INITIAL STUDY
FOR
VISTA GRANDE AND CULINARY SUPPORT CENTER

Prepared for:
CALIFORNIA POLYTECHNIC STATE UNIVERSITY, SAN LUIS OBISPO

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September 2015

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INTRODUCTION

California Polytechnic State University, San Luis Obispo (The University or Cal Poly) proposes to demolish and reconstruct the Vista Grande Dining Facility (Vista Grande), Building 112, within its current location on campus, and expand the existing Corporation Warehouse, Building 82 (Culinary Support). The project is in the conceptual phase; an Initial Study is being completed at this time to provide preliminary evaluation of the potential impacts of the project, and to identify the type of formal CEQA document which will be required for the project. The level of specificity of environmental analysis is commensurate with the level of project detail available at the time of this writing. Where practical, this Initial Study identifies measures which may help guide the development of project specifications.

PROJECT LOCATION AND SETTING

Cal Poly is located northeast of the City of San Luis Obispo, approximately midway between San Francisco and Los Angeles on California's central coast. The university campus occupies over 6,000 acres. University lands include range and agricultural areas as well as natural preserves, in addition to more developed areas. The more developed portion of campus is identified as the "campus instructional core" and includes agricultural support facilities, and academic, housing and administrative buildings. The campus instructional core is generally bound by Highland Drive on the north, California Boulevard on the west, Slack Street on the south, and foothills on the east.

Vista Grande

Vista Grande is a 20,000-square foot structure located in the southeastern portion of the campus instructional core, immediately east of Grand Avenue, generally across from Pacheco Way and the Performing Arts Center. The site is bordered by Grand Avenue and the Performing Arts Center to the west, Deer Road and residential buildings (Tenaya and Fremont) to the north, residential buildings (Sierra Madre) to the east, and Grand Avenue, Sierra Madre lawn/sidewalk area, and the G-1 parking lot to the south. The project location is shown in Figures 1, 2, 3, and 4.

Vista Grande currently includes VG Café and the Sage Restaurant. VG Café served 622,958 meals over the 2014/2015 academic year. VG Café provides "grab and go" food service primarily geared towards first year (freshmen) students, which is provided by Sandwich Stop, Cagie Moon's, Chopstix, Caliente, and Bella Pasta. VG Café is open from 8:00 AM – 2:00 AM Monday through Friday, and 8:00 AM – 12:00AM Saturday and Sunday. Sage Restaurant is a full-service, sit-down restaurant that is open to the public and serves approximately 40 people per day.

Corporation Warehouse and Culinary Support Center

The Cal Poly Corporation and Cal Poly Campus Dining provide commercial services for the University, including VG Café, the 20,000-square foot Corporation Warehouse (Building 82), and 74,426-square foot Dining facility (Building 19). The Corporation Warehouse is located off Mt. Bishop Road, and provides distribution services for the University, truck bays for loading and unloading, and parking areas for small delivery trucks and vans. Surrounding uses include Mt. Bishop Road, the Veterinary Hospital, and Boone Dairy Science Complex to the north, the Tech Park to the west, the H-1 parking lot and Rose Float buildings to the south, and agricultural fields to the east (refer to Figures 1, 2, 3, and 5.

Culinary support facilities are currently provided within Building 19, which is located in the campus core, between located between South Polyview Drive and Mustang Way. Culinary support facilities, including truck deliveries, would be diverted to the Corporation Warehouse upon implementation of the project.

PROJECT OBJECTIVES

The project is being pursued with the following objectives:

- Continue to utilize campus lands for the "highest and best use" and increase land use efficiency in the campus core;
- Cluster uses that need to be, or benefit from being, near one another, and consolidate related activities where possible and focus on efficient and effective operations with continuous operational improvements;
- Implement redevelopment by replacing one-story buildings with multi-story buildings;
- Provide basic services for residents and locate relevant support services near housing complexes;
- Provide commercial services on campus to reduce the need for people to run errands off campus during the day, and offer services in a variety of forms in consideration of the diversity within the University community;
- Where possible, coordinate and consolidate services in convenient locations;
- Provide accessibility to services, including access for disabled persons, and meet or exceed applicable requirements for disabled access, fire safety, and emergency response systems;
- Public services should support the University efficiently, with the flexibility to meet changing needs; and,
- Consider sustainability, alternative sources, self-sufficiency, life-cycle costing, and other strategies to minimize impacts on the environment.

Figure 1. Project Vicinity

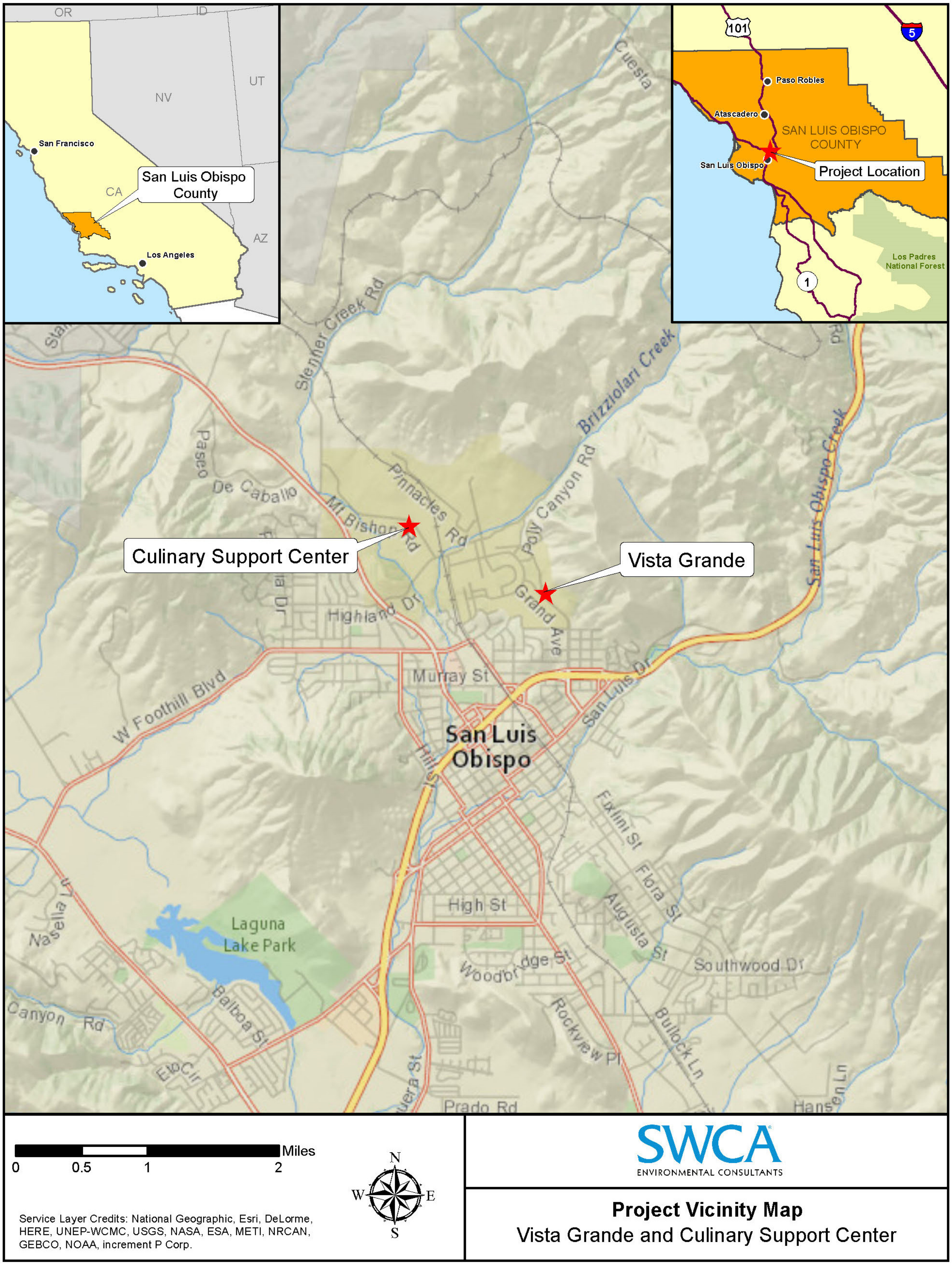
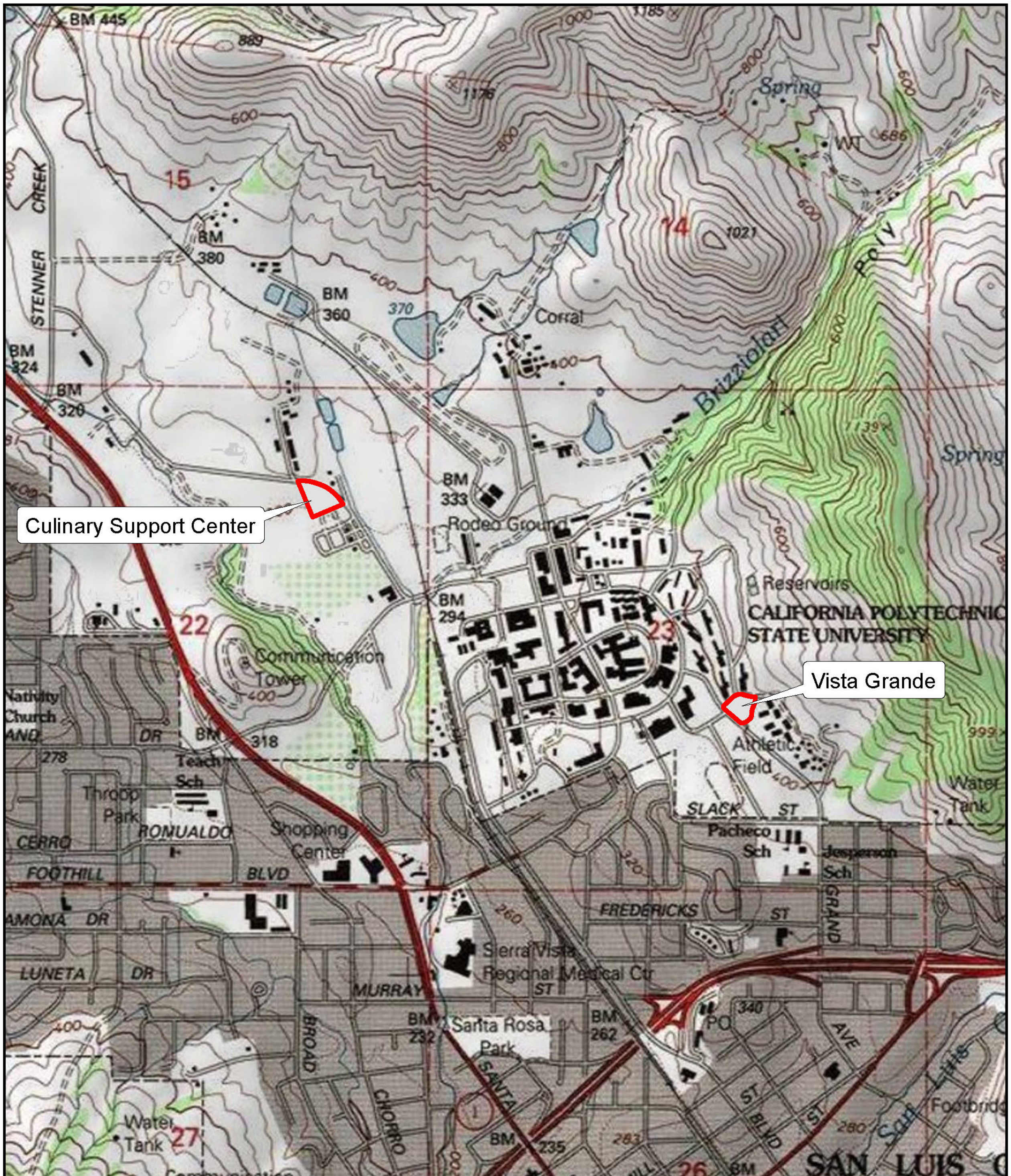


Figure 2. Project Location – Overview

Figure 3. Project Location – Vista Grande



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0 0.125 0.25 0.5

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ENVIRONMENTAL CONSULTANTS

Project Location Map
Vista Grande and Culinary Support Center

Figure 4. Project Location – Vista Grande

Figure 5. Project Location – Culinary Support Center

PROJECT DESCRIPTION

Background. The 2001 Cal Poly Master Plan is the primary document governing land use and capital improvements on campus through the year 2020. The Master Plan includes several elements which guide development on campus, including, but not limited to: Campus Instructional Core, Residential Communities, Circulation and Parking. The Master Plan establishes land uses for the entire campus, and outlines principles to guide future development. The Master Plan does not set specific standards for development. However, development pursuant to the Master Plan is conditioned by mitigation measures outlined in the Master Plan Environmental Impact Report (EIR), as applicable.

The Residential Communities element identifies constraints associated with housing on campus and communitywide, outlines principles to guide the housing program on campus, and identifies several locations for housing communities on University lands. A component of this element is Support Services, which includes personal services, retail food, meeting rooms, recreation and entertainment, including the Vista Grande building.

The Public Facilities and Utilities element describes the physical facilities and infrastructure required to support campus operations. This element identifies the Corporation Warehouse, and an expansion of this Warehouse, noting that public facilities should be located outside of the campus core unless their academic mission or functional nature requires immediate access to the core. This element notes that the warehouse facilities should be concealed from view.

Project Components

Vista Grande. The proposed Project includes two primary components: 1) complete demolition of the existing dining facility, including VG Café and Sage Restaurant and 2) construction and operation of a new Vista Grande Dining Facility (refer to Figures 6 through 11 below).

Demolition. The existing, single-level, 20,000-square foot structure and underlying foundation would be demolished, including 40,000-square feet of surrounding paving, walkways, stairs, seating areas, planters and landscaping. Where feasible, the University recycles debris on campus; for this project, it is assumed that paving debris and lighting features would be disposed of off-site at an approved landfill. The building has been tested for lead and asbestos (McKenna Environmental 2015). The findings concluded that materials containing asbestos, lead-containing paint, and lead based paint (LBP) are present; therefore, the University will comply with existing regulations for the management, abatement, and disposal of hazardous materials, including (but not limited to) the Asbestos Hazard Emergency Response Act (AHERA) Asbestos-Containing Materials in Schools Rule, Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP), and Occupational Safety and Health Administration's (OSHA) Lead Exposure in Construction Rule (29 CFR Part 1926).

Grading and Site Preparation. Following demolition, preparation of the site would include removal of vegetation (trees and shrubs) and initial grading over an approximately 1.5-acre area. The project assumes excavation of an estimated 2,000 cubic yards of soil and import of 1,000 cubic yards of suitable fill. Excavated material will be hauled off-site, requiring approximately 150 round-trips. Primary access for construction vehicles will be provided off Grand Avenue and Deer Road. Construction staging would occur on-site.

Structures. The proposed 39,0000-square foot structure would consist of three stories, including 33,000-square feet of dining facilities and 5,000 square feet of new office space for the Cal Poly Corporation. The dining options presented in the new facility will feature seven separate and distinct "platforms" that will feature varied course offerings ranging from soups and salad, to barbecue, to gluten-free food fare, to exotic ethnic cuisine. Interior seating will be provided for 475 diners with exterior seating on-grade and on elevated patios provided for another 100 diners. The facility is expected to serve approximately 3,000 to 4,000 people a day.

