February 2017, which represents the baseline condition for the biological resources impact analysis, all improvements had just been demolished and removed. No vegetation was on-site (except for mature trees) and there was no indication of burrowing owls at the site. For this reason, the project site was not identified in the EIR as suitable burrowing owl habitat.

It is acknowledged that burrowing owls are present in the project vicinity at the Norman Y. Mineta San Jose International Airport, over 1,100 feet east of the site. Coleman Avenue (over 75 feet wide) and existing development (including buildings and airplane hangars) are located between the project site and the known location of burrowing owls at the Airport. Given the distance and existing development located between the project site and the burrowing owls at the Airport, it is unlikely that the project buildings would be used as perches for predators to prey on the burrowing owls at the Airport.

CONDITIONS OF APPROVAL GATEWAY CROSSINGS (FINAL PROJECT)
Design Hazards and Emergency Access
• Restrict Driveway 1 to right-in and -out access only; • Restrict Driveway 2 to right turns only; • Signalize the intersection of Costco/project Driveway 3 and Brokaw Road; • Striped median left-turn lane for Driveway 4; and • Assign all tandem parking.
Construction Traffic
• Prepare a Construction Management Plan which would include, but is not limited to the following conditions, subject to 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.

Sources:

City of Santa Clara. *Draft Environmental Impact Report for the Gateway Crossings Project.* April 2018.

---. *Final Environmental Impact Report for the Gateway Crossings Project.* September 2018.

---. *Supplemental Text Revisions to the Gateway Crossings Project Final Environmental Impact Report.* September 26, 2018.

---. *Supplemental Text Revisions to the Gateway Crossings Project Final Environmental Impact Report.* October 30, 2018.

---. *Supplemental Text Revisions to the Gateway Crossings Project Final Environmental Impact Report.* May 14, 2019.

---. *Supplemental Text Revisions to the Gateway Crossings Project Final Environmental Impact Report.* June 2019.

DAVID J. POWERS & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS & PLANNERS

MEMORANDUM

DATE: November 6, 2018

TO: Debby Fernandez, City of Santa Clara

FROM: Kristy Weis

SUBJECT: Gateway Crossings Project Environmental Impact Report – Late Comments Received

Two late comment letters on the Gateway Crossings Project Environmental Impact Report (EIR) were received by the City subsequent to the conclusion of the 45-day Draft EIR public comment period on May 25, 2018. This memo covers comments received following publication of the Final EIR on September 12, 2018 through November 5, 2018.

Late written comments on the EIR were received by the Santa Clara Unified School District and Lozeau Drury LLP. Copies of these comment letters are included in Attachment A. Written comments pertaining to the adequacy of the EIR are summarized by topic below with responses. Comments regarding the merits of the project are not included in the summary below and do not warrant responses under CEQA.

Air Quality Comments

- Impacts to indoor air quality from formaldehyde-based building materials
- Project would have significant operational nitrogen oxide (NOx) and reactive organic compound (ROG) emissions, as modeled by Soil, Water, Air Protection Enterprise (SWAPE)
- Request to evaluate overlapping construction and operational emissions
- Project would have significant cancer risk impacts, as modeled by SWAPE
- Request for the health risk assessment to follow California Office of Environmental Health Hazard Assessment (OEHHA) methodology

> **Response:** As explained in the Draft EIR (page 17), the California Supreme Court in a December 2015 opinion (*California Building Industry Association v. Bay Area Air Quality Management District*) confirmed that CEQA, with several specific exceptions, is concerned with the impacts of a project on the environment, not the effects of the existing environment may have on a project. Therefore, the evaluation of the significance of project impacts under CEQA in the Gateway Crossings EIR focuses on impacts of the project on the environment. While not a CEQA issue, project inhabitants would be protected from potential internal air quality issues, as the project would be required to comply with California Green Building Standards Code (CALGreen) Sections 4.504.5 and 5.504.4.5, which set formaldehyde emissions limits for composite wood products. Composite wood products manufactured in or imported to the U.S. are required to be certified and labeled as California Air

While the project site is not burrowing owl habitat, it is acknowledged that burrowing owls (similar to raptors and other birds addressed in the EIR) are transient species and could navigate to the project site prior to construction. For this reason, measures to protect the burrowing owl, if found present on-site prior to construction, are identified as conditions of project approval and are hereby incorporated into the EIR via the Supplemental Text Revisions Memorandum dated October 30, 2018.

A discussion of bird strikes is included in the Draft EIR (page 60). The project is required to implement safeguards (reduce large areas of transparent or reflective glass, locate water features and other bird habitat away from building exteriors, reduce or eliminate the visibility of landscaped areas behind glass, and avoid use of unnecessary lighting at night) to reduce bird strikes. The dominant routes for migratory birds are those over bodies of water, wetlands, and marshes, which are locations for resting and foraging. These features are not located on or adjacent to the project site. For this reason, it is not anticipated that the project would substantially impact migratory birds or result in substantial bird strikes. No additional measures or mitigation is required.

The project site does not provide important foraging habitat for the bald eagle, Alameda whipsnake, California red-legged frog, California tiger salamander, or American badger. The bald eagle requires large bodies of water or free flowing rivers. The Alameda whipsnake is associated with northern coastal scrub or chaparral habitat and requires rock outcrops for cover and foraging. The California red-legged frog and California tiger salamander require water or aquatic habitat. The American badger occurs in grasslands and open areas of scrubland and forests. None of these habitats are present on or adjacent to the site. For these reasons, the project would not impact movement of these species and traffic generated by the project would not result in death of these species.

Land Use Comments

- Inclusion of affordable housing units
- Consistency with General Plan policy 5.4.3-P20, which highly encourages the development of affordable housing and senior housing in the Santa Clara Station Focus Area
- Lack of affordable housing causing urban decay

Response: As discussed in Response E.6 in the Final EIR (Final EIR page 24), the project is subject to a Development Agreement which requires the project to provide a minimum percentage of units within the project as affordable units.

General Plan policies regarding affordable housing were not adopted to avoid or mitigate an environmental impact; therefore, the project's consistency with General Plan policy 5.4.3-P20 is not discussed in the EIR. Refer to Response E.6 on page 24 of the Final EIR.

The project would not displace existing housing and would provide affordable housing. No substantial evidence was provided showing a correlation between the project and urban decay.

Transportation/Traffic Comments

- Baseline for traffic impacts with or without traffic from the previous BAE facility
- Voluntary contribution toward the VTA US 101 Double Express Lanes project not adequate mitigation
- The project's VMT reduction plan could constitute deferred mitigation

Response: Similar comments regarding the baseline used for the transportation/traffic analysis were provided in the comment letter submitted by Adams Broadwell Joseph & Cardozo on the Draft EIR. Refer to Responses E.19, E.20, and E.21 on pages 38-40 in the Final EIR.

The project's fair-share contribution towards the VTA's Valley Transportation Plan (VTP) 2040 express lane program along US 101 is not a voluntary contribution, rather it is identified as mitigation measure MM TRAN-2.1 on page 190 of the Draft EIR. Mitigation measure MM TRAN-2.1 is enforceable as the contribution is required before issuance of occupancy permits, as identified in the Mitigation Monitoring and Reporting Program for the project.

As stated on page 12 of the Draft EIR (as revised in the Final EIR):

"As part of the project, a Vehicle Miles Traveled (VMT) Reduction Plan shall be developed and implemented. The VMT Reduction Plan shall achieve a 20 percent reduction in project VMT, half of which (a 10 percent reduction) shall be achieved with TDM measures. The VMT reductions may be achieved through project design characteristics, land use, parking, access, and TDM best practices. TDM best practices could include the following:

- Project design to encourage walking, bicycling (e.g., on-site bike lane street design), and convenient transit access;
- Parking cash out/parking pricing;
- Transit fare incentives such as such as free or discounted transit passes on a continuing basis;
- First mile/last mile ride sharing voucher;
- Public-private partnerships or employer contributions to provide improved transit or shuttle service in the project area;
- Commute Trip Reduction Program;
- Ride-sharing programs;
- Bicycle lockers and bicycle racks;
- Showers and clothes lockers for bicycle commuters;
- Preferential parking permit program;
- Parking for car-sharing vehicles; and/or
- Reduced parking ratios/limited parking supply.

The project's VMT Reduction Plan is subject to the City's annual reporting requirements."

The proposed VMT Reduction Plan is also identified as mitigation measure MM AIR-2.1 on page 47 of the Draft EIR. The VMT Reduction Plan is a not deferred mitigation as a performance standard (i.e., 20 percent reduction in project VMT) is identified and the reduction can be accomplished in more than one specified way (see

above bulleted list of possible TDM measures) (CEQA Guidelines Section 15126.4(a)(1)(B)).

Public Service Comments

- Request for the developer to pay a Voluntary Community Benefit Payment in addition to the statutory development fee to provide funds to modernize schools
- Request for help with safer pathways for students to bike to school

Response: Similar comments were raised by the Santa Clara Unified School District on the Draft EIR. Under state law, the school impact fee is considered as an acceptable method of offsetting a project's effect on the adequacy of school facilities. Refer to Response B.2 on page 8 of the Final EIR.

In general, destinations within a 10-minute bike ride, which equates to approximately one mile for elementary and middle school students and approximately two miles for high school students, are considered within biking distance for children. The local schools to the site are not within these typical biking distances and it is not anticipated that students form the proposed project would bicycle to school. Therefore, there is no nexus for the City to require the project assist with pathways for students to bike to school from the project site. Refer to Response B.3 on page 9 of the Final EIR.

Attachment A: Late Comments Received

SANTA CLARA UNIFIED SCHOOL DISTRICT

1889 Lawrence Road
Santa Clara, CA
95051
408-423-2000

Stanley Rose III, Ed.D.
Superintendent

October 11, 2018 VIA EMAIL

Debby Fernandez
Associate Planner
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050
dfernandez@santaclaraca.gov

RE: CEQA Final EIR for Gateway Crossings Project; 1205 Coleman Avenue; CEQ2016-01025

Dear Ms. Fernandez:

The Santa Clara Unified School District (District or SCUSD) appreciates the opportunity to respond to the Final Environmental Impact Report (FEIR) for the Gateway Crossings Project (Project), by the City of Santa Clara. The Project is proposing up to 1,600 residential units in a transit oriented development that will attract families who commute to work every day. In our previous letter dated May 24, 2018, the District asked that the EIR take into consideration the impacts that the Gateway Crossings Project will have on the District's school capacity, new construction, existing school modernization, and safe routes to schools.

The District is concerned about the 1,600 residential units proposed in the Project. Students generated from the Project are designated to go to Scott Lane Elementary, Buchser Middle, and Santa Clara High. Even though current student generation rates from the Project do not warrant construction of a new school, they will impact Scott Lane and Santa Clara High. These two schools are already over capacity and cannot absorb the students coming from both the Project and approved future developments.

To alleviate over capacity, the District is planning and constructing a new elementary, middle and high school in north San Jose (Agnews), and planning for a potential 600 student elementary school at Tasman East Specific Plan (TESP). However, even with Bond funds approved by the voters and the Statutory Developer Impact Fees, the District will not have enough funds to build these and additional facilities required for the comprehensive educational experience that the SCUSD strives to provide all of the students.

Funds collected through Statutory Developer Impact Fees can only be used for new construction and cannot be used for the modernization of existing schools. The schools impacted by the Project, Scott Lane, Buchser, and Santa Clara High, need additional funds to be modernized to meet educational standards. In order for the District to be able to meet the current facility requirements for all subjects including art, science, physical education, and music and to accommodate all students within the District, the District respectfully requests a Voluntary Community Benefit Payment from developers.

All state and local jurisdictions affected from the Project will collect 100% or more of the calculated impact of the project, except the District. School districts are at a disadvantage when collecting funds for capital improvements, since districts are restricted to charging a set amount per square foot of a new

development. The Statutory Developer Impact Fee mandated by SB 50 for residential construction is currently $3.79 per square foot and the industrial and commercial construction is currently $0.61 per square foot. These Statutory fees do not adequately cover the land purchase, design, and construction cost incurred by the SCUSD for new or expanded school facilities.

The SCUSD's Residential Development School Fee Justification Study (RS), dated March 12, 2018, calculates the actual school facilities cost impact per residential square foot for multi-family attached homes to be $28.89 per square foot. This is a deficit of $25.10 for multi-family new residential per square foot constructed. The Commercial/Industrial Development School Fee Justification Study (CID), dated March 12, 2018, calculates the actual net school facilities cost impact of new construction retail to be $2.90 per square foot. This is a deficit of $2.29 per square foot of retail constructed. The CID calculates the actual net impact of office space is $4.59 per square foot, which is a deficit of $3.98 per square foot. Therefore, the Santa Clara Unified School District is requesting developers provide for full mitigation of their impact through a combination of a Voluntary Community Payment and the statutory development fee equal to the calculated impact in the SCUSD RS and CID Studies.

All SCUSD students must have a safe route to get to school, whether it be by driving, walking or biking. The students coming out of the Project may not be within walking distance of the designated schools but the Project is with biking distance of Buchser Middle and Santa Clara High. Both schools are part of the Santa Clara Pedestrian Master Plan which includes creating safer routes to schools, implementing infrastructure to reduce traffic speed, and improving the condition of crosswalks. The District does not have the adequate funds to make recommended infrastructure changes in order to create safer driving, walking, and biking routes to the schools.

The combination of constantly increasing construction costs combined with lack of existing capacity in District schools, make it imperative that the District continually plan for and collect adequate funding for school construction. The District will not support the Project unless full mitigation of the Project's impacts through a combination of Voluntary Community Benefit Payments, the current Statutory Development Impact fees and helping with safer pathways for students to travel to school. The Voluntary Community Benefit Payment will allow the District to continue to house the additional students generated by this and other projects Districtwide and modernize existing classrooms and campuses. The City, District, and Developers must work together to create the best community for all residents.

Sincerely,

Michal Healy

Michal Healy,
Director, Facilities Development and Planning

cc: Stanley Rose; srose@scusd.net
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October 23, 2018

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Re: Gateway Crossings Project, SCH2017022066, PLN2016-12318, PLN2016-12321, PLN2016-12481, and CEQ2016- 01025

Honorable Members of the Planning Commission:

I am writing on behalf of the Laborers International Union of North America, Local Union 270 and its members living in Santa Clara County and/or the City of Santa Clara ("LiUNA"), regarding the Gateway Crossings Project, aka SCH2017022066, PLN2016-12318, PLN2016-12321, PLN2016-12481, and CEQ2016-01025, including all actions related or referring to the proposed construction of a phased mixed-use development, to include up to 1,600 residential units, 182,000 square foot hotel, 15,000 square feet of ancillary retail, and parking at 1205 Coleman Avenue on APNs: 230-46-069 and 230-46-070 in the City of Santa Clara ("Project").

We have reviewed the Draft Environmental Impact Report ("DEIR") and Final Environmental Impact Report ("FEIR") for the Project and conclude that the

documents fail to comply with the California Environmental Quality Act ("CEQA"). We therefore request that the City prepare a Revised Environmental Impact Report ("REIR") to address the deficiencies on the EIR.

PROJECT DESCRIPTION

The project requires a General Plan Amendment (GPA) to change the land use designation on the site to Very High Density Residential to allow residential development at 51 to 100 du/ac in conjunction with a minimum commercial FAR of 0.20; an amendment to the General Plan Land Use Map for the Santa Clara Station Focus Area to reflect the General Plan change; and an amendment to Appendix 8.13 to the General Plan (the Climate Action Plan) to establish a 20 percent reduction in Vehicle Miles Traveled (VMT), half of which (a 10 percent reduction) would be achieved with a Transportation Demand Management (TDM) program. In addition, the project requires a Zoning Code text amendment to add a new zoning designation of Very High Density Mixed Use to facilitate the development of the land uses and building types contemplated for the project site; and a rezoning of the project site to the new zoning designation. The project also includes a Vesting Tentative Parcel Map and Development Agreement.

The project would develop one of two options:

• Option 1: Up to 1,400 dwelling units and up to 215,000 square feet of commercial uses, or

• Option 2: Up to 1,600 dwelling units and up to 215,000 square feet of commercial uses.

Option 2 is the preferred project alternative. The proposed maximum building height on the site under both options is 150 feet and subject to the Federal Aviation Administration (FAA) Regulations Part 77 height restrictions. Under both options, the development would have a minimum setback of 25 feet from Coleman Avenue and Brokaw Road.

LEGAL STANDARD

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an environmental impact report ("EIR") (except in certain limited circumstances). *See, e.g.*, Pub. Res. Code § 21100. The EIR is the very heart of CEQA. *Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652. "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." *Comms. for a Better Env't v. Calif. Resources Agency* (2002) 103 Cal. App. 4th 98, 109.

CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. 14 Cal. Code Regs. ("CEQA Guidelines") § 15002(a)(1). "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR 'protects not only the environment but also informed self-government.'" *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564. The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." *Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs.* (2001) 91 Cal. App. 4th 1344, 1354 ("Berkeley Jets"); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

Second, CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring "environmentally superior" alternatives and all feasible mitigation measures. CEQA Guidelines § 15002(a)(2) and (3); *see also Berkeley Jets*, 91 Cal. App. 4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564. The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to "identify ways that environmental damage can be avoided or significantly reduced." CEQA Guidelines §15002(a)(2). If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns." Pub.Res.Code ("PRC") § 21081; CEQA Guidelines § 15092(b)(2)(A) & (B).

The EIR is the very heart of CEQA. *Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652. CEQA requires that a lead agency analyze all potentially significant environmental impacts of its proposed actions in an EIR. PRC § 21100(b)(1); CEQA Guidelines § 15126(a); *Berkeley Jets*, 91 Cal.App.4th 1344, 1354. The EIR must not only identify the impacts, but must also provide "information about how adverse the impacts will be." *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831. The lead agency may deem a particular impact to be insignificant only if it produces rigorous analysis and concrete substantial evidence justifying the finding. *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692. "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." *Communities for a Better Env't v. Calif. Resources Agency* (2002) 103 Cal.App.4th 98, 109.

While the courts review an EIR using an "abuse of discretion" standard, "the reviewing court is not to 'uncritically rely on every study or analysis presented by a project proponent in support of its position. A 'clearly inadequate or unsupported study is entitled to no judicial deference.'" *Berkeley Jets*, 91 Cal. App. 4th 1344, 1355 (emphasis added), quoting, *Laurel Heights Improvement Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 391 409, fn. 12. A prejudicial abuse of discretion occurs "if the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process." *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal. App. 4th 713, 722]; *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal. App. 4th 1109, 1117; *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal. App. 4th 931, 946.

The lead agency must evaluate comments on the draft EIR and prepare written responses in the final EIR ("FEIR"). (PRC §21091(d)) The FEIR must include a "detailed" written response to all "significant environmental issues" raised by commenters. As the court stated in *City of Long Beach v. LA USD* (2009) 176 Cal.App.4th 889, 904:

> The requirement of a detailed written response to comments helps to ensure that the lead agency will fully consider the environmental consequences of a decision before it is made, that the decision is well informed and open to public scrutiny, and that public participation in the environmental review process is meaningful.

The FEIR's responses to comments must be detailed and must provide a reasoned, good faith analysis. (14 CCR §15088(c)) Failure to provide a substantive response to comment render the EIR legally inadequate. (*Rural Land Owners Assoc. v. City Council* (1983) 143 Cal.App.3d 1013, 1020)

The responses to comments on a draft EIR must state reasons for rejecting suggested mitigation measures and comments on significant environmental issues. "Conclusory statements unsupported by factual information" are not an adequate response. (14 CCR §15088(b, c); *Cleary v. County of Stanislaus* (1981) 118 Cal.App.3rd 348) The need for substantive, detailed response is particularly appropriate when comments have been raised by experts or other agencies. (*Berkeley Keep Jets v. Bd. of Port Comm'rs* (2001) 91 Cal.App.4th 1344, 1367; *People v. Kern* (1976) 72 Cal.app.3d 761) A reasoned analysis of the issue and references to supporting evidence are required for substantive comments raised. (*Calif. Oak Found. v. Santa Clarita* (2005) 133 Cal.App.4th 1219)

The FEIR abjectly fails to meet these legal standards, as it is riddled with conclusory statements lacking any factual support or analysis.

DISCUSSION

1. The EIR Fails to Analyze Indoor Air Quality Impacts.

We submit herewith the comments of indoor air quality expert, Francis Offermann, PE, CIH. (Exhibit A). Mr. Offermann, a Certified Industrial Hygienist, concludes that it is likely that the Project will expose future residents to significant impacts related to indoor air quality, and in particular, emissions for the cancer-causing chemical formaldehyde. Mr. Offermann is one of the world's leading experts on indoor air quality and has published extensively on the topic.

Mr. Offermann explains that many composite wood products typically used in modern home construction contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. He states, "The primary source formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particle board. These materials are commonly used in residential building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims."

Formaldehyde is a known human carcinogen. Mr. Offermann states that there is a fair argument that residents of the Amare Project will be exposed to a cancer risk from formaldehyde of approximately 180 per million. This is far above the Bay Area Air Quality Management District (BAAQMD) CEQA significance threshold for airborne cancer risk of 10 per million. Mr. Offermann states:

> Therefore, the cancer risk of a resident living in a median California home with the median indoor formaldehyde concentration of 36 µg/m3, is 180 per million as a result of formaldehyde alone. Assuming the Amare project will be built using typical materials and construction methods used in California, there is a fair argument that future residents will experience a cancer risk from formaldehyde of approximately 180 per million. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the Bay Area Air Quality Management District (BAAQMD, 2017). There is a fair argument that the Amare project will expose future residents to a significant airborne cancer risk of 180 per million, which is 18 times above the CEQA significance threshold. This impact should be analyzed in an environmental impact report ("EIR"), and the agency should impose all feasible mitigation measures to reduce this impact. Several feasible mitigation measures are discussed below and these and other measures should be analyzed in an EIR.

Even if the Project uses modern "CARB-compliant" materials, Mr. Offermann concludes that formaldehyde will create a cancer risk more than ten times above the

CEQA significance threshold. Mr. Offermann concludes that this significant environmental impact should be analyzed in an EIR and mitigation measures should be imposed to reduce the risk of formaldehyde exposure.

When a Project exceeds a duly adopted CEQA significance threshold, as here, this alone establishes a fair argument that the project will have a significant adverse environmental impact and an EIR is required. Indeed, in many instances, such air quality thresholds are the only criteria reviewed and treated as dispositive in evaluating the significance of a project's air quality impacts. See, e.g. *Schenck v. County of Sonoma* (2011) 198 Cal.App.4th 949, 960 (County applies BAAQMD's "published CEQA quantitative criteria" and "threshold level of cumulative significance"). See also *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 110-111 ("A 'threshold of significance' for a given environmental effect is simply that level at which the lead agency finds the effects of the project to be significant"). The California Supreme Court made clear the substantial importance that an air district significance threshold plays in providing substantial evidence of a significant adverse impact. *Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 327 ("As the [South Coast Air Quality Management] District's established significance threshold for NOx is 55 pounds per day, these estimates [of NOx emissions of 201 to 456 pounds per day] constitute substantial evidence supporting a fair argument for a significant adverse impact"). Since expert evidence demonstrates that the Project will exceed the BAAQMD's CEQA significance threshold, there is a fair argument that the Project will have significant adverse and an EIR is required.

