MITIGATED NEGATIVE DECLARATION FOR THE TOWNEPLACE SUITES

May 2013

APPENDICES

Lead Agency:
City of Foster City
610 Foster City Boulevard
Foster City, CA 94404

ROCKRIDGE
GEOTECHNICAL

October 3, 2011
Project 11-365

Sharad Lal
3018 Willow Pass Road
Concord, California 94519

Subject: Geotechnical Review
1299 Chess Drive
Foster City, California

Dear Mr. Lal:

This letter presents the results of our geotechnical review for the site at 1299 Chess Drive in Foster City, California. The site is a 1.7-acre parcel on Chess Drive, just north of its intersection with Vintage Park Drive. This site is currently occupied by a one-story commercial building. We understand plans are to demolish the existing commercial building and construct a 14,000-square-foot, five-story hotel surrounded by an asphalt-paved parking lot. The hotel will be framed in wood or light steel.

SITE DESCRIPTION

This site is relatively level and currently occupied by a one-story commercial building surrounded by an asphalt-paved parking lot. The site is bordered by Vintage Park Drive to the south, State Highway 92 to the west, and commercial developments to the north and east.

ANTICIPATED SUBSURFACE CONDITIONS

On the basis of our review of geotechnical investigation reports for projects in the vicinity of the subject property, we anticipate the subsurface conditions at the site consist of about 4 to 5 feet of fill consisting of medium dense to dense sand with shells underlain by a very soft to medium stiff, highly compressible marine clay deposit, referred to as Bay Mud, which extends to a depth of approximately 40 to 50 feet below the ground surface (bgs). Consolidation tests of Bay Mud in the site vicinity indicate the Bay Mud is normally consolidated[1]. The Bay Mud is underlain by medium stiff to very stiff clay with varying sand content that extends to at least 100 feet bgs. Below a depth of 100 feet bgs, the subsurface conditions are expected to consist of stiff to hard clay with occasional layers of dense to very dense sand.

The depth to groundwater in Foster City is typically near the top of the Bay Mud, approximately 4 to 5 feet bgs.

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1 Normally consolidated clay has completed consolidation under the existing load; an overconsolidated clay has a preconsolidation pressure higher than the existing load.

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REGIONAL SEISMICITY

The major active faults in the area are the San Andreas, San Gregorio, Hayward, and Calaveras Faults. For each of the active faults within a distance of 40 kilometers (km) from the site, the distance from the site and estimated maximum Moment magnitude[2] [Working Group on California Earthquake Probabilities (WGCEP) (2008) and Cao et al. (2003)] are summarized in Table 1.

TABLE 1
Regional Faults and Seismicity

Fault Segment	Approximate Distance from Site (km)	Direction from Site	Mean Characteristic Moment Magnitude
San Andreas – 1906 Event	8	West	8.1
San Andreas – Peninsula	8	West	7.2
Monte Vista-Shannon	14	South	6.5
San Gregorio Connected	20	West	7.5
Total Hayward	23	Northeast	7.0
Total Hayward-Rodgers Creek	22	Northeast	7.3
Total Calaveras	34	East	7.0
N. San Andreas – North Coast	36	Northwest	7.5
Mount Diablo Thrust	40	Northeast	6.7

The most recent earthquake to affect the Bay Area was the Loma Prieta Earthquake of 17 October 1989, in the Santa Cruz Mountains with a M_w of 6.9, approximately 68 km from the site.

The U.S. Geological Survey's 2007 Working Group on California Earthquake Probabilities has compiled the earthquake fault research for the San Francisco Bay area in order to estimate the probability of fault segment rupture. They have determined that the overall probability of

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2 Moment magnitude is an energy-based scale and provides a physically meaningful measure of the size of a faulting event. Moment magnitude is directly related to average slip and fault rupture area.

moment magnitude 6.7 or greater earthquake occurring in the San Francisco Bay Region during the next 30 years is 63 percent. The highest probabilities are assigned to the Hayward/Rodgers Creek Fault and the northern segment of the San Andreas Fault. These probabilities are 31 and 21 percent, respectively (USGS, 2008).

GEOLOGIC HAZARDS

During a major earthquake on a segment of one of the nearby faults, strong to very strong ground shaking is expected to occur at the project site. Strong shaking during an earthquake can result in ground failure such as that associated with soil liquefaction, lateral spreading, and cyclic densification. Our preliminary conclusions regarding geologic hazards, based on our data review and experience in the project vicinity are presented below. The discussion in the following paragraphs is preliminary and geologic hazards should be re-evaluated based on a more detailed site-specific geotechnical investigation.

Cyclic Densification

Cyclic densification (also referred to as differential compaction) of non-saturated sand (sand above the groundwater table) can occur during an earthquake, resulting in settlement of the ground surface and overlying improvements. The approximately 4 to 5 feet of medium dense to dense sand fill encountered above the design groundwater table at the site is not susceptible to cyclic densification because of its density. Therefore, we conclude the potential for ground surface settlement due to cyclic densification is very low.

Liquefaction and Associated Hazards

The soil types most susceptible to liquefaction are loose, saturated, uniformly graded, sands and gravels and silts with little or no plasticity (i.e., cohesion). The Bay Mud and medium dense to dense sand fill encountered below the design groundwater table at the site are not susceptible to liquefaction because of their density or cohesion, respectively. Therefore, we conclude the potential for liquefaction and associated hazards, including lateral spreading, to occur at the site are very low.

Fault Rupture

Published data indicate neither known active faults nor extensions of active faults exist beneath the site. Therefore, we judge the potential of surface rupture occurring at the site is very low.

DISCUSSION AND CONCLUSIONS

On the basis of our data review, we conclude there are no geotechnical or geologic constraints that would preclude the site from being developed as proposed. The primary geotechnical concern at the project site is the presence of approximately 35 to 45 feet of very soft to medium stiff, highly compressible Bay Mud. Our conclusions regarding probable foundation type and site settlement are presented in the following sections.

Foundations

The factors influencing the selection of a safe, economical foundation system with adequate capacities for the proposed structure include:

- the presence of a relatively thick layer of weak, highly compressible Bay Mud
- concerns regarding total and differential settlement if building loads are imposed on the fill and Bay Mud.

If a shallow foundation system is used, the Bay Mud beneath the site would experience large total and differential consolidation settlement under new fill and building loads. Therefore, we conclude the proposed building should be supported on deep foundations that gain support below the fill and Bay Mud. Because ground-surface settlement is expected to occur as a result of secondary compression of the Bay Mud and primary consolidation of the Bay Mud if new fill is placed, we also conclude the floor slab in the proposed building should be structurally supported on deep foundations.

On the basis of our experience, we conclude piles driven to a design tip elevation beneath the Bay Mud would be the most economical deep foundation system for the subsurface conditions at the site. Pile types that have been used in the Bay Area for similar sites include prestressed, precast (PSPC) concrete piles, steel pipe piles, and steel H-piles. The most appropriate pile type should be based primarily on cost considerations, although noise during construction may be an issue. We believe the most economical pile type for the subsurface conditions at the site would be a 14-inch-square PSPC concrete pile. We anticipate PSPC concrete piles would be driven to depths ranging from about 100 to 125 feet bgs, depending on the desired capacity. To reduce the potential for heave of adjacent improvements, predrilling through the fill and Bay Mud may be necessary.

If noise and/or vibrations caused by pile driving are not desirable, then a specialty pile that can be installed without driving can be used, such as an auger-cast pile or a TORQUE DOWN 1275 (TD) piles, which are installed by Substructures Support, Inc. of Oakland, California. TD piles are Concrete-Filled Steel Pipe (CFSP) piles with a closed-end conical tip welded to the bottom of the pipe. The piles are advanced (screwed) into the ground by application of torque and crowd

(downward pressure) with a large drill rig. After the piles are advanced to the specified tip elevation or to refusal, the pipes are filled with structural concrete.

We estimate settlement of the building supported on pile foundations will be on the order of 1/2 to 3/4 inch and differential settlement will be less than 1/2 inch over a horizontal distance of 30 feet. We anticipate approximately one-half to two-thirds of this settlement will occur during construction, with the remainder occurring within a few years after construction is complete.

If new fill will be placed on the site, then the allowable pile capacities should be reduced to account for downdrag loads that act on the piles due to consolidation of the Bay Mud. The downdrag load on each individual pile is reduced as the number of piles in a group increases.

The installation of displacement piles will cause the ground to heave. It is difficult to estimate the amount of heave, which is dependent on the number of piles installed; however, it may be on the order of one inch. Even with predrilling, heave may occur and adversely affect adjacent improvements. A pre-construction survey and monitoring during pile driving should be undertaken to monitor these effects.

Lateral pile capacities will depend on the pile size and type. Based on our analysis at nearby sites with liquefiable soils, we estimate that piles will have lateral capacities on the order of 8 and 17 kips for ½ inch of lateral deflection for free- and fixed-head conditions, respectively.

Settlement

The results of consolidation testing in the site vicinity indicate the Bay Mud in the site vicinity is typically normally consolidated to slightly overconsolidated. Therefore, we conclude settlement due to primary consolidation is likely complete under the existing fill load. Settlement of the site related to secondary compression of the Bay Mud will continue to occur. We estimate settlement due to secondary compression will be on the order of 4 to 5 inches over the next 30 years.

At the time we prepared this report, it was not known if placement of fill was necessary to raise site grades. If new fill is placed, a new cycle of primary consolidation will begin and additional settlement will occur due to consolidation of the Bay Mud. We estimate about 3 to 4 inches of settlement will occur over the next 40 to 45 years for each foot of fill placed on the site. This settlement estimate assumes a uniform fill and Bay Mud thickness across the entire site. About half of this settlement is expected to occur within 5 years of fill placement, with the remainder occurring over a period of about 35 to 40 years.

Localized fills (i.e., fills of limited lateral extent) will cause less settlement than estimated above. It should be noted, however, there are many variables that can affect the measured consolidation settlement, including the presence of locally thicker or thinner fill or Bay Mud, preloaded areas

due to former buildings or equipment storage, and the existence of unknown piles. Because of the variables, settlement could be more or less than we anticipate.

Static settlement will affect various aspects of the planned development, including utilities, building entrances, sidewalks, lateral pile capacities, and the lateral resistance of pile caps. Design of these elements should incorporate the effects of the predicted settlement.

To reduce the detrimental effects of settlement, flexible connections should be used where utilities enter the buildings. Additionally, exterior slabs and ramps attached to buildings should be hinged to accommodate differential settlement between the buildings and outside ground. Maintenance of utilities, sidewalks and entry slabs should be expected throughout the life of the project. This may include periodically replacing some of the improvements at the building/outside area interface.

SEISMIC DESIGN

The final seismic design for the project will depend on the results of the final geotechnical investigation. For design in accordance with the 2010 California Building Code, we preliminarily recommend the following:

- Site Class E
- SMs = 1.396g, SM1 = 1.880g
- SDs = 0.93g, SD1 = 1.254g.

FINAL GEOTECHNICAL INVESTIGATION

A site-specific geotechnical investigation should be performed to further evaluate subsurface conditions and provide final conclusions and recommendations regarding the geotechnical aspects of the project.

We trust this letter provides the information you need. If you have any questions, please call.

Sincerely yours,
ROCKRIDGE GEOTECHNICAL, INC.

REGISTERED PROFESSIONAL ENGINEER
CRAIG S. SHIELDS
G12116
3/31/13
GEOTECHNICAL
STATE OF CALIFORNIA

Craig S. Shields, P.E., G.E.
Principal Geotechnical Engineer

FOSTER CITY HOTEL
ENVIRONMENTAL NOISE ASSESSMENT
FOSTER CITY, CALIFORNIA

May 1, 2013

♦ ♦ ♦

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INTRODUCTION

This report evaluates the potential for significant noise or vibration impacts attributable to the Foster City Hotel project proposed at 1299 Chess Drive in Foster City, California. The project site is located north of the State Route 92 (SR 92) and is developed with restaurant building that is currently vacant. The project proposes a 5-story extended stay hotel building with 121 guest rooms.

The Setting section of this report presents the fundamentals of environmental noise and vibration, provides a discussion of policies and standards applicable to the project, and presents the results of the ambient noise monitoring survey. The Impacts and Mitigation Measures section of the report summarizes future noise levels resulting from the project and provides an evaluation of the potential significance of project-related noise and vibration impacts.

SETTING

Fundamentals of Environmental Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its loudness. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A decibel (dB) is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 1.