The first floor would include a 1,500-square foot market featuring grab-and-go food fare for quick and easy access by busy students. The market would be located adjacent to a main dining room, first floor platform, office, dietitian meeting room, restrooms, dry storage, freezers, walk-in cooler, main kitchen and prep area, custodial and electrical rooms, main entry, and two patios (covered outdoor dining areas). Please refer to Figure 7, below.

The second floor would include a main dining room with a hearth, second floor platforms, beverage and ice stations, dishroom, private dining area, public and staff restrooms, storage, dry storage, walk-in freezer, walk-in cooler, custodial closet, two offices, locker rooms, and outdoor patios with three fireplaces. Proposed special-function venues would include a 662-square foot, 30-person private dining room and 467-square foot Chef's Table demonstration kitchen and 400-square foot serving area with seating for 20. Special-function areas would be available for use by students when not reserved for special functions. Special function venues would be available for rent by the public. The back-of-house receiving, preparation and storage area will encompass approximately 8,000 square feet, including the main kitchen and food preparation area, washing and ice station, dry storage and freezers, and offices. Please refer to Figure 8, below.

Cal Poly Corporation offices would be located on the third floor, including offices, workspaces, conference rooms, restrooms, lobby, and patio (refer to Figure 9, below).

Access between the floors would be provided by stairs, elevator, and freight elevator (between the first and second floors).

The overall height of the building would be 57 feet, as measured from the first floor elevation corner (refer to Figures 10 and 11, below). The first floor would be 16 feet in height, the second floor would be 20 feet in height, and the third floor would be up to 21 feet in height. The structure would be approximately 27 feet taller than the existing structure.

Architectural Design. The architectural style of the project is a variation of the mid-century modern style of architecture, which can be seen in the design of several other buildings on the Cal Poly campus. This style features the use of bold horizontal lines and generous amounts of glazing, floor-to-ceiling or in broad, unbroken horizontal bands. The structural support system features a reliance on post-and-beam systems versus the use of bulky (and opaque) bearing walls. Conceptual elevations show the floor plains as unbroken stretches of horizontal lines with floor-to-ceiling aluminum window walls behind the floor plains. A nod to more current architectural stylings can be seen with the roof turning into a vertical plain to create one side of the entry tower element along Grand Avenue. Brick faced walls will take the place of the glazed areas where solid walls are required for interior functions or for structural shear walls. Please refer to Figures 6, 8, and 11.

Utilities. Existing utilities are sufficient to serve the proposed development.

Access and Parking. Vista Grande would continue to be accessed by sidewalks, walkways, and American Disability Act (ADA) ramps. Bicycle racks are currently provided at residential buildings to the north and southeast. Vehicle parking is provided for guests and residents across Grand Avenue and adjacent to the Performing Arts Center (PAC), including Grand Avenue Parking (Building 130). Up to two University/staff parking spaces would be provided onsite. Delivery trucks would access the rear of the building, off of Deer Road. Emergency response vehicles would access the structure from Grand Avenue and Deer Road.

Timing/Schedule. The project is expected to occur in two phases over approximately two years. The first phase would include full demolition starting in June 2016. Phase two would start September 2016, and would include grading and construction of the new building. During demolition and construction, students would be directed to dining facilities in Building 19, in the campus core. The New Vista Grande Dining Venue will be completed in time for the beginning of the 2018-19 academic year.

Culinary Support Center. The project includes expansion of the existing Corporation Warehouse (Building 82) to support truck deliveries for campus food services (refer to Figure 12). Food and supplies would then be transferred to on-campus food service facilities and restaurants by passenger trucks and delivery vans. Approximately 90 weekly truck and delivery (round-trip) trips would be diverted from Building 19 to the new Culinary Support Center upon construction. In addition, approximately 6 daily trips generated internally by bobtail trucks would originate from Building 82, instead of Building 19.

Demolition. Approximately 4,150 square feet of northern extent of the Corporation Warehouse would be demolished.

Grading and Site Preparation. Initial preparation of the Corporation Warehouse site would include removal of the existing pavement, trees and shrubs, and other existing features. Where feasible, the University recycles debris on campus; for this project, it is assumed that paving debris and lighting features would be disposed of off-site at an approved landfill. The project assumes excavation of an estimated 800 cubic yards of soil and import of 800 yards of suitable fill. Excavated material will be hauled off-site to a suitable location, requiring approximately 70 round-trips. Existing landscaping, which consists mainly of shrubs, will be removed. Primary access for construction vehicles will be provided off Mt. Bishop Road. Staging areas would be located adjacent to the building and in parking lot H-1.

Structures. A 4,000-square foot expansion (North Addition) is proposed off the northern extent of the existing building, and an 8,059-square foot expansion (Culinary Support Center Facility) is proposed off the southeastern extent of the existing building. These areas are currently used for access and parking. No new loading docks are proposed. Existing drainage and culvert facilities would be reconstructed.

Architectural Design. The Campus Design Guidelines note that all buildings in this area shall be visually compatible with the Tech Park building and complementary to its landscaping. The proposed expansion would match the current design of the existing building, and the height of the expansion would not extend above the height of the existing warehouse (31 feet).

Utilities. Implementation of the project may require upsizing the existing sewer line. If upsizing is necessary, approximately 400 feet of the existing line will be removed and replaced within the same trench, all within the existing parking area, approximately 35 feet east of the structure. The trench would be approximately 4 feet deep and 18 inches wide. Replacement will require re-paving the affected pavement.

Access and Parking. Primary access will continue to be provided by Mt. Bishop Road. No additional parking spaces are proposed.

Timing/Schedule. The project is expected to occur in one phase over approximately 18 months.

PURPOSE OF THE INITIAL STUDY

An initial study is an informational document used in planning and decision making. The initial study is not intended to recommend approval or denial of the project. The Trustees have prepared this initial study to determine if the project would have a significant effect on the environment. The purposes of the initial study are to:

- Provide the lead agency with information to use in deciding whether to prepare an EIR or negative declaration;
- Enable the lead agency to modify the project to avoid adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a negative declaration;
- Document the factual basis for the finding, in a negative declaration, that a project will not have a significant impact on the environment.

APPLICABLE REGULATIONS

The current Cal Poly Master Plan provides the framework for planning and policy guidance for development on campus. The Master Plan EIR includes mitigation applicable to development on campus. Master Plan mitigation measures are incorporated into the project description, and are updated where noted. Other, site-specific mitigation is recommended in this document which clarifies measures adopted as part of the Master Plan EIR. The project does not increase current enrollment projected in the Master Plan. Where the project is consistent with the Master Plan and no new substantive information exists, this is noted and analysis references the Master Plan and Master Plan EIR documents.

NPDES Phase II Regulations (Non-point Source Stormwater Pollution Prevention). The project encompasses an area more than one acre in size; a Stormwater Pollution Prevention Plan (SWPPP) will be prepared for the project pursuant to the approval of the Regional Water Quality Control Board (RWQCB). The SWPPP will outline site management practices for site preparation, construction, and post-construction phases of the project.