Mr. Offermann suggests several feasible mitigation measures, such as requiring the use of no-added-formaldehyde composite wood products, which are readily available. Mr. Offermann also suggests requiring air ventilation systems which would reduce formaldehyde levels. Since the EIR does not analyze this impact at all, none of these or other mitigation measures are considered.

2. The EIR Fails to Address or Adequately Mitigate Significant Biological Impacts.

Wildlife biologist Dr. Shawn Smallwood, Ph.D., submits comments herewith. (Exhibit B). Dr. Smallwood concludes that the Project will have significant impacts on many special status species, contrary to the conclusions of the EIR.

According to the EIR (p.59), "Given the urbanized nature of the project site and surrounding area, there are no ... special-status animal or plant species on or adjacent to the site." Dr. Smallwood concludes that the EIR is mistaken. He states:

A quick review of eBird reveals 27 special-status species documented very close to the site of the proposed project (Table 1). Many of these species occurrences are on Mineta San Jose International Airport, but others occur in various open spaces near the site. A bald eagle was seen near the Gateway Crossings site only two weeks ago (eBird). Furthermore, the longest-running study of burrowing owls of which I am aware took place at the Airport (Barclay 2007, Barclay et al. 2011, Menzel 2014, 2018). Beginning in 1989 and continuing through 2011, this study invested heavily in efforts to encourage burrowing owl breeding success, which is critical because burring owls have declined to the point of near extirpation in the region. The study collected 14,088 burrowing owl records, which must be the most massive data base on burrowing owls collected anywhere. Forty breeding pairs of burrowing owls occupied the Airport in 2002, although the number has declined since then. Burrowing owl nest sites were located only 400 m from the site of the proposed Gateway Crossings Project. Additionally, Menzel (2014) listed bird species detected at the Airport during her burrowing owl research there, 7 of which are special-status species also reported in the area on eBird (Table 2).

The fact that the EIR failed to identify protected species such as the bald eagle and burrowing owl demonstrates that the EIR fails to include an adequate environmental setting analysis.

Dr. Smallwood concludes that the Project will have adverse impacts on various special status species. For example, placing tall buildings near burrowing owls will increase opportunities for predators to prey on burrowing owls since predator species perch on tall buildings and swoop down upon burrowing owls and other species.

Dr. Smallwood also concludes that the widespread use of large glass windows in the Project will result in collision deaths since birds will fly into those windows. Dr. Smallwood concludes that mitigation measures in the EIR are inadequate to mitigate bird collision impacts. Dr. Smallwood suggests numerous feasible measures to reduce bird collisions, but these measures are not analyzed in the EIR.

Dr. Smallwood concludes that the Project will interfere with wildlife movement, contrary to the conclusions of the EIR. He also concludes that the traffic generated by the Project will result in the death of special status species from vehicular collisions. Species likely to be affected by vehicular collisions include, Alameda whipsnake (Masticophis lateralis euryxanthus), California red-legged frog (Rana draytonii), California tiger salamander (Ambystoma californiense), and American badger (Taxidea taxus).

3. The EIR Fails to Adequately Mitigate the Project's Significant Traffic Impacts.

a. The EIR Uses an Improper Baseline.

The EIR uses an improper baseline. The EIR subtracts air quality emissions and traffic from the BAE project from the emissions and traffic of the proposed Project. This artificially makes it appear that Project emissions and traffic will be lower than they actually will be. This "baseline" approach is improper because the BAE project has been closed for more than two years and was closed at time of the Notice of Preparation. The DEIR (p. 25) states:

> The former buildings were occupied by BAE systems until as recent as April 2016. The project site is currently vacant and undeveloped and has minimal physical features. The project site is secured by five to 10-foot chain link fencing around the perimeter of the property. As shown in Photos 1 and 2, most of the fencing is screened, obscuring views of the project site from the surrounding public right-of-way. The project site consists of bare ground with some areas covered with ruderal vegetation. There are several tall mounds of aggregate and/or dirt on-site and electricity poles and overhead wires. An existing Groundwater Extraction and Treatment System (GWETS) is located on the western boundary of the site, which can be seen from Brokaw Road. Existing mature trees are located at the southeastern corner of the project site (refer to Section 3.4 Biological Resources for more information about the trees on-site).

The Notice of Preparation (NOP) was posted on February 21, 2017 – one year after the closure of BAE in April 2016.

Every CEQA document must start from a "baseline" assumption. The CEQA "baseline" is the set of environmental conditions against which to compare a project's anticipated impacts. *Communities for a Better Environment v. So Coast Air Qual. Mgmnt. Dist.* (2010) 48 Cal. 4th 310, 321. Section 15125(a) of the CEQA Guidelines (14 C.C.R., § 15125(a)) states in pertinent part that a lead agency's environmental review under CEQA:

> An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist ***at the time the notice of preparation is published,*** or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline

> physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to an understanding of the significant effects of the proposed project and its alternatives.

(See, *Save Our Peninsula Committee v. County of Monterey* (2001) 87 Cal.App.4th 99, 124-125 ("*Save Our Peninsula.*") As the court of appeal has explained, "the impacts of the project must be measured against the 'real conditions on the ground,'" and not against hypothetical permitted levels. (*Save Our Peninsula*,87 Cal.App.4th 99, 121-123.) As the court has explained, using such a skewed baseline "mislead(s) the public" and "draws a red herring across the path of public input." (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 656; *Woodward Park Homeowners v. City of Fresno* (2007) 150 Cal.App.4th 683, 708-711.)

Since the BAE facility was closed at the time the NOP was published, it was legally erroneous for the EIR to subtract the BAE emissions and traffic from the proposed Project's traffic. This created a false impression for the public that the Project's impacts will be less significant than they will actually be when compared to the true baseline of a vacant site.

Traffic Engineer Daniel T. Smith, PE, demonstrates that the baseline traffic counts for the EIR were conducted when the BAE project was still operational in 2014 and 2015. Thus, the EIR uses an improper baseline for traffic analysis. Mr. Smith concludes that this results in a very significant underestimation of Project traffic:

> This results in an 18.37 percent reduction in the net new daily trips, a 37.8 percent reduction in the AM peak trips and a 27.29 percent reduction in the PM trips actually generated by the Project. As a result, the Project's transportation impacts are greatly underestimated

The Final EIR (p. 39) admits that the traffic baseline was conducted while the BAE facility was still operational, but the FEIR does not correct this error. This constitutes an inadequate response to comments, as well as a failure to utilize a proper baseline.

b. The EIR Fails to Adequately Mitigate the Project's Significant Traffic Impacts.

The DEIR identified 21 freeway segment impacts and states that the Project Developer will provide a voluntary contribution toward the VTA US 101 Double Express Lanes project. Voluntary contributions are not adequate mitigation. Mitigation measures must be fully enforceable through permit conditions, agreements or other legally binding instruments. 14 CCR § 15126.4(a)(2). See *Woodward Park Homeowners Assn., Inc. v. City of Fresno* (2007) 150 Cal. App. 4th 683, 730 (project proponent's agreement to a mitigation by itself is insufficient; mitigation measure must be an enforceable requirement). A voluntary contribution is by definition not enforceable.

The EIR relies on a VMT reduction plan that has not yet been developed. CEQA prohibits this type of deferred mitigation. The DEIR states:

> a Vehicle Miles Traveled (VMT) Reduction Plan shall be developed and implemented. As described in Section 2.2.1.4 of the Draft EIR, the VMT Reduction Plan shall achieve a 20 percent reduction in project VMT, half of which (a 10 percent reduction) shall be achieved with Transportation Demand Management (TDM) measures.

"A study conducted after approval of a project will inevitably have a diminished influence on decisionmaking. Even if the study is subject to administrative approval, it is analogous to the sort of post hoc rationalization of agency actions that has been repeatedly condemned in decisions construing CEQA." (*Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 307.) "[R]eliance on tentative plans for future mitigation after completion of the CEQA process significantly undermines CEQA's goals of full disclosure and informed decisionmaking; and[,] consequently, these mitigation plans have been overturned on judicial review as constituting improper deferral of environmental assessment." (*Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 92.)

4. The Project Lacks Affordable Housing in Conflict with the General Plan.

The Project does not include any affordable housing units, in complete disregard of the applicable General Plan policies. This is of particular concern to LIUNA members who are increasingly priced out of the area.

The General Plan policies for the Santa Clara Station Focus Area, in which the Project is located, specifically calls for the development of affordable housing within the Focus Area.

> 5.4.3-P20 Highly encourage the development of affordable housing and senior housing that is well designed and compatible with adjacent uses in the Santa Clara Station Focus Area.

According to the California Department of Housing and Community Development, the City has made "insufficient progress" toward its Lower Income Regional Housing Needs Allocation (RHNA), which includes housing for very low and low income.

The Final EIR rejects comments made concerning affordable housing, arguing that the issue is socio-economic and not environmental, and therefore not within the scope of CEQA. This is mistaken. It is well-established that urban decay is a CEQA issue. The lack of affordable housing has led to an increase in homelessness, which is a prime contributor to urban decay. In *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) (124 Cal.App.4th 1184) (*Bakersfield Citizens*), the court expressly held that an EIR must analyze a project's potential to cause urban decay if there is substantial evidence showing that the project may lead to such impacts. The court pointed out that CEQA requires the project proponent to discuss the project's economic and social impacts where "[a]n EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic and social changes." (CEQA Guidelines §§ 15131(a) and 15064(f).)

Where a local or regional policy of general applicability, such as an ordinance, is adopted in order to avoid or mitigate environmental effects, a conflict with that policy in itself indicates a potentially significant impact on the environment. (*Pocket*

Protectors v. Sacramento (2005) 124 Cal.App.4th 903.) Indeed, any inconsistencies between a proposed project and applicable plans must be discussed in an EIR. (14 CCR § 15125(d); *City of Long Beach v. Los Angeles Unif. School Dist.* (2009) 176 Cal. App. 4th 889, 918; *Friends of the Eel River v. Sonoma County Water Agency* (2003) 108 Cal. App. 4th 859, 874 (EIR inadequate when Lead Agency failed to identify relationship of project to relevant local plans).) A Project's inconsistencies with local plans and policies constitute significant impacts under CEQA. (*Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.4th 777, 783-4, 32 Cal.Rptr.3d 177; see also, *County of El Dorado v. Dept. of Transp.* (2005) 133 Cal.App.4th 1376 (fact that a project may be consistent with a plan, such as an air plan, does not necessarily mean that it does not have significant impacts).)

A supplemental EIR should be prepared to analyze the impacts of the Project's lack of affordable housing and the impact on urban decay. It should propose feasible mitigation measures, such as requiring more affordable housing in the Project, contributions to low-income housing funding, etc.

5. The EIR Fails to Adequately Analyze or Mitigate the Project' Significant Air Quality Impacts.

The expert consulting firm, Soil, Water, Air Protection Enterprise (SWAPE), demonstrates that the EIR improperly calculates air quality impacts. SWAPE concludes that the Project will have significant nitrogen oxide (NOx) and reactive organic compound (ROG) emissions, contrary to the conclusion of the EIR. SWAPE states:

> When correct, site-specific input parameters are used to model emissions, we find that the Project's operational ROG and NOx emissions increase significantly when compared to the DEIR's CalEEMod model emission estimates for full Project build out. Furthermore, we find that ROG and NOx emissions exceed the 54 pounds per day (lbs/day) thresholds set for by the BAAQMD (see table below)...
>
> As you can see in the table above, when emissions are modeled correctly, both ROG and NOx emissions would exceed BAAQMD thresholds. Specifically, our analysis demonstrates that operational activity would emit approximately 61 lbs/day of ROG emissions and approximately 57 lbs/day of NOx emissions, which is higher than what the DEIR previously estimated.

The Final EIR inadequately responds to these comments. First, the FEIR states that there is no requirement to consider overlapping construction and operational emissions. This is incorrect. The courts have held that an agency may not piecemeal a project and consider emissions from different sources separately. For example, in Kings County Farm Burea v. Hanford, the court held that it was legal error to consider mobile source emissions separately from stationary source emissions. See *Kings County Farm Bureau v. Hanford* (1990) 221 Cal.App.3d 692, 716-17 (agency must consider "the whole of an action" including indirect truck impacts, together with direct power plant impacts).

SWAPE calculates that the Project will have highly significant airborne cancer risk impacts, far above CEQA significance thresholds. SWAPE calculates that the Project will create an airborne cancer risk of 107 per million – far above the BAAQMD CEQA significance threshold of 10 per million. The FEIR dismisses this comment, stating that the Project will comply with BAAQMD requirements, and that "Sources of air pollutant emissions complying with all applicable BAAQMD regulations generally are not be considered to have a significant air quality community risk impact." (FEIR p. 31).

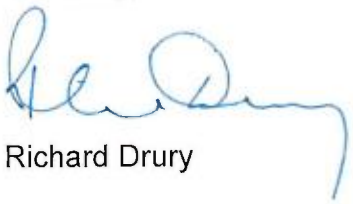
This analysis is incorrect. The courts have held that compliance with Air District rules is not sufficient to render an impact less than significant for CEQA purposes. In *Kings County Farm Bureau v. Hanford* (1990) 221 Cal.App.3d 692, 716, the court held that that EPA and local Air District issued permits for plant does not establish no significant effect under CEQA.

The Final EIR also conducts a different health risk assessment that allegedly shows a cancer risk less than 10 per million. However, the HRA used in the FEIR fails to comply with the recent California Office of Environmental Health Hazard Assessment (OEHHA) methodology. The lead agency is required to use the agency-approved methodology, not some other obsolete methodology. *Endangered Habitats League v. Orange* (2005) 131 Cal.App.4th 777.

CONCLUSION

For the foregoing reasons, and for the reasons set forth by other commenters (which are incorporated herein by reference), the EIR for the Gateway Crossing Project is legally inadequate. A revised EIR is required to analyze and mitigate the proposed Project's significant impacts.

Sincerely,



Richard Drury

EXHIBIT A

IEE INDOOR ENVIRONMENTAL ENGINEERING IEE
1448 Pine Street, Suite 103 San Francisco, California 94109
Telephone: (415) 567-7700
E-mail: offermann@IEE-SF.com
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Date: October 23, 2018

To: Richard T. Drury
Lozeau | Drury LLP
410 12th Street, Suite 250
Oakland, California 94607

From: Francis J. Offermann PE CIH

Subject: Indoor Air Quality: Gateway Crossing Project

Pages: 9

Indoor Air Quality Impacts

Indoor air quality (IAQ) directly impacts the comfort and health of building occupants, and the achievement of acceptable IAQ in newly constructed and renovated buildings is a well-recognized design objective. For example, IAQ is addressed by major high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014). Indoor air quality in homes is particularly important because occupants, on average, spend approximately ninety percent of their time indoors with the majority of this time spent at home (EPA, 2011). Some segments of the population that are most susceptible to the effects of poor IAQ, such as the very young and the elderly, occupy their homes almost continuously. Additionally, an increasing number of adults are working from home at least some of the time during the workweek.

The concentrations of many air pollutants often are elevated in homes relative to outdoor air because many of the materials and products used indoors contain and release a variety of pollutants to air (Hodgson et al., 2002; Offermann and Hodgson, 2011). With respect to indoor air contaminants for which inhalation is the primary route of exposure, the critical design and construction parameters are the provision of adequate ventilation and the

reduction of indoor sources of the contaminants.

Indoor Formaldehyde Concentrations Impact. In the California New Home Study (CNHS) of 108 new homes in California (Offermann, 2009), 25 air contaminants were measured, and formaldehyde was identified as the indoor air contaminant with the highest cancer risk as determined by the California Proposition 65 Safe Harbor Levels (OEHHA, 2017), No Significant Risk Levels (NSRL) for carcinogens. The NSRL is the daily intake level calculated to result in one excess case of cancer in an exposed population of 100,000 (i.e., ten in one million cancer risk) and for formaldehyde is 40 μg/day. The NSRL concentration of formaldehyde that represents a daily dose of 40 μg is 2 $\mu g/m^3$, assuming a continuous 24-hour exposure, a total daily inhaled air volume of 20 m^3, and 100% absorption by the respiratory system. All of the CNHS homes exceeded this NSRL concentration of 2 $\mu g/m^3$. The median indoor formaldehyde concentration was 36 $\mu g/m^3$, and ranged from 4.8 to 136 $\mu g/m^3$, which corresponds to a median exceedance of the 2 $\mu g/m^3$ NSRL concentration of 18 and a range of 2.3 to 68.

Therefore, the cancer risk of a resident living in a median California home with the median indoor formaldehyde concentration of 36 $\mu g/m^3$, is 180 per million as a result of formaldehyde alone. Assuming this project will be built using typical materials and construction methods used in California, there is a fair argument that future residents will experience a cancer risk from formaldehyde of approximately 180 per million. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the Bay Area Air Quality Management District (BAAQMD, 2017). There is a fair argument that this project will expose future residents to a significant airborne cancer risk of 180 per million, which is 18 times above the CEQA significance threshold. This impact should be analyzed in an environmental impact report ("EIR"), and the agency should impose all feasible mitigation measures to reduce this impact. Several feasible mitigation measures are discussed below and these and other measures should be analyzed in an EIR.

Besides being a human carcinogen, formaldehyde is also a potent eye and respiratory irritant. In the CNHS, many homes exceeded the non-cancer reference exposure levels (RELs) prescribed by California Office of Environmental Health Hazard Assessment

(OEHHA, 2017). The percentage of homes exceeding the RELs ranged from 98% for the Chronic REL of 9 $\mu g/m^3$ to 28% for the Acute REL of 55 $\mu g/m^3$.

The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particle board. These materials are commonly used in residential building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.

In January 2009, the California Air Resources Board (CARB) adopted an airborne toxics control measure (ATCM) to reduce formaldehyde emissions from composite wood products, including hardwood plywood, particleboard, medium density fiberboard, and also furniture and other finished products made with these wood products (California Air Resources Board 2009). While this formaldehyde ATCM has resulted in reduced emissions from composite wood products sold in California, they do not preclude that homes built with composite wood products meeting the CARB ATCM will have indoor formaldehyde concentrations that are below cancer and non-cancer exposure guidelines.

A follow up study to the California New Home Study (CNHS) was conducted in 2016-2018 (Chan et. al., 2018), and found that the median indoor formaldehyde in new homes built after the 2009 CARB formaldehyde ATCM had lower indoor formaldehyde concentrations, with a median indoor concentrations of 25 $\mu g/m^3$ as compared to a median of 36 $\mu g/m^3$ found in the 2007 CNHS.

Thus, while new homes built after the 2009 CARB formaldehyde ATCM have a 30% lower median indoor formaldehyde concentration and cancer risk, the median lifetime cancer risk is still 125 per million for homes built with CARB compliant composite wood products which is more than 12 times the NSRL 10 in a million cancer risk.

Outdoor Air Ventilation Impact. Another important finding of the CNHS, was that the outdoor air ventilation rates in the homes were very low. Outdoor air ventilation is a very important factor influencing the indoor concentrations of air contaminants, as it is the

primary removal mechanism of all indoor air generated air contaminants. Lower outdoor air exchange rates cause indoor generated air contaminants to accumulate to higher indoor air concentrations. Many homeowners rarely open their windows or doors for ventilation as a result of their concerns for security/safety, noise, dust, and odor concerns (Price, 2007). In the CNHS field study, 32% of the homes did not use their windows during the 24-hour Test Day, and 15% of the homes did not use their windows during the entire preceding week. Most of the homes with no window usage were homes in the winter field session. Thus, a substantial percentage of homeowners never open their windows, especially in the winter season. The median 24-hour measurement was 0.26 ach, with a range of 0.09 ach to 5.3 ach. A total of 67% of the homes had outdoor air exchange rates below the minimum California Building Code (2001) requirement of 0.35 ach. Thus, the relatively tight envelope construction, combined with the fact that many people never open their windows for ventilation, results in homes with low outdoor air exchange rates and higher indoor air contaminant concentrations.

The mixed-use development proposed for Gateway Crossings in Santa Clara, CA is located close to roads with moderate to high traffic and rail traffic. As a result this development has been determined to be a sound impacted site according to the Gateway Crossings Project Noise and Vibration Assessment (Illingsworth & Rodkin, 2018), and exterior noise levels of 68 to 72 dBA CNEL may occur. This report state that the project shall retain a qualified acoustical specialist to prepare a detailed analysis of interior residential noise levels resulting from all exterior sources during the final design phase of the project pursuant to requirements set forth in the State Building Code.

As a result of the high outdoor traffic related noise levels, the current project anticipates the need for mechanical supply of outdoor air ventilation air to allow for a habitable interior environment with closed windows and doors within each residential unit. Such a ventilation system would allow windows and doors to be kept closed at the occupant's discretion to control exterior noise within residential interiors.

Mechanical outdoor air ventilation systems may be designed in three airflow configurations; exhaust only systems, balanced outdoor air supply and exhaust systems, and outdoor air

supply only systems. Exhaust only systems are the least expensive system, and in multi-family residential buildings, such as those at this project, typically consist of continuously operated bathroom exhaust fans and an acoustically treated opening in the exterior wall, sometimes referred to as a Z-Duct. The Z-Duct exterior opening typically has soundliner installed on the inside surfaces of the opening to reduce the transmission of exterior noise to the indoors. The continuously operating bathroom fans create a negative air pressure in the unit that causes outdoor air to enter the indoor space through the Z-Duct. However, this negative air pressure allows for air to infiltrate the units from adjacent units, the hallways, and the exterior walls. This infiltrating air can cause staining on carpeting and on walls around electrical outlets, as well as transporting air between adjacent units, which causes complaints from cooking and smoking odors. Since tobacco smoke is a known carcinogen, the transport of the tobacco smoke to adjacent units, poses a health risk to those exposed in the adjacent units. In addition, the negative pressure created in units by exhaust only systems can cause sewer gas to enter the indoor air should plumbing drain traps become dry.

Also, the Z-Duct openings for exhaust only systems preclude the inclusion of efficient outdoor air filtration without adversely impacting the flow of outdoor air into the unit. Both balanced outdoor air supply and exhaust systems, and outdoor air supply only systems, can have efficient outdoor air filtration without adversely impacting the flow of outdoor air into the unit.

$PM_{2.5}$ Outdoor Concentrations Impact. An additional impact of the nearby motor vehicle and railroad traffic and stationary sources associated with this project, are the increased outdoor concentrations of $PM_{2.5}$. The modeled maximum annual $PM_{2.5}$ concentration, with construction mitigation measured implemented for this project and two nearby projects, was determined to be 0.60 $\mu g/m^3$ (Illingsworth & Rodkin, 2017, Table 5). The maximum increased cancer risk for residential receptors was calculated to be 36.2 per million. As a result, the airborne cancer risk for the future residents of the project, including the cancer risk of 125 per million cited earlier for indoor formaldehyde exposures, may be 156 per million.