There are several methods of characterizing sound. The most common in California is the A-weighted sound level or dBA. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table 2. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called L_{eq}. The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level*, *CNEL*, is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 pm - 10:00 pm) and a 10 dB addition to nocturnal (10:00 pm - 7:00 am) noise levels. The *Day/Night Average Sound Level*, L_{dn}, is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

Fundamentals of Groundborne Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the Peak Particle Velocity (PPV) and another is the Root Mean Square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration. In this report, a PPV descriptor with units of mm/sec or in/sec is used to evaluate construction generated vibration for building damage and human complaints. Table 3 displays the reactions of people and the effects on buildings that continuous vibration levels produce. The annoyance levels shown in Table 3 should be interpreted with care since vibration may be found to be annoying at much lower levels than those shown, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying.

Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction related ground-borne vibration levels. Because of the impulsive nature of such activities, the use of the peak particle velocity descriptor (PPV) has been routinely used to measure and assess ground-borne vibration and almost exclusively to assess the potential of vibration to induce structural damage and the degree of annoyance for humans.

The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life are evaluated against different vibration limits. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 in/sec PPV. Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level.

Structural damage can be classified as cosmetic only, such as minor cracking of building elements, or may threaten the integrity of the building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher and there is no general consensus as to what amount of vibration may pose a threat for structural damage to the building. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is at a high state of disrepair and the construction activity occurs immediately adjacent to the structure.

TABLE 1 Definition of Acoustical Terms Used in this Report

Term	Definition
Decibel, dB	A unit describing, the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 pm and 7:00 am.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurements and Noise Control, Harris, 1998.

TABLE 2 Typical Noise Levels in the Environment

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110 dBA	Rock band
Jet fly-over at 1,000 feet		
	100 dBA	
Gas lawn mower at 3 feet		
	90 dBA	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80 dBA	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	70 dBA	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60 dBA	
		Large business office
Quiet urban daytime	50 dBA	Dishwasher in next room
Quiet urban nighttime	40 dBA	Theater, large conference room
Quiet suburban nighttime		
	30 dBA	Library
Quiet rural nighttime		Bedroom at night, concert hall
	20 dBA	
		Broadcast/recording studio
	10 dBA	
	0 dBA	

Source: Technical Noise Supplement (TeNS), Caltrans, November 2009.

TABLE 3 Reaction of People and Damage to Buildings From Continuous or Frequent Intermittent Vibration Levels

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.01	Barely perceptible	No effect
0.04	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structure
0.08	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	Strongly perceptible	Virtually no risk of damage to normal buildings
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential dwellings such as plastered walls or ceilings
0.5	Severe - Vibrations considered unpleasant	Threshold at which there is a risk of damage to newer residential structures

Source: Transportation- and Construction-Induced Vibration Guidance Manual, California Department of Transportation, June 2004.

Regulatory Criteria

The State of California and Foster City establish regulatory criteria that are applicable in this assessment. The State's CEQA guidelines are used to assess the potential significance of environmental impacts pursuant to local policies set forth in the Foster City General Plan and Municipal Code. A summary of the applicable criteria is provided below.

State CEQA Guidelines. The California Environmental Quality Act (CEQA) contains guidelines to evaluate the significance of environmental noise impacts attributable to a proposed project. Applicable CEQA checklist questions ask whether the project would result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or Noise Ordinance, or applicable standards of other agencies?

- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

CEQA does not define what noise level increase would be considered substantial. Typically, project-generated noise level increases of 3 dBA L_{dn} or greater would be considered significant where exterior noise levels would exceed the normally acceptable noise level standard (60 dBA L_{dn} for residential land uses). Where noise levels would remain at or below the normally acceptable noise level standard with the project, noise level increases of 5 dBA L_{dn} or greater would be considered significant.

2010 California Building Code, Title 24, Part 2. The State of California establishes exterior sound transmission control standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings as set forth in the 2010 California Building Code (Chapter 12, Section 1207.11). Interior noise levels attributable to exterior environmental noise sources shall not exceed 45 dBA L_{dn} in any habitable room. When exterior noise levels (the higher of existing or future) where residential structures are to be located exceed 60 dBA L_{dn}, a report must be submitted with the building plans describing the noise control measures that have been incorporated into the design of the project to meet the noise limit.

Foster City Noise Element. The Noise Element of the Foster City General Plan establishes goals, policies, and programs related to community noise. Policy N-1 establishes land use compatibility standards. The goal for maximum outdoor noise levels in residential areas is an L_{dn} of 60 dBA. The goal is applied where outdoor use is a major consideration (e.g., backyards in single-family housing developments and recreation areas in multi-family housing projects). The outdoor standard is not normally applied to the small decks associated with apartments and condominiums. Instead, outdoor noise standards for these developments are evaluated on a case-by-case basis. Where the City determines that providing an L_{dn} of 60 dBA or lower outdoors is not feasible, the outdoor goal may be increased to an L_{dn} of 65 dBA. The noise thresholds in Policy N-1 would also apply to transient lodging.

The interior noise level, as required by the State of California Building Code, must not exceed an L_{dn} of 45 dB in multi-family dwellings. Where the exterior L_{dn} is 60 dB or greater, interior noise levels shall also be limited to a maximum instantaneous noise level of 50 dBA in bedrooms and 55 dBA in other rooms.

Policy N-5 enumerates various measures to mitigate noise impacts on surrounding uses that may result from a proposed project. Policy N-8 establishes significance thresholds in order to protect the noise environment in existing residential areas. It states, “In general, the City will require the evaluation of mitigation measures for projects that would cause the L_{dn} to increase by 3 dB or more, if the increase would result in an L_{dn} greater than 60 dB, or if the L_{dn} already exceeds 60 dB.” Projects with the potential to generate significant adverse community controversy must also be evaluated.

Foster City Municipal Code. The City of Foster City has established regulations in the Noise section (17.68.030) of the Municipal Code. The following sections would be applicable to the proposed project:

17.68.030(E). Prohibited Acts.
4. Permitting the operation of any tools, or equipment used in construction, repair, alteration, demolition or landscape maintenance prior to seven-thirty a.m. or after eight p.m. on weekdays and before nine a.m. or after eight p.m. on weekends and legal holidays, in a residential district or within one hundred yards of a residential district, or during other hours such that the noise level from a single or multiple sources exceeds one hundred dBA at the producer's property plane unless prior city authorization is obtained, pursuant to Section 17.68.030(F)(7). In addition, the use of leaf blowers shall conform to Section 17.68.030(E)(7).

Existing Noise Environment

The project site is located north of SR 92 and west of Vintage Park Drive in Foster City, California. The site is bordered by a commercial shopping center to the west and a restaurant to the north. Vintage Park Drive and a parking structure are located to the east, and SR 92 forms the southernmost site boundary. There are no noise-sensitive land uses in the immediate project vicinity.

A noise monitoring survey was made in January 2013 to quantify existing noise levels at the project site. The survey included one long-term noise measurement made from the roof of the existing vacant restaurant building and a short-term noise measurement at the north end of the project site. The predominant source of noise measured at the site was vehicular traffic along SR 92. Jet aircraft on approach to San Francisco International Airport, parking lot activities, and truck deliveries at the shopping center were also noted as sources of ambient noise.

The daily trend in noise levels affecting the project site was documented at Site LT-1. The noise measurement was made from the roof of the vacant restaurant building at the approximate setback and elevation of 3rd to 4th level guest rooms overlooking SR 92. The noise data collected between January 29, 2013 and January 31, 2013 revealed that hourly average noise levels typically ranged from 60 to 72 dBA L_{eq} at a distance of 145 feet from the center of SR 92. The day-night average noise level on Wednesday January 30, 2013 was 74 dBA.

Short-term noise measurement location ST-1 was at the north end of the site near the adjacent restaurant's parking lot. SR 92 traffic was also the predominant source of noise at this site. Vehicle traffic along Vintage Park Drive and Chess Drive, local vehicle circulation, conversations, and jet aircraft were at times audible above the SR 92 traffic noise. Noise levels were measured for a period of twenty minutes beginning at 11:50 AM. The average noise level measured at this location was 59 dBA L_{eq}. L_{dn} noise levels at this position are estimated to be 63 dBA.

IMPACT AND MITIGATION MEASURES

Significance Criteria

Appendix G of the CEQA Guidelines states that a project would normally be considered to result in significant noise impacts if noise levels conflict with adopted environmental standards or plans or if noise generated by the project would substantially increase existing noise levels at sensitive receivers over a permanent or temporary basis. A significant impact would be identified for a proposed land use if it would be exposed to noise levels exceeding established guidelines or standards for noise and land use compatibility. A substantial permanent noise increase would occur if the noise level increase resulting from the project is 3 dBA L_{dn} or greater at noise-sensitive land uses, with a future noise level of 60 dBA L_{dn} or greater, or 5 dBA L_{dn} or more where future noise levels would remain below 60 dBA L_{dn}. A substantial temporary noise level increase would occur where noise from construction activities exceeds 70 dBA L_{eq} and the ambient noise environment by at least 5 dBA L_{eq} at adjacent land uses in the project vicinity for a period of one year or more. Vibration levels generated during demolition or construction activities would be significant if they cause cosmetic or structural damage to adjacent buildings.

Impact 1: **Noise and Land Use Compatibility.** The hotel building would be exposed to exterior noise levels up to 75 dBA L_{dn}. Interior noise levels would be expected to exceed 45 dBA L_{dn} without the incorporation of noise insulation features into the project's design. **This is a significant impact.**

The project does not propose outdoor activity areas that would be sensitive to noise. Because of the proposed utilization of the project site, outdoor areas on the site are not sensitive to community noise and require no mitigation.

The State of California establishes exterior sound transmission control standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings as set forth in the 2010 California Building Code (Chapter 12, Section 1207.11). Interior noise levels attributable to exterior environmental noise sources shall not exceed 45 dBA L_{dn} in any habitable room. When exterior noise levels (the higher of existing or future) exceed 60 dBA L_{dn}, a report must be submitted with the building plans describing the noise control measures that have been incorporated into the design of the project to meet the noise limit.

Exterior noise levels throughout the project site would be greater than 60 dBA L_{dn} with the highest future noise exposures occurring at facades nearest SR 92. Future noise levels at these facades are calculated to reach 75 dBA L_{dn}.

Interior noise levels would vary depending on the design of the buildings (relative window area to wall area) and construction materials and methods. Standard construction provides approximately 15 dBA of exterior to interior noise reduction assuming the windows are partially open for ventilation. Standard construction with the windows closed provides approximately 20 to 25 dBA of noise reduction in interior spaces. In exterior noise environments ranging from 60 dBA L_{dn} to 65 dBA L_{dn}, interior noise levels can typically be maintained below State standards with the incorporation of an adequate forced air mechanical ventilation system in each residential

unit allowing the windows to be closed. In noise environments of 65 dBA L_{dn} or greater, a combination of forced-air mechanical ventilation and sound-rated construction methods is often required to meet the interior noise level limit.

Mitigation Measures:

The following mitigation measures shall be incorporated into the project:

- A qualified acoustical consultant shall review final site plan, building elevations, and floor plans prior to construction to calculate expected interior noise levels as required by State noise regulations. Project-specific acoustical analyses are required by the California Building Code to confirm that the design results in interior noise levels reduced to 45 dBA L_{dn} or lower. The specific determination of what noise insulation treatments are necessary will be conducted on a room-by-room basis. Results of the analysis, including the description of the necessary noise control treatments, will be submitted to the City along with the building plans and approved prior to issuance of a building permit.

- Special building techniques (e.g., sound-rated windows and building facade treatments) will be required to maintain interior noise levels at or below acceptable levels. These treatments would include, but are not limited to, sound rated windows and doors, sound rated wall constructions, acoustical caulking, protected ventilation openings, etc. Preliminary calculations indicate that windows with a minimum Sound Transmission Class (STC)[1] rating of 30 to 35 will be needed in the guest rooms adjacent to SR 92 to maintain noise levels at or below 45 dBA L_{dn}.

- Building sound insulation requirements would need to include the provision of forced-air mechanical ventilation for all guest rooms, so that windows could be kept closed at the occupant's discretion to control noise. Preliminary plans indicate that the proposed hotel would be ventilated by a central heating and cooling system; therefore windows could be closed to control noise.

With the implementation of the above measure, the impact would be less-than-significant.

1 **Sound Transmission Class (STC)** A single figure rating designed to give an estimate of the sound insulation properties of a partition. Numerically, STC represents the number of decibels of speech sound reduction from one side of the partition to the other. The STC is intended for use when speech and office noise constitute the principal noise problem.

Impact 2: **Construction Vibration.** Vibration levels generated during demolition and construction activities may be perceptible at neighboring land uses, but would not be excessive or cause cosmetic or structural damage to buildings. **This is a less-than-significant impact.**

The construction of the project may generate perceptible vibration when heavy equipment or impact tools (e.g. jackhammers, hoe rams, pile drivers) are used. Construction activities would include demolition of existing structures, excavation, site preparation work, foundation work, and new building framing and finishing.

For structural damage, the California Department of Transportation uses a vibration limit of 0.5 inches/second, peak particle velocity (in/sec, PPV) for buildings structurally sound and designed to modern engineering standards.