Figure 6. Vista Grande 75% Schematic Design

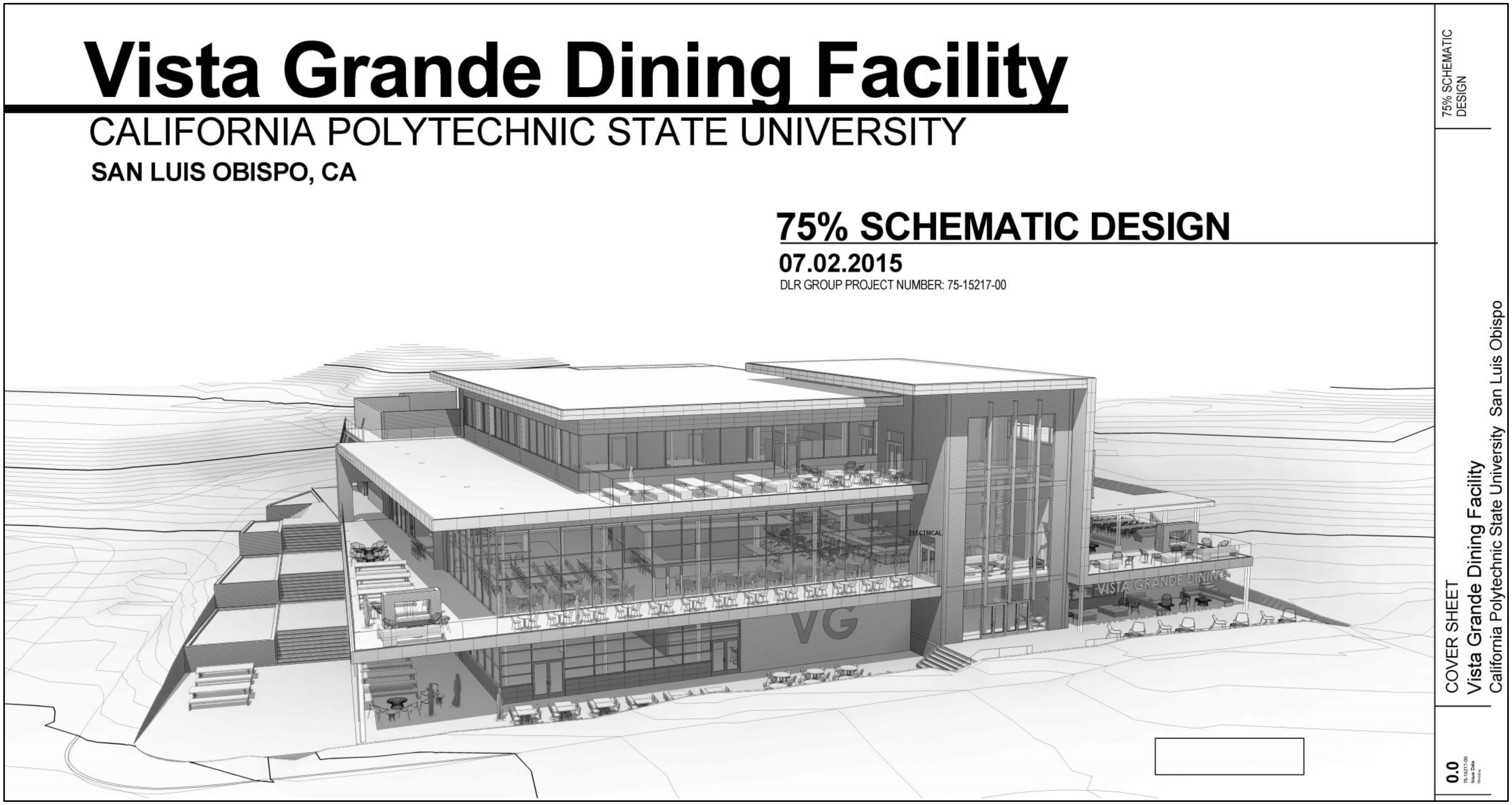


Figure 7. Vista Grande First Level Floor Plan

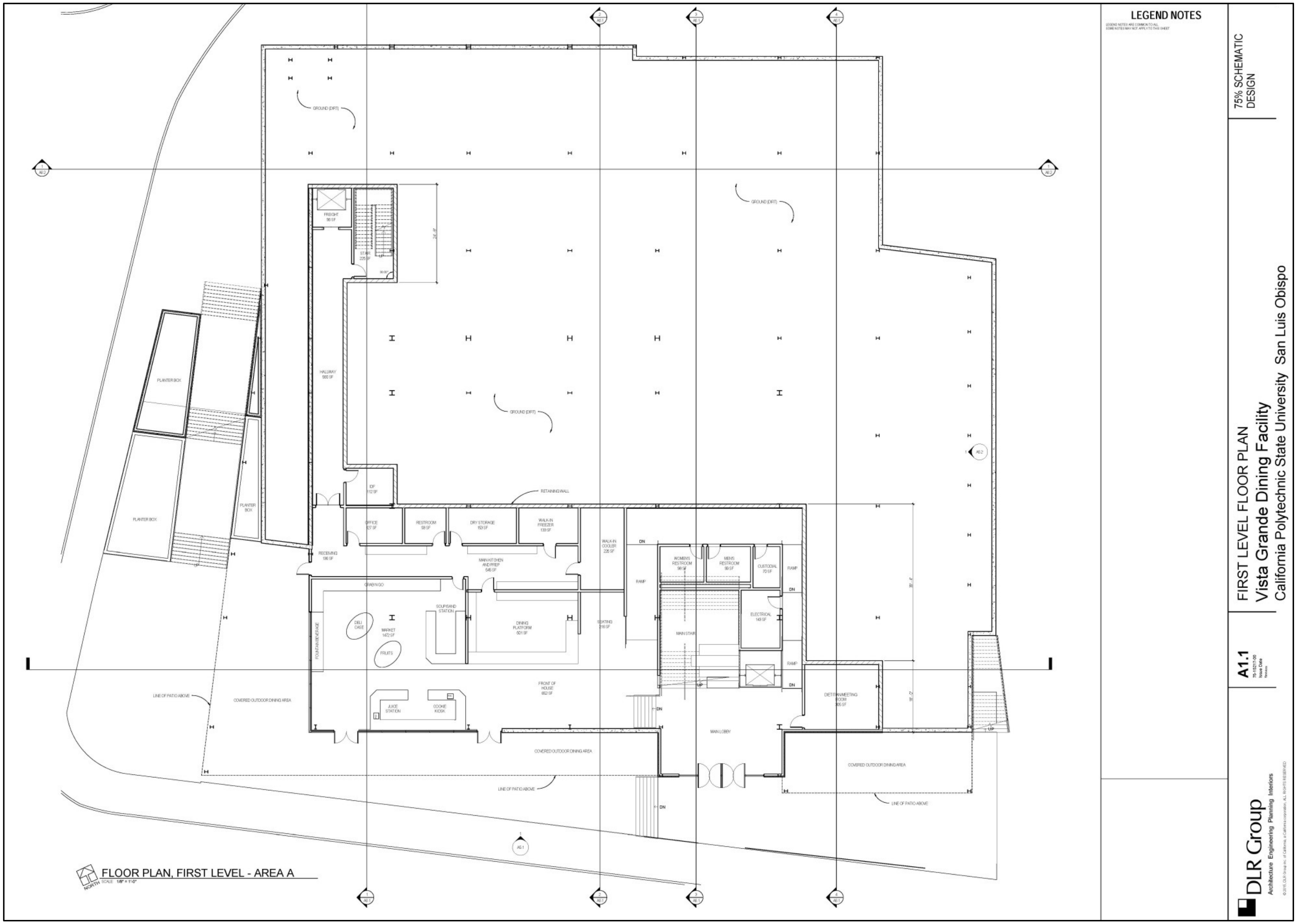


Figure 8. Vista Grande Second Level Floor Plan

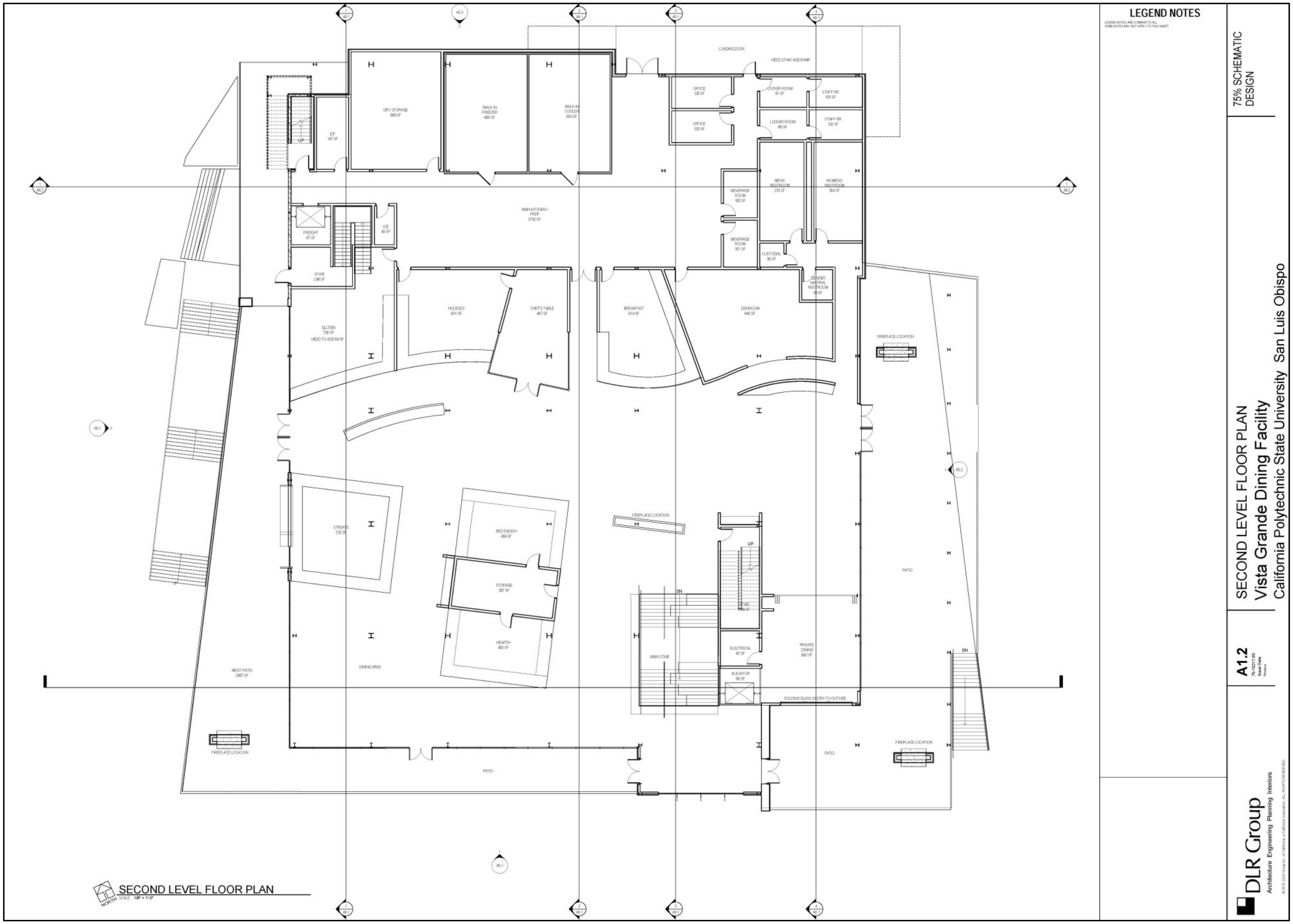


Figure 9. Vista Grande Third Level Floor Plan

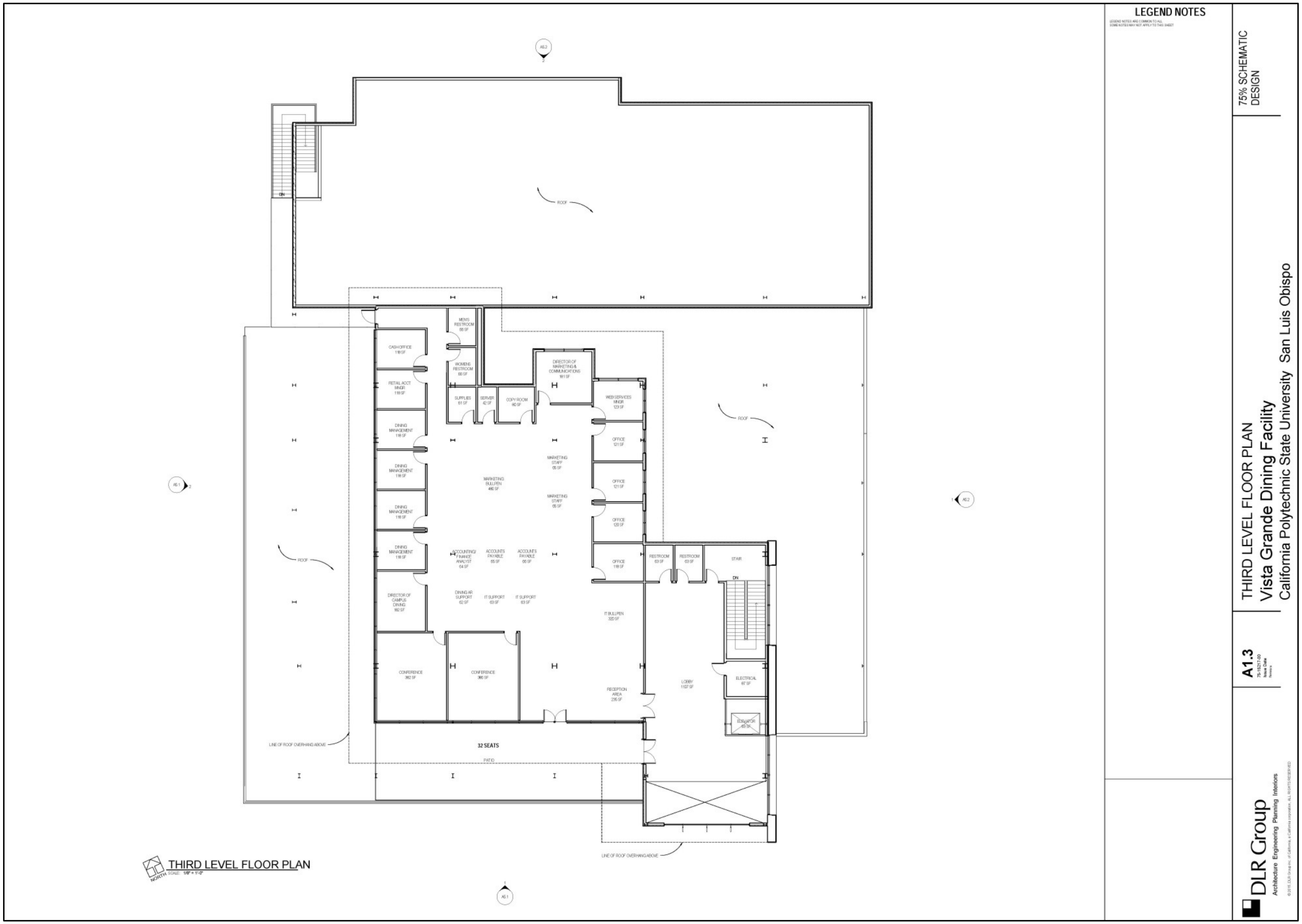


Figure 10. Vista Grande West and North Exterior Elevations

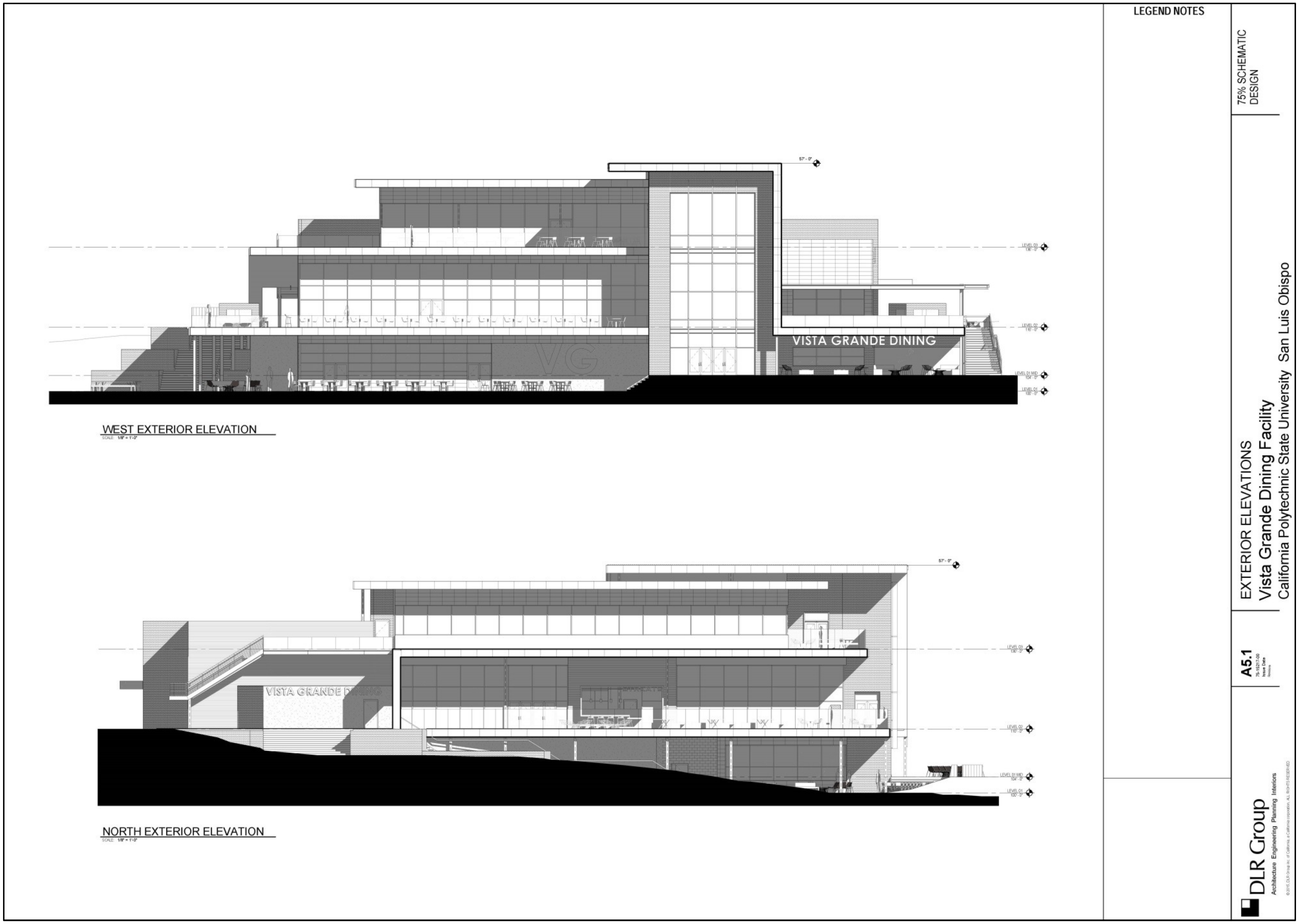


Figure 11. Vista Grande East and South Elevations

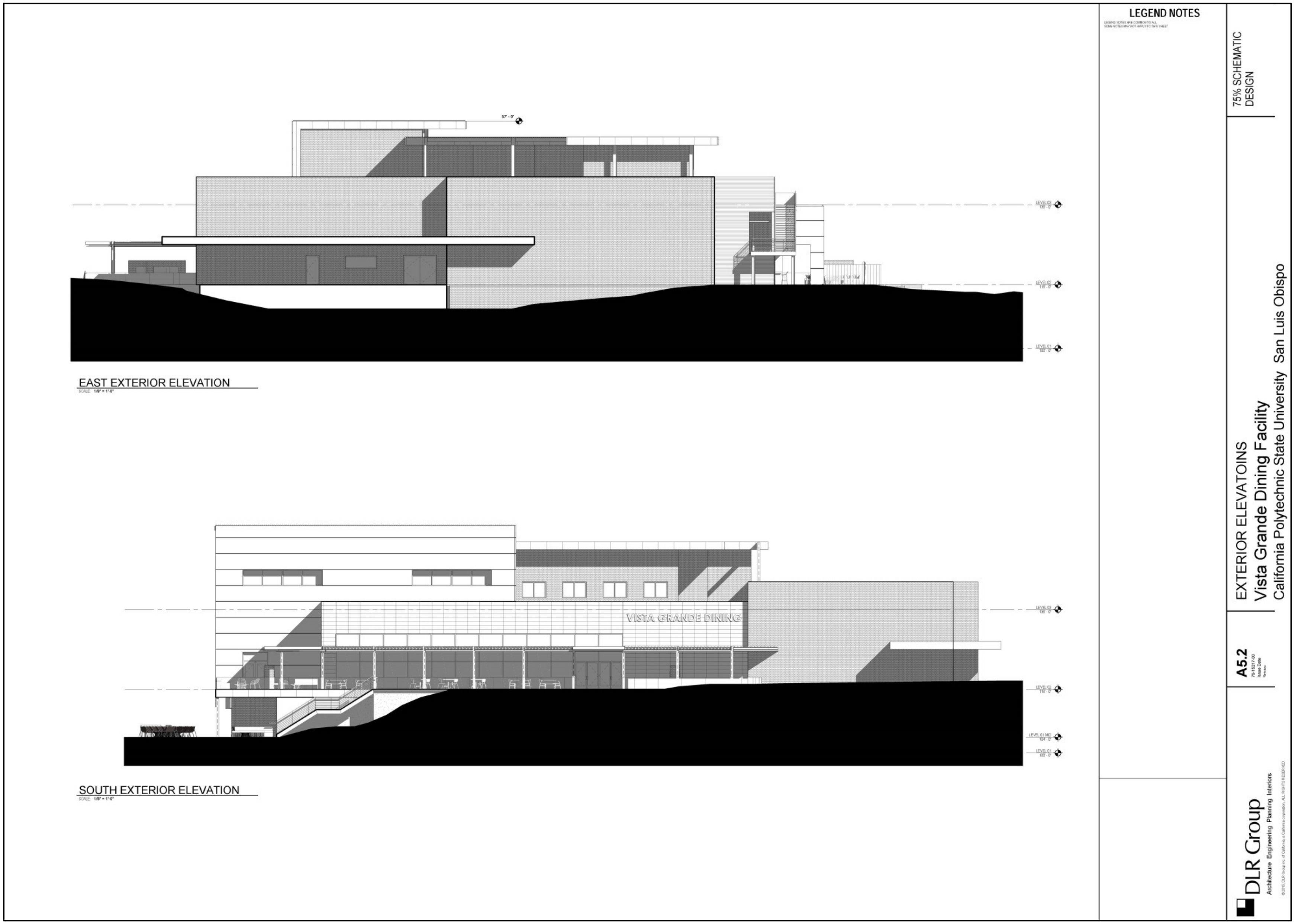
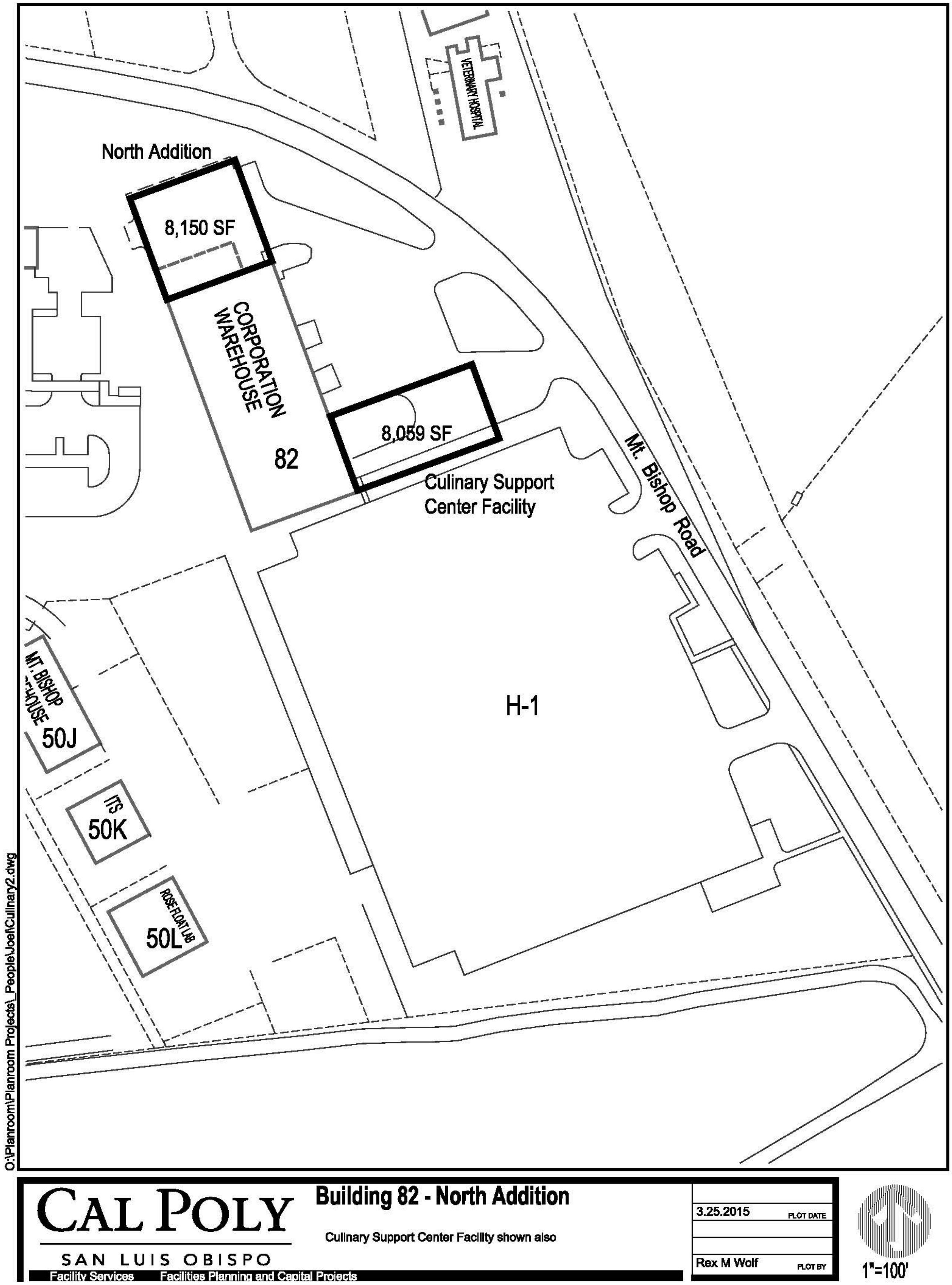