Table 5. Cumulative Construction Risk Assessment at MEI

Source	Maximum Cancer Risk (per million)	Maximum Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)	Maximum Hazard Index
Project Construction			
Unmitigated	122.6	1.4	0.12
Implementation of Mit. Measure 1 and Recmd. Measure 3	6.1	<0.3	<0.01
Mission Town Center Construction (Mitigated)	<2.7	<0.1	<0.01
BART Silicon Valley Phase II Construction (Mitigated)	<1.6	<0.1	<0.02
El Camino Real[1]	--	--	--
Coleman Avenue at 900 feet	2.1	0.1	<0.03
Railroad Traffic	<14.6	0.0	<0.01
Plant 19357, Atlantic – San Jose[1] 1250 Aviation Avenue	--	--	--
Plant 15839, Santa Clara Police Facility 601 El Camino Real	<9.1	0.0	<0.01
Plant G9614, Costco Wholesale #129 1601 Coleman Avenue[1]	--	--	--
Plant 10821, Hewlett-Packard Aviation 1210 Aviation Avenue[1]	--	--	--
Project Generator	<0.4	<0.01	<0.01
Cumulative Total			
Unmitigated	<153.1	1.7	<0.2
Mitigated	<36.2	<0.6	<0.09
BAAQMD Threshold – Cumulative Sources	***>100***	***>0.8***	***>10.0***
Exceeds Threshold After Mitigation?	***No***	***No***	***No***

Notes: [1]This source is located over 1,000 feet from the construction MEI.

Indoor Air Quality Impact Mitigation Measures

The following are recommended mitigation measures to minimize the impacts upon indoor quality:

- indoor formaldehyde concentrations
- outdoor air ventilation
- $PM_{2.5}$ outdoor air concentrations

Indoor Formaldehyde Concentrations Mitigation. Use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins or ultra-low emitting formaldehyde (ULEF) resins (CARB, 2009).

Outdoor Air Ventilation Mitigation. Provide each habitable room (i.e. bedrooms, living rooms, dining rooms, etc.) with a mechanical supply of outdoor air that meets or exceeds

the California 2016 Building Energy Efficiency Standards (California Energy Commission, 2015) requirements of the greater of 15 cfm/occupant or 0.15 cfm/ft^2 of floor area. Following installation of the system conduct testing and balancing to insure that required amount of outdoor air is entering each habitable room and provide a written report documenting the outdoor airflow rates. Do not use exhaust only mechanical outdoor air systems, use only balanced outdoor air supply and exhaust systems or outdoor air supply only systems. Provide a manual for the occupants that describes the purpose of the mechanical outdoor air system and the operation and maintenance requirements of the system.

$PM_{2.5}$ Outdoor Air Concentration Mitigation. Install air filtration with a minimum efficiency of MERV 13 to filter the outdoor air entering the mechanical outdoor air supply system. Install the air filters in the system such that that they are accessible for replacement by the occupants. Include in the mechanical outdoor air ventilation system manual instructions on how to replace the air filters and the estimated frequency of replacement.

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Francis (Bud) J. Offermann PE CIH

President: Indoor Environmental Engineering,
San Francisco, CA. December, 1981 - present.
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Education

- M.S. Mechanical Engineering Stanford University, Stanford, CA.
- Graduate Studies in Air Pollution Monitoring and Control University of California, Berkeley, CA.
- B.S. in Mechanical Engineering Rensselaer Polytechnic Institute, Troy, N.Y.

Professional Affiliations

ACGIH, AIHA, ASHRAE, CSI, ASTM, ISIAQ, PARMA, and USGBC

Work Experience

Mr. Offermann PE, CIH, has 36 years experience as an IAQ researcher, technical author, and workshop instructor. He is president of Indoor Environmental Engineering, a San Francisco based IAQ R&D consulting firm. As president of Indoor Environmental Engineering, Mr. Offermann directs an interdisciplinary team of environmental scientists, chemists, and mechanical engineers in indoor air quality building investigations. Under Mr. Offermann's supervision, IEE has developed both pro-active and reactive IAQ measurement methods and diagnostic protocols. He has supervised over 2,000 IAQ investigations in commercial, residential, and institutional buildings and conducted numerous forensic investigations related to IAQ.

Litigation Experience

Mr. Offermann has been qualified numerous times in court as an expert in the field of indoor air quality and ventilation for both plaintiffs and defendants. He has been deposed over 150 times in cases involving indoor air quality/ventilation issues in commercial, residential, and institutional buildings involving construction defects, and/or operation and maintenance problems. Examples of indoor air quality cases he has worked on are alleged personal injury and/or property damages from mold and bacterial contamination/moisture intrusion, building renovation activities, insufficient outdoor air ventilation, off gassing of volatile organic compounds from building materials and coatings, malfunctioning gas heaters and carbon monoxide poisoning, and applications of pesticides. Mr. Offermann has testified with respect to the scientific admissability of expert testimony regarding indoor air quality issues via Daubert and Kelly-Frye motions.

EXHIBIT B

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Debby Fernandez
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

22 October 2018

RE: Gateway Crossings FEIR

Dear Ms. Fernandez,

I write to comment on the Final Environmental Impact Report (FEIR and associated documents (City of Santa Clara 2018) prepared for the proposed Gateway Crossings Project, which I understand would add 1,600 dwelling units and a hotel in buildings up to 13 stories high (150 feet) covering 24 acres located at the southwest corner of Coleman Avenue and Brokaw Road in the City of Santa Clara.

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I also worked for four years as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research is on animal density and distribution, habitat selection, habitat restoration, interactions between wildlife and human infrastructure and activities, conservation of rare and endangered species, and on the ecology of invading species. I have authored papers on special-status species issues, including "Using the best scientific data for endangered species conservation" (Smallwood et al. 1999) and "Suggested standards for science applied to conservation issues" (Smallwood et al. 2001). I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and the Raptor Research Foundation, and I've been a part-time lecturer at California State University, Sacramento. I served as Associate Editor of Biological Conservation and of wildlife biology's premier scientific journal, The Journal of Wildlife Management, and I served on the Editorial Board of Environmental Management.

I have performed wildlife surveys in California for thirty-three years. I studied the impacts of human activities and human infrastructure on wildlife, including on golden eagle, Swainson's hawk, burrowing owl, San Joaquin kangaroo rat, mountain lion, California tiger salamander, California red-legged frog, and other species. I have performed research on wildlife mortality caused by wind turbines, electric distribution lines, agricultural practices, and road traffic, and I've performed wildlife surveys at many proposed project sites. I collaborate with colleagues worldwide on the underlying science and policy issues related to anthropogenic impacts on wildlife.

My CV is attached.

BIOLOGICAL IMPACTS ASSESSMENT

According to City of Santa Clara (2018:59), "*Given the urbanized nature of the project site and surrounding area, there are no ... special-status animal or plant species on or adjacent to the site.*" City of Santa Clara is incorrect about this. A quick review of eBird reveals 27 special-status species documented very close to the site of the proposed project (Table 1). Many of these species occurrences are on Mineta San Jose International Airport, but others occur in various open spaces near the site. A bald eagle was seen near the Gateway Crossings site only two weeks ago (eBird). Furthermore, the longest-running study of burrowing owls of which I am aware took place at the Airport (Barclay 2007, Barclay et al. 2011, Menzel 2014, 2018). Beginning in 1989 and continuing through 2011, this study invested heavily in efforts to encourage burrowing owl breeding success, which is critical because burring owls have declined to the point of near extirpation in the region. The study collected 14,088 burrowing owl records, which must be the most massive data base on burrowing owls collected anywhere. Forty breeding pairs of burrowing owls occupied the Airport in 2002, although the number has declined since then. Burrowing owl nest sites were located only 400 m from the site of the proposed Gateway Crossings Project. Additionally, Menzel (2014) listed bird species detected at the Airport during her burrowing owl research there, 7 of which are special-status species also reported in the area on eBird (Table 2).

The project could directly affect burrowing owls at the Airport by negatively altering their perception of the suitability of the Airport for nesting. Burrowing owls cannot tolerate tall structures near their breeding sites because tall structures bring raptors that hunt and kill burrowing owls. Predators such as peregrine falcons use buildings as perch-hides from which they launch effective strikes on burrowing owls. Those burrowing owls that do not leave a breeding site overshadowed by tall buildings are liable to be pounced upon and eaten by peregrine falcons. Also, the buildings will illuminate burrowing owls at night, exposing them to predation from larger owls and interfering with their foraging.

I found no evidence of any detection surveys having been performed for wildlife at the site of the proposed project. The conclusion that no special-status bird species occur at the site appears to have been based on speculation. No evidence supports the City of Santa Clara's conclusion, whereas ample evidence in eBird and research reports refutes it. City of Santa Clara needs to perform an appropriate assessment of potential impacts on special-status species of birds, one that is either founded on protocol-level surveys or on appropriate use of the precautionary principle in risk assessment (National Research Council 1986, O'Brien 2000). Using the precautionary principle, one would, in the face of uncertainty, assume presence of each special-status species potentially nesting in the trees or on the grounds of the site or of species stopping over during migration or using the site for staging.

Table 1. *Species reported on eBird (https://eBird.org) or other sources on or near the proposed project site.*

Species	Scientific name	Status[1]	Location
California tiger salamander	*Ambystoma californiense*	FT, CT	Along travel routes to site
California red-legged frog	*Rana draytonii*	FT, SSC	Along travel routes to site
Alameda whipsnake	*Masticophis lateralis euryxanthus*	FT, CT	Along travel routes to site
Western pond turtle	*Emys marmorata*	SSC	Along travel routes to site
Pallid bat	*Antrozous pallidus*	SSC	Within geographic range
Western red bat	*Lasiurus blossevillii*	SSC	Within geographic range
Salt marsh wandering shrew	*Sorex vagrans halicoetes*	SSC	Along travel routes to site
American badger	*Taxidea taxus*	SSC	Along travel routes to site
Salt marsh harvest mouse	*Reithrodontomys raviventris*	FE, CE, CFP	Along travel routes to site
California gull	*Larus californicus*	TWL	Nearby eBird postings
Bald eagle	*Haliaeetus leucocephalus*	BGEPA, BCC, CE	Nearby eBird postings
Golden eagle	*Aquila chrysaetos*	BGEPA, BCC, CFP	Nearby eBird postings
Red-tailed hawk	*Buteo jamaicensis*	CDFW 3503.5	Nearby eBird postings
Ferruginous hawk	*Buteo regalis*	CDFW 3503.5, TWL	Nearby eBird postings
Red-shouldered hawk	*Buteo lineatus*	CDFW 3503.5	Nearby eBird postings
Sharp-shinned hawk	*Accipiter striatus*	CDFW 3503.5, TWL	Nearby eBird postings
Cooper's hawk	*Accipiter cooperi*	CDFW 3503.5, TWL	Nearby eBird postings
Northern harrier	*Circus cyaneus*	SSC3	Nearby eBird postings
White-tailed kite	*Elanus leucurus*	CFP, TWL	Nearby eBird postings
American kestrel	*Falco sparverius*	CDFW 3503.5	Nearby eBird postings
Merlin	*Falco columbarius*	CDFW 3503.5, TWL	Nearby eBird postings
Prairie falcon	*Falco mexicanus*	CDFW 3503.5, TWL	Nearby eBird postings
Peregrine falcon	*Falco peregrinus*	CE, CFP	Nearby eBird postings
Burrowing owl	*Athene cunicularia*	BCC, SSC2	Nearby eBird postings
Short-eared owl	*Asio flammeus*	SSC3	Nearby eBird postings
Barn owl	*Tyto alba*	CDFW 3503.5	Nearby eBird postings
Western screech-owl	*Megascops kennicottii*	CDFW 3503.5	Nearby eBird postings
Vaux's swift	*Chaetura vauxi*	SSC2	Nearby eBird postings
Allen's hummingbird	*Selasphorus sasin*	BCC	Nearby eBird postings
Olive-sided flycatcher	*Contopus cooperi*	SSC2	Nearby eBird postings
Oak titmouse	*Baeolophus inornatus*	BCC	Nearby eBird postings

Loggerhead shrike	*Lanius ludovicianus*	BCC, SSC2	Nearby eBird postings
Yellow-billed magpie	*Pica nuttalli*	BCC	Nearby eBird postings
Yellow warbler	*Setophaga petechia*	SSC2	Nearby eBird postings
Common yellowthroat	*Geothlypis trichas sinuosa*	SSC3	Nearby eBird postings
Tricolored blackbird	*Agelaius tricolor*	SSC1	Nearby eBird postings

[1] Listed as FCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, BCC = federal Bird Species of Conservation Concern, CE = California endangered, CT = California threatened, CFP = California Fully Protected (CDFG Code 4700), CDFW 3503.5 = California Department of Fish and Wildlife Code 3503.5 (Birds of prey), and SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), and TWL = Taxa to Watch List (Shuford and Gardali 2008).

Table 2. *Bird species seen by Sandra Menzel (2014) at Mineta San Jose International Airport, 2009-10.*

Species	**Scientific name**	**Status[1]**
American crow	*Corvus brachyrhynchos*	
American kestrel	*Falco sparverius*	CDFW 3503.5
American pipit	*Anthus rubesens*	
Anna's hummingbird	*Calypte anna*	
Barn swallow	*Hirundo rustica*	
Black phoebe	*Sayornis nigricans*	
Brewer's blackbird	*Euphagus cyanocephalus*	
Burrowing owl	*Athene cunicularia*	BCC, SSC2
California gull	*Larus californicus*	TWL
Canada goose	*Branta canadensis*	
Common raven	*Corvus corax*	
European starling	*Sturnus vulgaris*	
Golden eagle	*Aquila chrysaetos*	BGEPA, BCC, CFP
Great blue heron	*Ardea herodias*	
House finch	*Carpodacus mexicanus*	
Killdeer	*Charadrius vociferus*	
Loggerhead shrike	*Lanius ludovicianus*	BCC, SSC2
Mallard	*Anas platyrhynchos*	
Mourning dove	*Zenaida macroura*	
Northern mockingbird	*Mimus polyglottos*	
Red-tailed hawk	*Buteo jamaicensis*	CDFW 3503.5
Rock pigeon	*Columba livia*	
Say's phoebe	*Sayornis saya*	
Tree swallow	*Tachycineta bicolor*	
Turkey vulture	*Cathartes aura*	CDFW 3503.5
Violet-green swallow	*Tachycineta thalassina*	
Western meadowlark	*Sturnella neglecta*	
Yellow-rumped warbler	*Dendroica coronata*	

WINDOW COLLISIONS

City of Santa Clara deserves credit for addressing collisions of birds with windows on tall buildings, because few impact assessments of similar projects do so. Window collisions is one of the key sources of wildlife impact posed by the proposed project. Unfortunately, the City of Santa Clara (2018a) defers formulation of mitigation plans specific to window collisions to some unspecified later date, and insufficiently addresses the impact. City of Santa Clara (12018a:60) writes, "*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.*" A few design standards are bulleted, including:

- 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.

All these measures would likely reduce collision fatalities, but I am left skeptical that they could be implemented to degrees that would be effective. For example, conceptual rendering in City of Santa Clara (2018:32) indicate considerable window transparency, even though City of Santa Clara (2018:33) explains that enhanced glazing will be used. Which version is consistent with the intended outcome? And without thresholds in the bulleted standards above, I am left wondering about the effectiveness of those measures. What does it mean to reduce large areas of transparent glass when the conceptual rendering depicts large areas of transparent glass? For each measure, what level of reduction is acceptable? And how will these measures be enforced?

Window collisions are often characterized as either the second or third largest source or anthropogenic-caused bird mortality. The numbers behind these characterizations are often attributed to Klem's (1990) and Dunn's (1993) estimates of about 100 million to 1 billion bird fatalities in the USA, or more recently Loss et al.'s (2014) estimate of 365-988 million bird fatalities in the USA or Calvert et al.'s (2013) and Machtans et al.'s (2013) estimates of 22.4 million and 25 million bird fatalities in Canada, respectively. However, these estimates and their interpretation warrant examination because they were based on opportunistic sampling, volunteer study participation, and fatality monitoring by more inexperienced than experienced searchers.

Klem's (1990) estimate was based on speculation that 1 to 10 birds are killed per building per year, and this speculated range was extended to the number of buildings estimated by the US Census Bureau in 1986. Klem's speculation was supported by fatality monitoring at only two houses, one in Illinois and the other in New York. Also, the basis of his fatality rate extension has changed greatly since 1986. Whereas his estimate served the need to alert the public of the possible magnitude of the bird-window collision issue, it was highly uncertain at the time and undoubtedly outdated more than three decades hence. Indeed, by 2010 Klem (2010) characterized the upper end of his estimated range – 1 billion bird fatalities – as conservative. Furthermore, the estimate lumped species together as if all birds are the same and the loss of all birds to windows has the same level of impact.

Homes with birdfeeders are associated with higher rates of window collisions than are homes without birdfeeders (Kummer and Bayne 2015, Kummer et al. 2016a), so the developed area might pose even greater hazard to birds if it includes numerous birdfeeders. Another factor potentially biasing national or North American estimates low was revealed by Bracey et al.'s (2016) finding that trained fatality searchers found 2.6× the number of fatalities found by homeowners on the days when both trained searchers and homeowners searched around homes. The difference in carcass detection was 30.4-fold when involving carcasses volitionally placed by Bracey et al. (2016) in blind detection trials. This much larger difference in trial carcass detection rates likely resulted because their placements did not include the sounds that typically alert homeowners to actual window collisions, but this explanation also raises the question of how often homeowner participants with such studies miss detecting window-caused fatalities because they did not hear the collisions.

By the time Loss et al. (2014) performed their effort to estimate annual USA bird-window fatalities, many more fatality monitoring studies had been reported or were underway. Loss et al. (2014) were able to incorporate many more fatality rates based on scientific monitoring, and they were more careful about which fatality rates to include. However, they included estimates based on fatality monitoring by homeowners, which in one study were found to detect only 38% of the available window fatalities (Bracey et al. 2016). Loss et al. (2014) excluded all fatality records lacking a dead bird in hand, such as injured birds or feather or blood spots on windows. Loss et al.'s (2014) fatality metric was the number of fatalities per building (where in this context a building can include a house, low-rise, or high-rise structure), but they assumed that this metric was based on window collisions. Because most of the bird-window collision studies were limited to migration seasons, Loss et al. (2014) developed an admittedly assumption-laden correction factor for making annual estimates. Also, only two of the studies included adjustments for carcass persistence and searcher detection error, and it was unclear how and to what degree fatality rates were adjusted for these factors. Although Loss et al. (2014) attempted to account for some biases as well as for large sources of uncertainty mostly resulting from an opportunistic rather than systematic sampling data source, their estimated annual fatality rate across the USA was highly uncertain and vulnerable to multiple biases, most of which would have resulted in fatality estimates biased low.

In my review of bird-window collision monitoring, I found that the search radius around homes and buildings was very narrow, usually 2 meters. Based on my experience with bird collisions in other contexts, I would expect that a large portion of bird-window collision victims would end up farther than 2 m from the windows, especially when the windows are higher up on tall buildings. In my experience, searcher detection rates tend to be low for small birds deposited on ground with vegetation cover or woodchips or other types of organic matter. Also, vertebrate scavengers entrain on anthropogenic sources of mortality and quickly remove many of the carcasses, thereby preventing the fatality searcher from detecting these fatalities. Adjusting fatality rates for these factors – search radius bias, searcher detection error, and carcass persistence rates – would greatly increase nationwide estimates of bird-window collision fatalities.

High-rise buildings intercept many nocturnal migrants as well as birds flying in daylight. Johnson and Hudson (1976) found 266 bird fatalities of 41 species within 73 months of monitoring of a four-story glass walkway at Washington State University (no adjustments attempted). Somerlot (2003) found 21 bird fatalities among 13 buildings on a university campus within only 61 days. Monitoring twice per week, Hager at al. (2008) found 215 bird fatalities of 48 species, or 55 birds/building/year, and at another site they found 142 bird fatalities of 37 species for 24 birds/building/year. Gelb and Delacretaz (2009) recorded 5,400 bird fatalities under buildings in New York City, based on a decade of monitoring only during migration periods, and some of the high-rises were associated with hundreds of fatalities each. Klem et al. (2009) monitored 73 building facades in New York City during 114 days of two migratory periods, tallying 549 collision victims, nearly 5 birds per day. Borden et al. (2010) surveyed a 1.8 km route 3 times per week during 12-month period and found 271 bird fatalities of 50 species. Parkins et al. (2015) found 35 bird fatalities of 16 species within only 45 days of monitoring under 4 building facades. From 24 days of survey over 48 day span, Porter and Huang (2015) found 47 fatalities under 8 buildings on a university campus. Sabo et al. (2016) found 27 bird fatalities 61 days of searches under 31 windows. In San Francisco, Kahle et al. (2016) found 355 collision victims within 1,762 days under a 5-story building. Ocampo-Peñuela et al. (2016) searched the perimeters of 6 buildings on a university campus, finding 86 fatalities after 63 days of surveys. One of these buildings produced 61 of the 86 fatalities, and another building with collision-deterrent glass caused only 2 of the fatalities. There is ample evidence available to support my prediction that the proposed 150-foot tall building, along with the other buildings, will result in many collision fatalities of birds.

COLLISION FACTORS

Below is a list of collision factors I found in the scientific literature, and some of which overlap City of Santa Clara's bulleted list. Following this list are specific notes and findings taken from the literature and my own experience.

(1) Inherent hazard of a structure in the airspace used for nocturnal migration or other flights

(2) Window transparency, falsely revealing passage through structure or to indoor plants
(3) Window reflectance, falsely depicting vegetation, competitors, or open airspace
(4) Black hole or passage effect
(5) Window or façade extent, or proportion of façade consisting of window or other reflective surface
(6) Size of window
(7) Type of glass
(8) Lighting, which is correlated with window extent and building operations
(9) Height of structure (collision mechanisms shift with height above ground)
(10) Orientation of façade with respect to winds and solar exposure
(11) Structural layout causing confusion and entrapment
(12) Context in terms of urban-rural gradient, or surrounding extent of impervious surface vs vegetation
(13) Height, structure, and extent of vegetation grown near home or building
(14) Presence of birdfeeders or other attractants
(15) Relative abundance
(16) Season of the year
(17) Ecology, demography and behavior
(18) Predatory attacks or cues provoking fear of attack
(19) Aggressive social interactions

(1) Inherent hazard of structure in airspace.—Not all of a structure's collision risk can be attributed to windows. Overing (1938) reported 576 birds collided with the Washington Monument in 90 minutes on one night, 12 September 1937. The average annual fatality count had been 328 birds from 1932 through 1936. Gelb and Delacretaz (2009) and Klem et al. (2009) also reported finding collision victims at buildings lacking windows, although many fewer than they found at buildings fitted with widows.

(2) Window transparency.—Widely believed as one of the two principal factors contributing to avian collisions with buildings is the transparency of glass used in windows on the buildings (Klem 1989). Gelb and Delacretaz (2009) felt that many of the collisions they detected occurred where transparent windows revealed interior vegetation.