Table 4 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet. Project construction activities such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may generate substantial vibration in the immediate vicinity. Jackhammers typically generate vibration levels of 0.035 in/sec PPV and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. Vibration levels from typical construction activities would be expected to be 0.2 in/sec PPV or less, below the 0.5 in/sec PPV significance threshold. Vibration generated by construction activities near the common property line would at times be perceptible, however, would not be expected to result in “architectural” damage to these buildings.

The foundation for the hotel could be supported on driven piles. The nearest structure (restaurant) is located about 50 feet north of the proposed hotel. Pile driving typically generates vibration levels of about 0.2 in/sec PPV, with maximum levels of up to about 0.4 in/sec PPV at a distance of about 50 feet. Vibration levels from pile driving would be below the 0.5 in/sec PPV significance threshold. Vibration generated by construction activities near the common property line would at times be perceptible, however, would not be expected to result in “architectural” damage to these buildings. This is a less-than-significant impact.

TABLE 4 Vibration Source Levels for Construction Equipment[2]

Equipment		PPV at 25 ft. (in/sec)	Approximate L_v at 25 ft. (VdB)
Pile Driver (Impact)	upper range	1.158	112
	typical	0.644	104
Pile Driver (Sonic)	upper range	0.734	105
	typical	0.170	93
Clam shovel drop		0.202	94
Hydromill (slurry wall)	in soil	0.008	66
	in rock	0.017	75
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

Source: Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.

Mitigation Measures: None required.

Impact 3: Project-Generated Traffic Noise. Project-generated traffic would not substantially increase ambient noise levels along roadways serving the site. **This is a less-than-significant impact.**

Traffic data provided by Fehr & Peers Transportation Consultants was reviewed to calculate potential project-related traffic noise level increases along roadways serving the project site. These data included project trip assignment volumes at eight study area intersections. Roadway link volumes (the total volume of traffic along a roadway segment) for existing plus project conditions were calculated based on turning movement data and compared to existing conditions to calculate the anticipated noise level increase attributable to the project. The traffic noise increase attributable to the proposed project would be less than 1 dBA L_{dn} above existing traffic noise conditions without the project. Noise levels would not be noticeably or measurably increased as a result of the project and the impact is less-than-significant.

Mitigation Measures: None required.

2 Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.

Impact 4: **Construction Noise.** Noise generated by construction activities at the project site would exceed 70 dBA L_{eq} and the ambient noise environment by 5 dBA L_{eq}. Project construction activities would be completed in approximately 12 months; therefore the ambient noise environment at adjacent receivers would not be substantially increased over a temporary basis. **This is a less-than-significant impact.**

Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise sensitive receptors. Where noise from construction activities exceeds 70 dBA L_{eq} and the ambient noise environment by 5 dBA L_{eq} or more at nearby industrial office and commercial land uses for a period of more than one year, the impact would be considered significant.

Construction activities generate considerable amounts of noise, especially during the demolition phase and the construction of project infrastructure when heavy equipment is used. Table 5 presents the typical range of hourly average noise levels generated by different phases of construction measured at a distance of 50 feet. Hourly average noise levels generated by demolition and construction are about 77 dBA to 89 dBA L_{eq} measured at a distance of 50 feet from the center of a busy construction site. During impact pile driving, hourly average noise levels could reach 94 dBA L_{eq} at 50 feet. Maximum noise levels generated during demolition would typically range from 85 to 105 dBA L_{max} assuming the operation of jackhammers, hoe rams, or impact pile drivers. Construction generated noise levels drop off at a rate of about 6 dBA per doubling of distance between the source and receptor. Shielding provided by barriers or structures can provide an additional 5 to 10 dBA noise reduction at distant receivers.

TABLE 5 Typical Ranges of Noise Levels at 50 Feet from Construction Sites (dBA L_{eq})

	Domestic Housing		**Office Building, Hotel, Hospital, School, Public Works**		**Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station**		**Public Works Roads & Highways, Sewers, and Trenches**	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

I - All pertinent equipment present at site.
II - Minimum required equipment present at site.
Source: United States Environmental Protection Agency, 1973, Legal Compilation on Noise, Vol. 1, p. 2-104.

Noise, particularly pile driving activities conducted for short periods, could sporadically disturb nearby businesses. However, it should be noted that construction-related noise levels would be temporary and would vary throughout the day and over the entire construction schedule, depending on the type of equipment in use at any one time and the distance to adjacent receptors. Because construction noise impacts would be temporary and would conform to the applicable City ordinances, impacts would be less-than-significant.

Mitigation Measures: None Required.

Impact 5: Noise and Land Use Compatibility (Aircraft). The proposed project would be located in a compatible noise environment with respect to noise generated by San Francisco International Airport. **This is a less-than-significant impact.**

San Francisco International Airport is located approximately 5.5 miles northwest of the project site. San Carlos Airport is located approximately 3.5 miles southeast of the project site. There are no private airstrips in the site vicinity. Maximum instantaneous noise levels resulting from jet aircraft passing the site on approach to San Francisco International Airport were typically 57 to 63 dBA. Although aircraft-related noise is occasionally audible at the project site, the project site does not lie within the land use plan area, or within the 60 dBA CNEL noise contours of these airports. Exterior and interior noise levels resulting from aircraft would be compatible with the proposed project. This is a less-than-significant impact.

Mitigation Measures: None Required.

FEHR PEERS

MEMORANDUM

Date: February 15, 2013

To: Erica Fraser and Geoff Bradley, M-Group

From: Matt Goyne and Jane Bierstedt, Fehr & Peers

Subject: Chess Drive Hotel Focused Transportation Analysis

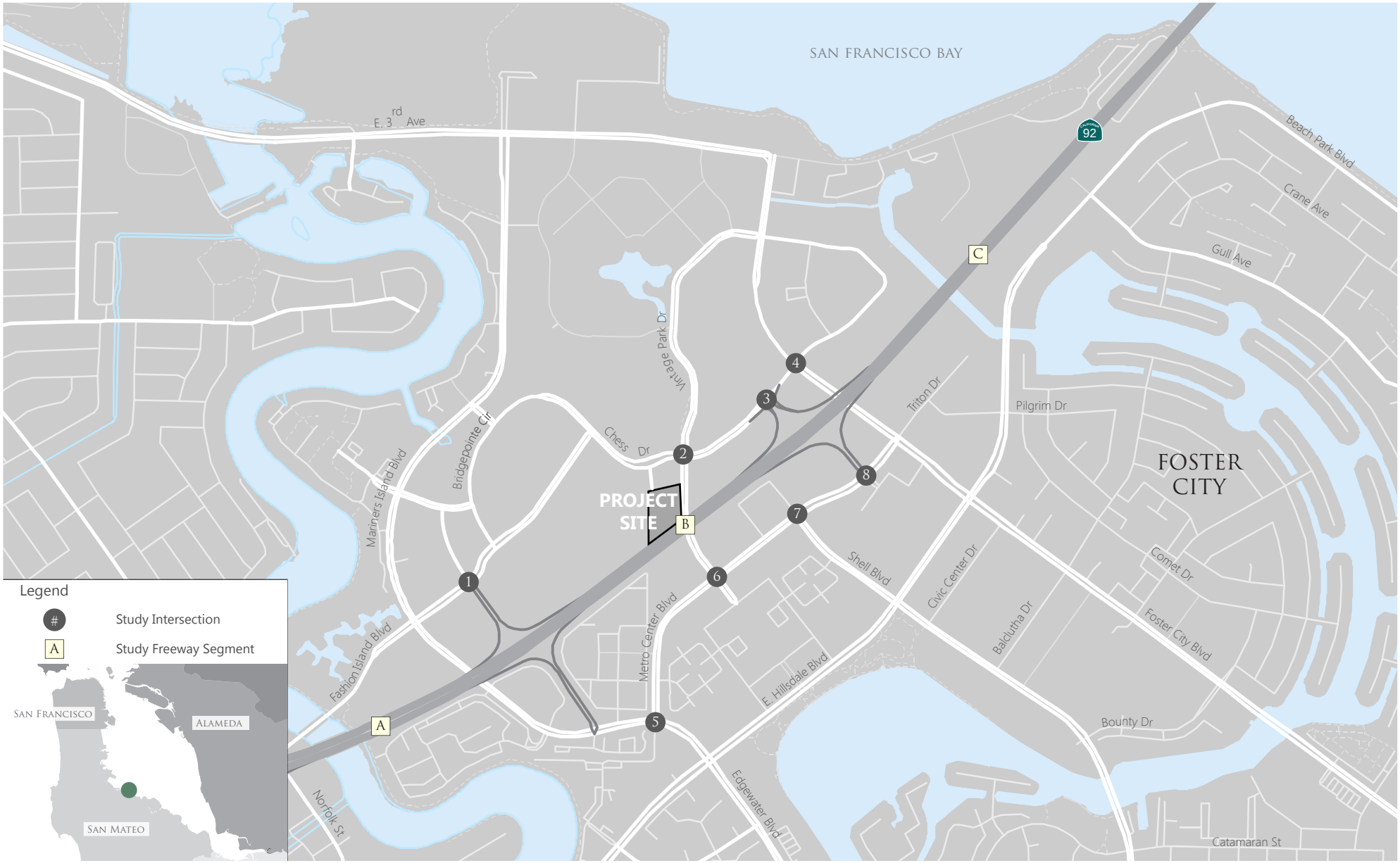
SF13-0663

This memorandum presents the results of a focused transportation analysis conducted for the proposed hotel and bakery located on the south side of Chess Drive between Vintage Park Drive and Bridgepointe Parkway in Foster City, California. The hotel will contain 118 rooms and the bakery comprises 2,581 square feet ("project"). It will replace the currently unoccupied 9,700-sqaure foot Black Angus restaurant. **Figure 1** shows the hotel's location and the surrounding roadway system. **Figure 2** shows the proposed site plan.

This project is relatively small and has been included in several other recent transportation impact analyses including analyses for the Gilead Sciences Integrated Corporate Campus Master Plan and the General Plan update. Therefore its impacts have been addressed in other documents. This memorandum presents relevant information from those other documents plus project-specific information, such as its projected vehicle trip generation and assignment to the adjacent roadway system.

EXISTING CONDITIONS

The existing roadway system, transit service, and bicycle and pedestrian facilities near the site are discussed in this section.



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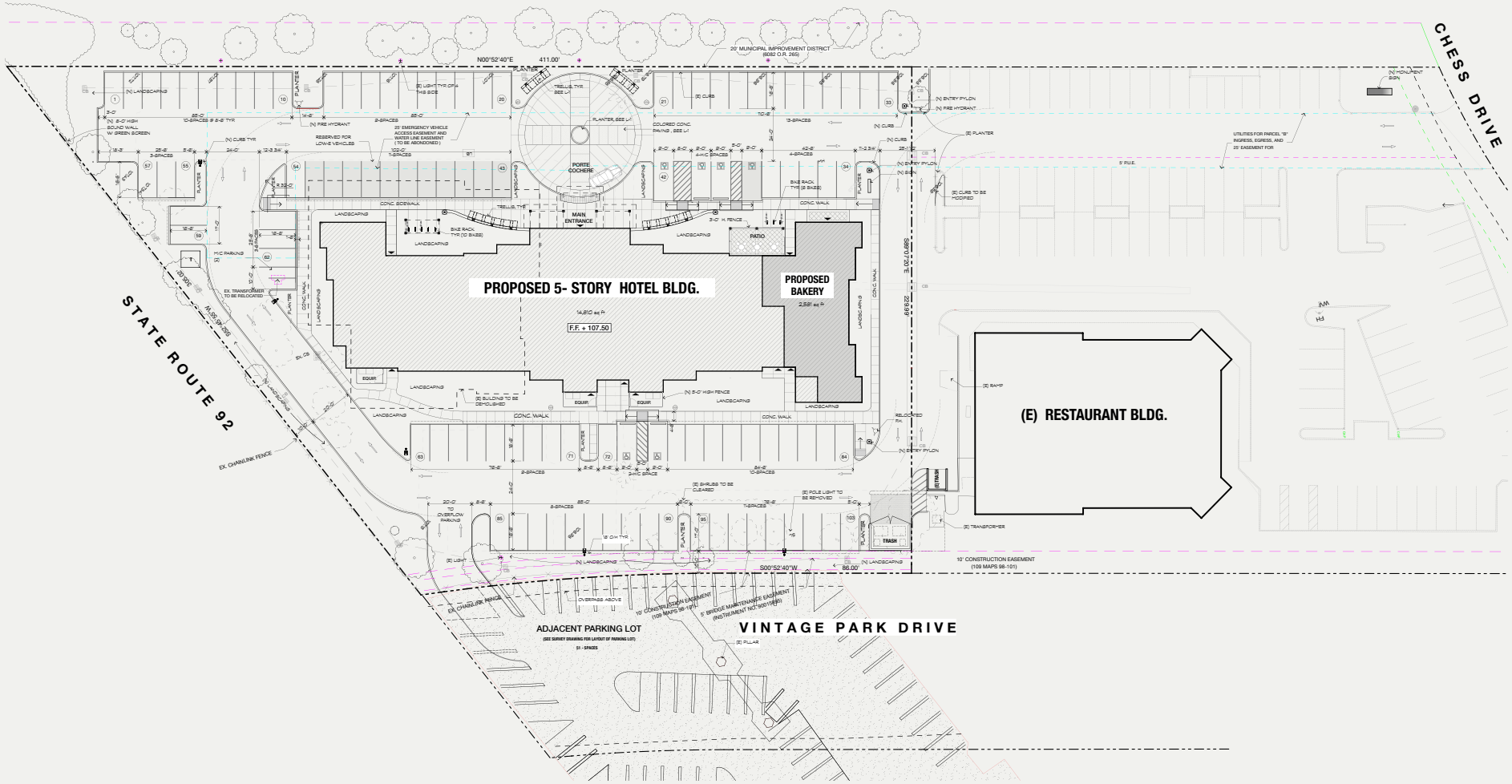
STUDY INTERSECTIONS AND FREEWAY SEGMENTS