Figure 12. Culinary Support Center Site Plan



INITIAL STUDY ENVIRONMENTAL CHECKLIST

This section discusses potential environmental impacts associated with approval of the proposed project.

Required Information

Project Title: Vista Grande and Culinary Support Center

Lead Agency: Trustees of the California State University
401 Golden Shore
Long Beach, CA 90802-4210

Contact Person: Joel Neel
Facilities Planning and Capital Projects
Building 70
Cal Poly State University
San Luis Obispo, CA 93407
(805) 756-2193

Project Location: Grand Avenue (Residential Communities), Mt. Bishop Road (Public Facilities), Cal Poly State University, San Luis Obispo

Project Sponsor: Facilities Planning, Cal Poly Corporation

Master Plan Designation: Residential Communities (Vista Grande); Public Facilities and Utilities, SP-3 (Corporation Warehouse/Culinary Support Center)

Project Description: Demolition of the existing Vista Grande building, construction of a new Vista Grande building (same location), and expansion of the Corporation Warehouse (Culinary Support Center)

Surrounding Land Uses and Setting (Vista Grande): The site is bordered by Grand Avenue and the Performing Arts Center to the west, Deer Road and residential buildings (Tenaya and Fremont) to the north, residential buildings (Sierra Madre) to the east, and Grand Avenue, Sierra Madre lawn/sidewalk area, and the G-1 parking lot to the south.

Surrounding Land Uses and Setting (Culinary Support Center): Surrounding uses include Mt. Bishop Road, the Veterinary Hospital, and Boone Dairy Science Complex to the north, the Tech Park to the west, the H-1 parking lot and Rose Float buildings to the south, and agricultural fields to the east.

California State University (CSU) and Other Public Agencies whose approval will be sought:
California State University: Approval of master plan amendment revision, schematic plans and related actions; Regional Water Quality Control Board; County of San Luis Obispo Air Pollution Control District; and, others as may be necessary.

CEQA Guidance

Appendix G of the State CEQA Guidelines was used in answering the checklist questions:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the discussion. A "No Impact" answer is adequately supported if the discussion shows that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained when it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level (mitigation measures from earlier analyses may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (State CEQA Guidelines Section 15063[c][D]). In this case, a brief discussion should identify the following:

   a) *Earlier Analysis Used.* Identify and state where they are available for review.

   b) *Impacts Adequately Addressed.* Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) *Mitigation Measures.* For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. *Supporting Information Sources*: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and

   b) the mitigation measure identified, if any, to reduce the impact to less than significance

Identification of the potential for residual significant adverse environmental impacts would trigger the need for preparation of an EIR. For issue areas in which no significant adverse impact would result or impacts would be reduced to a less-than-significant level by mitigation, further analysis is not required.

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact with Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increased Impact
I. AESTHETICS				
Would the proposal:				
a. Have a substantial adverse effect on a scenic vista?			X	
b. Substantially damage scenic resources, including, but not limited to, tree, rock outcroppings, and historic buildings within a scenic state highway?			X	
c. Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in this area?		X		

VISTA GRANDE

Background

Vista Grande is a 20,000-square foot structure located immediately east of Grand Avenue, generally across from Pacheco Way and the Performing Arts Center. The site is bordered by Grand Avenue and the Performing Arts Center to the west, Deer Road and residential buildings (Tenaya and Fremont) to the north, residential buildings (Sierra Madre) to the east, and Grand Avenue, Sierra Madre lawn/sidewalk area, and the G-1 parking lot to the south. In addition to the structure itself, concrete walkways, stairs, and landscaping are present on the project site. Vista Grande is immediately visible as seen from Grand Avenue and adjacent sidewalks, the Performing Arts Center, and residential buildings. Vista Grande is also visible from the intersection of Slack Street and Longview (approximately 1,000 feet to the southwest); however, these views are partially obscured by existing vegetation along Grand Avenue and intervening buildings including the Performing Arts Center. The building is not visible as seen from Highway 101 and other neighborhoods surrounding the University due to intervening urban development, landscaping and trees, and topography. The steep hillside and ridgeline behind Vista Grande provide a solid backdrop to Vista Grande and adjacent residential buildings.

The existing quality of the visual environment and impacts of the project were assessed using methodology outlined by the Federal Highway Administration (FHWA). FHWA methodology includes the evaluation of visual character and quality, the project's impact or change in visual character and quality, and the response of the viewing public. The following terms are used in the assessment:

Viewshed. A viewshed consists of all areas visible from a particular publicly-accessible viewing point.

Visual Character. Visual character can be defined by factors such as landscape, landform, features such as shorelines and rivers. Changes in visual character are gauged as positive or adverse in part based on the public preference for the established visual environment.

Visual Quality. Factors in the determination of the visual quality of a site or viewshed include vividness, intactness and unity. Vividness is the "visual power or memorability of landscape components as they combine in distinctive visual patterns." Intactness refers to the integrity of the natural and developed components of a view. Intactness is compromised when features encroach into, compete for attention in, and detract from the overall integrity of the view. Unity refers to the coherence of features within a view. Unity is often of more importance in man-made landscape where urban design comprises the visual resource.

The response of the public to changes in character or quality is determined based on the sensitivity of the viewing public and the exposure of the public to the resource. Primary travel routes provide more exposure than secondary travel routes, and sensitivity is considered higher among those traveling for recreation or pleasure than commuting for work. Grand Avenue provides public views of the site and comprises the main viewing point for the Vista Grande project.

As viewed from a location just south of the intersection of Grand Avenue and Slack Street within the City of San Luis Obispo, the viewshed comprises the street and pedestrian infrastructure associated with Grand Avenue and Slack Street, as well as the entry to the campus. Existing views of the site consist of existing campus development along Grand Avenue, including structures, sidewalks, stairs, walkways, and mature landscape trees, shrubs, and groundcover. Background portions of the viewshed include filtered views of the Morros and other hills surrounding the campus.

The *visual character* of the project area is defined by its landform or topography, vegetation, drainage patterns, coastal proximity, and urban design. The extent to which each factor is more or less distinctive comprises the value of the existing visual environment. The existing landform, vegetation, drainage, and other landscape features have been altered in the vicinity by urban development. Topography is generally level to gently sloping along Grand Avenue. The existing structure is elevated above the roadway. Landscaping consists of mature trees, shrubs, and groundcover. No natural drainage or riparian features are present. The existing conditions are typical of urban and developed campus in the area. Existing design features of structures visible in the background are varied, ranging from older campus housing structures to the northeast, to more modern examples of campus design evidenced by the Performing Arts Center and parking garage west of Grand Avenue. Design cohesion in the area is distinctive to the campus. The overall visual character of the site is therefore considered common to the area.

Visual Quality. Components which currently affect the existing view include the roadways and associated infrastructure, existing city and campus development, and maintained landscaping. The existing quality of the visual environment as viewed from Grand Avenue is assessed in the following paragraphs:

Vividness. Landscape components are altered, and generally common to the region. The site comprises the existing building; features highly visible to the public include the building itself, mature landscape trees, and paved areas. The overall impression of the site is of a landscape and landform common to an urban area.

Intactness. Encroaching elements dominate the existing view and subordinate landscape and design features. Encroaching elements include the roadway and associated infrastructure, existing power poles, and maintained landscape. More natural features which are evident east of the site are subdued by the urban development, and the urban development itself is highly varied and dominated by detracting foreground elements listed previously.

Unity. Design is varied and indicative of a campus.

Based on the discussion above, the existing visual quality of the site is considered moderate.

Viewer Sensitivity. Grand Avenue provides the main travel route in this area, with Slack Street providing secondary access. Travelers along these roadways are generally engaged in commute to work or class, or otherwise conducting business at the University. A portion of the travelers are expected to be tourists or recreational. Based on the general use of the roadway for business purposes, and the low proportion of recreational travelers, viewer sensitivity is considered moderate to low.

Discussion of Checklist Answers

a. As described in the Setting, views across the site are dominated by urban infrastructure. Views of the hillsides and ridgelines, which are accessible elsewhere on and near the campus, are obscured by existing development and topography. The development of the project would result in a building larger than the existing Vista Grande structure, at a height 27 feet taller than the existing building. The height would not exceed the heights of proximate residential buildings. This area is primarily dominated by larger campus structures, such as the Performing Arts Center and parking garage, and the re-designed Vista Grande would not impede visual access to scenic vistas, including the hillside and ridgeline to the east. Therefore, impacts are considered less than significant.

b. The segment of Highway 101 that traverses the City of San Luis Obispo is identified as an "Eligible State Scenic Highway"; however, the project site is not visible from the Highway due to its location within the campus. The portion of Grand Avenue that provides views of the project site is internal to the campus, and the site is not visible from the portion of Grand Avenue within the City, due to topography. Local roadways in the project area, including Slack Street and Longview, are not considered highly scenic, and views from local City roadways are limited due to intervening topography, development, and vegetation. The existing visual environment, as described in the Setting above, is consistent with developed urban and campus areas. There are no historic buildings or natural features such as rock outcroppings, forested areas, or waterways on or near the project site. Existing trees on-site are introduced and do not constitute a cohesive stand; the project will include new landscaping. The project will not have significant impacts to scenic resources.

c. As discussed in the Setting, the existing visual character and quality of the site is common or moderate. Development of the project is consistent with the developed nature of the site and its environs. The project description includes design guidance which will ensure cohesion with proximate campus development, including the Performing Arts Center, which has a modern architectural style. The structure incorporates variations in roof levels and horizontal and vertical features, which will provide some visual distinctions to break-up the overall massing of the structure. As seen from Grand Avenue, the new facility will appear compatible and cohesive with the design style of the proximate Performing Arts Center. As seen from distant off-campus locations, such as near the intersection of Slack Street and Longview, larger structures including the Performing Arts Center, Mott Gym and the Recreation Center, parking garage, track and adjacent parking area dominate the visual setting as seen looking towards campus. In addition, the future construction of the Student Housing South residential buildings (to be located within the existing Grand Avenue paved parking lot) is anticipated to block views of the proposed Vista Grande dining facility, as seen from locations to the south and west off-campus. The proposed structure will appear as a continuance of this existing urbanized environment. In addition, existing mature trees located northeast of the track and adjacent to Pacheco Way would provide vegetative screening of the structure, as seen from off-campus locations on Slack and Longview. Therefore, impacts are considered less than significant.

d. The project will include lighting for safety and ambience. The existing nighttime visual environment includes light from standards along the street and within the proximate residential areas, in addition to existing lighting associated with Vista Grande. Lighting design for the site will be subject to mitigation outlined in the Master Plan EIR, which generally requires shielding and down-casting of light, in addition to minimization of spillover to off-campus areas. The project will not substantially alter nighttime lighting levels in the area; the area is currently lit to levels consistent with an urban environment. Impacts related to lighting are considered less than significant.

   The project would include large panels of glass, which may create glare when the sun passes over in the late afternoon, and may potentially affect viewers to the west of the project site. In order to mitigate this impact, shading devices or structures would be installed to effectively block or reduce glare.

Mitigation Measures

To ensure operational lighting impacts are reduced to a level that is less than significant, Mitigation Measure (MM) AES-1 is provided in accordance with the *Cal Poly Master Plan and Final EIR* (Cal Poly 2001):

MM AES-1: Lighting and Glare – All exterior lighting shall be hooded. No unobstructed beam of light shall be directed toward sensitive uses. The use of reflective materials in all structures shall be minimized (e.g., metal roofing, expanses of reflective glass on west-facing walls).

In addition to the amended Master Plan mitigation identified above, the following mitigation is recommended:

AS-1 Prior to approval of final plans, project design shall include shading structures or devices on the western facing walls to effectively block sunlight from hitting the window/glass panels and creating glare.

Conclusion

The project will alter the existing visual environment in the area; however, the project is consistent with surrounding urban and campus development. The existing visual environment is negatively affected by existing infrastructure, resulting in quality and character which are common to the area. The project will not affect scenic vistas, sensitive resources or scenic roadways, and will not introduce lighting at levels substantially greater than existing conditions. Overall impacts are considered less than significant.