(3) Window reflectance.—Widely believed as one of the two principal factors contributing to avian collisions with buildings is the reflectance of glass used in windows on the buildings (Klem 1989). Reflectance can deceptively depict open airspace, vegetation as habitat destination, or competitive rivals as self-images (Klem 1989). Gelb and Delacretaz (2009) felt that many of the collisions they detected occurred toward the lower parts of buildings where large glass exteriors reflected outdoor vegetation. Klem et al. (2009) and Borden et al. (2010) also found that reflected outdoor vegetation associated positively with collisions.

(4) Black hole or passage effect.—Although this factor was not often mentioned in the bird-window collision literature, it was suggested in Sheppard and Phillips (2015). The

black hole or passage effect is the deceptive appearance of a cavity or darkened ledge that certain species of bird typically approach with speed when seeking roosting sites. The deception is achieved when shadows from awnings or the interior light conditions give the appearance of cavities or protected ledges. This factor appears potentially to be nuanced variations on transparency or reflectance or possibly an interaction effect of both of these factors.

(5) Window or façade extent.—Klem et al. (2009), Borden et al. (2010), Hager et al. (2013), and Ocampo-Peñuela et al. (2016) reported increased collision fatalities at buildings with larger reflective facades or higher proportions of facades composed of windows. However, Porter and Huang (2015) found a negative relationship between fatalities found and proportion of façade that was glazed.

(6) Size of window.—According to Kahle et al. (2016), collision rates were higher on large-pane windows compared to small-pane windows.

(7) Type of glass.—Klem et al. (2009) found that collision fatalities associated with the type of glass used on buildings. Otherwise, little attention has been directed towards the types of glass in buildings.

(8) Lighting.—Parkins et al. (2015) found that light emission from buildings correlated positively with percent glass on the façade, suggesting that lighting is linked to the extent of windows. Zink and Eckles (2010) reported fatality reductions, including an 80% reduction at a Chicago high-rise, upon the initiation of the Lights-out Program. However, Zink and Eckles (2010) provided no information on their search effort, such as the number of searches or search interval or search area around each building.

(9) Height of structure.—I found little if any hypothesis-testing related to high-rise buildings, including whether another suite of factors might relate to collision victims of high-rises. Are migrants more commonly the victims of high-rises? I would expect that some of the factors noted in other contexts will not be important with the upper portions of high-rises, such as birds attacking reflected self-images, or the extent of vegetation cover nearby, or the presence or absence of birdfeeders nearby.

(10) Orientation of façade.—Some studies tested façade orientation, but not convincingly. Confounding factors such as the extent and types of windows would require large sample sizes of collision victims to parse out the variation so that some portion of it could be attributed to orientation of façade.

(11) Structural layout.—Bird-safe building guidelines have illustrated examples of structural layouts associated with high rates of bird-window collisions, but little attention has been towards hazardous structural layouts in the scientific literature. An exception was Johnson and Hudson (1976), who found high collision rates at 3 stories of glassed-in walkways atop an open breezeway, located on a break in slope with trees on one side and open sky on the other, Washington State University.

(12) Context in urban-rural gradient.—Numbers of fatalities found in monitoring have associated negatively with increasing developed area surrounding the building (Hager et al. 2013), and positively with more rural settings (Kummer et al. 2016a). However, these relationships might not hold when it comes to high-rises.

(13) Height, structure and extent of vegetation near building.—Correlations have sometimes been found between collision rates and the presence or extent of vegetation near windows (Hager et al. 2008, Borden et al. 2010, Kummer et al. 2016a, Ocampo-Peñuela et al. 2016). However, Porter and Huang (2015) found a negative relationship between fatalities found and vegetation cover near the building.

(14) Presence of birdfeeders.—Dunn (1993) reported a weak correlation ($r = 0.13$, $P < 0.001$) between number of birds killed by home windows and the number of birds counted at feeders. However, Kummer and Bayne (2015) found that experimental installment of birdfeeders at homes increased bird collisions with windows 1.84-fold.

(15) Relative abundance.—Collision rates have often been assumed to increase with local density or relative abundance (Klem 1989), and positive correlations have been measured (Dunn 1993, Hager et al. 2008). However, Hager and Craig (2014) found a negative correlation between fatality rates and relative abundance near buildings.

(16) Season of the year.—Borden et al. (2010) found 90% of collision fatalities during spring and fall migration periods. The significance of this finding is magnified by 7-day carcass persistence rates of 0.45 and 0.35 in spring and fall, rates which were considerably lower than during winter and summer (Hager et al. 2012). In other words, the concentration of fatalities during migration seasons would increase after applying seasonally-explicit adjustments for carcass persistence.

(17) Ecology, demography and behavior.—Klem (1989) noted that certain types of birds were not found as common window-caused fatalities, including soaring hawks and waterbirds. Cusa et al. (2015) found that species colliding with buildings surrounded by higher levels of urban greenery were foliage gleaners, and species colliding with buildings surrounded by higher levels of urbanization were ground foragers. Sabo et al. (2016) found no difference in age class, but did find that migrants are more susceptible to collision than resident birds.

(18) Predatory attacks.—Panic flights caused by raptors were mentioned in 16% of window strike reports in Dunn's (1993) study. I have witnessed Cooper's hawks chasing birds into windows, including house finches next door to my home and a northern mocking bird chased directly into my office window.

(19) Aggressive social interactions.—I found no hypothesis-testing of the roles of aggressive social interactions in the literature other than the occasional anecdotal account of birds attacking their self-images reflected from windows. However, I have witnessed birds chasing each other and sometimes these chases resulting in one of the birds hitting a window.

SOLUTIONS

Given the magnitude of bird-window collision impacts, there are obviously great opportunities for reducing and minimizing these impacts going forward. Existing structures can be modified or retrofitted to reduce impacts, and proposed new structures can be more carefully sited and designed to minimize impacts. However, the costs of some of these measures can be high and can vary greatly, but most importantly the efficacies of many of these measures remain uncertain. Both the costs and effectiveness of all of these measures can be better understood through experimentation and careful scientific investigation. Post-construction fatality monitoring should be an essential feature of any new building project. Below is a listing of mitigation options, along with some notes and findings from the literature.

(1) Retrofitting to reduce impacts

(1A) Marking windows
(1B) Managing outdoor landscape vegetation
(1C) Managing indoor landscape vegetation
(1D) Managing nocturnal lighting

(1A) Marking windows.—Whereas Klem (1990) found no deterrent effect from decals on windows, Johnson and Hudson (1976) reported a fatality reduction of about 67% after placing decals on windows. Many external and internal glass markers have been tested experimentally, some showing no effect and some showing strong deterrent effects (Klem 1989, 1990, 2009, 2011; Klem and Saenger 2013; Rössler et al. 2015). In an experiment of opportunity, Ocampo-Peñuela et al. (2016) found only 2 of 86 fatalities at one of 6 buildings – the only building with windows treated with a bird deterrent film.

(2) Siting and Designing to minimize impacts

(2A) Deciding on location of structure
(2B) Deciding on façade and orientation
(2C) Selecting type and sizes of windows
(2D) Designing to minimize transparency through two parallel facades
(2E) Designing to minimize views of interior plants
(2F) Landscaping to increase distances between windows and trees and shrubs

GUIDELINES ON BUILDING DESIGN

If the project goes forward, it should at a minimum adhere to available guidelines on building design intended to minimize collision hazards to birds. The American Bird Conservancy (ABC) produced an excellent set of guidelines recommending actions to: (1) Minimize use of glass; (2) Placing glass behind some type of screening (grilles, shutters, exterior shades); (3) Using glass with inherent properties to reduce collisions, such as patterns, window films, decals or tape; and (4) Turning off lights during migration seasons (Sheppard and Phillips 2015). The City of San Francisco (San Francisco Planning Department 2011) also has a set of building design guidelines, based on the excellent guidelines produced by the New York City Audubon Society (Orff et al.

2007). The ABC document and both the New York and San Francisco documents provide excellent alerting of potential bird-collision hazards as well as many visual examples. The San Francisco Planning Department's (2011) building design guidelines are more comprehensive than those of New York City, but they could have gone further. For example, the San Francisco guidelines probably should have also covered scientific monitoring of impacts as well as compensatory mitigation for impacts that could not be avoided, minimized or reduced.

Although the San Francisco Planning Department deserves to be commended for its building design guidelines, some of its guidelines are in need of further review and consideration. Scientific research and understanding of the bird-window collision impacts remain low on the learning-curve, so we should expect rapid advances in understanding and solutions as scientific investigations are better funded and monitoring efforts expand and experimentation is implemented. At the time of the 2011 guidelines, only one building had been scientifically monitored for bird-window collisions (Kahle et al. 2016), so very few local scientific data on the impacts were available in the San Francisco Bay Area. As a result, too many of the guidelines are based on anecdotes and speculation. For example, the bird collision zone of 0-60 feet above ground (San Francisco Planning Department 2011:28) appears to have been based on speculation. No doubt low-rise buildings can kill many birds annually, but the evidence of this does not preclude high-rises from also killing many birds annually. When it comes to high-rises, it has often been difficult to determine how high a bird was flying when it collided with the building. Collision victims are found at the base of the building and could have fallen from 1 to 6 stories up, or perhaps from 7 to 40 stories up. It needs to be recognized that although the guidelines are commendable as a starting point, much remains to be learned about bird-window collisions, and flexibility for considering other measures or revised measures is warranted.

The EIR should be revised to address available building design standards developed for reducing or minimizing collisions.

WILDLIFE MOVEMENT

City of Santa Clara's conclusion that the project would not interfere with wildlife movement in the region is based on a false CEQA standard. According to City of Santa Clara (2018a:59), "*The project site is not used as a wildlife corridor.*" The CEQA standard is whether a project will "*Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors...*" The primary phrase of the standard goes to wildlife movement regardless of whether the movement is channeled by a corridor. In fact, whereas natural corridors sometimes exist, the corridor concept mostly applies to human landscape engineering to reduce the effects of habitat fragmentation (Smallwood 2015). Wildlife movement in the region is often diffuse rather than channeled (Runge et al. 2014, Taylor et al. 2011), and includes stop-over habitat used by birds and bats (Taylor et al. 2011), staging habitat (Warnock 2010), and crossover habitat used by nonvolant wildlife during dispersal, migration or home range patrol. The false standard

used by City of Santa Clara was whether the project site serves as a corridor. No source is provided for this standard. Other forms of wildlife movement in a region are not addressed at all. The EIR should be revised to adequately address the project's potential impacts on wildlife movement.

TRAFFIC IMPACTS ON WILDLIFE

City of Santa Clara (2018a,b) provides no analysis of wildlife impacts caused by the project's generation of 12,044 daily car and truck trips. It is inconceivable, however, that generating this level of additional automobile traffic on regional roads would not crush and kill a substantial number of terrestrial wildlife, including members of special-status species. Special-status species vulnerable to car and truck impacts in the region are exemplified by Alameda whipsnake (*Masticophis lateralis euryxanthus*), California red-legged frog (*Rana draytonii*), California tiger salamander (*Ambystoma californiense*), and American badger (*Taxidea taxus*), which, although unlikely living on the project site, must cross roadways that will experience increased traffic volume caused by the project (Table 1). The project's impacts on wildlife will reach as far from the project as vehicles travel to or from the project site, and some of this travel will be through areas where these species live, such as in the coast range mountains east and south of the project site.

Vehicle collisions have accounted for the deaths of many thousands of reptile, amphibian, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level (Forman et al. 2003). Increased use of existing roads will increase wildlife fatalities (see Figure 7 in Kobylarz 2001). It is possible that project-related traffic impacts will far exceed the impacts of land conversion to commercial use. But not one word of traffic-related impacts appears in City of Santa Clara (2018a, b).

Many thousands of roadkill wildlife incidents have been reported to the UC Davis Road Ecology Center (Shilling et al. 2017). In 2017, one of the major hotspots of road-killed wildlife overlaps the project site (Shilling et al. 2017). In fact, the wildlife roadkill hotspot in the project area was found to be possibly highly significant (see Figure 5 of Shilling et al. 2017 or Figure 4 of Shilling et al. 2018). The costs to drivers is also high (Shilling et al. 22017). The EIR needs to be revised to assess wildlife mortality that will be caused by increased traffic on existing roadways, and it should provide mitigation measures.

CUMULATIVE IMPACTS

City of Santa Clara's (2018a:61) scope of its cumulative effects analysis was too vague. The "surrounding area" is insufficient description. Is the surrounding area the neighboring street blocks? A 1-mile distance radius? City of Santa Clara?

City of Santa Clara (2018a:61) then dismissed cumulative impacts by arguing the project is located in an urban area devoid of sensitive habitat. Here again City of Santa Clara

invents a CEQA standard that does not exist. Where in CEQA is there a standard that sensitive habitat is a prerequisite condition for a project causing cumulative impacts on wildlife? City of Santa Clara's standard makes little sense in the context of the definition of habitat, which is that part of the environment used by a particular species (Hall et al. 1997, Morrison et al. 1998). If a species needs to use a highly disturbed, isolated parcel of land, then that land is habitat.

Special-status species of wildlife are finding habitat in the area of the proposed project, as evidenced by a decades-long study of burrowing owls at the Airport, and by eBird postings of 27 special-status species all around the project site. A more appropriate conclusion would have been that the project will contribute cumulative effects by (1) removing one of the last remaining patches of open space available to wildlife in the area, and (2) installing additional collision barriers to birds attempting to move through the area's airspace.

City of Santa Clara implies that cumulative impacts are really residual impacts left over from inadequate mitigation at projects, and then claims that other projects in the area mitigated their impacts to comply with state and federal regulations, leaving no cumulative effects to worry about. The notion of residual impact being the source of cumulative effects is inconsistent with CEQA's definition of cumulative effects. Individually mitigated projects do not negate the significance of cumulative impacts. If they did, then CEQA would not require a cumulative effects analysis. The City's follow-up notion that because other projects in the area mitigated their individual impacts thereby leaving no cumulative effects to worry about, is absurd. Other projects in the area have cumulatively left very little open space for wildlife to use within San Jose and Santa Clara. The sprawl of these Cities epitomizes the concept of cumulative effects, whereby projects in these cities have cumulatively left the remaining trees and patches of open space as desperate last refuges for some special-status species (most such species have long since been extirpated). The largest remaining population of burrowing owls in the region clings to life at the Airport, only 400 m from the project site, because so many other projects in the region have driven burrowing owls away and reduced their numerical capacity. Cumulative effects from the type of sprawl across these cities is akin to a game of musical chairs in which cumulative impacts escalate with each new project eliminating yet another chair – burrowing owls are down to their last chair in the region. What will the project's tall buildings do to burrowing owls' perception of the Airport as suitable habitat? If peregrine falcons hunt from the project's buildings, using them as perches and blinds, then burrowing owls at the Airport are liable to be wiped out. City of Santa Clara needs to perform a serious cumulative effects analysis.

MITIGATION

Preconstruction surveys for nesting birds

This measure is the only mitigation proposed for the project. However, it fails to mitigate impacts to highly philopatric species of birds beyond allowing breeding to succeed during the year of construction. Most species of bird return to the same nest sites inter-annually (Newton 1979, Kochert and Steenhof 2012), so most birds breeding on the project site will permanently lose the only breeding site they ever knew. Other breeding sites are already occupied by other birds, so at minimum the project would reduce breeding capacity by the acreage of the habitat destroyed, and most likely it would reduce breeding capacity further due to the effects of habitat fragmentation (Smallwood 2015). The EIR should be revised to more seriously consider mitigation measures for the project's likely impacts on breeding birds, and it should consider compensatory mitigation.

RECOMMENDED MEASURES

I suggest that the EIR be revised for this proposed project, and that it considers the following measures.

Window Collisions

The bird-collision impacts potentially caused by the project could be mitigated to less than significant levels by implementing three measures:

1. Adhere to available building design guidelines and to any other avoidance and minimization measures cited above;

2. Fund long-term scientific monitoring of the impact so that lessons learned can be applied to future projects or perhaps to effective retrofit solutions; and,

3. Offset impacts that could not be avoided, minimized or reduced by compensating for the impacts. Compensation can include habitat protections elsewhere or donations to wildlife rehabilitation facilities that will likely receive and care for injured birds.

Detection Surveys

The City of Santa Clara should implement the available protocols and guidelines on detection surveys for special-status species of wildlife that use the site for both nesting and migration stop-over. Detection surveys are needed to inform preconstruction take-avoidance surveys and to inform the formulation of appropriate mitigation measures.

Compensation for Lost Nesting and Stop-over Habitat

Preconstruction surveys and construction timing would fail to mitigate impacts to highly philopatric species of birds beyond allowing breeding to succeed during the year of construction. Most species of bird return to the same nest sites inter-annually (Newton 1979, Kochert and Steenhof 2012), so most birds breeding on the project site will permanently lose the only breeding site they ever knew. Other breeding sites are already occupied by other birds, so at minimum the project would reduce breeding capacity by the acreage of the habitat destroyed, and most likely it would reduce breeding capacity further due to the effects of habitat fragmentation (Smallwood 2015). A similar loss of habitat capacity would adversely affect all birds using the site as stop-over habitat during migration and home-range tenure. The EIR should be revised to more seriously consider mitigation measures for the project's likely impacts on breeding birds and birds stopping over, and it should consider compensatory mitigation.

Fund Wildlife Rehabilitation Facilities

Wildlife will be killed and injured by collisions with project-generated traffic and the buildings windows associated. The impacts to injured wildlife can be rectified by helping to pay the costs of wildlife rehabilitation facilities, which operate on volunteer support and inadequate budgets. Leyvas and Smallwood (2015) surveyed 38 rehabilitation facilities to assess the cost of rehabilitating raptors injured by wind turbines, and recommend $3,230/injured raptor would serve as a reasonable interim mitigation cost. However, wildlife injured by stray cats or vehicles traveling to and from the project will include animals other than raptors. Most of these non-raptor animals likely cost less to rehabilitate or to care for until those who cannot be released or placed in the care of others need to be euthanized humanely. In the absence of any additional cost summaries from rehabilitation facilities, I hazard to guess that $500 per injured animal would be reasonable.

The next challenge is estimating how many animals will require treatment during the life of the project. Live, injured animals will contribute directly to the costs incurred by rehabilitation facilities receiving the animals, but animals killed outright by cats and vehicles should also be mitigated through one or more compensatory measures. Compensating for animals that are killed can come in the form of rehabilitating animals that were injured by other projects or anthropogenic activities. As a starting point, I suggest assessing $100 per project-caused fatality. Still, there has yet to be a basis for multiplying these dollar amounts by the numbers of killed and injured wildlife caused by the project. And it should be remembered that most of the animals killed will never be documented.

There are two ways that project impacts can be assessed for deciding upon a rehabilitation fee. One way is to predict project-level impacts, but this prediction would be highly uncertain. One could use fatality and injury rates from available studies. A projected injury rate could be multiplied by $3,230 per raptor and $500 per non-raptor, and a projected fatality rate could be multiplied by $100 per fatality. So, perhaps for

every animal found injured at the project site and delivered to a rehabilitation facility, the cost for the injury is paid ($3230 per raptor and $500 per non-raptor) plus $2,500 is paid for all the projected dead animals per injured animal.

The second way to assess the impact is to fund scientific monitoring. This second way would necessitate a delay in establishing the cost-basis of the mitigation fee, but learning about the impacts would make the delay worthwhile. As scientific monitoring proceeds, a mitigation fee can be paid based on the injuries and fatalities that are found. Upon completion of the monitoring, an annual fee would be paid based on the average annual findings from the monitoring effort. I suggest splitting a fund among multiple wildlife rehabilitation facilities in the region.

Thank you for your attention,

Shawn Smallwood, Ph.D.

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Kenneth Shawn Smallwood
Curriculum Vitae

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Born May 3, 1963 in
Sacramento, California.
Married, father of two.

Ecologist

Expertise

- Finding solutions to controversial problems related to wildlife interactions with human industry, infrastructure, and activities;
- Using systems analysis and experimental design principles to identify meaningful ecological patterns that can inform management decisions.

Education

Ph.D. Ecology, University of California, Davis. September 1990.
M.S. Ecology, University of California, Davis. June 1987.
B.S. Anthropology, University of California, Davis. June 1985.
Corcoran High School, Corcoran, California. June 1981.

Experience

- 443 professional publications, including:
- 80 peer reviewed publications
- 24 in non-reviewed proceedings
- 337 reports, declarations, posters and book reviews
- 8 in mass media outlets
- 84 public presentations of research results at meetings
- Reviewed many professional papers and reports
- Testified in 4 court cases.

Editing for scientific journals: Guest Editor, *Wildlife Society Bulletin*, 2012-2013, of invited papers representing international views on the impacts of wind energy on wildlife and how to mitigate the impacts. Associate Editor, *Journal of Wildlife Management*, March 2004 to 30 June 2007. Editorial Board Member, *Environmental Management*, 10/1999 to 8/2004. Associate Editor, *Biological Conservation*, 9/1994 to 9/1995.

Member, Alameda County Scientific Review Committee (SRC), August 2006 to April 2011. The five-member committee investigated the causes of bird and bat collisions in the Altamont Pass Wind Resource Area, and recommended mitigation and monitoring measures. The SRC

reviewed the science underlying the Alameda County Avian Protection Program, and advised the County on how to reduce wildlife fatalities.

Consulting Ecologist, 2004-2007, California Energy Commission (CEC). Provided consulting services as needed to the CEC on renewable energy impacts, monitoring and research, and produced several reports. Also collaborated with Lawrence-Livermore National Lab on research to understand and reduce wind turbine impacts on wildlife.

Consulting Ecologist, 1999-2013, U.S. Navy. Performed endangered species surveys, hazardous waste site monitoring, and habitat restoration for the endangered San Joaquin kangaroo rat, California tiger salamander, California red-legged frog, California clapper rail, western burrowing owl, salt marsh harvest mouse, and other species at Naval Air Station Lemoore; Naval Weapons Station, Seal Beach, Detachment Concord; Naval Security Group Activity, Skaggs Island; National Radio Transmitter Facility, Dixon; and, Naval Outlying Landing Field Imperial Beach.

Part-time Lecturer, 1998-2005, California State University, Sacramento. Taught Contemporary Environmental Issues, Natural Resources Conservation (twice), Mammalogy, Behavioral Ecology, and Ornithology Lab.

Senior Ecologist, 1999-2005, BioResource Consultants. Designed and implemented research and monitoring studies related to avian fatalities at wind turbines, avian electrocutions on electric distribution poles across California, and avian fatalities at transmission lines.

Systems Ecologist, 1996 to present, Consulting in the Public Interest, www.cipi.com. Member of a multi-disciplinary consortium of scientists facilitating large-scale, environmental planning projects and litigation. We provide risk assessments, assessments of management practices, and expert witness testimony.

Chairman, Conservation Affairs Committee, The Wildlife Society--Western Section, 1999-2001. Prepared position statements and led efforts directed toward conservation issues, including travel to Washington, D.C. to lobby Congress for more wildlife conservation funding.

Systems Ecologist, 1995-2000, Institute for Sustainable Development. Headed ISD's program on integrated resources management. Developed indicators of ecological integrity for large areas, using remotely sensed data, local community involvement and GIS.