FIGURE 1



SITE LIGHTING LEGEND		
SYMBOL	TYPE	MAKE / MODEL
	(E) PARKING LOT LIGHT	RENEW FIXTURE TO MATCH (N)
	(N) PARKING LOT LIGHT	McGRAW-EDISON - TLM-B06-LED-E1-SL4-WHT W/ SPILL CONTROL - BRONZE FINISH - 18 FT. SQ. POLE
	EXTERIOR WALL MTD. LIGHT SEE F.F. PLAN & ELEVATIONS	KITCHLER - NEWPORT 10640NI - BRUSHED NICKEL
	EXTERIOR CANOPY LIGHT	ERCO - CYLINDER DOWNLIGHT - 85041.023 LED 14W

1 **SITE PLAN**
SCALE: 1" = 20'

0 10' 20' 40'

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PROPOSED SITE PLAN

FIGURE 2

ROADWAY SYSTEM

Regional auto access to the site is provided by SR 92. Local streets near the site are Chess Drive, Vintage Park Drive, Foster City Boulevard, Bridgepointe Parkway, Metro Center Boulevard, Mariner's Island Boulevard, and Edgewater Boulevard. Speed limits on study roadways range from 35 miles per hour (mph) to 45 mph. The speed limit is 55 mph on SR 92. On-street parking is not allowed within the study area except where noted.

SR 92 is a freeway that runs in an east-west direction from Half Moon Bay, near the coast, to Hayward on the east side of San Francisco Bay via the San Mateo Bridge. SR 92 has partial interchanges (hook ramps) with Fashion Island Boulevard, Edgewater Boulevard, Metro Center Boulevard, and Chess Drive. It is generally three travel lanes in each direction east of US 101 and two travel lanes in each direction west of US 101, with auxiliary lanes between interchanges. Average daily volumes on SR 92 through the study area range from 139,000 vehicles between US 101 and Mariners Island Boulevard to 86,000 vehicles at the San Mateo Bridge.

Chess Drive provides direct access to the project site, just west of Vintage Park Drive. Chess Drive extends eastward from Bridgepointe Parkway past Foster City Boulevard and then curves around to the north and west to intersect with Foster City Boulevard at Vintage Park Drive. Access to westbound SR 92 is provided via hook ramps in between Vintage Park Drive and Foster City Boulevard. Chess Drive is four lanes wide west of Foster City Boulevard and two lanes wide to the east. On-street parking is allowed along Chess Drive to the east of Hatch Drive.

Vintage Park Drive is a four-lane divided roadway just to the east of the project site. Vintage Park Drive extends from Foster City Boulevard in the north to Metro Center Boulevard just past SR 92 in the south.

Foster City Boulevard is a four- to six-lane arterial that extends from East Third Avenue, across SR 92, to Beach Park Boulevard. It is a major north-south arterial in Foster City. On-street parking is allowed along northbound Foster City Boulevard between Bounty Drive and approximately 450 feet south of East Hillsdale Boulevard.

Bridgepointe Parkway is a four-lane, east-west roadway that runs parallel to SR 92 and extends from Chess Drive to Mariners Island Boulevard, where it becomes Fashion Island Boulevard in the City of San Mateo. Access to westbound SR 92 is provided via hook ramps just west of Bridgepointe Parkway. Fashion Island Boulevard has a full access interchange with US 101.

Metro Center Boulevard is a four-lane, east-west roadway that runs parallel to SR 92 to the south and extends between Edgewater Boulevard and Foster City Boulevard where it becomes Triton Drive. Access to eastbound SR 92 is provided by hook ramps just west of Foster City Boulevard.

Mariners Island Boulevard (City of San Mateo) is a four-lane divided roadway that extends from East Third Avenue in the north to SR 92 where it becomes Edgewater Boulevard. Access to eastbound SR 92 is provided at the intersection of Mariners Island Boulevard / Edgewater Boulevard / SR 92 ramps. On-street parking is provided along Mariners Island Boulevard north of Fashion Island Boulevard.

Edgewater Boulevard is the continuation of Mariners Island Boulevard south of SR 92. It is four lanes wide with on-street parking south of East Hillsdale Boulevard.

STUDY INTERSECTIONS AND FREEWAY SEGMENTS

The operations of the roadway system are evaluated with level of service calculations for intersections and freeway segments during the morning and evening peak commute hours (AM and PM peak hours). Descriptions of "level of service" and the calculation methods are presented in *Draft Final Transportation Impact Analysis for the Gilead Sciences Integrated Corporate Campus Master Plan* by Fehr & Peers (October 2012, herein referred to as "Gilead TIA").

The key intersections and freeway segments near the site are:

<u>Study Intersections</u>

1. Baker Way/State Route 92 (SR 92) Westbound Ramps and Fashion Island Boulevard/Bridgepointe Parkway*
2. Vintage Park Drive and Chess Drive
3. SR 92 Westbound Ramps and Chess Drive
4. SR 92 Eastbound Ramps and Edgewater Boulevard/Mariners Island Boulevard
5. Edgewater Boulevard and Metro Center Boulevard
6. Vintage Park Drive and Metro Center Boulevard
7. Metro Center Boulevard and Shell Boulevard
8. Metro Center Boulevard and SR 92 eastbound ramps

*Intersection is in San Mateo

Study Freeway Segments

A. SR 92, between US 101 and Mariners Island Boulevard/Edgewater Boulevard
B. SR 92, Mariners Island Boulevard/Edgewater Boulevard and Foster City Boulevard
C. SR 92, east of Foster City Boulevard

EXISTING INTERSECTION AND FREEWAY SEGMENT OPERATIONS

Existing intersection operations are presented with the results of the level of service calculations and are presented in **Table 1**.

TABLE 1: EXISTING INTERSECTION LEVELS OF SERVICE

Intersection	Control	AM Peak Hour		PM Peak Hour	
		Delay[1]	LOS	Delay[1]	LOS
1. Baker Way/SR 92 Westbound Ramps and Fashion Island Boulevard/Bridgepointe Parkway[2]	Signal	17	B	20	C
2. Vintage Park Drive and Chess Drive	Signal	25	C	35	D
3. SR 92 Westbound Ramps and Chess Drive[3]	Signal	11	B	21	C
4. SR 92 Eastbound Ramps and Edgewater Boulevard/Mariners Island Boulevard	Signal	16	B	18	B
5. Edgewater Boulevard and Metro Center Boulevard	Signal	16	B	17	B
6. Vintage Park Drive and Metro Center Boulevard	Signal	20	B	21	C
7. Shell Boulevard and Metro Center Boulevard	Signal	17	B	23	C
8. SR 92 Eastbound Ramps and Metro Center Boulevard[3]	Signal	15	B	19	B

Notes:
1. The delay is the weighted average for all movements in seconds per vehicle.
2. Intersection in San Mateo
3. Intersection analyzed using the VISSIM microsimulation model.

Source: Fehr & Peers, February 2013

The intersections are currently operating at LOS B, C, or D, acceptable levels according to City of Foster City and City of San Mateo LOS thresholds.

Existing freeway segment operations are presented in **Table 2**. Thresholds acceptable operations for freeway segments in San Mateo County are established by the City/County Association of Governments (C/CAG) in the Congestion Management Program (CMP). The CMP threshold for the study segments is LOS E. all of the segments currently operate at or above (better) than the threshold.

TABLE 2: EXISTING FREEWAY SEGMENT LEVELS OF SERVICE

Segment	CMP LOS Standard	Peak Hour	Direction	Volume[1]	LOS
A. SR 92, between US 101 and Mariners Island Boulevard/Edgewater Boulevard	E	AM	Eastbound	5,634	D
			Westbound	5,930	D
		PM	Eastbound	6,400	E
			Westbound	5,658	C
B. SR 92, Mariners Island Boulevard/Edgewater Boulevard and Foster City Boulevard	E	AM	Eastbound	4,199	C
			Westbound	5,643	C
		PM	Eastbound	5,676	C
			Westbound	4,475	C
C. SR 92, east of Foster City Boulevard	E	AM	Eastbound	2,590	B
			Westbound	5,601	D
		PM	Eastbound	5,108	D
			Westbound	2,806	B

Notes:

1. Volumes presented are passenger-car equivalents.

Source: Fehr & Peers, February 2013

TRANSIT SYSTEM

Transit service within Foster City is provided by various agencies. San Mateo County Transit District (SamTrans) and Alameda-Contra Costa Transit District (AC Transit) provide bus service, while the Peninsula Traffic Congestion Relief Alliance operates shuttle routes connecting to Bay Area Rapid Transit (BART) and Caltrain. **Figure 3** illustrates the transit routes in the vicinity of the project site. Descriptions of these routes, the hours of operation, and their service headways (time between arrivals) are described below and summarized in **Table 3**.

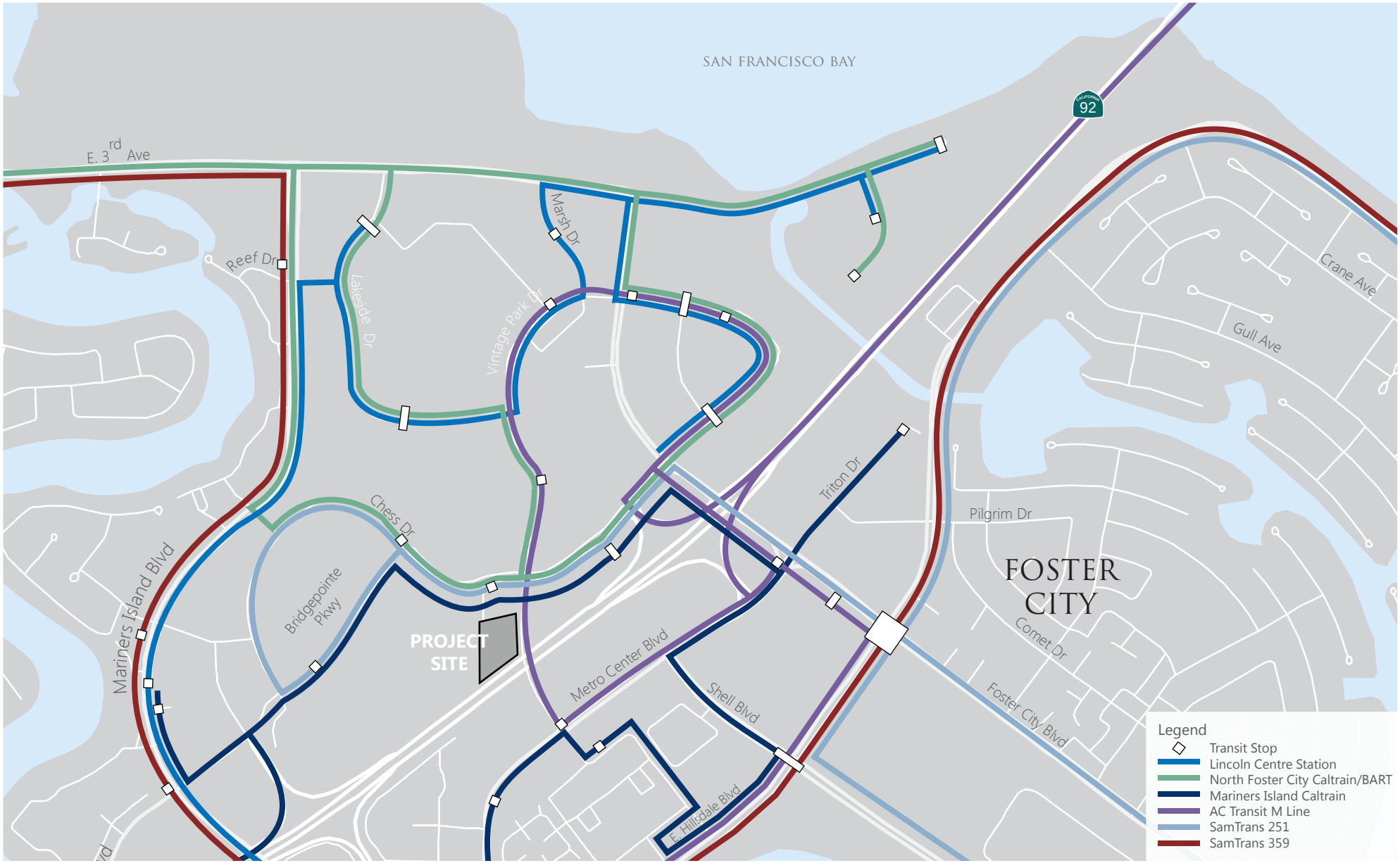
TABLE 3: EXISTING TRANSIT SERVICE		
Service Provider	**Name/Description**	**Hours of Operation/Headway**
SamTrans	251 – Caltrain Connection	5:41 a.m. – 8:19 p.m. Weekdays (60 minutes) 8:10 a.m. – 7:14 p.m. Saturdays (60 minutes)
	359 – BART/Caltrain Connection	5:28 a.m. – 8:36 a.m. Weekdays (30 minutes) 4:57 p.m. – 8:17 p.m. Weekdays (30 minutes)
AC Transit	M – Transbay Service	5:30 a.m. – 8:17 p.m. Weekdays (30 minutes)
BART/Caltrain Shuttle	North Foster City Shuttle	6:35 a.m. – 8:57 a.m. Weekday (60 minutes) 4:05 a.m. – 7:00 p.m. Weekday (50 minutes)
Caltrain Shuttle	Lincoln Centre Shuttle	6:55 a.m. – 9:32 a.m. Weekday (40 minutes) 3:10 p.m. – 7:00 p.m. Weekday (40 minutes)
	Mariners Island Area (PCA) Shuttle	6:56 a.m. – 10:17 a.m. Weekday (45 minutes) 3:08 p.m. – 6:33 p.m. Weekday (45 minutes)
Source: http://511.org and the Peninsula Traffic Congestion Relief Alliance at http://www.commute.org/		