CULINARY SUPPORT CENTER

Background

The Corporation Warehouse is located off Mt. Bishop Road. Surrounding uses include Mt. Bishop Road, the Veterinary Hospital, and Boone Dairy Science Complex to the north, the Tech Park to the west, the H-1 parking lot and Rose Float buildings to the south, and agricultural fields to the east. The structure is set back approximately 100-200 feet (minimum/maximum) from Mt. Bishop Road; paved access, ornamental landscaping, stormwater drainage facilities, and truck parking are present onsite. The Warehouse is visible from Mt. Bishop Road; it is approximately 2,000 feet east of Highway 1, and is not visible due to intervening vegetation along the Stenner Creek corridor. Mt. Bishop Road is a road internal to the campus. Surrounding uses include facility buildings, parking areas, agricultural structures, and agricultural and livestock fields.

As viewed from Mt. Bishop Road, the viewshed includes existing facility and Corporation building, parking areas, agricultural fields, and agricultural/educational buildings. Vegetation onsite includes mature trees and shrubs. Background views include campus development, the Stenner Creek riparian corridor, the Morros to the west, and hillsides to the east.

The *visual character* of the project area is dominated by agricultural and facility land uses. The topography is gently to moderately sloping, and no natural drainage or riparian features are present onsite; Stenner Creek is approximately 800 feet to the west. The existing conditions are typical of the agricultural and facility campus components. Existing design features of structures visible in the background are varied, ranging from agricultural structures to facility buildings. Design cohesion is therefore not distinctly cohesive due to this variety in uses. The overall visual character of the site is therefore considered common to the area.

Visual Quality. Components which currently affect the existing view include the roadways and associated infrastructure, existing campus development and agricultural fields, and maintained landscaping. The existing quality of the visual environment as viewed from Mt. Bishop Road is assessed in the following paragraphs:

Vividness. Landscape components are altered, and generally common to the region. The site includes the existing Corporation Warehouse, parking area, and associated landscaping. The overall impression of the site is of a landscape and landform common to a transition between the campus and agricultural areas.

Intactness. Encroaching elements dominate the existing view and subordinate landscape and design features. Encroaching elements include the roadway and associated infrastructure, structures, maintained landscape, agricultural fields, and parked cars. More natural features are evident west and east of the site, including the Stenner Creek corridor and hillsides in the distance.

Unity. Design is varied and, though indicative of the agricultural and facility areas within the campus, is not particularly cohesive in this area. As stated above, the unity of the view is marred by the variety of existing infrastructure associated with the transition from the campus core to the agricultural fields and uses along Mt. Bishop Road. Based on the discussion above, the existing visual quality of the site is considered moderate; the visual quality of the Morros and hillsides in the distance are considered highly scenic.

Viewer Sensitivity. Travelers along Mt. Bishop Road are generally engaged in commute to work or class, or otherwise conducting business at the University. Based on the general use of the roadway for University purposes, and the low proportion of potential recreational travelers, viewer sensitivity is considered moderate to low. The site is not visible from State Route 1.

Discussion of Checklist Answers

a. As described in the Setting, views across the site are dominated by campus infrastructure and agricultural uses. The project site is not visible from off-campus areas due to intervening topography, vegetation, trees, and development. Views from Mt. Bishop Road range from moderately to highly scenic, and include the Morros to the west and hillsides and ridgelines to the east. This roadway is primarily used by campus and Corporation staff, in addition to students. The overall character is agricultural in nature. The development of the project would result in the expansion of the existing Corporation Warehouse, and would not increase the height of the existing building. Based on the location of the Corporation Warehouse, the expansion would not impede visual access to scenic vistas, including the Morros to the west and hillside and ridgeline to the east. Therefore, impacts are considered less than significant.

b. State Route 1, located approximately 2,000 feet to the east, is identified as an "Officially Designated State Scenic Highway and All American Road" (Caltrans 2015). The existing visual environment, as described in the Setting above, is consistent with developed urban and campus areas. There are no historic buildings or natural features such as rock outcroppings, forested areas, or waterways on or near the project site. Existing trees on-site are introduced and do not constitute a cohesive stand; the project will include new landscaping. The project will not have significant impacts to scenic resources as seen from a scenic highway.

c. As discussed in the Setting, the existing visual character and quality of the immediate site is common or moderate. The project will not introduce a new use into the viewshed. Expansion of the existing warehouse is consistent with the developed nature of the site and its environs. In addition, the proposed project site is not located in a highly visible area on campus where the majority of existing viewers, including students, faculty, visitors, as well as primary academic activities are located. For these reasons, the project would not substantially degrade the existing visual character of the site or its surroundings. Impacts are considered less than significant.

d. The project will include lighting for safety and ambience, similar to existing conditions. Lighting design for the site will be subject to mitigation outlined in the Master Plan EIR, which generally requires shielding and down-casting of light, in addition to minimization of spillover to off-campus areas. The project will not substantially alter nighttime lighting levels in the area. Impacts are considered less than significant.

Mitigation Measures

To ensure operational lighting impacts are reduced to a level that is less than significant, MM AES-1 is provided in accordance with the *Cal Poly Master Plan and Final EIR* (Cal Poly 2001):

MM AES-1: Lighting and Glare – All exterior lighting shall be hooded. No unobstructed beam of light shall be directed toward sensitive uses. The use of reflective materials in all structures shall be minimized (e.g., metal roofing, expanses of reflective glass on west-facing walls).

No additional mitigation measures are required.

Conclusion

The project will not substantially alter the existing visual environment in the area. The proposed expansion will appear consistent with the existing warehouse. The project will not affect scenic vistas, sensitive resources or scenic roadways, and will not introduce lighting at levels substantially greater than existing conditions. Overall impacts are considered less than significant.

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact with Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increased Impact
II. AGRICULTURE AND FORESTRY RESOURCES				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			X	
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d. Result in the loss of forest land or conversion of forest land to non-forest use?				X
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?			X	

VISTA GRANDE

Background

The project site is developed by the existing building, and is not located proximate to agricultural areas.

Discussion of Checklist Answers

a-d. The project site consists of a developed area within the campus instructional core. Construction of the project would not impact farmland, including farmland under Williamson Act contract, and would not impact timber or forestland. The project would not involve other changes in the environment such as road or other infrastructure improvements near an agricultural or forested area which would result in indirect conversion or farm or forest land. There is no impact.

Mitigation Measures

None required.

Conclusion

There are no impacts to forestry or agricultural resources associated with the project.

CULINARY SUPPORT CENTER

Background

Underlying soils include Salinas silty clay loam (0-2 percent slopes) and Lodo clay loam (5-15 percent slopes) Salinas silty clay loam is identified as Prime Farmland if irrigated; Lodo clay loam is not Prime Farmland (NRCS 2015). The project site is not irrigated or otherwise used for agricultural uses. The site is fully developed by the existing building, paving, drainage facilities, and ornamental landscaping. Irrigated agricultural fields are located across Mt. Bishop Road, in addition to agricultural teaching facilities. The project site and surrounding areas are not under Williamson Act contract.

Discussion of Checklist Answers

a,e. The project site consists of the existing warehouse and associated paved surface parking lot. Although the project would be located on land identified as Prime Farmland if Irrigated, the site currently supports urban development and pavement, and expansion of the warehouse would not convert agricultural land to non-agricultural use. Therefore, impacts would be less than significant.

b. The project site is not subject to a Williamson Act contract. Therefore, no conflict with a Williamson Act contract would occur. The current campus designation for the proposed project site is Public Facilities and Utilities. The proposed expansion of the existing warehouse to provide culinary support services would not result in any uses that would conflict with proximate agricultural fields and educational facilities. No impact would occur.

c-d. As mentioned above, the proposed project site is designed in the campus Master Plan as Public Facilities and Utilities, SP-3, and the existing and proposed uses would be consistent with this designation. No forest land, timberland, or Timberland Production areas (as defined in the Public Resources Codes 12220 (g), 4526, or 51104 (g)) are located within or adjacent to the project site. Therefore, the project would not conflict with existing or master planned land use for forest land, timberland, or Timberland Production areas, or result in the loss or conversion of forest lands to non-forest uses, as none exist. No impact would occur.

Mitigation Measures

None required.

Conclusion

There are no impacts to forestry or agricultural resources associated with the project.

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact with Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increased Impact
III. AIR QUALITY Where available, the significance criteria established by the applicable air quality management or pollution control district may be relied upon to make the following determinations. **Would the project:**				
a. Conflict with or obstruct implementation of the applicable air quality plan?			X	
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		X		
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		X		
d. Expose sensitive receptors to substantial pollutant concentrations?		X		
e. Create objectionable odors affecting a substantial number of people?			X	

Discussion of Checklist Answers

a. The applicable air quality plan is the San Luis Obispo County Air Pollution Control District (APCD) Clean Air Plan (2001). The plan projects air quality emissions and standard attainment goals based on growth rates in population and vehicle travel in San Luis Obispo County. The project would not conflict with or obstruct the Clean Air Plan. The project would not alter enrollment growth rates for the University. The project is consistent with local planning efforts to reduce reliance on vehicles, improve pedestrian facilities, and shorten commutes. The project would not have significant adverse effects related to Clean Air Plan implementation.

b, c. Construction and operation of the proposed project as a whole would result in the emission of additional short- and long-term criteria air pollutants from mobile and/or stationary sources. "Criteria pollutants" under the Clean Air Act are ozone (O3), nitrogen dioxide (NO2), carbon monoxide (CO), sulfur dioxide (SO2), particulate matter less than or equal to 10 microns in size (PM10), particulate matter less than or equal to 2.5 microns in size (PM2.5), and lead (Pb). An area is designated in attainment when it is in compliance with the National Ambient Air Quality Standards and/or the California Ambient Air Quality Standards. San Luis Obispo County is designated as attainment and/or unclassifiable of all federal standards with the exception of the 8-hour O3 standard for the eastern portion of the County; the western portion of the County is designated as attainment for the federal 8-hour O3 standard. The County is designated as nonattainment for the state 8-hour and 1-hour O3 standards and the state PM10 standards, but is designated as attainment for all other state criteria pollutant standards.

Construction of the proposed project would result in a temporary addition of pollutants to the local air basin caused by soil disturbance, dust emissions, and combustion pollutants from on-site construction equipment, as well as from employee vehicles and off-site trucks hauling construction materials. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Implementation of the proposed project would generate construction-related air pollutant emissions from three general activity categories:

entrained dust, equipment and vehicle exhaust emissions, and architectural coatings. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM10 and PM2.5 emissions. Exhaust from internal combustion engines used by construction equipment and hauling (dump trucks) and vendor trucks (i.e., delivery trucks) and worker vehicles results in emissions of oxides of nitrogen (NOx), reactive organic gases (ROG) (also referred to as volatile organic compounds (VOCs)), CO, PM10, and PM2.5. ROGs and NOx are important because they are precursors to O3. The application of architectural coatings, such as exterior/interior paint and other finishes, would also produce ROG emissions. Maximum daily emissions of NOx is expected to occur during the grading and site demolition as a result of off-road equipment operation and on-road haul trucks. Fugitive dust and off-road equipment emissions during grading and site demolition are expected to generate the maximum daily PM2.5 emissions. Maximum daily PM10 emissions are expected to occur during building construction and would primarily result from paved road dust generated by off-site haul trucks exporting waste to the closest landfill. The application of architectural coatings would produce the maximum daily ROG emissions. Application of architectural coatings for the Vista Grande project would occur over 20 work days.

Emissions resulting from the project were estimated using the most recent version of the California Emissions Estimator Model (CalEEMod). Construction schedule estimates were entered into the model. Worksheets outlining the model assumptions are attached as Appendix A. Pursuant to the SLOAPCD's CEQA Handbook, daily emissions thresholds apply to construction projects expected to be completed in less than one quarter (90 days). SLOAPCD quarterly thresholds are to be applied to construction projects that would last longer than one quarter, such as the proposed project. For disclosure purposes, daily and quarterly construction emissions are presented in the tables below. Based on the modeling, the project as a whole would exceed quarterly construction emissions thresholds without mitigation, for DPM only. With mitigation, DPM emissions would not exceed the identified threshold.

Based on review of the Initial Study by the SLOAPCD, mitigation was recommended to reduce daily emissions of ROG (occurring as a result of architectural coatings) (SLOAPCD 2015). Recommended mitigation included: 1) the use of low-VOC paint or; 2) adjusting the schedule for architectural coating applications by extending the painting activities thereby limiting the daily coating activities to ensure emissions remain below the threshold or; 3) other options deemed appropriate. The CalEEMod program applies a default 10-day application period for architectural coatings; this default was adjusted based on the actual construction schedule, which would require a 20-day period for architectural coatings. Based on incorporation of this more accurate information into the model, ROG (VOC) emissions would not exceed daily thresholds. Based on the construction schedule, application of architectural coatings for Vista Grande would not occur at the same time as the Culinary Support Center; therefore, application of the coatings for each project element would not occur on the same day or within the same quarter. Therefore, construction of the project as a whole would not exceed daily ROG+NOx emissions thresholds, and this supplemental discussion and information addresses the SLOAPCD's initial concerns regarding daily ROG emissions, and no significant impact would occur. Results are summarized in the following tables:

Table 1. Comparison of Unmitigated Construction Emission Impacts to APCD Daily Thresholds

	Daily Maximum Emissions (pounds/day)		
	ROG + NO_X [a]	DPM [b]	Fugitive PM_{10}, Dust
Vista Grande Project Emissions	108.75	3.55	6.90
Culinary Support Center Emissions	70.199	2.36	2.74
Sum of Emissions	178.95	5.91	9.64
Daily Threshold [c]	137	7	n/a
Project Construction Emissions Exceed Threshold?	No[d]	No	No

[a] Summation of individual Reactive Organic Gases (ROG) and Nitrates of Oxygen (NO_X) outputs.
[b] Used exhaust PM10 and PM2.5 emissions as proxy for Diesel Particulate Matter (DPM) emissions.
[c] Emission thresholds taken from "CEQA Air Quality Handbook: A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review," SLOAPCD, April 2012.
[d] The project would not exceed daily thresholds, as architectural coatings would not be applied during the same period.

Table 2. Comparison of Unmitigated Construction Emission Impacts to APCD Quarterly Thresholds

	Quarterly Maximum Emissions (tons/quarter)		
	ROG + NO_X [a]	**DPM [b]**	**Fugitive PM_{10}, Dust**
Vista Grande Project Emissions	0.752~~4~~	0.079	0.031
Culinary Support Center Emissions	0.506	0.059	0.0032
Sum of Emissions	1.26	0.14	0.034
Quarterly Tier 1 Threshold [c]	2.5	0.13	2.5
Project Construction Emissions Exceed Threshold?	No	**Yes**	No

[a] Summation of individual Reactive Organic Gases (ROG) and Nitrates of Oxygen (NO_X) outputs.
[b] Used exhaust PM10 and PM2.5 emissions as proxy for Diesel Particulate Matter (DPM) emissions.
[c] Emission thresholds taken from "CEQA Air Quality Handbook: A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review," SLOAPCD, April 2012. Emission thresholds listed are for Quarterly Tier 1.