Associate, 1997-1998, Department of Agronomy and Range Science, University of California, Davis. Worked with Shu Geng and Mingua Zhang on several studies related to wildlife interactions with agriculture and patterns of fertilizer and pesticide residues in groundwater across a large landscape.

Lead Scientist, 1996-1999, National Endangered Species Network. Headed NESN's efforts to inform academic scientists and environmental activists about emerging issues regarding the Endangered Species Act and other environmental laws pertaining to special-status species. Also testified at public hearings on behalf of environmental groups and endangered species.

Ecologist, 1997-1998, Western Foundation of Vertebrate Zoology. Conducted field research to

determine the impact of past mercury mining on the status of California red-legged frogs in Santa Clara County, California.

Senior Systems Ecologist, 1994-1995, EIP Associates, Sacramento, California. Provided consulting services in environmental planning. Developed quantitative assessment of land units for their conservation and restoration opportunities, using the ecological resource requirements of 29 special-status species. Developed ecological indicators for prioritizing areas within Yolo County to receive mitigation funds for habitat easements and restoration.

Post-Graduate Researcher, 1990-1994, Department of Agronomy and Range Science, *U.C. Davis.* Under the mentorship of Dr. Shu Geng, studied landscape and management effects on temporal and spatial patterns of abundance among pocket gophers and species of Falconiformes and Carnivora in the Sacramento Valley. Also managed and analyzed a data base of energy use in California agriculture, and assisted with a landscape (GIS) study of groundwater contamination across Tulare County, California.

Work experience in graduate school: Co-taught Conservation Biology with Dr. Christine Schonewald, 1991 & 1993, UC Davis Graduate Group in Ecology; Reader for Dr. Richard Coss's course on Psychobiology in 1990, UC Davis Department of Psychology; Research Assistant to Dr. Walter E. Howard, 1988-1990, UC Davis Department of Wildlife and Fisheries Biology, testing durable baits for pocket gopher management in forest clearcuts; Research Assistant to Dr. Terrell P. Salmon, 1987-1988, UC Wildlife Extension, Department of Wildlife and Fisheries Biology, developing empirical models of mammal and bird invasions in North America, and a rating system for priority research and control of exotic species based on economic, environmental and human health hazards in California. Student Assistant to Dr. E. Lee Fitzhugh, 1985-1987, UC Cooperative Extension, Department of Wildlife and Fisheries Biology, developing and implementing a statewide mountain lion track count for long-term monitoring of numbers and distribution.

Fulbright Research Fellow, Indonesia, 1988. Tested use of new sampling methods for numerical monitoring of Sumatran tiger and six other species of endemic felids, and evaluated methods used by other researchers.

Projects

Repowering wind energy projects through careful siting of new wind turbines using map-based collision hazard models to minimize impacts to volant wildlife. Funded by wind companies (principally NextEra Renewable Energy, Inc.), California Energy Commission and East Bay Regional Park District, I have collaborated with a GIS analyst and managed a crew of five field biologists performing golden eagle behavior surveys and nocturnal surveys on bats and owls. The goal is to quantify flight patterns for development of predictive models to more carefully site new wind turbines in repowering projects. Focused behavior surveys began May 2012 and continue. Collision hazard models have been prepared for seven wind projects, three of which were built. Planning for additional repowering projects is underway.

Test avian safety of new mixer-ejector wind turbine (MEWT). Designed and implemented a before-after, control-impact experimental design to test the avian safety of a new, shrouded wind turbine developed by Ogin Inc. (formerly known as FloDesign Wind Turbine Corporation). Supported by a

$718,000 grant from the California Energy Commission's Public Interest Energy Research program and a 20% match share contribution from Ogin, I managed a crew of seven field biologists who performed periodic fatality searches and behavior surveys, carcass detection trials, nocturnal behavior surveys using a thermal camera, and spatial analyses with the collaboration of a GIS analyst. Field work began 1 April 2012 and ended 30 March 2015 without Ogin installing its MEWTs, but we still achieved multiple important scientific advances.

Reduce avian mortality due to wind turbines at Altamont Pass. Studied wildlife impacts caused by 5,400 wind turbines at the world's most notorious wind resource area. Studied how impacts are perceived by monitoring and how they are affected by terrain, wind patterns, food resources, range management practices, wind turbine operations, seasonal patterns, population cycles, infrastructure management such as electric distribution, animal behavior and social interactions.

Reduce avian mortality on electric distribution poles. Directed research toward reducing bird electrocutions on electric distribution poles, 2000-2007. Oversaw 5 founds of fatality searches at 10,000 poles from Orange County to Glenn County, California, and produced two large reports.

Cook *et al.* v. Rockwell International *et al.*, No. 90-K-181 (D. Colorado). Provided expert testimony on the role of burrowing animals in affecting the fate of buried and surface-deposited radioactive and hazardous chemical wastes at the Rocky Flats Plant, Colorado. Provided expert reports based on four site visits and an extensive document review of burrowing animals. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals. I testified in federal court in November 2005, and my clients were subsequently awarded a $553,000,000 judgment by a jury. After appeals the award was increased to two billion dollars.

Hanford Nuclear Reservation Litigation. Provided expert testimony on the role of burrowing animals in affecting the fate of buried radioactive wastes at the Hanford Nuclear Reservation, Washington. Provided three expert reports based on three site visits and extensive document review. Predicted and verified a certain population density of pocket gophers on buried waste structures, as well as incidence of radionuclide contamination in body tissue. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals.

Expert testimony and declarations on proposed residential and commercial developments, gas-fired power plants, wind, solar and geothermal projects, water transfers and water transfer delivery systems, endangered species recovery plans, Habitat Conservation Plans and Natural Communities Conservation Programs. Testified before multiple government agencies, Tribunals, Boards of Supervisors and City Councils, and participated with press conferences and depositions. Prepared expert witness reports and court declarations, which are summarized under Reports (below).

Protocol-level surveys for special-status species. Used California Department of Fish and Wildlife and US Fish and Wildlife Service protocols to search for California red-legged frog, California tiger salamander, arroyo southwestern toad, blunt-nosed leopard lizard, western pond turtle, giant kangaroo rat, San Joaquin kangaroo rat, San Joaquin kit fox, western burrowing owl, Swainson's hawk, Valley elderberry longhorn beetle and other special-status species.

Conservation of San Joaquin kangaroo rat. Performed research to identify factors responsible for the

decline of this endangered species at Lemoore Naval Air Station, 2000-2013, and implemented habitat enhancements designed to reverse the trend and expand the population.

Impact of West Nile Virus on yellow-billed magpies. Funded by Sacramento-Yolo Mosquito and Vector Control District, 2005-2008, compared survey results pre- and post-West Nile Virus epidemic for multiple bird species in the Sacramento Valley, particularly on yellow-billed magpie and American crow due to susceptibility to WNV.

Workshops on HCPs. Assisted Dr. Michael Morrison with organizing and conducting a 2-day workshop on Habitat Conservation Plans, sponsored by Southern California Edison, and another 1-day workshop sponsored by PG&E. These Workshops were attended by academics, attorneys, and consultants with HCP experience. We guest-edited a Proceedings published in Environmental Management.

Mapping of biological resources along Highways 101, 46 and 41. Used GPS and GIS to delineate vegetation complexes and locations of special-status species along 26 miles of highway in San Luis Obispo County, 14 miles of highway and roadway in Monterey County, and in a large area north of Fresno, including within reclaimed gravel mining pits.

GPS mapping and monitoring at restoration sites and at Caltrans mitigation sites. Monitored the success of elderberry shrubs at one location, the success of willows at another location, and the response of wildlife to the succession of vegetation at both sites. Also used GPS to monitor the response of fossorial animals to yellow star-thistle eradication and natural grassland restoration efforts at Bear Valley in Colusa County and at the decommissioned Mather Air Force Base in Sacramento County.

Mercury effects on Red-legged Frog. Assisted Dr. Michael Morrison and US Fish and Wildlife Service in assessing the possible impacts of historical mercury mining on the federally listed California red-legged frog in Santa Clara County. Also measured habitat variables in streams.

Opposition to proposed No Surprises rule. Wrote a white paper and summary letter explaining scientific grounds for opposing the incidental take permit (ITP) rules providing ITP applicants and holders with general assurances they will be free of compliance with the Endangered Species Act once they adhere to the terms of a "properly functioning HCP." Submitted 188 signatures of scientists and environmental professionals concerned about No Surprises rule US Fish and Wildlife Service, National Marine Fisheries Service, all US Senators.

Natomas Basin Habitat Conservation Plan alternative. Designed narrow channel marsh to increase the likelihood of survival and recovery in the wild of giant garter snake, Swainson's hawk and Valley Elderberry Longhorn Beetle. The design included replication and interspersion of treatments for experimental testing of critical habitat elements. I provided a report to Northern Territories, Inc.

Assessments of agricultural production system and environmental technology transfer to China. Twice visited China and interviewed scientists, industrialists, agriculturalists, and the Directors of the Chinese Environmental Protection Agency and the Department of Agriculture to assess the need and possible pathways for environmental clean-up technologies and trade opportunities between the US and China.

Yolo County Habitat Conservation Plan. Conducted landscape ecology study of Yolo County to spatially prioritize allocation of mitigation efforts to improve ecosystem functionality within the County from the perspective of 29 special-status species of wildlife and plants. Used a hierarchically structured indicators approach to apply principles of landscape and ecosystem ecology, conservation biology, and local values in rating land units. Derived GIS maps to help guide the conservation area design, and then developed implementation strategies.

Mountain lion track count. Developed and conducted a carnivore monitoring program throughout California since 1985. Species counted include mountain lion, bobcat, black bear, coyote, red and gray fox, raccoon, striped skunk, badger, and black-tailed deer. Vegetation and land use are also monitored. Track survey transect was established on dusty, dirt roads within randomly selected quadrats.

Sumatran tiger and other felids. Upon award of Fulbright Research Fellowship, I designed and initiated track counts for seven species of wild cats in Sumatra, including Sumatran tiger, fishing cat, and golden cat. Spent four months on Sumatra and Java in 1988, and learned Bahasa Indonesia, the official Indonesian language.

Wildlife in agriculture. Beginning as post-graduate research, I studied pocket gophers and other wildlife in 40 alfalfa fields throughout the Sacramento Valley, and I surveyed for wildlife along a 200 mile road transect since 1989 with a hiatus of 1996-2004. The data are analyzed using GIS and methods from landscape ecology, and the results published and presented orally to farming groups in California and elsewhere. I also conducted the first study of wildlife in cover crops used on vineyards and orchards.

Agricultural energy use and Tulare County groundwater study. Developed and analyzed a data base of energy use in California agriculture, and collaborated on a landscape (GIS) study of groundwater contamination across Tulare County, California.

Pocket gopher damage in forest clear-cuts. Developed gopher sampling methods and tested various poison baits and baiting regimes in the largest-ever field study of pocket gopher management in forest plantations, involving 68 research plots in 55 clear-cuts among 6 National Forests in northern California.

Risk assessment of exotic species in North America. Developed empirical models of mammal and bird species invasions in North America, as well as a rating system for assigning priority research and control to exotic species in California, based on economic, environmental, and human health hazards.

Representative Clients/Funders

Law Offices of Stephan C. Volker
Eric K. Gillespie Professional Corporation
Law Offices of Berger & Montague
Lozeau | Drury LLP
Law Offices of Roy Haber
Law Offices of Edward MacDonald
Law Office of John Gabrielli
Law Office of Bill Kopper
Law Office of Donald B. Mooney
Law Office of Veneruso & Moncharsh
Law Office of Steven Thompson
Law Office of Brian Gaffney
California Wildlife Federation
Defenders of Wildlife
Sierra Club
National Endangered Species Network
Spirit of the Sage Council
The Humane Society
Hagens Berman LLP
Environmental Protection Information Center
Goldberg, Kamin & Garvin, Attorneys at Law
Californians for Renewable Energy (CARE)
Seatuck Environmental Association
Friends of the Columbia Gorge, Inc.
Save Our Scenic Area
Alliance to Protect Nantucket Sound
Friends of the Swainson's Hawk
Alameda Creek Alliance
Center for Biological Diversity
California Native Plant Society
Endangered Wildlife Trust
and BirdLife South Africa
AquAlliance
Oregon Natural Desert Association
Save Our Sound
G3 Energy and Pattern Energy
Emerald Farms
Pacific Gas & Electric Co.
Southern California Edison Co.
Georgia-Pacific Timber Co.
Northern Territories Inc.
David Magney Environmental Consulting
Wildlife History Foundation
NextEra Energy Resources, LLC
FloDesign Wind Turbine
EDF Renewables
National Renewable Energy Lab
Altamont Winds LLC
Comstocks Business (magazine)
BioResource Consultants
Tierra Data
Black and Veatch
Terry Preston, Wildlife Ecology Research Center
EcoStat, Inc.
US Navy
US Department of Agriculture
US Forest Service
US Fish & Wildlife Service
US Department of Justice
California Energy Commission
California Office of the Attorney General
California Department of Fish & Wildlife
California Department of Transportation
California Department of Forestry
California Department of Food & Agriculture
Ventura County Counsel
County of Yolo
Tahoe Regional Planning Agency
Sustainable Agriculture Research & Education Program
Sacramento-Yolo Mosquito and Vector Control District
East Bay Regional Park District
County of Alameda
Don & LaNelle Silverstien
Seventh Day Adventist Church
Escuela de la Raza Unida
Susan Pelican and Howard Beeman
Residents Against Inconsistent Development, Inc.
Bob Sarvey
Mike Boyd
Hillcroft Neighborhood Fund
Joint Labor Management Committee, Retail Food Industry
Lisa Rocca
Kevin Jackson
Dawn Stover and Jay Letto
Nancy Havassy
Catherine Portman (for Brenda Cedarblade)
Ventus Environmental Solutions, Inc.
Panorama Environmental, Inc.
Adams Broadwell Professional Corporation

Representative special-status species experience

Common name	Species name	Description
Field experience		
California red-legged frog	*Rana aurora draytonii*	Protocol searches; Many detections
Foothill yellow-legged frog	*Rana boylii*	Presence surveys; Many detections
Western spadefoot	*Spea hammondii*	Presence surveys; Few detections
California tiger salamander	*Ambystoma californiense*	Protocol searches; Many detections
Coast range newt	*Taricha torosa torosa*	Searches and multiple detections
Blunt-nosed leopard lizard	*Gambelia sila*	Detected in San Luis Obispo County
California horned lizard	*Phrynosoma coronatum frontale*	Searches; Many detections
Western pond turtle	*Clemmys marmorata*	Searches; Many detections
San Joaquin kit fox	*Vulpes macrotis mutica*	Protocol searches; detections
Sumatran tiger	*Panthera tigris*	Research in Sumatra
Mountain lion	*Puma concolor californicus*	Research and publications
Point Arena mountain beaver	*Aplodontia rufa nigra*	Remote camera operation
Giant kangaroo rat	*Dipodomys ingens*	Detected in Cholame Valley
San Joaquin kangaroo rat	*Dipodomys nitratoides*	Research, conservation at NAS Lemoore
Monterey dusky-footed woodrat	*Neotoma fuscipes luciana*	Non-target captures and mapping of dens
Salt marsh harvest mouse	*Reithrodontomys raviventris*	Habitat assessment, monitoring
Salinas harvest mouse	*Reithrodontomys megalotus distichlus*	Captures; habitat assessment
California clapper rail	*Rallus longirostris*	Surveys and detections
Golden eagle	*Aquila chrysaetos*	Research in Altamont Pass
Swainson's hawk	*Buteo swainsoni*	Research in Sacramento Valley
Northern harrier	*Circus cyaeneus*	Research and publication
White-tailed kite	*Elanus leucurus*	Research and publication
Loggerhead shrike	*Lanius ludovicianus*	Research in Sacramento Valley
Least Bell's vireo	*Vireo bellii pusillus*	Detected in Monterey County
Willow flycatcher	*Empidonax traillii extimus*	Research at Sierra Nevada breeding sites
Burrowing owl	*Athene cunicularia hypugia*	Research at multiple locations
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	Research and publication
Analytical		
Arroyo southwestern toad	*Bufo microscaphus californicus*	Research and report.
Giant garter snake	*Thamnophis gigas*	Research and publication
Northern goshawk	*Accipiter gentilis*	Research and publication
Northern spotted owl	*Strix occidentalis*	Research and reports
Alameda whipsnake	*Masticophis lateralis euryxanthus*	Expert testimony

Peer Reviewed Publications

Smallwood, K. S. In press. The challenges of repowering. Proceedings from the Conference on Wind Energy and Wildlife Impacts, March 2015, Berlin, Germany. Springer.

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Morrison, M.L., K.S. .Smallwood, and M. Robison. 2001. Draft Natural Environment Study for Highway 46 compliance with CEQA/NEPA. Report to the California Department of Transportation. 75 pp.

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Smallwood, K. S. 1998. 1998 California Mountain Lion Track Count. Report to the Defenders of Wildlife, Washington, D.C. 5 pages.

Smallwood, K.S. 1998. Draft report of a visit to a paint sludge dump site near Ridgewood, New Jersey, February 26th, 1998. Unpublished report to Consulting in the Public Interest.

Smallwood, K.S. 1997. Science missing in the "no surprises" policy. Commissioned by National Endangered Species Network and Spirit of the Sage Council, Pasadena, California.

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Smallwood, K.S. 1996. Soil Bioturbation and Wind Affect Fate of Hazardous Materials that were

Released at the Rocky Flats Plant, Colorado. Report to Berger & Montague, P.C., Philadelphia.

Smallwood, K.S. 1996. Second assessment of the BIOPORT model's parameter values for pocket gopher burrowing characteristics and other relevant wildlife observations. Report to Berger & Montague, P.C. and Roy S. Haber, P.C., Philadelphia.

Smallwood, K.S., and R. Leidy. 1996. Wildlife and Their Management Under the Martell SYP. Report to Georgia Pacific, Corporation, Martel, CA. 30 pp.

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Smallwood, K.S. and S. Geng. 1995. Analysis of the 1987 California Farm Cost Survey and recommendations for future survey. Program on Workable Energy Regulation, University-wide Energy Research Group, University of California.

Smallwood, K.S., S. Geng, and W. Idzerda. 1992. Final report to PG&E: Analysis of the 1987 California Farm Cost Survey and recommendations for future survey. Pacific Gas & Electric Company, San Ramon, California. 24 pp.

Fitzhugh, E.L. and K.S. Smallwood. 1987. Methods Manual – A statewide mountain lion population index technique. California Department of Fish and Game, Sacramento.

Salmon, T.P. and K.S. Smallwood. 1989. Final Report – Evaluating exotic vertebrates as pests to California agriculture. California Department of Food and Agriculture, Sacramento.

Smallwood, K.S. and W. A. Erickson (written under supervision of W.E. Howard, R.E. Marsh, and R.J. Laacke). 1990. Environmental exposure and fate of multi-kill strychnine gopher baits. Final Report to USDA Forest Service –NAPIAP, Cooperative Agreement PSW-89-0010CA.

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Comments on Environmental Documents

I was retained or commissioned to comment on environmental planning and review documents, including:

- Comments on proposed rule for incidental eagle take (2016, 49 pp);
- Revised Draft Giant Garter Snake Recovery Plan of 2015 (2016, 18 pp);
- Supplementary Reply Witness Statement Amherst Island Wind Farm, Ontario (2015, 38 pp);
- Witness Statement on Amherst Island Wind Farm, Ontario (2015, 31 pp);
- Second Reply Witness Statement on White Pines Wind Farm, Ontario (2015, 6 pp);
- Reply Witness Statement on White Pines Wind Farm, Ontario (2015, 10 pp);
- Witness Statement on White Pines Wind Farm, Ontario (2015, 9 pp);
- Proposed Section 24 Specific Plan Agua Caliente Band of Cahuilla Indians DEIS (2015, 9 pp);

- Replies to comments 24 Specific Plan Agua Caliente Band of Cahuilla Indians FEIS (2015, 6 pp);
- Sierra Lakes Commerce Center Project DEIR (2015, 9 pp);
- West Valley Logistics Center Specific Plan DEIR(2015, 10 pp);
- World Logistic Center Specific Plan FEIR (2015, 12 pp);
- Bay Delta Conservation Plan EIR/EIS (2014, 21 pp);
- Addison Wind Energy Project DEIR (2014, 32 pp);
- Response to Comments on the Addison Wind Energy Project DEIR (2014, 15 pp);
- Addison and Rising Tree Wind Energy Project FEIR (2014, 12 pp);
- Alta East Wind Energy Project FEIS (2013, 23 pp);
- Blythe Solar Power Project Staff Assessment, California Energy Commission (2013, 16 pp);
- Clearwater and Yakima Solar Projects DEIR (2013, 9 pp);
- Cuyama Solar Project DEIR (2014, 19 pp);
- Draft Desert Renewable Energy Conservation Plan (DRECP) EIR/EIS (2015, 49 pp);
- Kingbird Solar Photovoltaic Project EIR (2013, 19 pp);
- Lucerne Valley Solar Project Initial Study & Mitigated Negative Declaration (2013, 12 pp);
- Palen Solar Electric Generating System Final Staff Assessment of California Energy Commission, (2014, 20 pp);
- Rebuttal testimony on Palen Solar Energy Generating System (2014, 9 pp);
- Rising Tree Wind Energy Project DEIR (2014, 32 pp);
- Response to Comments on the Rising Tree Wind Energy Project DEIR (2014, 15 pp);
- Soitec Solar Development Project Draft PEIR (2014, 18 pp);
- Comment on the Biological Opinion (08ESMF-00-2012-F-0387) of Oakland Zoo expansion on Alameda whipsnake and California red-legged frog (2014; 3 pp);
- West Antelope Solar Energy Project Initial Study and Negative Declaration (2013, 18 pp);
- Willow Springs Solar Photovoltaic Project DEIR (2015, 28 pp);
- Alameda Creek Bridge Replacement Project DEIR (2015, 10 pp);
- Declaration on Tule Wind project FEIR/FEIS (2013; 24 pp);
- Sunlight Partners LANDPRO Solar Project Mitigated Negative Declaration (2013; 11 pp);
- Declaration in opposition to BLM fracking (2013; 5 pp);
- Rosamond Solar Project Addendum EIR (2013; 13 pp);
- Pioneer Green Solar Project EIR (2013; 13 pp);
- Reply to Staff Responses to Comments on Soccer Center Solar Project Mitigated Negative Declaration (2013; 6 pp);
- Soccer Center Solar Project Mitigated Negative Declaration (2013; 10 pp);
- Plainview Solar Works Mitigated Negative Declaration (2013; 10 pp);
- Reply to the County Staff's Responses on comments to Imperial Valley Solar Company 2 Project (2013; 10 pp);
- Imperial Valley Solar Company 2 Project (2013; 13 pp);
- FRV Orion Solar Project DEIR (PP12232) (2013; 9 pp);
- Casa Diablo IV Geothermal Development Project (3013; 6 pp);
- Reply to Staff Responses to Comments on Casa Diablo IV Geothermal Development Project (2013; 8 pp);
- FEIS prepared for Alta East Wind Project (2013; 23 pp);