SamTrans

SamTrans operates Routes 251 and 359 near the project site. Route 251 provides a connection between the Hillsdale Shopping Center and Hillsdale Caltrain station in San Mateo to the Bridgepointe Shopping Center. The nearest Route 251 stop to the project site is located on Bridgepointe Parkway, approximately 0.3 miles west of the site. Route 359 provides service from the East Foster City Area to BART and Caltrain connections at the Millbrae Intermodal Station (serving BART and Caltrain) during weekday commute hours. The nearest Route 359 stop to the project site is located on Fashion Island Boulevard and Mariners Island Drive, approximately 0.6 miles west of the site.

AC Transit

AC Transit provides transbay service between Hayward and San Mateo. Line M operates across the San Mateo Bridge (SR 92) and travels on Foster City Boulevard, Chess Drive, Vintage Park Drive, Metro Center Boulevard, and E. Hillsdale Boulevard in Foster City. Line M stop on Vintage Park Drive, approximately 0.2 miles north of the project site.



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EXISTING TRANSIT ROUTES

FIGURE 3

BART/Caltrain Shuttle

The North Foster City Shuttle provides service operated by the Peninsula Traffic Congestion Alliance between the Millbrae Intermodal Station and businesses and office buildings in the North Foster City Area during commute hours, Monday through Friday. It stops at the Chess Drive and Bridgepointe Parkway, approximately 0.2 miles west of the project site.

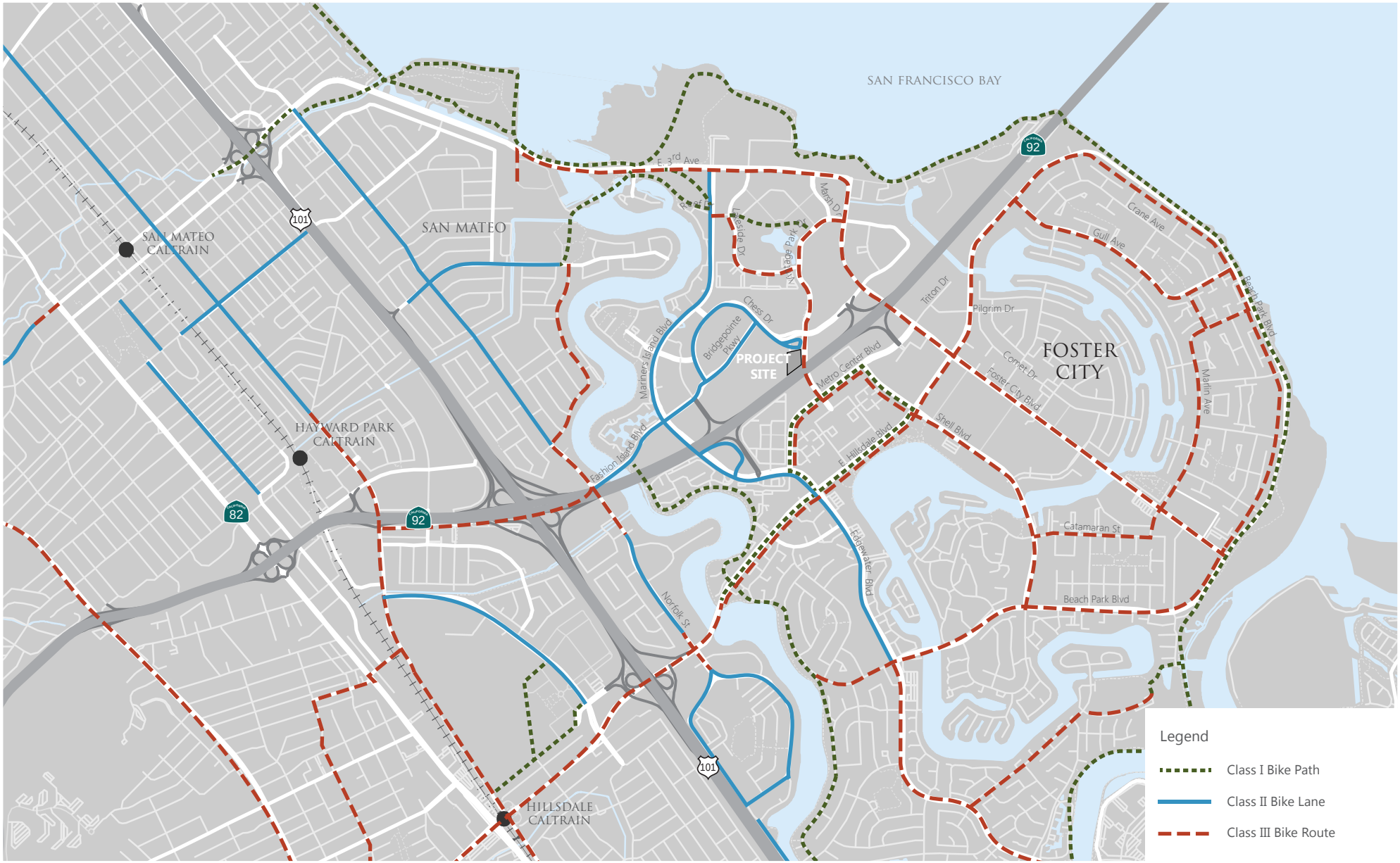
Caltrain Shuttles

The Peninsula Traffic Congestion Relief Alliance operates two other shuttle buses during weekday commute hours: Lincoln Centre Shuttle and Mariners Island (PCA) Area Shuttle. The Lincoln Centre Shuttle runs between the Hillsdale Caltrain Station and businesses in the Lincoln Centre Area in North Foster City, whereas the Mariners' Island Area Shuttle provides service between the Hillsdale Caltrain Station and businesses in the San Mateo and Foster City border areas. The Lincoln Centre Area Shuttle stops on Chess Drive just east of Foster City Boulevard and the Mariners Island Area Shuttle stops at Vintage Park Drive and Chess Drive.

BICYCLE SYSTEM

Bicycle facilities include Class I bike paths, Class II bike lanes, and Class III bike routes. Class I bike paths are paved pathways that are separated from roadways by space or a physical barrier. Class II bike lanes are lanes on the outside edge of roadways that are intended for the exclusive use of bicycles and are designated with special signing and pavement markings. Class III bike routes are roadways designated for bicycle use with only a bike route sign.

The bicycle facilities in Foster City are shown on **Figure 4**. Class II on-street striped bike lanes on Chess Drive and a Class III bicycle route on Vintage Park Drive provide bicycle access to the site. Other bicycle facilities in the area include a Class I bicycle path along the Bay shoreline north of the project site, Class II on-street striped bike lanes along Bridgepointe Parkway and Mariners Island Boulevard to the west of the site, and a Class I bicycle path along Metro Center Boulevard and East Hillsdale Boulevard to the south of the site. Bicycle access to the project site from the Hayward Park Caltrain station is provided via the Class II bike lanes along Fashion Island Boulevard.



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EXISTING BICYCLE FACILITIES

FIGURE 4

PEDESTRIAN FACILITIES

Pedestrian facilities comprise sidewalks, marked and enhanced crosswalks (at midblock and intersections), curb ramps, median refuges, and pedestrian-scale lighting. Sidewalks are provided along both sides of all streets within the immediate vicinity of the project site. Marked crosswalks with curb ramps are provided at all intersections within the immediate vicinity of the project site. Pedestrian signals with pedestrian activated push buttons are provided at all signalized intersections. Median refuges and pedestrian scale lighting are not present within the immediate vicinity of the project site.

PROJECT'S TRANSPORTATION CHARACTERISTICS

The amount of traffic added to the surrounding roadway system by the project was estimated using a three-step process: (1) trip generation, (2), trip distribution, and (3) trip assignment.

TRIP GENERATION

Fehr & Peers developed trip generation estimates by applying trip generation rates presented in the Institute of Transportation Engineers (ITE) *Trip Generation* (9th Edition) to the proposed land uses as shown in **Table 4**. The hotel and the bakery are projected to generate approximately 1,600 vehicle trips on an average weekday with about 100 occurring in the AM and PM peak hours. The amount of new vehicle traffic added to the roadways would be somewhat lower as some of the bakery trips will likely be generated by the hotel guests and therefore constitute walking trips that remain on the site. Plus some of the trips will be made by people passing the site but deciding to stop in the bakery. No reductions have been applied to account for these internalized and pass-by trips.

The amount of traffic generated by the restaurant if it were occupied was also estimated for comparison purposes. The results are presented in **Table 5**. The restaurant is estimated to have generated about 900 daily vehicle trips, with only a few during the AM peak hour (since it was not open for breakfast), and about 75 vehicle trips during the PM peak hour.

TABLE 4: PROJECT TRIP GENERATION									
Proposed Land Use	**Amount**	**ITE Category**	**Daily Trips**	**AM Peak Hour**			**PM Peak Hour**		
				In	**Out**	**Total**	**In**	**Out**	**Total**
Hotel	118 Rooms	310	964	40	26	66	37	33	70
Bakery	2,581 s.f.	932	630	16	14	30	17	12	29
Total			***1,594***	***56***	***40***	***96***	***54***	***45***	***99***

Notes: s.f. = 1,000 square feet

Source: Fehr & Peers, February 2013.

TABLE 5: EXISTING RESTAURANT TRIP GENERATION									
Existing Land Use[1]	**Amount**	**ITE Category**	**Daily Trips**	**AM Peak Hour**			**PM Peak Hour**		
				In	**Out**	**Total**	**In**	**Out**	**Total**
Quality Restaurant	9,700 s.f.	931	873	5	3	8	49	24	73
Total			***873***	***5***	***3***	***8***	***49***	***24***	***73***

Notes: s.f. = 1,000 square feet

1. Existing restaurant is currently unoccupied.

Source: Fehr & Peers, February 2013.