Table 3. Comparison of Mitigated DPM Construction Emission Impacts to APCD Quarterly Thresholds

	Quarterly Maximum Emissions (tons/quarter)
	DPM
Vista Grande DPM Emissions [a]	0.057
Culinary Support Center DPM Emissions	0.059
Sum of Mitigated Emissions	0.116
Quarterly Tier 1 Threshold [b]	0.13
Project Construction Emissions Exceed Threshold After Mitigation?	No

[a] Mitigation includes use of Tier 3 Engines on selected equipment.
[b] Emission thresholds taken from "CEQA Air Quality Handbook: A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review," SLOAPCD, April 2012. Emission thresholds listed are for Quarterly Tier 1.

Operational emissions impacts compared to the APCD Daily Thresholds are presented in Table 4~~3~~. A comparison between operational emission impacts and APCD Yearly Thresholds can be found in Table 5~~4~~. The operational calculations assume no additional trips would be generated by the reconstruction of Vista Grande; however, the model outputs are conservative because they include the approximately 23 daily trips that would be diverted from the campus core to the proposed Culinary Support Center, although the development of this center would not generate new delivery trips. Model assumptions are outlined in Appendix A. As shown in Tables 4~~3~~ and 5~~4~~ below, operation of the project as a whole would not exceed identified thresholds.

Table 4. Comparison of Unmitigated Operational Emissions to APCD Daily Thresholds

	Daily Threshold (lb/day)			
	ROG + NO_X [a]	DPM [b]	Fugitive PM_{10}, Dust [c]	CO
Vista Grande Project Emissions [d]	3.9152	0.2938	0.0	1.6276
Culinary Support Center Emissions [e]	1.0 ~~0.152~~	0.01 ~~0.002~~	0.24 ~~0.032~~	1.85 ~~86.55~~
Total Project Emissions	4.91 ~~4.0672~~	0.303 ~~0.2958~~	0.24 ~~0.032~~	3.47 ~~88.177~~
Daily Threshold [f]	25	1.25	25	550
Daily Operational Emissions Exceed Threshold?	No	No	No	No

[a] Summation of individual ROG and NO_X outputs.
[b] Used exhaust PM10 and PM2.5 emissions as proxy for DPM emissions.
[c] Used unmitigated winter CalEEMod emissions output.
[d] No additional operational trips, emissions include area/source.
[e] Diverted trips and area/source emissions included for disclosure purposes.
[f] Emission thresholds taken from "CEQA Air Quality Handbook: A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review," SLOAPCD, April 2012.

Table 5. Comparison of Unmitigated Operational Emissions to APCD Yearly Thresholds

	Yearly Threshold (tons/year) [a]	
	ROG + NO_X [b]	Fugitive PM_{10}, Dust
Vista Grande Project Emissions [c,d]	0.7146	0.0268
Culinary Support Center Emissions [c]	0.1518	0.0333
Total Project Emissions [c]	0.8664	0.0601
Yearly Threshold [d]	25	25
Yearly Operational Emissions Exceed Threshold?	No	No

[a] There is no yearly threshold for DPM or Carbon Monoxide (CO).
[b] Summation of individual ROG and NO_X outputs.
[c] Used unmitigated winter CalEEMod emissions output
[d] No additional operational trips, emissions include area/source.
[e] Emission thresholds taken from "CEQA Air Quality Handbook: A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review," SLOAPCD, April 2012.

Emissions from the project, including operational emissions, are within accepted thresholds when mitigation is applied. The project will therefore not result in cumulatively considerable net increases in criteria pollutants (ozone and PM10) for which the area is in non-attainment. Impacts are considered less than significant when mitigated.

d. The project site is within an existing, developed urban and campus environment, which includes residents, and other sensitive receptors. Construction activities associated with the proposed project would result in temporary sources of fugitive dust and construction vehicle emissions including DPM. The Vista Grande project site is located proximate to student housing areas, and mitigation is identified below that would reduce emissions and restrict engine idling. Dust controls will be implemented during construction to ensure that fugitive dust emissions do not exceed the SLOAPCD's 20 percent opacity limit or create a nuisance. Emissions from the project, including operational emissions, are within accepted thresholds when mitigation is applied. In addition, the proposed project includes the expansion of the existing Corporation Warehouse to support the proposed Culinary Support Center. The relocation of the Culinary Support Center from the campus core is anticipated to result in the diversion of existing truck delivery routes from the Grand Avenue entrance (primarily residential area) to Highland Drive (primarily agricultural/agricultural-education area).

Site soils may include undocumented components, including naturally-occurring asbestos which would be particularly hazardous to sensitive receptors if airborne. Mitigation is recommended to ensure presence or absence of naturally-occurring asbestos is documented and that, if present, appropriate steps are taken to reduce health risks to a less than significant level. Materials containing asbestos were documented in the Vista Grande building, and the University would comply with current state and federal regulations. Impacts to sensitive receptors are therefore considered less than significant when mitigated, and through compliance with existing regulations.

e. Earthwork, construction, and demolition activities would also result in the emission of diesel fumes and other odors typically associated with construction activities. Any odors associated with construction and demolition activities would be temporary and would cease upon project completion. Impacts would be less than significant.

Mitigation Measures

To ensure emissions generated during construction activities are reduced to a level that is less than significant, the following mitigation is provided in accordance with the *Cal Poly Master Plan and Final EIR* (Cal Poly 2001):

MM AIR-1: Dust Control

A) Employ measures to avoid the creation of dust and air pollution.

B) Unpaved areas shall be wetted down, to eliminate dust formation, a minimum of twice a day to reduce particulate matter. When wind velocity exceeds 15 mph, site shall be watered down more frequently.

C) Store all volatile liquids, including fuels or solvents in closed containers.

D) No open burning of debris, lumber or other scrap will be permitted.

E) Properly maintain equipment to reduce gaseous pollutant emissions.

F) Exposed areas, new driveways and sidewalks shall be seeded, treated with soil binders, or paved as soon as possible.

G) Cover stockpiles of soil, sand and other loose materials.

H) Cover trucks hauling soil, debris, sand or other loose materials.

I) Sweep project area streets at least once daily.

J) Appoint a dust control monitor to oversee and implement all measures listed in this Article.

K) The Contractor shall maintain continuous control of dust resulting from construction operations. Particular care must be paid to door openings to prevent construction dust and debris from entering the adjacent areas.

L) When wind conditions create considerable dust, such that a nuisance would generate complaints, the Contractor shall either suspend grading operations, and/or water the exposed areas.

M) Water down the project site, access routes, and lay down areas whenever generate dust becomes a nuisance.

N) The campus reserves the right to request watering of the site whenever dust complaints are received.

O) It shall be the university's sole discretion as to what constitutes a nuisance.

In addition to the measure listed above, the following dust control measures shall be implemented to reduce fugitive dust emissions generated during construction activities in accordance with the *Cal Poly Master Plan and Final EIR* (Cal Poly 2001):

- During construction, the amount of disturbed area shall be minimized.

- On-site vehicle speeds should be reduced to 15 miles per hour or less.
- Exposed ground areas that are left exposed after project completion should be sown with a fast-germinating native grass seed and watered until vegetation is established.
- After clearing, grading, earth moving, or excavation is completed, the entire area of disturbed soil shall be treated immediately by watering or revegetating or spreading soil binders to minimize dust generation until the area is paved or otherwise developed so that dust generation will be minimized.
- All roadways, driveways, and sidewalks associated with construction activities should be paved as soon as possible. In addition, building and other pads shall be laid as soon as possible after grading, unless seeding or soil binders are used.
- Wheel washers shall be installed where vehicles enter and exit unpaved areas onto streets, or trucks and equipment shall be washed off before leaving the site.
- All PM10 mitigation measures shall be shown on grading and building plans.
- The contractor or builder shall consider the use of a SLOAPCD-approved dust suppressant where feasible to reduce the amount of water used for dust control..
- The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints and reduce visible emissions below the SLOAPCD's limit of 20 percent opacity for greater than 3 minutes in any 60 minute period. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such person(s) shall be provided to the SLOAPCD Compliance Division prior to the start of any grading, earthwork or demolition.

The following mitigation measures is provided in accordance with the *Cal Poly Master Plan and Final EIR* (Cal Poly 2001) to reduce NOx, ROG and diesel particulate matter emissions generated from on-site construction equipment:

MM AIR-2: Equipment Emission Control[1]

- The project shall require that all fossil-fueled equipment shall be properly maintained and tuned according to manufacturer's specifications.
- The project proponent shall require that all off-road and portable diesel-powered equipment including but not limited to bulldozers, graders, cranes, loaders, scrapers, backhoes, generator sets, compressors, auxiliary power units, shall be fueled exclusively with CARB certified diesel fuel.
- Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State off-Road Regulation.
- ~~Use Caterpillar pre-chamber, diesel-fired engines (or equivalent low NOx engine design) in heavy equipment used to construct the project to further reduce NOx emissions.~~
- Use on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation.
- Construction or trucking companies with fleets that that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g. captive or NOx exempt area fleets) may be eligible by proving alternative compliance.

[1] Equipment emission control measures have been modified from the original measures provided in the *Cal Poly Master Plan and Environmental Impact Report* (2001) to reflect current SLOCAPCD recommendations as provided in the SLOCAPCD *CEQA Air Quality Handbook* (SLOCAPCD 2012).

- All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5 minute idling limit.
- Electrify equipment when feasible.
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible.
- Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.
- All on and off-road diesel equipment shall not idle for more than 5 minutes within 1,000 feet of sensitive receptors. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5-minute idling restrictions limit.

With incorporation of Mitigation Measures AIR-1 and AIR-2, which reflect mitigation as identified in the *Cal Poly Master Plan and Environmental Impact Report* (Cal Poly San Luis Obispo 2001) and SLOCAPCD *CEQA Air Quality Handbook* (SLOCAPCD 2012), impacts are anticipated to be less than significant during construction.

In addition to the amended Master Plan mitigation identified above, the following mitigation is recommended:

AQ-1 Prior to demolition or relocation of existing structures or pipes, the Construction Contractor shall comply with the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M – asbestos NESHAP). These requirements include, but are not limited to: 1) written notification, within at least 10 business days of activities commencing, to the APCD, 2) asbestos survey conducted by a Certified Asbestos Consultant, and 3) applicable removal and disposal requirements of identified ACM.

AQ-2. The presence or absence of naturally-occurring asbestos must be determined prior to start of soil disturbing activities. If Naturally Occurring Asbestos (NOA) is not present on-site, an exemption request will be filed with the SLOAPCD. If NOA is present on-site, the project will comply with all requirements outlined in the Asbestos Airborne Toxic Control Measures.

AQ-3 Prior to ground disturbance and construction, the Construction Contractor shall ensure a geologic evaluation is conducted to determine if the area disturbed is exempt from the Air Resources Board Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (93105). If the site is not exempt from the ATCM requirements, the Construction Contractor shall comply with all requirements outlined in the Asbestos ATCM, which may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the San Luis Obispo APCD.

AQ-4 Prior to ground disturbance and construction, the Construction Contractor shall obtain all required permits for the use of portable equipment, 50 horsepower or greater, from the San Luis Obispo APCD. Developmental burning of vegetative material is prohibited.

AQ-5 Use diesel construction equipment meeting ARB's Tier 3 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State off-Road Regulation. For work within 1,000 feet of sensitive receptors (student housing), construction equipment shall be either: 1) equipped with either Tier 4 engines, or 2) Tier 3 engines with ARB verified Level 3 exhaust retrofits, or shall be 3) alternatively fueled engines (compressed natural gas, electric, etc.). Work requiring the heaviest use of diesel equipment should be scheduled to occur when school is out of session to the extent feasible.

AQ-6 Prior to operation, truck hauling routes shall be evaluated and selected to minimize impacts to residential areas and schools.

AQ-7 Prior to operation of the project, Cal Poly shall obtain all required operational permits from the San Luis Obispo APCD.

AQ-8 Prior to construction, the Construction Contractor shall verify that architectural coatings shall be applied over a 20-day minimum period.

Conclusion

The project is consistent with the Clean Air Plan. Modeled emissions from the project, once mitigated, are considered less than significant. The project would not pose particular risk to sensitive receptors, nor would it be a source of objectionable odors. Overall impacts to air quality are considered less than significant.

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact with Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increased Impact
IV. BIOLOGICAL RESOURCES				
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native residents or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f. Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

VISTA GRANDE

Discussion of Checklist Answers

a. The project site is developed, and bordered by individual, generally non-native, planted ornamental trees. The site lacks habitat to support sensitive species. Existing trees may provide nesting or migratory bird habitat; however, three mature landscape trees located adjacent to the roadway areas experience high levels of vehicle, bicycle, transit, and pedestrian traffic. Development of the project will likely require removal of all trees, shrubs, and landscaping. In the unlikely event nesting birds are present, nests, birds, chicks, and eggs may be adversely affected or harmed by tree removal or grading construction activities. Therefore, in the event the trees cannot be removed prior to the nesting bird season (February through September), mitigation is identified below that requires a nesting bird survey to be conducted prior to any tree removal. Therefore, impacts are considered less than significant with mitigation.

b. There is no riparian habitat or other sensitive natural community located on or near the project site. Therefore, there is no impact.

c. There are no wetland features on or otherwise hydrologically connected to the site. Drainage downslope of the project is via existing urban storm drain infrastructure. There are no impacts to wetlands associated with the project.

d. The site does not provide habitat for native resident or migratory wildlife species, and lacks structure and connectivity required for use as a movement corridor. The proposed project would not introduce a new element, but would rather replace an existing urbanized feature near a highly-trafficked campus road and residential area. The unlikely potential for nesting birds is identified in (a) above. The site is developed and is located within an urban area. Impacts to wildlife movement or migration are considered less than significant.

e. The project would not conflict with University policies regarding biological resources. The University does not have an adopted tree preservation policy and the project would not have an adverse effect on nearby trees within the City Limits. Master Plan policies which address biological resources generally call for the siting of new development proximate to or within existing developed areas, and avoidance of sensitive areas such as creeks. The project consists of the redevelopment of an existing dining facility in an existing developed portion of campus, and is therefore consistent with guidance provided in the Master Plan. Impacts are considered less than significant.

f. The project site is not within an area subject to a Habitat Conservation Plan (HCP) or Natural Community Conservation Planning (NCCP), or other local or regional conservation planning document. There is no impact.

Mitigation Measures

BR-1 Prior to commencement of any tree removal during the typical nesting bird season (February 1 to September 1), to avoid conflicts with nesting birds, a qualified biologist shall survey the impact zone, including the trees proposed for removal. At such time, if any evidence of nesting activities are found, the biologist will determine if any construction activities can occur during the nesting period and to what extent. The results of the surveys may include recommendations for variable buffer zones, as needed, around individual nests.

Conclusion

The currently developed site is located in an urban area, and the site lacks habitat for wildlife or plant communities. Impacts associated with development and operation of the project are considered less than significant.