- Metropolitan Air Park DEIR, City of San Diego (2013;);
- Davidon Homes Tentative Subdivision Map and Rezoning Project DEIR (2013; 9 pp);
- Analysis of Biological Assessment of Oakland Zoo Expansion Impacts on Alameda Whipsnake (2013; 10 pp);
- Declaration on Campo Verde Solar project FEIR (2013; 11pp);
- Neg Dec comments on Davis Sewer Trunk Rehabilitation (2013; 8 pp);
- Declaration on North Steens Transmission Line FEIS (2012; 62 pp);
- City of Lancaster Revised Initial Study for Conditional Use Permits 12-08 and 12-09, Summer Solar and Springtime Solar Projects (2012; 8 pp);
- J&J Ranch, 24 Adobe Lane Environmental Review (2012; 14 pp);
- Reply to the County Staff's Responses on comments to Hudson Ranch Power II Geothermal Project and the Simbol Calipatria Plant II (2012; 8 pp);
- Hudson Ranch Power II Geothermal Project and the Simbol Calipatria Plant II (2012; 9 pp);
- Desert Harvest Solar Project EIS (2012; 15 pp);
- Solar Gen 2 Array Project DEIR (2012; 16 pp);
- Ocotillo Sol Project EIS (2012; 4 pp);
- Beacon Photovoltaic Project DEIR (2012; 5 pp);
- Declaration on Initial Study and Proposed Negative Declaration for the Butte Water District 2012 Water Transfer Program (2012; 11 pp);
- Mount Signal and Calexico Solar Farm Projects DEIR (2011; 16 pp);
- City of Elk Grove Sphere of Influence EIR (2011; 28 pp);
- Comment on Sutter Landing Park Solar Photovoltaic Project MND (2011; 9 pp);
- Statement of Shawn Smallwood, Ph.D. Regarding Proposed Rabik/Gudath Project, 22611 Coleman Valley Road, Bodega Bay (CPN 10-0002) (2011; 4 pp);
- Declaration of K. Shawn Smallwood on Biological Impacts of the Ivanpah Solar Electric Generating System (ISEGS) (2011; 9 pp);
- Comments on Draft Eagle Conservation Plan Guidance (2011; 13 pp);
- Comments on Draft EIR/EA for Niles Canyon Safety Improvement Project (2011; 16 pp);
- Declaration of K. Shawn Smallwood, Ph.D., on Biological Impacts of the Route 84 Safety Improvement Project (2011; 7 pp);
- Rebuttal Testimony of Witness #22, K. Shawn Smallwood, Ph.D, on Behalf of Intervenors Friends of The Columbia Gorge & Save Our Scenic Area (2010; 6 pp);
- Prefiled Direct Testimony of Witness #22, K. Shawn Smallwood, Ph.D, on Behalf of Intervenors Friends of the Columbia Gorge & Save Our Scenic Area. Comments on Whistling Ridge Wind Energy Power Project DEIS, Skamania County, Washington (2010; 41 pp);
- Evaluation of Klickitat County's Decisions on the Windy Flats West Wind Energy Project (2010; 17 pp);
- St. John's Church Project Draft Environmental Impact Report (2010; 14 pp.);
- Initial Study/Mitigated Negative Declaration for Results Radio Zone File #2009-001 (2010; 20 pp);
- Rio del Oro Specific Plan Project Final Environmental Impact Report (2010;12 pp);
- Answers to Questions on 33% RPS Implementation Analysis Preliminary Results Report (2009: 9 pp);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania

County, Washington. Second Declaration to Friends of the Columbia Gorge, Inc. and Save Our Scenic Area (Dec 2008; 17 pp);

- Comments on Draft 1A Summary Report to CAISO (2008; 10 pp);
- County of Placer's Categorical Exemption of Hilton Manor Project (2009; 9 pp);
- Protest of CARE to Amendment to the Power Purchase and Sale Agreement for Procurement of Eligible Renewable Energy Resources Between Hatchet Ridge Wind LLC and PG&E (2009; 3 pp);
- Tehachapi Renewable Transmission Project EIR/EIS (2009; 142 pp);
- Delta Shores Project EIR, south Sacramento (2009; 11 pp + addendum 2 pp);
- Declaration of Shawn Smallwood in Support of Care's Petition to Modify D.07-09-040 (2008; 3 pp);
- The Public Utility Commission's Implementation Analysis December 16 Workshop for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 9 pp);
- The Public Utility Commission's Implementation Analysis Draft Work Plan for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 11 pp);
- Draft 1A Summary Report to California Independent System Operator for Planning Reserve Margins (PRM) Study (2008; 7 pp.);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington. Declaration to Friends of the Columbia Gorge, Inc. and Save Our Scenic Area (Sep 2008; 16 pp);
- California Energy Commission's Preliminary Staff Assessment of the Colusa Generating Station (2007; 24 pp);
- Rio del Oro Specific Plan Project Recirculated Draft Environmental Impact Report (2008: 66 pp);
- Replies to Response to Comments Re: Regional University Specific Plan Environmental Impact Report (2008; 20 pp);
- Regional University Specific Plan Environmental Impact Report (2008: 33 pp.);
- Clark Precast, LLC's "Sugarland" project, Negative Declaration (2008: 15 pp.);
- Cape Wind Project Draft Environmental Impact Statement (2008; 157 pp.);
- Yuba Highlands Specific Plan (or Area Plan) Environmental Impact Report (2006; 37 pp.);
- Replies to responses to comments on Mitigated Negative Declaration of the proposed Mining Permit (MIN 04-01) and Modification of Use Permit 96-02 at North Table Mountain (2006; 5 pp);
- Mitigated Negative Declaration of the proposed Mining Permit (MIN 04-01) and Modification of Use Permit 96-02 at North Table Mountain (2006; 15 pp);
- Windy Point Wind Farm Environmental Review and EIS (2006; 14 pp and 36 Powerpoint slides in reply to responses to comments);
- Shiloh I Wind Power Project EIR (2005; 18 pp);
- Buena Vista Wind Energy Project Notice of Preparation of EIR (2004; 15 pp);
- Negative Declaration of the proposed Callahan Estates Subdivision (2004; 11 pp);
- Negative Declaration of the proposed Winters Highlands Subdivision (2004; 9 pp);
- Negative Declaration of the proposed Winters Highlands Subdivision (2004; 13 pp);
- Negative Declaration of the proposed Creekside Highlands Project, Tract 7270 (2004; 21

pp);
- On the petition California Fish and Game Commission to list the Burrowing Owl as threatened or endangered (2003; 10 pp);
- Conditional Use Permit renewals from Alameda County for wind turbine operations in the Altamont Pass Wind Resource Area (2003; 41 pp);
- UC Davis Long Range Development Plan of 2003, particularly with regard to the Neighborhood Master Plan (2003; 23 pp);
- Anderson Marketplace Draft Environmental Impact Report (2003: 18 pp + 3 plates of photos);
- Negative Declaration of the proposed expansion of Temple B'nai Tikyah (2003: 6 pp);
- Antonio Mountain Ranch Specific Plan Public Draft EIR (2002: 23 pp);
- Response to testimony of experts at the East Altamont Energy Center evidentiary hearing on biological resources (2002: 9 pp);
- Revised Draft Environmental Impact Report, The Promenade (2002: 7 pp);
- Recirculated Initial Study for Calpine's proposed Pajaro Valley Energy Center (2002: 3 pp);
- UC Merced -- Declaration of Dr. Shawn Smallwood in support of petitioner's application for temporary restraining order and preliminary injunction (2002: 5 pp);
- Replies to response to comments in Final Environmental Impact Report, Atwood Ranch Unit III Subdivision (2003: 22 pp);
- Draft Environmental Impact Report, Atwood Ranch Unit III Subdivision (2002: 19 pp + 8 photos on 4 plates);
- California Energy Commission Staff Report on GWF Tracy Peaker Project (2002: 17 pp + 3 photos; follow-up report of 3 pp);
- Initial Study and Negative Declaration, Silver Bend Apartments, Placer County (2002: 13 pp);
- UC Merced Long-range Development Plan DEIR and UC Merced Community Plan DEIR (2001: 26 pp);
- Initial Study, Colusa County Power Plant (2001: 6 pp);
- Comments on Proposed Dog Park at Catlin Park, Folsom, California (2001: 5 pp + 4 photos);
- Pacific Lumber Co. (Headwaters) Habitat Conservation Plan and Environmental Impact Report (1998: 28 pp);
- Final Environmental Impact Report/Statement for Issuance of Take authorization for listed species within the MSCP planning area in San Diego County, California (Fed. Reg. 62 (60): 14938, San Diego Multi-Species Conservation Program) (1997: 10 pp);
- Permit (PRT-823773) Amendment for the Natomas Basin Habitat Conservation Plan, Sacramento, CA (Fed. Reg. 63 (101): 29020-29021) (1998);
- Draft Recovery Plan for the Giant Garter Snake (*Thamnophis gigas*). (Fed. Reg. 64(176): 49497-49498) (1999: 8 pp);
- Review of the Draft Recovery Plan for the Arroyo Southwestern Toad (*Bufo microscaphus californicus*) (1998);
- Ballona West Bluffs Project Environmental Impact Report (1999: oral presentation);
- California Board of Forestry's proposed amended Forest Practices Rules (1999);
- Negative Declaration for the Sunset Skyranch Airport Use Permit (1999);
- Calpine and Bechtel Corporations' Biological Resources Implementation and Monitoring

Program (BRMIMP) for the Metcalf Energy Center (2000: 10 pp);
- California Energy Commission's Final Staff Assessment of the proposed Metcalf Energy Center (2000);
- US Fish and Wildlife Service Section 7 consultation with the California Energy Commission regarding Calpine and Bechtel Corporations' Metcalf Energy Center (2000: 4 pp);
- California Energy Commission's Preliminary Staff Assessment of the proposed Metcalf Energy Center (2000: 11 pp);
- Site-specific management plans for the Natomas Basin Conservancy's mitigation lands, prepared by Wildlands, Inc. (2000: 7 pp);
- Affidavit of K. Shawn Smallwood in Spirit of the Sage Council, et al. (Plaintiffs) vs. Bruce Babbitt, Secretary, U.S. Department of the Interior, et al. (Defendants), Injuries caused by the No Surprises policy and final rule which codifies that policy (1999: 9 pp).

Comments on other Environmental Review Documents:

- Proposed Regulation for California Fish and Game Code Section 3503.5 (2015: 12 pp);
- Statement of Overriding Considerations related to extending Altamont Winds, Inc.'s Conditional Use Permit PLN2014-00028 (2015; 8 pp);
- Draft Program Level EIR for Covell Village (2005; 19 pp);
- Bureau of Land Management Wind Energy Programmatic EIS Scoping document (2003: 7 pp.);
- NEPA Environmental Analysis for Biosafety Level 4 National Biocontainment Laboratory (NBL) at UC Davis (2003: 7 pp);
- Notice of Preparation of UC Merced Community and Area Plan EIR, on behalf of The Wildlife Society—Western Section (2001: 8 pp.);
- Preliminary Draft Yolo County Habitat Conservation Plan (2001; 2 letters totaling 35 pp.);
- Merced County General Plan Revision, notice of Negative Declaration (2001: 2 pp.);
- Notice of Preparation of Campus Parkway EIR/EIS (2001: 7 pp.);
- Draft Recovery Plan for the bighorn sheep in the Peninsular Range (*Ovis candensis*) (2000);
- Draft Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*), on behalf of The Wildlife Society—Western Section (2000: 10 pp.);
- Sierra Nevada Forest Plan Amendment Draft Environmental Impact Statement, on behalf of The Wildlife Society—Western Section (2000: 7 pp.);
- State Water Project Supplemental Water Purchase Program, Draft Program EIR (1997);
- Davis General Plan Update EIR (2000);
- Turn of the Century EIR (1999: 10 pp);
- Proposed termination of Critical Habitat Designation under the Endangered Species Act (Fed. Reg. 64(113): 31871-31874) (1999);
- NOA Draft Addendum to the Final Handbook for Habitat Conservation Planning and Incidental Take Permitting Process, termed the HCP 5-Point Policy Plan (Fed. Reg. 64(45): 11485 - 11490) (1999; 2 pp + attachments);
- Covell Center Project EIR and EIR Supplement (1997).

Position Statements I prepared the following position statements for the Western Section of The Wildlife Society, and one for nearly 200 scientists:

- Recommended that the California Department of Fish and Game prioritize the extermination of the introduced southern water snake in northern California. The Wildlife Society--Western Section (2001);
- Recommended that The Wildlife Society—Western Section appoint or recommend members of the independent scientific review panel for the UC Merced environmental review process (2001);
- Opposed the siting of the University of California's 10th campus on a sensitive vernal pool/grassland complex east of Merced. The Wildlife Society--Western Section (2000);
- Opposed the legalization of ferret ownership in California. The Wildlife Society--Western Section (2000);
- Opposed the Proposed "No Surprises," "Safe Harbor," and "Candidate Conservation Agreement" rules, including permit-shield protection provisions (Fed. Reg. Vol. 62, No. 103, pp. 29091-29098 and No. 113, pp. 32189-32194). This statement was signed by 188 scientists and went to the responsible federal agencies, as well as to the U.S. Senate and House of Representatives.

Posters at Professional Meetings

Leyvas, E. and K. S. Smallwood. 2015. Rehabilitating injured animals to offset and rectify wind project impacts. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S., J. Mount, S. Standish, E. Leyvas, D. Bell, E. Walther, B. Karas. 2015. Integrated detection trials to improve the accuracy of fatality rate estimates at wind projects. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S. and C. G. Thelander. 2005. Lessons learned from five years of avian mortality research in the Altamont Pass WRA. AWEA conference, Denver, May 2005.

Neher, L., L. Wilder, J. Woo, L. Spiegel, D. Yen-Nakafugi, and K.S. Smallwood. 2005. Bird's eye view on California wind. AWEA conference, Denver, May 2005.

Smallwood, K. S., C. G. Thelander and L. Spiegel. 2003. Toward a predictive model of avian fatalities in the Altamont Pass Wind Resource Area. Windpower 2003 Conference and Convention, Austin, Texas.

Smallwood, K.S. and Eva Butler. 2002. Pocket Gopher Response to Yellow Star-thistle Eradication as part of Grassland Restoration at Decommissioned Mather Air Force Base, Sacramento County, California. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and Michael L. Morrison. 2002. Fresno kangaroo rat (*Dipodomys nitratoides*) Conservation Research at Resources Management Area 5, Lemoore Naval Air Station. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and E.L. Fitzhugh. 1989. Differentiating mountain lion and dog tracks. Third Mountain Lion Workshop, Prescott, AZ.

Smith, T. R. and K. S. Smallwood. 2000. Effects of study area size, location, season, and allometry on reported *Sorex* shrew densities. Annual Meeting of the Western Section of The Wildlife Society.

Presentations at Professional Meetings and Seminars

Mitigation of Raptor Fatalities in the Altamont Pass Wind Resource Area. Raptor Research Foundation Meeting, Sacramento, California, 6 November 2015.

From burrows to behavior: Research and management for burrowing owls in a diverse landscape. California Burrowing Owl Consortium meeting, 24 October 2015, San Jose, California.

The Challenges of repowering. Keynote presentation at Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 10 March 2015.

Research Highlights Altamont Pass 2011-2015. Scientific Review Committee, Oakland, California, 8 July 2015.

Siting wind turbines to minimize raptor collisions: Altamont Pass Wind Resource Area. US Fish and Wildlife Service Golden Eagle Working Group, Sacramento, California, 8 January 2015.

Evaluation of nest boxes as a burrowing owl conservation strategy. Sacramento Chapter of the Western Section, The Wildlife Society. Sacramento, California, 26 August 2013.

Predicting collision hazard zones to guide repowering of the Altamont Pass. Conference on wind power and environmental impacts. Stockholm, Sweden, 5-7 February 2013.

Impacts of Wind Turbines on Wildlife. California Council for Wildlife Rehabilitators, Yosemite, California, 12 November 2012.

Impacts of Wind Turbines on Birds and Bats. Madrone Audubon Society, Santa Rosa, California, 20 February 2012.

Comparing Wind Turbine Impacts across North America. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Alameda County Scientific Review Committee meeting, 17 February 2011

Comparing Wind Turbine Impacts across North America. Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 3 May 2011.

Update on Wildlife Impacts in the Altamont Pass Wind Resource Area. Raptor Symposium, The Wildlife Society—Western Section, Riverside, California, February 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Raptor Symposium, The Wildlife

Society - Western Section, Riverside, California, February 2011.

Wildlife mortality caused by wind turbine collisions. Ecological Society of America, Pittsburgh, Pennsylvania, 6 August 2010.

Map-based repowering and reorganization of a wind farm to minimize burrowing owl fatalities. California burrowing Owl Consortium Meeting, Livermore, California, 6 February 2010.

Environmental barriers to wind power. Getting Real About Renewables: Economic and Environmental Barriers to Biofuels and Wind Energy. A symposium sponsored by the Environmental & Energy Law & Policy Journal, University of Houston Law Center, Houston, 23 February 2007.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Meeting with Japan Ministry of the Environment and Japan Ministry of the Economy, Wild Bird Society of Japan, and other NGOs Tokyo, Japan, 9 November 2006.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Symposium on bird collisions with wind turbines. Wild Bird Society of Japan, Tokyo, Japan, 4 November 2006.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. California Society for Ecological Restoration (SERCAL) 13th Annual Conference, UC Santa Barbara, 27 October 2006.

Fatality associations as the basis for predictive models of fatalities in the Altamont Pass Wind Resource Area. EEI/APLIC/PIER Workshop, 2006 Biologist Task Force and Avian Interaction with Electric Facilities Meeting, Pleasanton, California, 28 April 2006.

Burrowing owl burrows and wind turbine collisions in the Altamont Pass Wind Resource Area. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, February 8, 2006.

Mitigation at wind farms. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Incorporating data from the California Wildlife Habitat Relationships (CWHR) system into an impact assessment tool for birds near wind farms. Shawn Smallwood, Kevin Hunting, Marcus Yee, Linda Spiegel, Monica Parisi. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Toward indicating threats to birds by California's new wind farms. California Energy Commission, Sacramento, May 26, 2005.

Avian collisions in the Altamont Pass. California Energy Commission, Sacramento, May 26, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. EPRI Environmental Sector Council, Monterey, California, February 17, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. The Wildlife Society—Western Section Annual Meeting, Sacramento, California, January 19, 2005.

Associations between avian fatalities and attributes of electric distribution poles in California. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, January 19, 2005.

Minimizing avian mortality in the Altamont Pass Wind Resources Area. UC Davis Wind Energy Collaborative Forum, Palm Springs, California, December 14, 2004.

Selecting electric distribution poles for priority retrofitting to reduce raptor mortality. Raptor Research Foundation Meeting, Bakersfield, California, November 10, 2004.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. Annual Meeting of the Society for Ecological Restoration, South Lake Tahoe, California, October 16, 2004.

Lessons learned from five years of avian mortality research at the Altamont Pass Wind Resources Area in California. The Wildlife Society Annual Meeting, Calgary, Canada, September 2004.

The ecology and impacts of power generation at Altamont Pass. Sacramento Petroleum Association, Sacramento, California, August 18, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Consortium meeting, Hayward, California, February 7, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Symposium, Sacramento, November 2, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. National Wind Coordinating Committee, Washington, D.C., November 17, 2003.

Raptor Behavior at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

California mountain lions. Ecological & Environmental Issues Seminar, Department of Biology, California State University, Sacramento, November, 2000.

Intra- and inter-turbine string comparison of fatalities to animal burrow densities at Altamont Pass. National Wind Coordinating Committee, Carmel, California, May, 2000.

Using a Geographic Positioning System (GPS) to map wildlife and habitat. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Suggested standards for science applied to conservation issues. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

The indicators framework applied to ecological restoration in Yolo County, California. Society for Ecological Restoration, September 25, 1999.

Ecological restoration in the context of animal social units and their habitat areas. Society for Ecological Restoration, September 24, 1999.

Relating Indicators of Ecological Health and Integrity to Assess Risks to Sustainable Agriculture and Native Biota. International Conference on Ecosystem Health, August 16, 1999.

A crosswalk from the Endangered Species Act to the HCP Handbook and real HCPs. Southern California Edison, Co. and California Energy Commission, March 4-5, 1999.

Mountain lion track counts in California: Implications for Management. Ecological & Environmental Issues Seminar, Department of Biological Sciences, California State University, Sacramento, November 4, 1998.

"No Surprises" -- Lack of science in the HCP process. California Native Plant Society Annual Conservation Conference, The Presidio, San Francisco, September 7, 1997.

In Your Interest. A half hour weekly show aired on Channel 10 Television, Sacramento. In this episode, I served on a panel of experts discussing problems with the implementation of the Endangered Species Act. Aired August 31, 1997.

Spatial scaling of pocket gopher (*Geomyidae*) density. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Estimating prairie dog and pocket gopher burrow volume. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Ten years of mountain lion track survey. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Study and interpretive design effects on mountain lion density estimates. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Small animal control. Session moderator and speaker at the California Farm Conference, Sacramento, California, Feb. 28, 1995.

Small animal control. Ecological Farming Conference, Asylomar, California, Jan. 28, 1995.

Habitat associations of the Swainson's Hawk in the Sacramento Valley's agricultural landscape. 1994 Raptor Research Foundation Meeting, Flagstaff, Arizona.

Alfalfa as wildlife habitat. Seed Industry Conference, Woodland, California, May 4, 1994.

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

1.5 FINAL PROJECT

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

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

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

Table 1.5-1: Project Development Summary

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

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

Habitats and vertebrate pests: impacts and management. Managing Farmland to Bring Back Game Birds and Wildlife to the Central Valley. Yolo County Resource Conservation District, U.C. Davis, February 19, 1994.

Management of gophers and alfalfa as wildlife habitat. Orland Alfalfa Production Meeting and Sacramento Valley Alfalfa Production Meeting, February 1 and 2, 1994.

Patterns of wildlife movement in a farming landscape. Wildlife and Fisheries Biology Seminar Series: Recent Advances in Wildlife, Fish, and Conservation Biology, U.C. Davis, Dec. 6, 1993.

Alfalfa as wildlife habitat. California Alfalfa Symposium, Fresno, California, Dec. 9, 1993.

Management of pocket gophers in Sacramento Valley alfalfa. California Alfalfa Symposium, Fresno, California, Dec. 8, 1993.

Association analysis of raptors in a farming landscape. Plenary speaker at Raptor Research Foundation Meeting, Charlotte, North Carolina, Nov. 6, 1993.

Landscape strategies for biological control and IPM. Plenary speaker, International Conference on Integrated Resource Management and Sustainable Agriculture, Beijing, China, Sept. 11, 1993.

Landscape Ecology Study of Pocket Gophers in Alfalfa. Alfalfa Field Day, U.C. Davis, July 1993.

Patterns of wildlife movement in a farming landscape. Spatial Data Analysis Colloquium, U.C. Davis, August 6, 1993.