TRIP DISTRIBUTION

Trip distribution refers to the directions the trips generated by the project would use to approach and depart the site and the percentage of traffic using each direction. The geographic distribution and trip percentages are summarized below:

- US 101 and West on SR 92 – 55%
- East on SR 92 – 15%
- City of San Mateo – 11%
- Foster City south of East Hillsdale Boulevard – 7%
- Vintage Park – 4%
- Bridgepointe Circle – 4%
- Metro Center – 4%

TRIP ASSIGNMENT

Trips generated by the project were assigned to the roadway system based on the trip distribution pattern. The trip assignments t the key study intersections are presented on **Figure 4.**

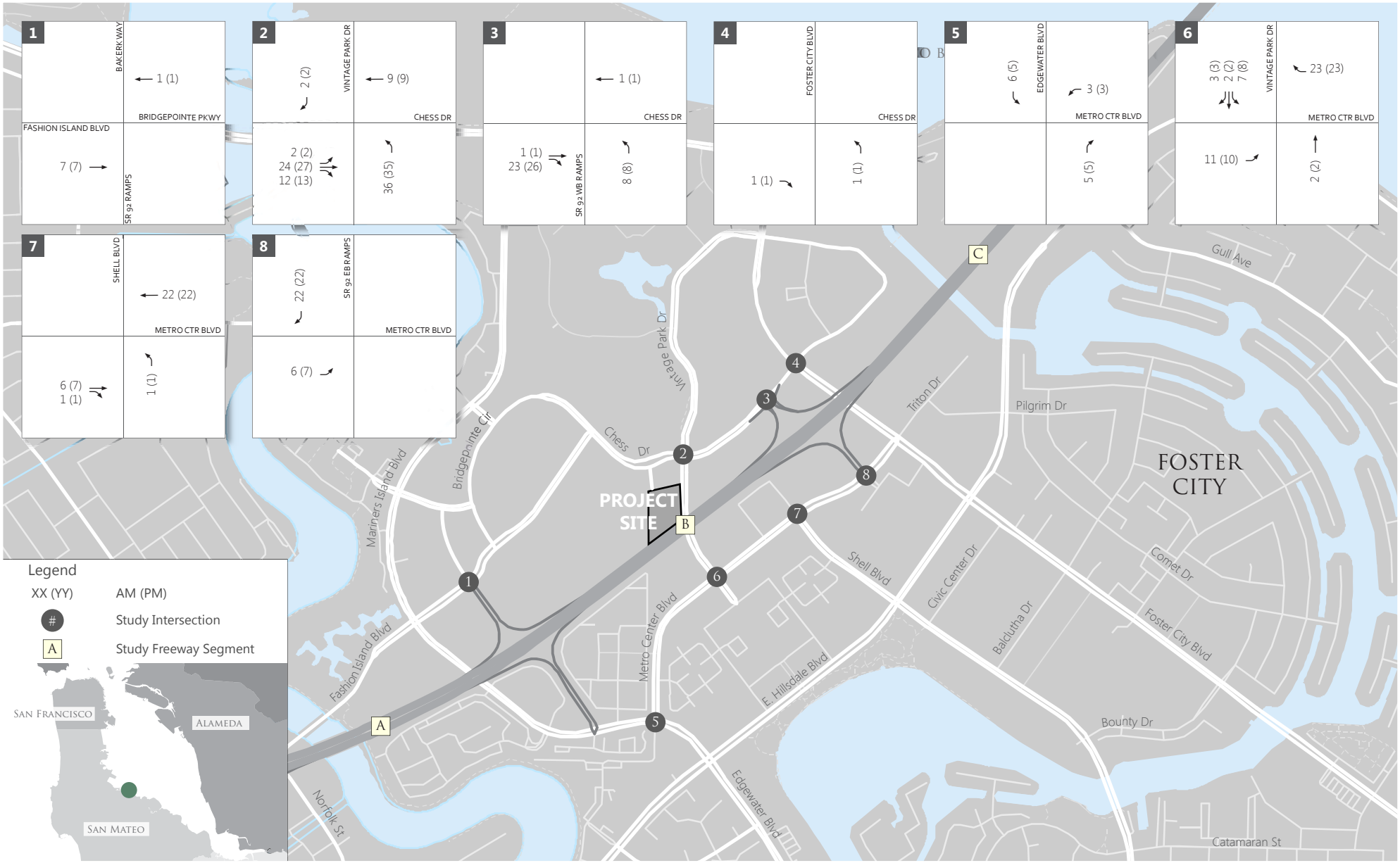
CUMULATIVE CONDITIONS

Cumulative Conditions represent projected conditions in 2030 including traffic estimates for occupancy of vacant buildings, approved but not yet constructed developments, and other probable future developments and selected roadway system improvements. Cumulative Conditions intersection and freeway volumes and roadway improvements were obtained from the Gilead TIA.

CUMULATIVE INTERSECTION AND FREEWAY SEGMENT OPERATIONS

The intersection operations under Cumulative Conditions from the Gilead TIA are shown in **Table 6**. All of the study intersections are projected to operate at acceptable levels of service with the exception of the intersection of SR 92 westbound ramps and Chess Drive during the PM peak hour. However, this intersection is exempt for the LOS policy. Therefore the project's impact to the study intersection is less-than-significant.

The freeway operations under Cumulative Conditions from the Gilead TIA are shown in **Table 7**. Most of the freeway segments are projected to operate at or better than their designated CMP LOS threshold (LOS E). Three segments (those with bolded entries in **Table 7**) are projected to operate at LOS F and exceed the threshold. The amount of traffic added to these segments by the project is 33 vehicles per hour or less. These amounts of traffic are less than 1 percent of each segments' capacity. Therefore the impact is less-than-significant.



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FEHR PEERS

SF13-0663 Chess Drive Hotel\Graphics

PROJECT TRIP ASSIGNMENT

FIGURE 5

TABLE 6: CUMULATIVE INTERSECTION LOS RESULTS

Intersection	Control	AM		PM	
		Delay[1]	LOS	Delay	LOS
1. Baker Way/SR 92 Westbound Ramps and Fashion Island Boulevard/ Bridgepointe Parkway[2]	Signal	17	B	23	C
2. Vintage Park Drive and Chess Drive	Signal	26	C	49	D
3. SR 92 Westbound Ramps and Chess Drive[3, 4]	Signal	20	C	**84**	**F**
4. SR 92 Eastbound Ramps and Edgewater Boulevard/Mariners Island Boulevard	Signal	20	B	20	C
5. Edgewater Boulevard and Metro Center Boulevard	Signal	19	B	24	C
6. Vintage Park Drive and Metro Center Boulevard	Signal	22	C	24	C
7. Shell Boulevard and Metro Center Boulevard	Signal	19	B	30	C
8. SR 92 Eastbound Ramps and Metro Center Boulevard[3]	Signal	18	B	22	C

Notes: **Bold** = Unacceptable operations, SSS = Side-street stop, AWS = All-way stop

1. For signalized and all-way stop controlled intersections, the delay shown is the weighted average for all movements in seconds per vehicle. For side-street stop controlled intersection, the delay shown is the worst-operating approach delay.
2. Intersection in San Mateo.
3. Intersection analyzed using the VISSIM microsimulation model.
4. Foster City General Plan Land Use and Circulation Policy LUC-50 states that it will be necessary to accept LOS E or F at this intersection.

Source: Fehr & Peers, February 2013

TABLE 7: CUMULATIVE FREEWAY SEGMENT LOS RESULTS

Segment	CMP LOS Standard	Peak Hour	Direction	Capacity[1]	Chess Drive Hotel		Cumulative	
					Project Trips	Percent of Capacity	Volume[2]	LOS
A. SR 92, between US 101 and Mariners Island Boulevard/ Edgewater Boulevard	E	AM	EB	6,900	33	0.5%	**6,911**	**F**
			WB	8,050	23	0.3%	7,450	E
		PM	EB	6,900	32	0.5%	**7,367**	**F**
			WB	8,050	26	0.3%	7,311	E
B. SR 92, Mariners Island Boulevard/Edgewater Boulevard and Foster City Boulevard	E	AM	EB	8,050	22	0.3%	5,226	C
			WB	8,050	23	0.3%	7,087	D
		PM	EB	8,050	22	0.3%	6,555	D
			WB	8,050	26	0.3%	5,871	D
C. SR 92, east of Foster City Boulevard	E	AM	EB	6,900	6	0.1%	3,205	B
			WB	6,900	8	0.1%	**7,216**	**F**
		PM	EB	6,900	7	0.1%	6,137	E
			WB	6,900	8	0.1%	3,871	C

Notes: **Bold** indicates locations where segment operations exceed CMP thresholds

1. Freeway capacities are as follows: 2,300 vehicles per mainline lane and 1,150 vehicles per auxiliary lane. Segments with a capacity of 6,900 vehicles have three mainline lanes; segments with capacities of 8,050 have an additional auxiliary lane.
2. Volumes presented are passenger-car equivalents.

Source: Fehr & Peers, February 2013

CONCLUSIONS

The hotel project is projected to generate fewer than 100 peak-hour vehicle trips. The amount of generated traffic is likely lower when internalized and pass-by trips are considered. This project has been included in several other recent transportation impact analyses including analyses for the Gilead Sciences Integrated Corporate Campus Master Plan and the General Plan update. Therefore its impacts have been addressed in other documents.

The intersections and freeway segments near the site currently operate at acceptable levels of service. Based on the results of other studies in the area combined with the project's low traffic generation, it can be concluded that the project will have a less-than-significant impact on the surrounding roadways system both on a project and cumulative level. The project will not affect existing or planned bicycle, pedestrian, or transit facilities and will have a less-than-significant impact on those transportation facilities as well.

FEHR PEERS

MEMORANDUM

Date: May 3, 2013

To: Erica Fraser and Geoff Bradley, M-Group

From: Matt Goyne and Jane Bierstedt, Fehr & Peers

Subject: Chess Drive Hotel Trip Generation Comparison

SF13-0663

This memorandum presents a trip generation comparison for the Chess Drive Hotel project in Foster City, California. The results of a focused transportation analysis for this project were presented in the memorandum with the subject *Chess Drive Hotel Focused Transportation Analysis* (February 15, 2013*)*. That analysis was based on the project description dated January 21, 2013 which included 118 hotel rooms a 2,581-square foot bakery. The project description dated April 8, 2013 replaces the bakery with several hotel rooms for a total of 121 rooms.

The February 2013 memorandum concluded that the project will have a less-than-significant impact on the surrounding roadways system both on a project and cumulative level. As shown in **Table 1**, the revised project would generate less traffic than the original project. Therefore, it can be concluded that the revised project will also have a less-than-significant impact on the surrounding roadways system and the conclusions presented in the memorandum would not change.

TABLE 1: PROJECT TRIP GENERATION									
Proposed Land Use	**Amount**	**ITE Category**	**Daily Trips**	**AM Peak Hour**			**PM Peak Hour**		
				In	**Out**	**Total**	**In**	**Out**	**Total**
Revised Project Description (April 2013)									
Hotel	121 Rooms	310	989	41	27	68	38	33	71
Bakery	0 s.f.	932	0	0	0	0	0	0	0
May 2013 Project Trips			***989***	***41***	***27***	***68***	***38***	***33***	***71***
Original Project Description (January 2013)									
Hotel	118 Rooms	310	964	40	26	66	37	33	70
Bakery	2,581 s.f.	932	630	16	14	30	17	12	29
January 2013 Project Trips			***1,594***	***56***	***40***	***96***	***54***	***45***	***99***

Notes: s.f. = 1,000 square feet

Source: Fehr & Peers, May 2013.

4/9/2013 3:41:42 PM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Users\Travis\Documents\Erica\Foster City\Foster CIty Hotel Final.urb924

Project Name: Foster City Hotel

Project Location: San Mateo County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

4/9/2013 3:41:42 PM

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2013 TOTALS (tons/year unmitigated)	0.06	0.41	0.33	0.00	0.10	0.02	0.12	0.02	0.02	0.04	58.29
2014 TOTALS (tons/year unmitigated)	0.73	0.54	0.57	0.00	0.00	0.03	0.03	0.00	0.03	0.03	101.95

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.08	0.18	0.29	0.00	0.00	0.00	212.24
TOTALS (tons/year, mitigated)	0.08	0.18	0.29	0.00	0.00	0.00	212.24
Percent Reduction	0.00	0.00	0.00	NaN	NaN	NaN	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.83	0.95	9.65	0.01	2.30	0.43	1,212.06

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.91	1.13	9.94	0.01	2.30	0.43	1,424.30

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

4/16/2013 5:33:42 PM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Users\Travis\AppData\Roaming\Urbemis\Version9a\Projects\Foster CIty Hotel - Existing.urb924

Project Name: Foster City Hotel

Project Location: San Mateo County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

4/16/2013 5:33:42 PM

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2007 TOTALS (tons/year unmitigated)	0.04	0.34	0.18	0.00	0.12	0.02	0.14	0.02	0.02	0.04	27.06
2008 TOTALS (tons/year unmitigated)	0.87	1.11	1.00	0.00	0.05	0.07	0.12	0.01	0.06	0.07	132.74

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.10	0.18	0.44	0.00	0.00	0.00	222.31

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	1.43	1.75	17.69	0.02	4.22	0.79	2,220.53

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	1.53	1.93	18.13	0.02	4.22	0.79	2,442.84

Foster City Hotel

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
	0	
Hotel	121	Room

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Pacific Gas & Electric Company
Climate Zone	5	**Precipitation Freq (Days)**	70		

1.3 User Entered Comments

Project Characteristics -

Land Use - Actual size of project - high density project with 5 floors on a 1.70 acre parcel

Construction Phase - Applicant has indicted that the project construction should last for no more than one year. Demolition includes site demolition and the demolition of an existing restaurant building.