<u>CULINARY SUPPORT CENTER</u>

Discussion of Checklist Answers

a. The project site is located within an agriculturally dominant portion of the Cal Poly campus, northeast of the central campus core. The project would occur on a site that was previously graded and developed. As such, the project sites do not support native vegetation, and does not contain habitat suitable for special-status plant or wildlife species. Therefore, impacts would be less than significant.

b, c. The project site is fully developed and no riparian or wetland habitat or other sensitive natural community is present onsite. The Stenner Creek riparian area, which is dominated by sycamore (*Platanus racemosa*) and coast live oak (*Quercus agrifolia*), is located approximately 800 feet to the west. Brizziolari Creek is located approximately 1,200 feet to the south of the project site, and Stenner and Brizziolari Creeks join approximately 3,200 feet south of the project site. Land development between these creeks and the project site includes agricultural fields, fences, roads, parking lots, structures, and landscaping. Based on existing development and pavement onsite, and the distance and existing land development between the project site and creek corridors, no impacts to sensitive natural communities, riparian resources, and wetlands regulated by applicable state, federal, or local plans or policies, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS), would occur.

d. The University is located along the Pacific Flyway, an important migratory route for many birds traveling between North and South America. Riparian areas, freshwater marshes, and other wetland areas are particularly important areas to migratory birds of the Pacific Flyway. Since the project site is located within a developed area a minimum of 800 feet from riparian habitat, construction and operation of the proposed expansion would not impact the important areas for avian species moving along the Pacific Flyway. The site is developed and does not provide migration linkages for common or special-status wildlife; the site would operate similar to existing conditions. Therefore, the project would not substantially interfere with wildlife movements or behaviors.

e. The project would not conflict with University policies regarding biological resources. The University does not have an adopted tree preservation policy. Master Plan policies that address biological resources generally call for the siting of new development proximate to or within existing developed areas, and avoidance of sensitive areas such as creeks. The project consists of the expansion of an existing building within a developed and paved area, and is therefore consistent with guidance provided in the Master Plan. Impacts are considered less than significant.

f. The project site is not within an area subject to a Habitat Conservation Plan (HCP) or Natural Community Conservation Planning (NCCP), or other local or regional conservation planning document. There is no impact.

Mitigation Measures

None required.

Conclusion

The site is currently developed and lacks habitat for wildlife or plant communities. Expansion of the existing building would not result in any direct or secondary effects to biological resources, and operation of the site would be similar to existing conditions. Impacts associated with development and operation of the project are considered less than significant.

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	No New Impact
V. CULTURAL RESOURCES				
Would the proposal:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?		X		
b. Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?		X		
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X

d. Disturb any human remains, including those interred outside of formal cemeteries?	X

VISTA GRANDE

Discussion of Checklist Answers

a, b, d. The project site has been graded and developed with the existing Vista Grande Dining Facility. No historic-period structures or historic resources including prehistoric or historic archaeological sites exist on site. Additionally, the *Cal Poly Master Plan and Final EIR* does not identify any historic resources on the project site as shown on Exhibit 6.5 (Cal Poly 2001). Based on the amount of grading and disturbance that occurred on the project site and surrounding area, it is unlikely that intact historic or archaeological resources are present within the project site. In the event of any discovery of unexpected historic or archaeological resources, including human burials, mitigation would be required. Impacts on cultural resources are considered less than significant with mitigation incorporated.

c. No known paleontological resources exist on or near the project site. Therefore, no impact on paleontological resources would occur.

Mitigation Measures

CUL-1: In the event archaeological resources are unearthed during project construction, all earth disturbing work within the vicinity of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find. After the find has been appropriately mitigated, work in the area may resume. A Chumash representative shall monitor any mitigation work associated with prehistoric cultural material.

CUL-2: If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC).

Conclusion

Based on the disturbed and developed condition of the site, demolition and redevelopment of the Vista Grande Dining Facility will not impact cultural or paleontological resources. Mitigation is identified that would address incidental discovery of resources.

CULINARY SUPPORT CENTER

Discussion of Checklist Answers

a, b, d. The project site has been graded and developed with the existing Corporation Warehouse and paved areas. No historic-period structures or historic resources including prehistoric or historic archaeological sites exist on site. Additionally, the *Cal Poly Master Plan and Final EIR* does not identify any historic resources on the project site as shown on Exhibit 6.5 (Cal Poly 2001). In addition, the project site is located a minimum of 800 feet from the Stenner Creek corridor, a water resource indicative of Native American camps and activity areas. Based on the amount of grading and disturbance that occurred on the project site and surrounding area, and distance from the creek corridor, it is unlikely that intact historic or archaeological resources are present within the project site. In the event of any discovery of unexpected historic or archaeological resources, including human burials, mitigation would be required. Impacts on cultural resources are considered less than significant with mitigation incorporated.

c. No known paleontological resources exist on or near the project site. Therefore, no impact on paleontological resources would occur.

Mitigation Measures

CUL-1: In the event archaeological resources are unearthed during project construction, all earth disturbing work within the vicinity of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find. After the find has been appropriately mitigated, work in the area may resume. A Chumash representative shall monitor any mitigation work associated with prehistoric cultural material.

CUL-2: If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC).

Conclusion

Based on the disturbed and developed condition of the site, implementation of the project will not impact cultural or paleontological resources. Mitigation is identified that would address incidental discovery of resources.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS **Would the project:**				
a. Expose people or structure to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated in the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii. Strong seismic ground shaking?			X	
iii. Seismic-related ground failure, including liquefaction?			X	
iv. Landslides?		X		
b. Result in substantial soil erosion or loss of topsoil?			X	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable because of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?		X		
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X

VISTA GRANDE

Background

A site-specific geotechnical study was prepared for the project site (Earth Systems Pacific 2015a); the results of this study are incorporated into the analysis below. Additional existing information is available regarding geologic conditions on campus, including areas near the project site. Previous studies include:

- Student Housing South Additional Geologic Evaluation of Potential Landslide Area
- Master Plan and Master Plan EIR.

The existing building is located within the boundaries of a potential landslide documented in the Master Plan EIR. Subsequent mapping in 2010 delineate the landslide within an undeveloped portion of the hillside above the eastern side of the campus, just northeast of Vista Grande (Earth Systems Pacific 2013). Visual reconnaissance noted that the existing residential development and Vista Grande "show no indications of damage attributable to landslide movement" (Earth Systems Pacific 2013). Previous studies have documented the potential for slope destabilization associated with construction in and near the suspected slide.

Discussion of Checklist Answers

a.i. The project site is located within a seismically active area of California. The project site is not identified on any Alquist-Priolo Earthquake Fault Zones maps (CDC 1990); however, the Los Osos Fault, located approximately 4 miles from the project site, is identified under the Alquist-Priolo Earthquake Fault Zone Act and has been active within the last 11,000 years (City of San Luis Obispo 2014a). The project site is proximate to several other faults in the central California region including the San Andreas, Nacimiento, Rinconada, Cambria, West Huasna/Oceanic, and Edna faults among smaller, local faults (Cal Poly 2001). Due to the presence of faults within proximity to the project area and the questionable activity level of these faults, the potential for ground rupture to occur on the project site resulting in damage from surface rupture or fault displacement would be a potentially significant impact. All new building design projects shall be consistent with the California Building Code and the CSU Seismic Policy, which mandates, in part, that all new structures must provide an acceptable level of earthquake safety for students, employees, and the public who occupy these buildings and facilities, to the extent feasible (CSU 2015). With incorporation of these required design standards, impacts would be less than significant.

a.ii. The Los Osos Fault, located approximately 4 miles southwest of the site, and the San Andreas Fault, located near Parkfield, California, along with other local and regional fault systems, pose risks to the project associated with groundshaking. The most significant event for design of structures is a 6.8 magnitude event along the Los Osos Fault (Cal Poly 2014). Project design is required to meet or exceed existing building code requirements and standard practices of the Structural Engineer Association of California. Compliance with existing codes and practices will be sufficient to address risks associated with groundshaking. Impacts are considered less than significant.

a.iii. Liquefaction is amplified groundshaking or instability associated with unconsolidated alluvium. Based on the geotechnical report prepared for the project, the potential for liquefaction to affect the site is very low (Earth Systems Pacific 2015a). Therefore, potential impacts would be less than significant.

a.iv. The literature cited previously includes evidence of a landslide formation east of Grand Avenue. Excavation and other ground-disturbing activities could destabilize the landslide formation. The geotechnical study included evaluation of site conditions to determine presence or absence of the landslide. Based on the results of the geotechnical report, slide debris was encountered at a depth of 3 feet to a depth of 9 feet below the surface. While this debris was identified, and a mapped landslide is present on the slopes beyond the project site to the northeast, the two are not actively connected (Earth Systems Pacific 2015a). Evidence of this was seen in boring conducted northeast of the building area, which showed 1.5 feet of topsoil over sandstone bedrock, and the presence of bedrock at the base of the slope at the northeast side of Deer Road. Therefore, the potential for landslide hazards within the project site to affect the building is "extremely low" and will be further reduced though incorporation of recommendations identified in the

Geotechnical Engineering Report (Earth Systems Pacific 2015a). Therefore, potential impacts related to landslide hazards would be less than significant.

b. Underlying soils are considered to be highly erodible; therefore, proposed demolition and grading activities have the potential to result in erosion and down-gradient sedimentation. During construction, the project would be required to implement erosion control measures stipulated in a stormwater pollution prevention plan (SWPPP) pursuant to the National Pollutant Discharge Elimination System discharge requirements. The SWPPP must be approved by the Regional Water Quality Control Board (RWQCB). Therefore, during construction and over the life of the project, erosion control measures and pollutant discharges would be reduced to levels that are less than significant. Impacts are considered less than significant.

c. Three borings were conducted within the project site. Boring 1 conducted within Deer Road showed fill material to a depth of 3 feet and slide debris between depths 3 to 9 feet, which overlay colluvium at a depth from 9 to 13.5 feet. Sandstone bedrock of the Franciscan Mélange was encountered at the termination of the boring at 18 feet. Boring 2, located within a landscaped area near Deer Road, identified sandstone bedrock underlying 1.5 feet of topsoil. Boring 3 was drilled in a landscaped area southeast of the existing building; topsoil was identified in the upper 2.5 feet, overlaying fill material to a depth of 7.5 feet. Sandstone bedrock was encountered below the fill. Subsurface water was encountered in Boring 1 at a depth of 15.5 feet; it is common to encounter subsurface water at the soil/bedrock contact throughout the campus.

Differential Settlement. Differential settlement can occur when a foundation spans two materials having variable consolidation characteristics, such as native and fill soil, or soil and bedrock. These variable conditions could stress and potential damage the proposed structure's foundation. This would addressed by over-excavating the existing soils, and recompaction of the replacement soil in accordance with the specifications identified in the Geotechnical Engineering Report (Earth Systems Pacific 2015a). Therefore, potential impacts related to differential settlement can be mitigated to less than significant through engineered design.

Potential for Subsurface Water. The presence of subsurface water, similar to existing conditions throughout the campus including the Performing Arts Center, can be addressed by providing a sub-drain at the uphill side of the over-excavation, consistent with the recommendations identified in the Geotechnical Engineering Report (Earth Systems Pacific 2015a). Therefore, potential impacts related to subsurface water can be mitigated to less than significant through engineered design.

Compliance with the recommendations of the geotechnical study will ensure less than significant impacts related to stability.

d. Based on the results of the geotechnical study, the soils underlying the project site are expansive. Expansive soils tend to swell with seasonal increases in soil moisture, and shrink during the dry season as soil moisture decreases. These changes can stress and damage slabs, flatwork, and foundations if not addressed. Measures typically recommended to address expansion include amendment of fill material and pre-moistening of subslab materials, use of deepened foundations and a layer of non-expansive material beneath slabs, thickened edges and a layer of non-expansive material beneath flatwork, among other measures. Compliance with the recommendations of the geotechnical study will ensure less than significant impacts related to expansion.

e. The project will be supported by a developed wastewater system; no alternative systems, such as septic systems, are proposed. There is no impact.

Mitigation Measures

To ensure geologic impacts are reduced to a level that is less than significant, MM GEO-1 is provided in accordance with the *Cal Poly Master Plan and Final EIR* (Cal Poly 2001):

MM GEO-1: Landslide. Mitigation measures would need to be developed on the basis of site-specific study of the landslide. The general degree of required mitigation would depend on the findings, which could range from: 1) finding that the existing landslide is relatively stable and therefore no significant mitigation is needed; to 2) the existing landslide is marginally stable and will require extensive strengthening and/or subsurface drainage improvements to provide adequate factors of safety for design and construction. This EIR therefore recommends that such a study be performed to estimate the factor of safety of the existing landslide for existing static and earthquake loading conditions, and to evaluate what impact the proposed site improvements could have on the stability of the landslide. The study will specify mitigation measures for any site improvements that are needed.

In addition to the amended Master Plan mitigation identified above, the following mitigation is recommended:

GS-1 Prior to final approval of grading and construction plans, all applicable plans shall incorporate the recommendations identified in the Geotechnical Engineering Study prepared by Earth Systems Pacific, dated February 9, 2015. Such recommendations include, but are not limited to:

a. Irrigated landscaping, flatwork, or other features that will keep the soils at relatively uniform, year-round moisture will be installed for a zone of at least 5 feet around the perimeters of the proposed building.

b. Site preparation and grading standards, including construction of a sub-drain along the northeast side of the over-excavated area. Retaining wall sections shall be constructed with foundations bearing in recompacted soil or bedrock, but not in a combination of these. Underlying fill material shall be non-expansive.

c. Recommendations specific to utility trenches, foundations, interior slabs-on-grade and exterior pedestrian flatwork, construction of retaining walls, and management of stormwater drainage and irrigation/planter box drainage.

Conclusion

Based on the results of the Geotechnical Engineering Report (Earth Systems Pacific 2015a), the site is suitable from a geotechnical standpoint, for the proposed project, provided the recommendations identified in the report are incorporated into the project design and construction plans. Impacts are considered less than significant based on documentation of issues in the geotechnical study, compliance with all recommendations of the geotechnical study, as well as existing codes and standards, and preparation and implementation of a SWPPP.

CULINARY SUPPORT CENTER

Background

Based on the *Cal Poly Master Plan and Final EIR* (Cal Poly 2001), the project site is not located in a geologically hazardous area. The topography of the site is gently sloping, and the site is currently developed. A site-specific geotechnical study was prepared for the project site (Earth Systems Pacific 2015b); the results of this study are incorporated into the analysis below.