Sound stewardship of wildlife. Veterinary Medicine Seminar: Ethics of Animal Use, U.C. Davis. May 1993.

Landscape ecology study of pocket gophers in alfalfa. Five County Grower's Meeting, Tracy, California. February 1993.

Turbulence and the community organizers: The role of invading species in ordering a turbulent system, and the factors for invasion success. Ecology Graduate Student Association Colloquium, U.C. Davis. May 1990.

Evaluation of exotic vertebrate pests. Fourteenth Vertebrate Pest Conference, Sacramento, California. March 1990.

Analytical methods for predicting success of mammal introductions to North America. The Western Section of the Wildlife Society, Hilo, Hawaii. February 1988.

A state-wide mountain lion track survey. Sacramento County Dept Parks and Recreation. April 1986.

The mountain lion in California. Davis Chapter of the Audubon Society. October 1985.

Ecology Graduate Student Seminars, U.C. Davis, 1985-1990: Social behavior of the mountain lion;

Mountain lion control; Political status of the mountain lion in California.

Other forms of Participation at Professional Meetings

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Berlin, Germany, March 2015.

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Stockholm, Sweden, February 2013.

- Workshop co-presenter at Birds & Wind Energy Specialist Group (BAWESG) Information sharing week, Bird specialist studies for proposed wind energy facilities in South Africa, Endangered Wildlife Trust, Darling, South Africa, 3-7 October 2011.

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 2-5 May 2011.

- Chair of Animal Damage Management Session, The Wildlife Society, Annual Meeting, Reno, Nevada, September 26, 2001.

- Chair of Technical Session: Human communities and ecosystem health: Comparing perspectives and making connection. Managing for Ecosystem Health, International Congress on Ecosystem Health, Sacramento, CA August 15-20, 1999.

- Student Awards Committee, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

- Student Mentor, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Printed Mass Media

Smallwood, K.S., D. Mooney, and M. McGuinness. 2003. We must stop the UCD biolab now. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2002. Spring Lake threatens Davis. Op-Ed to the Davis Enterprise.

Smallwood, K.S. Summer, 2001. Mitigation of habitation. The Flatlander, Davis, California.

Entrikan, R.K. and K.S. Smallwood. 2000. Measure O: Flawed law would lock in new taxes. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2000. Davis delegation lobbies Congress for Wildlife conservation. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 1998. Davis Visions. The Flatlander, Davis, California.

Smallwood, K.S. 1997. Last grab for Yolo's land and water. The Flatlander, Davis, California.

Smallwood, K.S. 1997. The Yolo County HCP. Op-Ed to the Davis Enterprise.

Radio/Television

PBS News Hour,

FOX News, Energy in America: Dead Birds Unintended Consequence of Wind Power Development, August 2011.

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Mountain lion attacks (with guest Professor Richard Coss). 23 April 2009;

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Wind farm Rio Vista Renewable Power. 4 September 2008;

KQED QUEST Episode #111. Bird collisions with wind turbines. 2007;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. December 27, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. May 3, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. February 8, 2001;

KDVS Speaking in Tongues (host Ron Glick & Shawn Smallwood), California Energy Crisis: 1 hour. Jan. 25, 2001;

KDVS Speaking in Tongues (host Ron Glick), Headwaters Forest HCP: 1 hour. 1998;

Davis Cable Channel (host Gerald Heffernon), Burrowing owls in Davis: half hour. June, 2000;

Davis Cable Channel (hosted by Davis League of Women Voters), Measure O debate: 1 hour. October, 2000;

KXTV 10, In Your Interest, The Endangered Species Act: half hour. 1997.

Reviews of Journal Papers (Scientific journals for whom I've provided peer review)

Journal	Journal
American Naturalist	Journal of Animal Ecology
Journal of Wildlife Management	Western North American Naturalist
Auk	Journal of Raptor Research
Biological Conservation	National Renewable Energy Lab reports
Canadian Journal of Zoology	Oikos
Ecosystem Health	The Prairie Naturalist
Environmental Conservation	Restoration Ecology
Environmental Management	Southwestern Naturalist
Functional Ecology	The Wildlife Society--Western Section Trans.
Journal of Zoology (London)	Proc. Int. Congress on Managing for Ecosystem Health
Journal of Applied Ecology	Transactions in GIS
Ecology	Tropical Ecology
Biological Control	The Condor

Committees

- Scientific Review Committee, Alameda County, Altamont Pass Wind Resource Area
- Ph.D. Thesis Committee, Steve Anderson, University of California, Davis
- MS Thesis Committee, Marcus Yee, California State University, Sacramento

Other Professional Activities or Products

Testified in Federal Court in Denver during 2005 over the fate of radio-nuclides in the soil at Rocky Flats Plant after exposure to burrowing animals. My clients won a judgment of $553,000,000. I have also testified in many other cases of litigation under CEQA, NEPA, the Warren-Alquist Act, and other environmental laws. My clients won most of the cases for which I testified.

Testified before Environmental Review Tribunals in Ontario, Canada regarding proposed White Pines and Amherst Island Wind Energy projects.

Testified in Skamania County Hearing in 2009 on the potential impacts of zoning the County for development of wind farms and hazardous waste facilities.

Testified in deposition in 2007 in the case of O'Dell et al. vs. FPL Energy in Houston, Texas.

Testified in Klickitat County Hearing in 2006 on the potential impacts of the Windy Point Wind Farm.

Memberships in Professional Societies

The Wildlife Society
Raptor Research Foundation

Honors and Awards

Fulbright Research Fellowship to Indonesia, 1987
J.G. Boswell Full Academic Scholarship, 1981 college of choice
Certificate of Appreciation, The Wildlife Society—Western Section, 2000, 2001
Northern California Athletic Association Most Valuable Cross Country Runner, 1984
American Legion Award, Corcoran High School, 1981, and John Muir Junior High, 1977
CIF Section Champion, Cross Country in 1978
CIF Section Champion, Track & Field 2 mile run in 1981
National Junior Record, 20 kilometer run, 1982
National Age Group Record, 1500 meter run, 1978

Community Activities

District 64 Little League Umpire, 2003-2007
Dixon Little League Umpire, 2006-07
Davis Little League Chief Umpire and Board member, 2004-2005
Davis Little League Safety Officer, 2004-2005
Davis Little League Certified Umpire, 2002-2004
Davis Little League Scorekeeper, 2002
Davis Visioning Group member
Petitioner for Writ of Mandate under the California Environmental Quality Act against City of Woodland decision to approve the Spring Lake Specific Plan, 2002
Served on campaign committees for City Council candidates

DAVID J. POWERS & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS & PLANNERS

MEMORANDUM

DATE: June 26, 2019

TO: Debby Fernandez, City of Santa Clara

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

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

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

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

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

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

1.5.1 Revisions to Buildings 1-4

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

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

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

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

1.5.2 Revisions to the Hotel and Commercial Retail Space

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

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

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

1.5.3 Revisions to Park Space and Common Amenity Space

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

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

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

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

1.5.4 Other Project Components

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

DRAFT EIR PROJECT

FINAL PROJECT

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

1.5.5 Project Objectives

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

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

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

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

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

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

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

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

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

1.5.6 Environmental Impacts

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

1.5.2.1 *Aesthetic Impacts*

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

1.5.2.2 *Agricultural and Forestry Resources*

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

1.5.2.3 *Air Quality*

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

Cumulative Contribution to Non-Attainment Criteria Pollutant Emissions

Construction Emissions

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

Mitigation Measures:

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

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

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

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

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

Operational Emissions

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

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

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

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

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

Mitigation Measures:

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

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

Effects on Air Quality Standards

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

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

Exposure of Sensitive Receptors to Pollutant Concentrations

Exposure of Sensitive Receptors from Project Construction Activity

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

Exposure of Sensitive Receptors to Project Emergency Generator Testing and Maintenance

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

Exposure of On-Site Sensitive Receptors from Existing TAC Sources

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

Conditions of Approval:

- The final site layout shall locate operable windows and air intakes as far as possible and feasible from TAC sources.
- Install air filtration at all residential units. Air filtration devices shall be rated MERV13 or higher. To ensure adequate health protection to sensitive receptors, a ventilation system shall meet the following minimal design standards:
    a. A MERV13 or higher rating;
    b. At least one air exchange(s) per hour of fresh outside filtered air; and
    c. At least four air exchange(s) per hour recirculation.
    Alternately, at the approval of the City, equivalent control technology may be used if it is shown by a qualified air quality consultant or heating, ventilation, and air conditioning (HVAC) engineer that it would reduce risk below significance thresholds.
- Implement an ongoing maintenance plan for the building's HVAC air filtration system. Recognizing that emissions from air pollution sources are decreasing, the maintenance period shall last as long as significant excess cancer risk or annual $PM_{2.5}$ exposures are predicted. Subsequent studies could be conducted by an air quality expert approved by the City to identify the ongoing need for the filtered ventilation systems as future information becomes available.
- Ensure that the lease agreement and other property documents (1) require cleaning, maintenance, and monitoring of the affected units for air flow leaks; (2) include information on the ventilation system to new owners and tenants; and (3) include provisions that fees associated with owning or leasing a unit(s) in the building include funds for cleaning, maintenance, monitoring, and replacements of the filters, as needed.
- Prior to building occupancy, an authorized air pollutant consultant or HVAC engineer shall verify the installation of all necessary measures to reduce TAC exposure.

Odors

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

Consistency with the 2017 Clean Air Plan

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

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

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

Cumulative Impacts

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

1.5.2.4 *Biological Resources*

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

Special-Status Species and Sensitive Habitats

Burrowing Owls

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

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

Conditions of Approval:

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

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

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

Nesting Birds

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

Mitigation Measures:

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

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

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

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

Bird Strikes

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

Conditions of Approval:

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

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

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

Impacts to Trees

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

Consistency with the Habitat Plan

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

Cumulative Impacts

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

1.5.2.5 *Cultural Resources*

Historic, Paleontological, Tribal Cultural Resources Impacts

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

Archaeological Resources Impacts

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

Mitigation Measures:

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

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

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

Cumulative Impacts

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

1.5.2.6 *Energy*

Energy Use and Efficiency

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

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

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

Table 1.5-4: Estimated Annual Operational Energy Demand

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

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

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

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

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

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

Increase in Energy Demand

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

Cumulative Impacts

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

1.5.2.7 *Geology and Soils*

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

1.5.2.8 *Greenhouse Gas Emissions*

Construction Emissions

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

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

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

Operational Emissions

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

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

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

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

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

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

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

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

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

Cumulative Impacts

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

1.5.2.9 *Hazards and Hazardous Materials*

Routine Transport, Use, or Disposal of Hazardous Materials

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

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

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

Mitigation Measures:

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

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

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

Safety Hazards

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

Emergency Plan and Wildland Fires

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

Consistency with the Airport Comprehensive Land Use Plan

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

Cumulative Impacts

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

1.5.2.10 *Hydrology and Water Quality*

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

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

1.5.2.11 *Land Use and Planning*

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

1.5.2.12 *Mineral Resources*

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

1.5.2.13 *Noise and Vibration*

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

Future Exterior Noise Levels

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

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

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

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

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

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

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

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

Mitigation Measure:

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

Hotel Outdoor Use Areas

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

Future Interior Noise Levels

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

Conditions of Approval:

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

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

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

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

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

BART Vibration Effects

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

Construction-Related Impacts

Construction-Related Vibration Impacts

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

Construction-Related Noise Impacts

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

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

Mitigation Measure:

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

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

Operational Noise

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

Mitigation Measure:

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

Project Generated Traffic

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

Consistency with Plans

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

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

Cumulative Impacts

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

1.5.2.14 *Population and Housing*

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

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

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

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

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

1.5.2.15 *Public Services*

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

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

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

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

1.4.2.16 *Recreation*

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

1.5.2.17 *Transportation/Traffic*

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

Table 1.5-7: Estimated Project Trip Generation

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

Sources:

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

Existing Plus Project Conditions

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

Mitigation Measures:

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

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

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

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

[7] Hexagon Transportation Consultants. *Traffic Impact Analysis Consistency Review for the Gateway Crossings Mixed-Use Development Project Description Adjustment.* June 5, 2019.

[8] Tier 1A improvements are the County's highest priority improvements in the Comprehensive County Expressway Planning Study and will be fully funded in the near-term.

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

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

Existing Plus Project Freeway Segment Levels of Service

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

Mitigation Measure:

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

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

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

Background Plus Project Conditions

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

Mitigation Measures:

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

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

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

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

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

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

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

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

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

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

Construction-Related Traffic Impacts

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

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

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

Pedestrian, Bicycle, and Transit Facilities Impacts

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

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

Other Impacts

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

Cumulative Plus Project Conditions

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

Mitigation Measures:

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

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

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

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

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

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

1.5.2.18 *Utilities and Service Systems*

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

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

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

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

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

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

Wastewater/Sanitary Sewer System Impact

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

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

Stormwater Drainage System Impact

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

Water Supply Impact

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

Solid Waste Impacts

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

Cumulative Impacts

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

1.5.2.19 *Growth-Inducing Impacts*

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

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

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

Table 1.5-10: Summary of Project and Project Alternative Impacts					
Impacts	**Final Project**	**Draft EIR Project**	**No Project Alternatives**		**Reduced Development Alternative**
			No Development	**Development**	
Mineral Resources	NI	NI	NI	NI	NI
Noise and Vibration					
• Aircraft noise	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 Revised Objectives?	Yes	Partially	No	Partially	Partially
Meets City's Objectives?	Yes	Yes	No	No	Partially

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Appendix E: Final Project Air Quality Memo

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality

429 E. Cotati Avenue
Cotati, CA 94931

Tel: 707-794-0400
www.illingworthrodkin.com

Fax: 707-794-0405
illro@illingworthrodkin.com

MEMO

Date: June 11, 2019

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

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

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

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

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

Table 1 Summary of Land Use Changes

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

Emissions Modeling

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

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

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

CalEEMod Modeling

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

Construction Emissions

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

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

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

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

Operational Emissions

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

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

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

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

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

Emergency Backup Generator

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

Attachments: CalEEMod Model Output for:

DEIR Project
Final Project

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

Gateway Crossings - June 2019 FINAL project

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

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

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SVP 2020 rate = 380 MT or less

Land Use - DEIR land uses

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

Off-road Equipment -

Trips and VMT -

Grading - Soil hauling

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

Woodstoves - No wood burning Nat gas = 501

Energy Use -

Water And Wastewater - WTP treatment

Construction Off-road Equipment Mitigation -

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

Energy Mitigation - energy efficient appliances

Water Mitigation - water efficiency

Operational Off-Road Equipment -

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

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

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

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.6133	6.3102	4.4103	0.0169	0.9916	0.1484	1.1400	0.3146	0.1385	0.4531	0.0000	1,573.4486	1,573.4486	0.1230	0.0000	1,576.5236
2020	1.2118	8.8128	9.2688	0.0340	2.0842	0.1862	2.2704	0.5620	0.1754	0.7374	0.0000	3,130.1735	3,130.1735	0.1716	0.0000	3,134.4643
2021	13.2950	0.9727	1.1323	3.9400e-003	0.2427	0.0232	0.2659	0.0653	0.0217	0.0870	0.0000	361.6348	361.6348	0.0240	0.0000	362.2352
Maximum	**13.2950**	**8.8128**	**9.2688**	**0.0340**	**2.0842**	**0.1862**	**2.2704**	**0.5620**	**0.1754**	**0.7374**	**0.0000**	**3,130.1735**	**3,130.1735**	**0.1716**	**0.0000**	**3,134.4643**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.6133	6.3102	4.4103	0.0169	0.9916	0.1484	1.1400	0.3146	0.1385	0.4531	0.0000	1,573.4484	1,573.4484	0.1230	0.0000	1,576.5233
2020	1.2118	8.8128	9.2688	0.0340	2.0842	0.1862	2.2704	0.5620	0.1754	0.7374	0.0000	3,130.1732	3,130.1732	0.1716	0.0000	3,134.4639
2021	13.2950	0.9727	1.1323	3.9400e-003	0.2427	0.0232	0.2659	0.0653	0.0217	0.0870	0.0000	361.6347	361.6347	0.0240	0.0000	362.2351
Maximum	**13.2950**	**8.8128**	**9.2688**	**0.0340**	**2.0842**	**0.1862**	**2.2704**	**0.5620**	**0.1754**	**0.7374**	**0.0000**	**3,130.1732**	**3,130.1732**	**0.1716**	**0.0000**	**3,134.4639**

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

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

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.2992	0.1880	11.6569	9.6000e-004		0.0689	0.0689		0.0689	0.0689	0.0000	81.5741	81.5741	0.0195	1.1500e-003	82.4033
Energy	0.1515	1.3379	0.8656	8.2700e-003		0.1047	0.1047		0.1047	0.1047	0.0000	4,062.1896	4,062.1896	0.2243	0.0680	4,088.0477
Mobile	2.0955	8.3300	23.6302	0.0917	9.6070	0.0720	9.6791	2.5712	0.0670	2.6382	0.0000	8,418.1998	8,418.1998	0.2568	0.0000	8,424.6203
Stationary	5.5400e-003	0.0155	0.0201	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.5704	2.5704	3.6000e-004	0.0000	2.5794
Waste						0.0000	0.0000		0.0000	0.0000	180.7310	0.0000	180.7310	10.6809	0.0000	447.7533
Water						0.0000	0.0000		0.0000	0.0000	39.2744	143.9280	183.2024	0.1462	0.0877	212.9856
Total	**11.5517**	**9.8713**	**36.1728**	**0.1009**	**9.6070**	**0.2464**	**9.8534**	**2.5712**	**0.2414**	**2.8126**	**220.0054**	**12,708.4618**	**12,928.4672**	**11.3280**	**0.1568**	**13,258.3896**

Mitigated Operational

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

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

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**6.23**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.57**	**0.41**	**0.46**	**0.27**	**11.42**	**0.50**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/11/2019	7/8/2019	5	20	
2	Site Preparation	Site Preparation	7/9/2019	7/22/2019	5	10	
3	Grading	Grading	7/23/2019	9/9/2019	5	35	
4	Building Construction	Building Construction	9/10/2019	2/8/2021	5	370	
5	Paving	Paving	2/9/2021	3/8/2021	5	20	
6	Architectural Coating	Architectural Coating	3/9/2021	4/5/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	11,250.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,685.00	387.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8672
Total	**0.0351**	**0.3578**	**0.2206**	**3.9000e-004**		**0.0180**	**0.0180**		**0.0167**	**0.0167**	**0.0000**	**34.6263**	**34.6263**	**9.6300e-003**	**0.0000**	**34.8672**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	4.1000e-004	4.1900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0531	1.0531	3.0000e-005	0.0000	1.0538
Total	**5.4000e-004**	**4.1000e-004**	**4.1900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0531**	**1.0531**	**3.0000e-005**	**0.0000**	**1.0538**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8671
Total	**0.0351**	**0.3578**	**0.2206**	**3.9000e-004**		**0.0180**	**0.0180**		**0.0167**	**0.0167**	**0.0000**	**34.6263**	**34.6263**	**9.6300e-003**	**0.0000**	**34.8671**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	4.1000e-004	4.1900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0531	1.0531	3.0000e-005	0.0000	1.0538
Total	**5.4000e-004**	**4.1000e-004**	**4.1900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0531**	**1.0531**	**3.0000e-005**	**0.0000**	**1.0538**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.4000e-004	2.5100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6319	0.6319	2.0000e-005	0.0000	0.6323
Total	**3.3000e-004**	**2.4000e-004**	**2.5100e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6319**	**0.6319**	**2.0000e-005**	**0.0000**	**0.6323**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.4000e-004	2.5100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6319	0.6319	2.0000e-005	0.0000	0.6323
Total	**3.3000e-004**	**2.4000e-004**	**2.5100e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6319**	**0.6319**	**2.0000e-005**	**0.0000**	**0.6323**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1569	0.0000	0.1569	0.0637	0.0000	0.0637	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0829	0.9541	0.5841	1.0900e-003		0.0417	0.0417		0.0384	0.0384	0.0000	97.4773	97.4773	0.0308	0.0000	98.2483
Total	**0.0829**	**0.9541**	**0.5841**	**1.0900e-003**	**0.1569**	**0.0417**	**0.1986**	**0.0637**	**0.0384**	**0.1021**	**0.0000**	**97.4773**	**97.4773**	**0.0308**	**0.0000**	**98.2483**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0511	1.7513	0.3459	4.4800e-003	0.0953	6.7200e-003	0.1021	0.0262	6.4300e-003	0.0327	0.0000	433.4877	433.4877	0.0203	0.0000	433.9955
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2700e-003	9.5000e-004	9.7800e-003	3.0000e-005	2.7800e-003	2.0000e-005	2.7900e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.4573	2.4573	7.0000e-005	0.0000	2.4590
Total	**0.0524**	**1.7523**	**0.3557**	**4.5100e-003**	**0.0981**	**6.7400e-003**	**0.1049**	**0.0270**	**6.4500e-003**	**0.0334**	**0.0000**	**435.9450**	**435.9450**	**0.0204**	**0.0000**	**436.4545**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1569	0.0000	0.1569	0.0637	0.0000	0.0637	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0829	0.9541	0.5841	1.0900e-003		0.0417	0.0417		0.0384	0.0384	0.0000	97.4772	97.4772	0.0308	0.0000	98.2482
Total	**0.0829**	**0.9541**	**0.5841**	**1.0900e-003**	**0.1569**	**0.0417**	**0.1986**	**0.0637**	**0.0384**	**0.1021**	**0.0000**	**97.4772**	**97.4772**	**0.0308**	**0.0000**	**98.2482**