Demolition - Existing restaurant size is 9,600 sq. ft.

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					
2013	0.21	1.32	0.93	0.00	0.06	0.08	0.14	0.02	0.08	0.10	0.00	137.03	137.03	0.02	0.00	137.39
2014	1.12	1.70	1.41	0.00	0.03	0.11	0.14	0.00	0.11	0.11	0.00	205.15	205.15	0.03	0.00	205.70
Total	**1.33**	**3.02**	**2.34**	**0.00**	**0.09**	**0.19**	**0.28**	**0.02**	**0.19**	**0.21**	**0.00**	**342.18**	**342.18**	**0.05**	**0.00**	**343.09**

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					
2013	0.21	1.32	0.93	0.00	0.04	0.08	0.12	0.02	0.08	0.10	0.00	137.03	137.03	0.02	0.00	137.39
2014	1.12	1.70	1.41	0.00	0.00	0.11	0.11	0.00	0.11	0.11	0.00	205.15	205.15	0.03	0.00	205.70
Total	**1.33**	**3.02**	**2.34**	**0.00**	**0.04**	**0.19**	**0.23**	**0.02**	**0.19**	**0.21**	**0.00**	**342.18**	**342.18**	**0.05**	**0.00**	**343.09**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.35	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
Energy	0.01	0.13	0.11	0.00		0.00	0.01		0.00	0.01	0.00	322.77	322.77	0.01	0.01	324.76
Mobile	0.57	0.87	5.60	0.01	0.84	0.04	0.88	0.04	0.04	0.07	0.00	770.15	770.15	0.04	0.00	770.88
Waste						0.00	0.00		0.00	0.00	13.45	0.00	13.45	0.79	0.00	30.14
Water						0.00	0.00		0.00	0.00	0.00	5.21	5.21	0.09	0.00	7.93
Total	**0.93**	**1.00**	**5.71**	**0.01**	**0.84**	**0.04**	**0.89**	**0.04**	**0.04**	**0.08**	**13.45**	**1,098.13**	**1,111.58**	**0.93**	**0.01**	**1,133.71**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.33	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
Energy	0.01	0.11	0.09	0.00		0.00	0.01		0.00	0.01	0.00	289.28	289.28	0.01	0.01	291.07
Mobile	0.52	0.76	5.00	0.01	0.72	0.03	0.75	0.03	0.03	0.06	0.00	656.33	656.33	0.03	0.00	656.97
Waste						0.00	0.00		0.00	0.00	10.09	0.00	10.09	0.60	0.00	22.60
Water						0.00	0.00		0.00	0.00	0.00	4.66	4.66	0.08	0.00	7.08
Total	**0.86**	**0.87**	**5.09**	**0.01**	**0.72**	**0.03**	**0.76**	**0.03**	**0.03**	**0.07**	**10.09**	**950.27**	**960.36**	**0.72**	**0.01**	**977.72**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2013

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					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.08	0.58	0.35	0.00		0.03	0.03		0.03	0.03	0.00	53.69	53.69	0.01	0.00	53.82
Total	**0.08**	**0.58**	**0.35**	**0.00**	**0.00**	**0.03**	**0.03**	**0.00**	**0.03**	**0.03**	**0.00**	**53.69**	**53.69**	**0.01**	**0.00**	**53.82**

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	0.00	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	1.45	1.45	0.00	0.00	1.45
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.91	1.91	0.00	0.00	1.91
Total	**0.00**	**0.01**	**0.02**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**3.36**	**3.36**	**0.00**	**0.00**	**3.36**

3.2 Demolition - 2013

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					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.08	0.58	0.35	0.00		0.03	0.03		0.03	0.03	0.00	53.69	53.69	0.01	0.00	53.82
Total	**0.08**	**0.58**	**0.35**	**0.00**	**0.00**	**0.03**	**0.03**	**0.00**	**0.03**	**0.03**	**0.00**	**53.69**	**53.69**	**0.01**	**0.00**	**53.82**

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	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	1.45	0.00	0.00	1.45
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.91	1.91	0.00	0.00	1.91
Total	**0.00**	**0.01**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.36**	**3.36**	**0.00**	**0.00**	**3.36**

3.3 Site Preparation - 2013

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					0.01	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.06	0.04	0.00		0.00	0.00		0.00	0.00	0.00	5.90	5.90	0.00	0.00	5.91
Total	**0.01**	**0.06**	**0.04**	**0.00**	**0.01**	**0.00**	**0.01**	**0.01**	**0.00**	**0.01**	**0.00**	**5.90**	**5.90**	**0.00**	**0.00**	**5.91**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.00	0.00	0.16
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.16**	**0.16**	**0.00**	**0.00**	**0.16**

3.3 Site Preparation - 2013

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					0.01	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.06	0.04	0.00		0.00	0.00		0.00	0.00	0.00	5.90	5.90	0.00	0.00	5.91
Total	**0.01**	**0.06**	**0.04**	**0.00**	**0.01**	**0.00**	**0.01**	**0.01**	**0.00**	**0.01**	**0.00**	**5.90**	**5.90**	**0.00**	**0.00**	**5.91**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.00	0.00	0.16
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.16**	**0.16**	**0.00**	**0.00**	**0.16**

3.4 Grading - 2013

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					0.02	0.00	0.02	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.13	0.08	0.00		0.01	0.01		0.01	0.01	0.00	12.20	12.20	0.00	0.00	12.23
Total	**0.02**	**0.13**	**0.08**	**0.00**	**0.02**	**0.01**	**0.03**	**0.01**	**0.01**	**0.02**	**0.00**	**12.20**	**12.20**	**0.00**	**0.00**	**12.23**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.39	0.00	0.00	0.39
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.39**	**0.39**	**0.00**	**0.00**	**0.39**

3.4 Grading - 2013

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					0.02	0.00	0.02	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.13	0.08	0.00		0.01	0.01		0.01	0.01	0.00	12.20	12.20	0.00	0.00	12.23
Total	**0.02**	**0.13**	**0.08**	**0.00**	**0.02**	**0.01**	**0.03**	**0.01**	**0.01**	**0.02**	**0.00**	**12.20**	**12.20**	**0.00**	**0.00**	**12.23**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.39	0.00	0.00	0.39
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.39**	**0.39**	**0.00**	**0.00**	**0.39**

3.5 Building Construction - 2013

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	0.10	0.50	0.35	0.00		0.03	0.03		0.03	0.03	0.00	49.95	49.95	0.01	0.00	50.12
Total	**0.10**	**0.50**	**0.35**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**49.95**	**49.95**	**0.01**	**0.00**	**50.12**

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	0.00	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
Vendor	0.00	0.03	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.29	5.29	0.00	0.00	5.30
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	6.10	6.10	0.00	0.00	6.11
Total	**0.00**	**0.03**	**0.08**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**11.39**	**11.39**	**0.00**	**0.00**	**11.41**

3.5 Building Construction - 2013

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	0.10	0.50	0.35	0.00		0.03	0.03		0.03	0.03	0.00	49.95	49.95	0.01	0.00	50.12
Total	**0.10**	**0.50**	**0.35**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**49.95**	**49.95**	**0.01**	**0.00**	**50.12**

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	0.00	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
Vendor	0.00	0.03	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.29	5.29	0.00	0.00	5.30
Worker	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.10	6.10	0.00	0.00	6.11
Total	**0.00**	**0.03**	**0.08**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**11.39**	**11.39**	**0.00**	**0.00**	**11.41**

3.5 Building Construction - 2014

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	0.28	1.49	1.09	0.00		0.10	0.10		0.10	0.10	0.00	159.14	159.14	0.02	0.00	159.62
Total	**0.28**	**1.49**	**1.09**	**0.00**		**0.10**	**0.10**		**0.10**	**0.10**	**0.00**	**159.14**	**159.14**	**0.02**	**0.00**	**159.62**

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	0.00	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
Vendor	0.01	0.10	0.13	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	16.99	16.99	0.00	0.00	17.00
Worker	0.01	0.01	0.12	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	19.07	19.07	0.00	0.00	19.09
Total	**0.02**	**0.11**	**0.25**	**0.00**	**0.03**	**0.00**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**36.06**	**36.06**	**0.00**	**0.00**	**36.09**

3.5 Building Construction - 2014

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	0.28	1.49	1.09	0.00		0.10	0.10		0.10	0.10	0.00	159.14	159.14	0.02	0.00	159.62
Total	**0.28**	**1.49**	**1.09**	**0.00**		**0.10**	**0.10**		**0.10**	**0.10**	**0.00**	**159.14**	**159.14**	**0.02**	**0.00**	**159.62**

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	0.00	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
Vendor	0.01	0.10	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.99	16.99	0.00	0.00	17.00
Worker	0.01	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.07	19.07	0.00	0.00	19.09
Total	**0.02**	**0.11**	**0.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**36.06**	**36.06**	**0.00**	**0.00**	**36.09**

3.6 Paving - 2014

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	0.01	0.09	0.06	0.00		0.01	0.01		0.01	0.01	0.00	7.77	7.77	0.00	0.00	7.79
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.01**	**0.09**	**0.06**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**7.77**	**7.77**	**0.00**	**0.00**	**7.79**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.62	0.00	0.00	0.62
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.62**	**0.62**	**0.00**	**0.00**	**0.62**

3.6 Paving - 2014

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	0.01	0.09	0.06	0.00		0.01	0.01		0.01	0.01	0.00	7.77	7.77	0.00	0.00	7.79
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.01**	**0.09**	**0.06**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**7.77**	**7.77**	**0.00**	**0.00**	**7.79**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.62	0.00	0.00	0.62
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.62**	**0.62**	**0.00**	**0.00**	**0.62**

3.7 Architectural Coating - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	1.28	1.28	0.00	0.00	1.28
Total	**0.80**	**0.01**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**1.28**	**1.28**	**0.00**	**0.00**	**1.28**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.29	0.00	0.00	0.29
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.29**	**0.29**	**0.00**	**0.00**	**0.29**

3.7 Architectural Coating - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	1.28	1.28	0.00	0.00	1.28
Total	**0.80**	**0.01**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**1.28**	**1.28**	**0.00**	**0.00**	**1.28**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.29	0.00	0.00	0.29
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.29**	**0.29**	**0.00**	**0.00**	**0.29**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Employee Vanpool/Shuttle

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.52	0.76	5.00	0.01	0.72	0.03	0.75	0.03	0.03	0.06	0.00	656.33	656.33	0.03	0.00	656.97
Unmitigated	0.57	0.87	5.60	0.01	0.84	0.04	0.88	0.04	0.04	0.07	0.00	770.15	770.15	0.04	0.00	770.88
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	988.57	990.99	719.95	1,805,963	1,529,717
Total	988.57	990.99	719.95	1,805,963	1,529,717

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Hotel	9.50	7.30	7.30	19.40	61.60	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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						0.00	0.00		0.00	0.00	0.00	171.94	171.94	0.01	0.00	173.02
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	182.66	182.66	0.01	0.00	183.81
NaturalGas Mitigated	0.01	0.11	0.09	0.00		0.00	0.01		0.00	0.01	0.00	117.33	117.33	0.00	0.00	118.05
NaturalGas Unmitigated	0.01	0.13	0.11	0.00		0.00	0.01		0.00	0.01	0.00	140.10	140.10	0.00	0.00	140.96
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	tons/yr										MT/yr					
Hotel	2.62545e+006	0.01	0.13	0.11	0.00		0.00	0.01		0.00	0.01	0.00	140.10	140.10	0.00	0.00	140.96
Total		**0.01**	**0.13**	**0.11**	**0.00**		**0.00**	**0.01**		**0.00**	**0.01**	**0.00**	**140.10**	**140.10**	**0.00**	**0.00**	**140.96**

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	tons/yr										MT/yr					
Hotel	2.19875e+006	0.01	0.11	0.09	0.00		0.00	0.01		0.00	0.01	0.00	117.33	117.33	0.00	0.00	118.05
Total		**0.01**	**0.11**	**0.09**	**0.00**		**0.00**	**0.01**		**0.00**	**0.01**	**0.00**	**117.33**	**117.33**	**0.00**	**0.00**	**118.05**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Hotel	627900					182.66	0.01	0.00	183.81
Total						**182.66**	**0.01**	**0.00**	**183.81**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Hotel	591054					171.94	0.01	0.00	173.02
Total						**171.94**	**0.01**	**0.00**	**173.02**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.33	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
Unmitigated	0.35	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
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.08					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.27					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
Total	**0.35**	**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**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.08					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.25					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
Total	**0.33**	**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**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

Use Water Efficient Landscaping

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					4.66	0.08	0.00	7.08
Unmitigated					5.21	0.09	0.00	7.93
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Hotel	3.06938 / 0.341042					5.21	0.09	0.00	7.93
Total						**5.21**	**0.09**	**0.00**	**7.93**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Hotel	2.73175 / 0.320239					4.66	0.08	0.00	7.08
Total						**4.66**	**0.08**	**0.00**	**7.08**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					10.09	0.60	0.00	22.60
Unmitigated					13.45	0.79	0.00	30.14
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Hotel	66.25					13.45	0.79	0.00	30.14
Total						**13.45**	**0.79**	**0.00**	**30.14**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Hotel	49.6875					10.09	0.60	0.00	22.60
Total						**10.09**	**0.60**	**0.00**	**22.60**

9.0 Vegetation

Existing Restaurant

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Quality Restaurant	9.7	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Pacific Gas & Electric Company
Climate Zone	5	**Precipitation Freq (Days)**	70		

1.3 User Entered Comments

Project Characteristics -

Land Use - Former Black Angus restaurant

Demolition -

Land Use Change -

Sequestration -

Mobile Land Use Mitigation - Project also incldues a shuttle to and from the airport.

Two bus stops located in close proximity to site. Provides connections to BART, Caltrain and SFO

Area Mitigation -

Energy Mitigation -

Water Mitigation - Water Efficient Landscape will be used, but final Landscape Plans have not been provided. Applicant will be requried to provide water efficient irrigation.

Waste Mitigation -

Construction Phase - Applicant has stated that construction will take no more than one year. Significant activities for demolition are expected as existing site is developed and existing building will be required to be demolished and recycling of debris is required by the Municipal Code.

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					
2011	0.75	3.33	2.19	0.00	0.04	0.24	0.27	0.01	0.24	0.25	0.00	297.11	297.11	0.05	0.00	298.19
Total	**0.75**	**3.33**	**2.19**	**0.00**	**0.04**	**0.24**	**0.27**	**0.01**	**0.24**	**0.25**	**0.00**	**297.11**	**297.11**	**0.05**	**0.00**	**298.19**

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					
2011	0.75	3.33	2.19	0.00	0.02	0.24	0.26	0.01	0.24	0.25	0.00	297.11	297.11	0.05	0.00	298.19
Total	**0.75**	**3.33**	**2.19**	**0.00**	**0.02**	**0.24**	**0.26**	**0.01**	**0.24**	**0.25**	**0.00**	**297.11**	**297.11**	**0.05**	**0.00**	**298.19**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.05	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
Energy	0.01	0.08	0.07	0.00		0.00	0.01		0.00	0.01	0.00	173.33	173.33	0.01	0.00	174.40
Mobile	0.39	0.53	3.70	0.00	0.47	0.02	0.50	0.02	0.02	0.04	0.00	440.77	440.77	0.02	0.00	441.22
Waste						0.00	0.00		0.00	0.00	1.80	0.00	1.80	0.11	0.00	4.03
Water						0.00	0.00		0.00	0.00	0.00	4.86	4.86	0.09	0.00	7.47
Total	**0.45**	**0.61**	**3.77**	**0.00**	**0.47**	**0.02**	**0.51**	**0.02**	**0.02**	**0.05**	**1.80**	**618.96**	**620.76**	**0.23**	**0.00**	**627.12**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.05	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
Energy	0.01	0.08	0.07	0.00		0.00	0.01		0.00	0.01	0.00	173.33	173.33	0.01	0.00	174.40
Mobile	0.36	0.47	3.36	0.00	0.40	0.02	0.42	0.02	0.02	0.04	0.00	376.93	376.93	0.02	0.00	377.33
Waste						0.00	0.00		0.00	0.00	1.80	0.00	1.80	0.11	0.00	4.03
Water						0.00	0.00		0.00	0.00	0.00	4.86	4.86	0.09	0.00	7.47
Total	**0.42**	**0.55**	**3.43**	**0.00**	**0.40**	**0.02**	**0.43**	**0.02**	**0.02**	**0.05**	**1.80**	**555.12**	**556.92**	**0.23**	**0.00**	**563.23**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2011

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					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.06	0.43	0.26	0.00		0.03	0.03		0.03	0.03	0.00	35.79	35.79	0.00	0.00	35.89
Total	**0.06**	**0.43**	**0.26**	**0.00**	**0.00**	**0.03**	**0.03**	**0.00**	**0.03**	**0.03**	**0.00**	**35.79**	**35.79**	**0.00**	**0.00**	**35.89**

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	0.00	0.01	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	1.40	1.40	0.00	0.00	1.40
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32	1.32	0.00	0.00	1.32
Total	**0.00**	**0.01**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**2.72**	**2.72**	**0.00**	**0.00**	**2.72**

3.2 Demolition - 2011

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					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.06	0.43	0.26	0.00		0.03	0.03		0.03	0.03	0.00	35.79	35.79	0.00	0.00	35.89
Total	**0.06**	**0.43**	**0.26**	**0.00**	**0.00**	**0.03**	**0.03**	**0.00**	**0.03**	**0.03**	**0.00**	**35.79**	**35.79**	**0.00**	**0.00**	**35.89**

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	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	1.40	0.00	0.00	1.40
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32	1.32	0.00	0.00	1.32
Total	**0.00**	**0.01**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.72**	**2.72**	**0.00**	**0.00**	**2.72**

3.3 Site Preparation - 2011

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					0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.04	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.95	2.95	0.00	0.00	2.96
Total	**0.00**	**0.04**	**0.02**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**2.95**	**2.95**	**0.00**	**0.00**	**2.96**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.00	0.00	0.08
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.08**	**0.08**	**0.00**	**0.00**	**0.08**

3.3 Site Preparation - 2011

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					0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.04	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.95	2.95	0.00	0.00	2.96
Total	**0.00**	**0.04**	**0.02**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**2.95**	**2.95**	**0.00**	**0.00**	**2.96**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.00	0.00	0.08
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.08**	**0.08**	**0.00**	**0.00**	**0.08**

3.4 Grading - 2011

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					0.01	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.06	0.03	0.00		0.00	0.00		0.00	0.00	0.00	4.88	4.88	0.00	0.00	4.89
Total	**0.01**	**0.06**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.01**	**0.00**	**0.01**	**0.00**	**4.88**	**4.88**	**0.00**	**0.00**	**4.89**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.00	0.00	0.16
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.16**	**0.16**	**0.00**	**0.00**	**0.16**

3.4 Grading - 2011

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					0.01	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.06	0.03	0.00		0.00	0.00		0.00	0.00	0.00	4.88	4.88	0.00	0.00	4.89
Total	**0.01**	**0.06**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.01**	**0.00**	**0.01**	**0.00**	**4.88**	**4.88**	**0.00**	**0.00**	**4.89**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.00	0.00	0.16
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.16**	**0.16**	**0.00**	**0.00**	**0.16**

3.5 Building Construction - 2011

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	0.54	2.63	1.71	0.00		0.19	0.19		0.19	0.19	0.00	232.32	232.32	0.04	0.00	233.23
Total	**0.54**	**2.63**	**1.71**	**0.00**		**0.19**	**0.19**		**0.19**	**0.19**	**0.00**	**232.32**	**232.32**	**0.04**	**0.00**	**233.23**

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	0.00	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
Vendor	0.00	0.03	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.38	4.38	0.00	0.00	4.39
Worker	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.07	4.07	0.00	0.00	4.07
Total	**0.00**	**0.03**	**0.07**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**8.45**	**8.45**	**0.00**	**0.00**	**8.46**

3.5 Building Construction - 2011

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	0.54	2.63	1.71	0.00		0.19	0.19		0.19	0.19	0.00	232.32	232.32	0.04	0.00	233.23
Total	**0.54**	**2.63**	**1.71**	**0.00**		**0.19**	**0.19**		**0.19**	**0.19**	**0.00**	**232.32**	**232.32**	**0.04**	**0.00**	**233.23**

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	0.00	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
Vendor	0.00	0.03	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.38	4.38	0.00	0.00	4.39
Worker	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.07	4.07	0.00	0.00	4.07
Total	**0.00**	**0.03**	**0.07**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**8.45**	**8.45**	**0.00**	**0.00**	**8.46**

3.6 Paving - 2011

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	0.02	0.10	0.06	0.00		0.01	0.01		0.01	0.01	0.00	7.77	7.77	0.00	0.00	7.80
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.02**	**0.10**	**0.06**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**7.77**	**7.77**	**0.00**	**0.00**	**7.80**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.66	0.00	0.00	0.66
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.66**	**0.66**	**0.00**	**0.00**	**0.66**

3.6 Paving - 2011

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	0.02	0.10	0.06	0.00		0.01	0.01		0.01	0.01	0.00	7.77	7.77	0.00	0.00	7.80
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.02**	**0.10**	**0.06**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**7.77**	**7.77**	**0.00**	**0.00**	**7.80**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.66	0.00	0.00	0.66
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.66**	**0.66**	**0.00**	**0.00**	**0.66**

3.7 Architectural Coating - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.11					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	1.28	1.28	0.00	0.00	1.28
Total	**0.11**	**0.02**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**1.28**	**1.28**	**0.00**	**0.00**	**1.28**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.00	0.00	0.05
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.05**	**0.05**	**0.00**	**0.00**	**0.05**

3.7 Architectural Coating - 2011

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.11					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	1.28	1.28	0.00	0.00	1.28
Total	**0.11**	**0.02**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**1.28**	**1.28**	**0.00**	**0.00**	**1.28**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.00	0.00	0.05
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.05**	**0.05**	**0.00**	**0.00**	**0.05**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.36	0.47	3.36	0.00	0.40	0.02	0.42	0.02	0.02	0.04	0.00	376.93	376.93	0.02	0.00	377.33
Unmitigated	0.39	0.53	3.70	0.00	0.47	0.02	0.50	0.02	0.02	0.04	0.00	440.77	440.77	0.02	0.00	441.22
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Quality Restaurant	872.52	915.29	699.95	1,012,956	858,011
Total	872.52	915.29	699.95	1,012,956	858,011

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	85.33	85.33	0.00	0.00	85.87
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	85.33	85.33	0.00	0.00	85.87
NaturalGas Mitigated	0.01	0.08	0.07	0.00		0.00	0.01		0.00	0.01	0.00	88.00	88.00	0.00	0.00	88.54
NaturalGas Unmitigated	0.01	0.08	0.07	0.00		0.00	0.01		0.00	0.01	0.00	88.00	88.00	0.00	0.00	88.54
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	tons/yr										MT/yr					
Quality Restaurant	1.6491e+006	0.01	0.08	0.07	0.00		0.00	0.01		0.00	0.01	0.00	88.00	88.00	0.00	0.00	88.54
Total		**0.01**	**0.08**	**0.07**	**0.00**		**0.00**	**0.01**		**0.00**	**0.01**	**0.00**	**88.00**	**88.00**	**0.00**	**0.00**	**88.54**

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	tons/yr										MT/yr					
Quality Restaurant	1.6491e+006	0.01	0.08	0.07	0.00		0.00	0.01		0.00	0.01	0.00	88.00	88.00	0.00	0.00	88.54
Total		**0.01**	**0.08**	**0.07**	**0.00**		**0.00**	**0.01**		**0.00**	**0.01**	**0.00**	**88.00**	**88.00**	**0.00**	**0.00**	**88.54**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Quality Restaurant	293328					85.33	0.00	0.00	85.87
Total						**85.33**	**0.00**	**0.00**	**85.87**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Quality Restaurant	293328					85.33	0.00	0.00	85.87
Total						**85.33**	**0.00**	**0.00**	**85.87**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.05	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
Unmitigated	0.05	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
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.01					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.04					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
Total	**0.05**	**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**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.01					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.04					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
Total	**0.05**	**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**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					4.86	0.09	0.00	7.47
Unmitigated					4.86	0.09	0.00	7.47
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Quality Restaurant	2.94428 / 0.187933					4.86	0.09	0.00	7.47
Total						**4.86**	**0.09**	**0.00**	**7.47**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Quality Restaurant	2.94428 / 0.187933					4.86	0.09	0.00	7.47
Total						**4.86**	**0.09**	**0.00**	**7.47**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					1.80	0.11	0.00	4.03
Unmitigated					1.80	0.11	0.00	4.03
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Quality Restaurant	8.85					1.80	0.11	0.00	4.03
Total						**1.80**	**0.11**	**0.00**	**4.03**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Quality Restaurant	8.85					1.80	0.11	0.00	4.03
Total						**1.80**	**0.11**	**0.00**	**4.03**

9.0 Vegetation