Mitigated Construction Off-Site

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

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

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0956	0.8537	0.6951	1.0900e-003		0.0522	0.0522		0.0491	0.0491	0.0000	95.2172	95.2172	0.0232	0.0000	95.7971
Total	**0.0956**	**0.8537**	**0.6951**	**1.0900e-003**		**0.0522**	**0.0522**		**0.0491**	**0.0491**	**0.0000**	**95.2172**	**95.2172**	**0.0232**	**0.0000**	**95.7971**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0769	1.9792	0.5313	4.3000e-003	0.1031	0.0142	0.1173	0.0298	0.0136	0.0434	0.0000	412.2943	412.2943	0.0205	0.0000	412.8056
Worker	0.2479	0.1846	1.9064	5.3000e-003	0.5412	3.5700e-003	0.5448	0.1440	3.2900e-003	0.1472	0.0000	479.1192	479.1192	0.0131	0.0000	479.4453
Total	**0.3247**	**2.1638**	**2.4377**	**9.6000e-003**	**0.6443**	**0.0178**	**0.6621**	**0.1738**	**0.0169**	**0.1907**	**0.0000**	**891.4135**	**891.4135**	**0.0335**	**0.0000**	**892.2509**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0956	0.8537	0.6951	1.0900e-003		0.0522	0.0522		0.0491	0.0491	0.0000	95.2171	95.2171	0.0232	0.0000	95.7970
Total	**0.0956**	**0.8537**	**0.6951**	**1.0900e-003**		**0.0522**	**0.0522**		**0.0491**	**0.0491**	**0.0000**	**95.2171**	**95.2171**	**0.0232**	**0.0000**	**95.7970**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0769	1.9792	0.5313	4.3000e-003	0.1031	0.0142	0.1173	0.0298	0.0136	0.0434	0.0000	412.2943	412.2943	0.0205	0.0000	412.8056
Worker	0.2479	0.1846	1.9064	5.3000e-003	0.5412	3.5700e-003	0.5448	0.1440	3.2900e-003	0.1472	0.0000	479.1192	479.1192	0.0131	0.0000	479.4453
Total	**0.3247**	**2.1638**	**2.4377**	**9.6000e-003**	**0.6443**	**0.0178**	**0.6621**	**0.1738**	**0.0169**	**0.1907**	**0.0000**	**891.4135**	**891.4135**	**0.0335**	**0.0000**	**892.2509**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4091	303.4091	0.0740	0.0000	305.2596
Total	**0.2777**	**2.5134**	**2.2072**	**3.5300e-003**		**0.1463**	**0.1463**		**0.1376**	**0.1376**	**0.0000**	**303.4091**	**303.4091**	**0.0740**	**0.0000**	**305.2596**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2009	5.7725	1.5374	0.0138	0.3335	0.0286	0.3621	0.0964	0.0274	0.1238	0.0000	1,325.4365	1,325.4365	0.0608	0.0000	1,326.9561
Worker	0.7332	0.5269	5.5242	0.0166	1.7507	0.0113	1.7620	0.4656	0.0104	0.4760	0.0000	1,501.3280	1,501.3280	0.0368	0.0000	1,502.2486
Total	**0.9341**	**6.2994**	**7.0616**	**0.0304**	**2.0842**	**0.0399**	**2.1241**	**0.5620**	**0.0378**	**0.5998**	**0.0000**	**2,826.7644**	**2,826.7644**	**0.0976**	**0.0000**	**2,829.2047**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4087	303.4087	0.0740	0.0000	305.2592

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2009	5.7725	1.5374	0.0138	0.3335	0.0286	0.3621	0.0964	0.0274	0.1238	0.0000	1,325.4365	1,325.4365	0.0608	0.0000	1,326.9561
Worker	0.7332	0.5269	5.5242	0.0166	1.7507	0.0113	1.7620	0.4656	0.0104	0.4760	0.0000	1,501.3280	1,501.3280	0.0368	0.0000	1,502.2486
Total	0.9341	6.2994	7.0616	0.0304	2.0842	0.0399	2.1241	0.5620	0.0378	0.5998	0.0000	2,826.7644	2,826.7644	0.0976	0.0000	2,829.2047

3.5 Building Construction - 2021

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0170	0.5369	0.1429	1.4100e-003	0.0344	1.1900e-003	0.0356	9.9400e-003	1.1400e-003	0.0111	0.0000	135.3299	135.3299	5.9000e-003	0.0000	135.4773
Worker	0.0701	0.0485	0.5204	1.6500e-003	0.1804	1.1400e-003	0.1816	0.0480	1.0500e-003	0.0490	0.0000	149.3469	149.3469	3.4000e-003	0.0000	149.4318
Total	**0.0871**	**0.5854**	**0.6633**	**3.0600e-003**	**0.2148**	**2.3300e-003**	**0.2171**	**0.0579**	**2.1900e-003**	**0.0601**	**0.0000**	**284.6768**	**284.6768**	**9.3000e-003**	**0.0000**	**284.9091**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

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

3.6 Paving - 2021

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.2000e-004	3.4300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9848	0.9848	2.0000e-005	0.0000	0.9854
Total	**4.6000e-004**	**3.2000e-004**	**3.4300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9848**	**0.9848**	**2.0000e-005**	**0.0000**	**0.9854**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.2000e-004	3.4300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9848	0.9848	2.0000e-005	0.0000	0.9854
Total	**4.6000e-004**	**3.2000e-004**	**3.4300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9848**	**0.9848**	**2.0000e-005**	**0.0000**	**0.9854**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	13.1567					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

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

4.3 Trip Type Information

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

4.4 Fleet Mix

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.35207e+007	0.0729	0.6230	0.2651	3.9800e-003		0.0504	0.0504		0.0504	0.0504	0.0000	721.5181	721.5181	0.0138	0.0132	725.8058
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	1.44761e+007	0.0781	0.7096	0.5961	4.2600e-003		0.0539	0.0539		0.0539	0.0539	0.0000	772.4986	772.4986	0.0148	0.0142	777.0892
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	106650	5.8000e-004	5.2300e-003	4.3900e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	5.6913	5.6913	1.1000e-004	1.0000e-004	5.7251
Total		**0.1516**	**1.3379**	**0.8656**	**8.2700e-003**		**0.1047**	**0.1047**		**0.1047**	**0.1047**	**0.0000**	**1,499.7080**	**1,499.7080**	**0.0288**	**0.0275**	**1,508.6200**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.35207e+007	0.0729	0.6230	0.2651	3.9800e-003		0.0504	0.0504		0.0504	0.0504	0.0000	721.5181	721.5181	0.0138	0.0132	725.8058
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	1.44761e+007	0.0781	0.7096	0.5961	4.2600e-003		0.0539	0.0539		0.0539	0.0539	0.0000	772.4986	772.4986	0.0148	0.0142	777.0892
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	106650	5.8000e-004	5.2300e-003	4.3900e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	5.6913	5.6913	1.1000e-004	1.0000e-004	5.7251
Total		**0.1516**	**1.3379**	**0.8656**	**8.2700e-003**		**0.1047**	**0.1047**		**0.1047**	**0.1047**	**0.0000**	**1,499.7080**	**1,499.7080**	**0.0288**	**0.0275**	**1,508.6200**

5.3 Energy by Land Use - Electricity

Unmitigated

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

Total		2,562.4816	0.1956	0.0405	2,579.4277

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	8.5797	0.1880	11.6569	9.6000e-004		0.0689	0.0689		0.0689	0.0689	0.0000	81.5741	81.5741	0.0195	1.1500e-003	82.4033
Unmitigated	9.2992	0.1880	11.6569	9.6000e-004		0.0689	0.0689		0.0689	0.0689	0.0000	81.5741	81.5741	0.0195	1.1500e-003	82.4033

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.3157					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.6263					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.3200e-003	0.0540	0.0230	3.4000e-004		4.3700e-003	4.3700e-003		4.3700e-003	4.3700e-003	0.0000	62.5445	62.5445	1.2000e-003	1.1500e-003	62.9162
Landscaping	0.3508	0.1340	11.6339	6.2000e-004		0.0645	0.0645		0.0645	0.0645	0.0000	19.0296	19.0296	0.0183	0.0000	19.4872
Total	**9.2992**	**0.1880**	**11.6569**	**9.6000e-004**		**0.0689**	**0.0689**		**0.0689**	**0.0689**	**0.0000**	**81.5741**	**81.5741**	**0.0195**	**1.1500e-003**	**82.4033**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5962					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

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

7.2 Water by Land Use

Unmitigated

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

Mitigated

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

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

Mitigated

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

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	50	135	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel	5.5400e-003	0.0155	0.0201	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.5704	2.5704	3.6000e-004	0.0000	2.5794
Total	**5.5400e-003**	**0.0155**	**0.0201**	**3.0000e-005**		**8.1000e-004**	**8.1000e-004**		**8.1000e-004**	**8.1000e-004**	**0.0000**	**2.5704**	**2.5704**	**3.6000e-004**	**0.0000**	**2.5794**

11.0 Vegetation

Gateway Crossings - DEIR project - Santa Clara County, Annual

Gateway Crossings - DEIR project
Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

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

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SVP 2020 rate = 380 MT or less

Land Use - DEIR land uses

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

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

Woodstoves - No wood burning Nat gas = 512

Energy Use -

Water And Wastewater - WTP treatment

Energy Mitigation - energy efficient appliances

Water Mitigation - water efficiency

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

Operational Off-Road Equipment -

Grading - Soil off haul

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

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

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.8769	8.2329	6.3746	0.0238	1.4075	0.1893	1.5968	0.4268	0.1771	0.6039	0.0000	2,210.3291	2,210.3291	0.1580	0.0000	2,214.2788
2020	1.1925	8.7639	9.1554	0.0337	2.0544	0.1828	2.2372	0.5541	0.1720	0.7261	0.0000	3,102.9055	3,102.9055	0.1718	0.0000	3,107.2006
2021	13.4810	0.0358	0.1144	3.1000e-004	0.0283	1.8000e-003	0.0301	7.5200e-003	1.7300e-003	9.2500e-003	0.0000	27.9613	27.9613	1.3600e-003	0.0000	27.9952
Maximum	**13.4810**	**8.7639**	**9.1554**	**0.0337**	**2.0544**	**0.1893**	**2.2372**	**0.5541**	**0.1771**	**0.7261**	**0.0000**	**3,102.9055**	**3,102.9055**	**0.1718**	**0.0000**	**3,107.2006**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.8769	8.2329	6.3746	0.0238	1.4075	0.1893	1.5968	0.4268	0.1771	0.6039	0.0000	2,210.3288	2,210.3288	0.1580	0.0000	2,214.2784

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

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

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.5092	0.1922	11.9204	9.8000e-004		0.0704	0.0704		0.0704	0.0704	0.0000	83.3783	83.3783	0.0200	1.1700e-003	84.2263
Energy	0.1615	1.4272	0.9348	8.8100e-003		0.1116	0.1116		0.1116	0.1116	0.0000	4,322.2394	4,322.2394	0.2385	0.0723	4,349.7514
Mobile	2.0745	8.2663	23.5925	0.0919	9.6436	0.0721	9.7157	2.5810	0.0670	2.6480	0.0000	8,436.6089	8,436.6089	0.2565	0.0000	8,443.0202
Stationary	5.5400e-003	0.0155	0.0201	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.5704	2.5704	3.6000e-004	0.0000	2.5794
Waste						0.0000	0.0000		0.0000	0.0000	180.3839	0.0000	180.3839	10.6604	0.0000	446.8934
Water						0.0000	0.0000		0.0000	0.0000	39.5194	144.6619	184.1813	0.1471	0.0882	214.1491
Total	**11.7506**	**9.9011**	**36.4677**	**0.1017**	**9.6436**	**0.2549**	**9.8985**	**2.5810**	**0.2498**	**2.8308**	**219.9032**	**12,989.4590**	**13,209.3622**	**11.3227**	**0.1617**	**13,540.6198**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.5092	0.1922	11.9204	9.8000e-004		0.0704	0.0704		0.0704	0.0704	0.0000	83.3783	83.3783	0.0200	1.1700e-003	84.2263
Energy	0.1615	1.4272	0.9348	8.8100e-003		0.1116	0.1116		0.1116	0.1116	0.0000	4,292.9627	4,292.9627	0.2363	0.0719	4,320.2811
Mobile	2.0745	8.2663	23.5925	0.0919	9.6436	0.0721	9.7157	2.5810	0.0670	2.6480	0.0000	8,436.6089	8,436.6089	0.2565	0.0000	8,443.0202
Stationary	5.5400e-003	0.0155	0.0201	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.5704	2.5704	3.6000e-004	0.0000	2.5794
Waste						0.0000	0.0000		0.0000	0.0000	180.3839	0.0000	180.3839	10.6604	0.0000	446.8934
Water						0.0000	0.0000		0.0000	0.0000	31.6155	123.8263	155.4418	0.1183	0.0707	179.4696

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

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

3.0 Construction Detail

Construction Phase

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

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	11,250.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,777.00	416.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8672
Total	**0.0351**	**0.3578**	**0.2206**	**3.9000e-004**		**0.0180**	**0.0180**		**0.0167**	**0.0167**	**0.0000**	**34.6263**	**34.6263**	**9.6300e-003**	**0.0000**	**34.8672**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	4.1000e-004	4.1900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0531	1.0531	3.0000e-005	0.0000	1.0538
Total	**5.4000e-004**	**4.1000e-004**	**4.1900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0531**	**1.0531**	**3.0000e-005**	**0.0000**	**1.0538**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8671
Total	**0.0351**	**0.3578**	**0.2206**	**3.9000e-004**		**0.0180**	**0.0180**		**0.0167**	**0.0167**	**0.0000**	**34.6263**	**34.6263**	**9.6300e-003**	**0.0000**	**34.8671**

Mitigated Construction Off-Site

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

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

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.4000e-004	2.5100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6319	0.6319	2.0000e-005	0.0000	0.6323
Total	**3.3000e-004**	**2.4000e-004**	**2.5100e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6319**	**0.6319**	**2.0000e-005**	**0.0000**	**0.6323**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

Mitigated Construction Off-Site

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

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

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1569	0.0000	0.1569	0.0637	0.0000	0.0637	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0829	0.9541	0.5841	1.0900e-003		0.0417	0.0417		0.0384	0.0384	0.0000	97.4773	97.4773	0.0308	0.0000	98.2483
Total	**0.0829**	**0.9541**	**0.5841**	**1.0900e-003**	**0.1569**	**0.0417**	**0.1986**	**0.0637**	**0.0384**	**0.1021**	**0.0000**	**97.4773**	**97.4773**	**0.0308**	**0.0000**	**98.2483**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0511	1.7513	0.3459	4.4800e-003	0.0953	6.7200e-003	0.1021	0.0262	6.4300e-003	0.0327	0.0000	433.4877	433.4877	0.0203	0.0000	433.9955
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2700e-003	9.5000e-004	9.7800e-003	3.0000e-005	2.7800e-003	2.0000e-005	2.7900e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.4573	2.4573	7.0000e-005	0.0000	2.4590
Total	**0.0524**	**1.7523**	**0.3557**	**4.5100e-003**	**0.0981**	**6.7400e-003**	**0.1049**	**0.0270**	**6.4500e-003**	**0.0334**	**0.0000**	**435.9450**	**435.9450**	**0.0204**	**0.0000**	**436.4545**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1569	0.0000	0.1569	0.0637	0.0000	0.0637	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0829	0.9541	0.5841	1.0900e-003		0.0417	0.0417		0.0384	0.0384	0.0000	97.4772	97.4772	0.0308	0.0000	98.2482
Total	**0.0829**	**0.9541**	**0.5841**	**1.0900e-003**	**0.1569**	**0.0417**	**0.1986**	**0.0637**	**0.0384**	**0.1021**	**0.0000**	**97.4772**	**97.4772**	**0.0308**	**0.0000**	**98.2482**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0511	1.7513	0.3459	4.4800e-003	0.0953	6.7200e-003	0.1021	0.0262	6.4300e-003	0.0327	0.0000	433.4877	433.4877	0.0203	0.0000	433.9955

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

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1488	1.3280	1.0813	1.7000e-003		0.0813	0.0813		0.0764	0.0764	0.0000	148.1156	148.1156	0.0361	0.0000	149.0177
Total	**0.1488**	**1.3280**	**1.0813**	**1.7000e-003**		**0.0813**	**0.0813**		**0.0764**	**0.0764**	**0.0000**	**148.1156**	**148.1156**	**0.0361**	**0.0000**	**149.0177**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1285	3.3095	0.8884	7.2000e-003	0.1724	0.0238	0.1962	0.0498	0.0228	0.0726	0.0000	689.4062	689.4062	0.0342	0.0000	690.2612
Worker	0.4066	0.3028	3.1275	8.7000e-003	0.8879	5.8600e-003	0.8938	0.2361	5.4000e-003	0.2415	0.0000	785.9893	785.9893	0.0214	0.0000	786.5243
Total	**0.5351**	**3.6122**	**4.0158**	**0.0159**	**1.0603**	**0.0296**	**1.0899**	**0.2860**	**0.0282**	**0.3141**	**0.0000**	**1,475.3955**	**1,475.3955**	**0.0556**	**0.0000**	**1,476.7855**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1488	1.3280	1.0813	1.7000e-003		0.0813	0.0813		0.0764	0.0764	0.0000	148.1155	148.1155	0.0361	0.0000	149.0175
Total	**0.1488**	**1.3280**	**1.0813**	**1.7000e-003**		**0.0813**	**0.0813**		**0.0764**	**0.0764**	**0.0000**	**148.1155**	**148.1155**	**0.0361**	**0.0000**	**149.0175**

Mitigated Construction Off-Site

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

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

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2586	2.3407	2.0555	3.2800e-003		0.1363	0.1363		0.1281	0.1281	0.0000	282.5642	282.5642	0.0689	0.0000	284.2876
Total	**0.2586**	**2.3407**	**2.0555**	**3.2800e-003**		**0.1363**	**0.1363**		**0.1281**	**0.1281**	**0.0000**	**282.5642**	**282.5642**	**0.0689**	**0.0000**	**284.2876**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2011	5.7788	1.5391	0.0138	0.3339	0.0286	0.3625	0.0965	0.0274	0.1239	0.0000	1,326.8744	1,326.8744	0.0609	0.0000	1,328.3956
Worker	0.7201	0.5175	5.4256	0.0163	1.7194	0.0111	1.7305	0.4573	0.0102	0.4675	0.0000	1,474.5233	1,474.5233	0.0362	0.0000	1,475.4275
Total	**0.9213**	**6.2963**	**6.9646**	**0.0302**	**2.0533**	**0.0397**	**2.0930**	**0.5538**	**0.0376**	**0.5914**	**0.0000**	**2,801.3977**	**2,801.3977**	**0.0970**	**0.0000**	**2,803.8231**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2586	2.3407	2.0555	3.2800e-003		0.1363	0.1363		0.1281	0.1281	0.0000	282.5638	282.5638	0.0689	0.0000	284.2872
Total	**0.2586**	**2.3407**	**2.0555**	**3.2800e-003**		**0.1363**	**0.1363**		**0.1281**	**0.1281**	**0.0000**	**282.5638**	**282.5638**	**0.0689**	**0.0000**	**284.2872**

Mitigated Construction Off-Site

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

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

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0122	0.1266	0.1319	2.1000e-004		6.7800e-003	6.7800e-003		6.2300e-003	6.2300e-003	0.0000	18.0254	18.0254	5.8300e-003	0.0000	18.1711
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0122**	**0.1266**	**0.1319**	**2.1000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2300e-003**	**6.2300e-003**	**0.0000**	**18.0254**	**18.0254**	**5.8300e-003**	**0.0000**	**18.1711**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.2000e-004	3.3800e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.9182	0.9182	2.0000e-005	0.0000	0.9188
Total	**4.5000e-004**	**3.2000e-004**	**3.3800e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.9182**	**0.9182**	**2.0000e-005**	**0.0000**	**0.9188**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0122	0.1266	0.1319	2.1000e-004		6.7800e-003	6.7800e-003		6.2300e-003	6.2300e-003	0.0000	18.0254	18.0254	5.8300e-003	0.0000	18.1711
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0122**	**0.1266**	**0.1319**	**2.1000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2300e-003**	**6.2300e-003**	**0.0000**	**18.0254**	**18.0254**	**5.8300e-003**	**0.0000**	**18.1711**

Mitigated Construction Off-Site

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

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

3.6 Paving - 2021

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0985	0.0985	0.0000	0.0000	0.0985
Total	**5.0000e-005**	**3.0000e-005**	**3.4000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0985**	**0.0985**	**0.0000**	**0.0000**	**0.0985**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

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

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

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

4.3 Trip Type Information

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

4.4 Fleet Mix

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.38231e+007	0.0745	0.6370	0.2710	4.0700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	737.6543	737.6543	0.0141	0.0135	742.0378
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	1.60845e+007	0.0867	0.7885	0.6623	4.7300e-003		0.0599	0.0599		0.0599	0.0599	0.0000	858.3318	858.3318	0.0165	0.0157	863.4324
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	35550	1.9000e-004	1.7400e-003	1.4600e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8971	1.8971	4.0000e-005	3.0000e-005	1.9084
Total		**0.1615**	**1.4272**	**0.9348**	**8.8100e-003**		**0.1116**	**0.1116**		**0.1116**	**0.1116**	**0.0000**	**1,597.8832**	**1,597.8832**	**0.0306**	**0.0293**	**1,607.3786**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.38231e+007	0.0745	0.6370	0.2710	4.0700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	737.6543	737.6543	0.0141	0.0135	742.0378
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	1.60845e+007	0.0867	0.7885	0.6623	4.7300e-003		0.0599	0.0599		0.0599	0.0599	0.0000	858.3318	858.3318	0.0165	0.0157	863.4324
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	35550	1.9000e-004	1.7400e-003	1.4600e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8971	1.8971	4.0000e-005	3.0000e-005	1.9084
Total		**0.1615**	**1.4272**	**0.9348**	**8.8100e-003**		**0.1116**	**0.1116**		**0.1116**	**0.1116**	**0.0000**	**1,597.8832**	**1,597.8832**	**0.0306**	**0.0293**	**1,607.3786**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

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

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.5092	0.1922	11.9204	9.8000e-004		0.0704	0.0704		0.0704	0.0704	0.0000	83.3783	83.3783	0.0200	1.1700e-003	84.2263
Unmitigated	9.5092	0.1922	11.9204	9.8000e-004		0.0704	0.0704		0.0704	0.0704	0.0000	83.3783	83.3783	0.0200	1.1700e-003	84.2263

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.3467					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.7971					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.3467					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.7971					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.4600e-003	0.0552	0.0235	3.5000e-004		4.4600e-003	4.4600e-003		4.4600e-003	4.4600e-003	0.0000	63.9177	63.9177	1.2300e-003	1.1700e-003	64.2976
Landscaping	0.3589	0.1370	11.8969	6.3000e-004		0.0660	0.0660		0.0660	0.0660	0.0000	19.4606	19.4606	0.0187	0.0000	19.9287
Total	**9.5092**	**0.1922**	**11.9204**	**9.8000e-004**		**0.0704**	**0.0704**		**0.0704**	**0.0704**	**0.0000**	**83.3783**	**83.3783**	**0.0200**	**1.1700e-003**	**84.2263**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

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

7.2 Water by Land Use

Unmitigated

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

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

Mitigated

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

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

Mitigated

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

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	50	135	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (100 - 175 HP)	5.5400e-003	0.0155	0.0201	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.5704	2.5704	3.6000e-004	0.0000	2.5794
Total	**5.5400e-003**	**0.0155**	**0.0201**	**3.0000e-005**		**8.1000e-004**	**8.1000e-004**		**8.1000e-004**	**8.1000e-004**	**0.0000**	**2.5704**	**2.5704**	**3.6000e-004**	**0.0000**	**2.5794**

11.0 Vegetation

Appendix F: Final Project Noise Memo

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality
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MEMO

Date: June 12, 2019

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

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

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

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

Project Description

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

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

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

Traffic Noise Increases

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

Noise and Land Use Compatibility

Future Exterior Noise Environment

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

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

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

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

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

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

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

Future Interior Noise Environment

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

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

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

Stationary Equipment Noise

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

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

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

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

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

Appendix G: Final Project Traffic Impact Analysis Consistency Review

Hexagon Transportation Consultants, Inc.

Memorandum

Date: June 5, 2019

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

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

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

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

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

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

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Table 1
Trip Generation Comparison

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

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

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

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

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

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