Discussion of Checklist Answers

a.i. The project site is located within a seismically active area of California. The project site is not identified on any Alquist-Priolo Earthquake Fault Zones maps (CDC 1990); however, the Los Osos Fault, located approximately 3 miles from the project site, is identified under the Alquist-Priolo Earthquake Fault Zone Act and has been active within the last 11,000 years (City of San Luis Obispo 2014a). The project site is proximate to several other faults in the central California region including the San Andreas, Nacimiento, Rinconada, Cambria, West Huasna/Oceanic, and Edna faults among smaller, local faults (Cal Poly 2001). Due to the presence of faults within proximity to the project area and the questionable activity level of these faults, the potential for ground rupture to occur on the project site resulting in damage from surface rupture or fault displacement would be a potentially significant impact. All new building design projects shall be consistent with the California Building Code and the CSU Seismic Policy, which mandates, in part, that all new structures must provide an acceptable level of earthquake safety for students, employees, and the public who occupy these buildings and facilities, to the extent feasible (CSU 2015). With incorporation of these design standards, impacts would be less than significant.

a.ii. The Los Osos Fault, located approximately 3 miles southwest of the site, and the San Andreas Fault, located near Parkfield, California, along with other local and regional fault systems, pose risks to the project associated with groundshaking. The most significant event for design of structures is a 6.8 magnitude event along the Los Osos Fault (Cal Poly 2014). Project design is required to meet or exceed existing building code requirements and standard practices of the Structural Engineer Association of California. Compliance with existing codes and practices will be sufficient to address risks associated with groundshaking. Impacts are considered less than significant.

a.iii. Liquefaction is amplified groundshaking or instability associated with unconsolidated alluvium. Based on the geotechnical report, the potential for liquefaction to affect the proposed project is considered to be very low. The proposed structure would be subject to, and would be required to comply with, the Uniform Building Code which would ensure structural integrity of the proposed project would not be compromised due to liquefaction potential, final foundation engineering for the building would consider liquefaction potential in final engineering and project design. Therefore, impacts would be less than significant.

a.iv. According to the *Cal Poly Master Plan and Final EIR*, Exhibit 6.3, the proposed project site is not mapped on an area identified as a potential landslide area (Cal Poly 2001), and the topography of the site is gently sloping. Impacts would not occur.

b. The project site gently sloping and stormwater sheet flows across the site onto Mt. Bishop Road. There is an existing drainage system along the southern boundary of the project site, which discharges onto the existing paved parking area. During construction, the project would be required to implement erosion control measures stipulated in a stormwater pollution prevention plan (SWPPP) pursuant to the National Pollutant Discharge Elimination System discharge requirements. Therefore, during construction and over the life of the project, erosion control measures and pollutant discharges would be reduced to levels that are less than significant. Impacts are considered less than significant.

c. Five borings were conducted within the project site. Generally, the site is surfaced with 1 to 4 feet of undocumented fill overlying alluvium, with the exception of one boring location (Boring 5) located southeast of the existing building and adjacent to the H-1 parking lot, which did not show fill material. Very soft to moderately hard sandstone and claystone bedrock of the Franciscan mélange is present below the alluvium at varying depths including: 3 feet (Boring 1), 6 feet (Boring 2), and 23 feet (Boring 3). Bedrock was not encountered in Borings 4 and 5, which were drilled to a depth of 16.5 feet. No free subsurface water was observed (Earth Systems Pacific 2015b).

Differential Settlement. Differential settlement can occur when a foundation spans two materials having variable consolidation characteristics, such as native and fill soil, or soil and bedrock. These variable conditions could stress and potential damage the proposed structure's foundation. To reduce the potential for differential settlement, it would be necessary for the foundations to bear in sufficiently uniform material. This would be addressed by extending foundations through the soil to bear entirely in the underlying bedrock, or over-excavating the soil and bedrock to a sufficient depth, and replacing it with a uniform thickness of property compacted structural fill (Earth Systems Pacific 2015b). Therefore, potential impacts related to differential settlement can be mitigated to less than significant through engineered design.

High Soil Moisture Content. Based on the geotechnical study, the moisture content of underlying soils ranges from 11.2 to 19 percent. High soil moisture content could create unstable soil conditions during grading, and may necessitate measures to obtain stable subgrade conditions and facilitate soil compaction. Unstable soils may require drying, or import of drier soils, or stabilizing measures such as placement of gravel layers, geotextiles, or geo-grids (Earth Systems Pacific 2015b). Therefore, potential impacts related to differential settlement can be mitigated to less than significant through engineered design.

The proposed structure would be subject to, and would be required to comply with, the Uniform Building Code which would ensure structural integrity of the proposed project would not be compromised due to geologic and soil conditions. Final foundation engineering for the building would consider on-site geotechnical conditions in final engineering and project design. Compliance with the recommendations of the geotechnical study will ensure less than significant impacts related to stability. Therefore, impacts would be less than significant.

d. Based on the results of the geotechnical study, the soils underlying the project site are low to moderately expansive. Expansive soils tend to swell with seasonal increases in soil moisture, and shrink during the dry season as soil moisture decreases. These changes can stress and damage slabs, flatwork, and foundations if not addressed. Measures typically recommended to address expansion include amendment of fill material and pre-moistening of subslab materials, use of deepened foundations and a layer of non-expansive material beneath slabs, thickened edges and a layer of non-expansive material beneath flatwork, among other measures. Compliance with the recommendations of the geotechnical study will ensure less than significant impacts related to expansion.

e. The project will be supported by a developed wastewater system; no alternative systems, such as septic systems, are proposed. There is no impact.

Mitigation Measures

In addition to compliance with existing regulations, the following mitigation is recommended:

GS-2 Prior to final approval of grading and construction plans, all applicable plans shall incorporate the recommendations identified in the Geotechnical Engineering Study prepared by Earth Systems Pacific, dated July 31, 2015. Such recommendations include, but are not limited to:

a. Site preparation and grading standards, including specific recommendations related to the building area, pavement areas, retaining wall areas, and grading areas.

c. Recommendations specific to utility trenches, foundations, interior slabs-on-grade and exterior pedestrian flatwork, construction of retaining walls, asphalt concrete and Portland cement concrete pavement construction, and management of stormwater drainage irrigation/planter box drainage.

Conclusion

Impacts are considered less than significant based on compliance with existing codes and standards, and preparation and implementation of a SWPPP.

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increased Impact
VII. GREENHOUSE GAS EMISSIONS **Would the project:**				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Discussion of Checklist Answers

a. Greenhouse gas (GHG) emissions would be generated from construction, demolition, and operation of the proposed project. Construction and demolition activities would result in GHG emissions from heavy construction equipment, truck traffic, and worker trips to and from the project site. Operation of the proposed project would generate GHG emissions associated with new buildings (natural gas, purchased electricity), and water consumption. A substantial increase in vehicle emissions is not anticipated as the proposed project would 1) improve an existing on-campus dining facility (Vista Grande), which primarily serves students living on campus and within walking and bicycling distance of the facility and 2) relocate culinary support facilities to the Corporation Warehouse (in lieu of support facilities within the campus core) and reduce large delivery truck trips within the campus core. The project would not result in a direct increase in vehicle trips beyond existing conditions, and would not increase or student enrollment.

The APCD has adopted general screening criteria to determine the type and scope of projects requiring an air quality and GHG assessment. The screening criteria are based on the APCD's bright line threshold for annual GHG emissions in units of metric tons of carbon dioxide equivalent (MT CO2E) per year. Table 1-1, Operational Screening Criteria for Project Air Quality Analysis, of the APCD CEQA Air Quality Handbook (APCD 2012) indicates that the screening criteria for a 4-year university or college expected to exceed the APCD annual GHG bright line threshold of 1,150 MT CO2E per year from operational and amortized construction impacts is 464 students.

The project would not result in an increase in full-time equivalent student population on the Cal Poly San Luis Obispo campus, and would therefore not exceed the APCD's screening criteria for a university. Although the project would not result in an increase in students on campus, it would generate GHG emissions during demolition and construction activities. APCD guidance indicates that the short-term GHG emissions from the construction phase should be amortized over the life of the project, which is 50 years for residential projects and 25 years for commercial projects. Project-generated construction GHG emissions are anticipated to be negligible when amortized over 25 or 50 years (refer to Table 6~~5~~ below). Development of the proposed project would likely not generate significant GHG emissions that would result in a cumulatively considerable contribution to climate change impacts (refer to Table 6~~5~~ below). Regardless, Cal Poly San Luis Obispo's Campus Master Plan and EIR mitigation, and APCD rules, regulations, and policies would be applied as applicable. In addition, the project would incorporate design features that would reduce emissions from area sources (e.g., energy use). Impacts would be less than significant.

Table 6. Comparison of Unmitigated CO2e Emission Impacts to SLOAPCD Significance Thresholds

	CO_2e [a]
Project Emissions (Amortized Construction and Operational) [b]	1,086
GHG Bright-line Threshold [c]	1,150
CO_2e Emissions Exceed Threshold?	No

a Project emissions are the sum of the amortized construction CO2e emissions and operational CO2e emissions.
b CO2e emissions include emissions of CO2, CH4, N2O, HFC, CFC, and F6S.
c Emission thresholds taken from "CEQA Air Quality Handbook: A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review," SLO County APCD, April 2012.

The sum of the project's amortized construction emissions plus operational-related GHG emissions is less than 1,150 metric tons per year; therefore, the project's greenhouse gas emissions levels would not exceed stated thresholds. Impacts are considered less than significant.

b. The proposed project would not be subject to the City of San Luis Obispo Climate Action Plan or any other municipal policy related to the reduction of greenhouse gas emissions. In addition, the project's greenhouse gas emissions levels are within thresholds identified by the APCD. The project, furthermore, promotes several strategies to reduce greenhouse gas emissions, including reducing or eliminating vehicle trips by providing improved market and dining facilities within existing residential areas and improving building efficiency above minimum requirements. Impacts are considered less than significant.

Mitigation Measures

None required.

Conclusion

The project's modeled greenhouse gas emissions are under stated thresholds; the project incorporates strategies to reduce greenhouse gas emissions. Impacts are considered less than significant.

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increased Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS				
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		X		
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e. 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 result in a safety hazard for people residing or working in the project area?				X
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			X	

Background

The Cal Poly San Luis Obispo Environmental Health and Safety department oversees health and safety procedures and programs on campus, including facility construction and operations. The Environmental Health and Safety department develops and implements programs to ensure the safe use, handling, and storage of hazardous materials, and appropriate and compliant disposal of hazardous wastes. The department oversees and implements employee training programs, procedures and policies, and compliance surveys to this end.

VISTA GRANDE

Discussion of Checklist Answers

a. The project will not create a substantial risk to people or the environment associated with the routine use, transport or disposal of hazardous waste. Materials used on-site will be typical of other campus dining, market, and office buildings, and include cleaning and other maintenance products. Relatively small amounts of commonly used hazardous substances, such as gasoline, diesel fuel, lubricating oil, grease, cleaning products, landscaping chemicals and fertilizers, and solvents, would be used on site for construction and maintenance. These materials would be transported and handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. No acutely hazardous materials would be used on site during project construction. Construction activities at the project site could potentially encounter contaminated soils and could result in the accidental release of hazardous materials to the environment and release of materials within 0.25 mile of an existing school. As such, mitigation would be required.

   Operation of the proposed project would involve the regular storage, use, and disposal of potentially hazardous materials. The types and amounts of such materials is not known at this time; however, mitigation would be provided which would include the disclosure of all hazardous and potentially hazardous materials expected to be stored and used on site. Additionally, the campus maintains a Hazardous Materials Management and Response Plan that addresses the handling of and risks associated with hazardous materials. The Master Plan does not propose storage or use of new hazardous materials that would not be addressed by the existing Management Plan (Cal Poly 2001). Therefore, impacts would be considered less than significant.

b. Upset and accident conditions which may release hazardous materials into the environment are most likely during the construction phase of the project. Construction equipment, if damaged, can release fuel, oil, lubricants and other materials into the environment and expose workers and the campus population. The campus requires contractors to prepare, maintain and implement management plans for upset and accident condition on-site, including protocols for stop work, spill containment, notification and remediation. These measures are considered sufficient to reduce risks associated with accidents. Impacts are considered less than significant.

c. Emissions associated with the project are limited to typical construction and operational emissions, as discussed and quantified in Section III, Air Quality. The Vista Grande building has been tested for lead and asbestos (McKenna Environmental 2015). The findings concluded that materials containing asbestos, lead-containing paint, and lead based paint (LBP) are present; therefore, the University will comply with existing regulations for the management, abatement, and disposal of hazardous materials, including (but not limited to) the Asbestos Hazard Emergency Response Act (AHERA) Asbestos-Containing Materials in Schools Rule, Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP), and Occupational Safety and Health Administration's (OSHA) Lead Exposure in Construction Rule (29 CFR Part 1926).The project site is located on campus, approximately 0.25-mile from a former elementary school occupied by private schools. The project would emit emissions during construction and operation, however, those emissions levels, including Diesel Particulate Matter (DPM) are within acceptable thresholds once mitigation is applied. The proximity of sensitive receptors poses special conditions which warrant additional mitigation, particularly addressing idling of vehicles, which is addressed under "Air Quality" and noted mitigation measures.

   The project site is located approximately 0.5 mile from Highway 101. The project site is considered too distant for emissions associated with that roadway to pose a special risk to users of the dining facility.

d. The site is not a known hazardous waste or materials site (Envirostor 2015; Geotracker 2015). There is no impact.

e-f. The project is not located in the vicinity of a public or private airport. The closest airport, San Luis Obispo County Regional Airport, is located approximately 4 miles to the south and there are no airstrips on campus. There is no impact.

g. Construction and operation of the proposed project would be subject to State Fire Marshall inspection and approval prior to building occupancy, which would ensure appropriate emergency access is provided by the facility. Additionally, as stated in the *Cal Poly Master Plan and Final EIR*, "campus services and facilities must be designed to meet or exceed applicable legal guidelines such as access for those with physical or learning disabilities, fire safety, and emergency response systems" (Cal Poly 2001). In addition, the project would not affect emergency access to existing campus facilities and residential areas, and it would be governed by the Cal Poly San Luis Obispo Campus Emergency Management Plan, which includes action response protocol in the event of a number of major disasters. Therefore, impacts would be less than significant.

h. Both project sites are located proximate to urban/wildland interface areas, including agricultural fields, natural vegetation, and grasslands that constitute a moderate fire hazard. The proposed project would comply with the local fire code and as stated in response g) above, and State Fire Marshal inspection and approval would ensure adequate emergency access is provided under proposed project design. Moreover, the proposed project, in the context of the overall campus, would be governed by the Cal Poly San Luis Obispo Campus Emergency Management Plan, which includes action response protocol in the event of a major fire. However, due to the presence of natural vegetation and wildland area on campus, the potential for wildland fires exists and impacts related to wildland fire hazards would be considered potentially significant. The project site is served by existing fire suppression infrastructure (i.e., hydrant systems). The project's construction is furthermore designed to be fire resistant and all structures will be fully sprinklered. The project's location in a developed area with existing fire suppression infrastructure and compliance with the Fire Code reduces risks associated with wildland fire to a less than significant level.

Mitigation Measures

None required beyond compliance with existing regulations.

Conclusion

Impacts associated with hazards and hazardous materials are considered less than significant. Temporary risks associated with construction are addressed by mitigation in the Air Quality section, mitigation above, and current University practice, which includes the requirement to maintain and implement spill response plans for all large construction projects.

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increased Impact
IX. HYDROLOGY AND WATER QUALITY				
Would the project:				
a. Violate any water quality standards or waste discharge requirements?			X	
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increased Impact
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or offsite?			X	
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?			X	
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
f. Otherwise substantially degrade water quality?			X	
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j. Inundation by seiche, tsunami, or mudflow?				X

VISTA GRANDE

Discussion of Checklist Answers

a. The site is currently developed with a building, paved walkways and stairs, and paved access and loading area, which discharges to a developed storm water system along Grand Avenue. During construction and demolition activities, gasoline, diesel fuel, lubricating oils, grease, and solvents could be used on the project site. Accidental spills of these materials during construction activities could result in potentially significant water quality impacts. In addition, soils loosened during excavation and grading could degrade water quality if mobilized and transported off site via water flow. As construction and demolition activities may occur during the rainy season or during a storm event, construction of the proposed project could result in adverse impacts to water quality. Because the project site would be greater than 1 acre, incorporation of an SWPPP and implementation of appropriate BMPs would be required during project construction as part of the project's General Construction Activity Stormwater Permit issued by the Regional Water Quality Control Board. The SWPPP identifies which structural and nonstructural BMPs will be implemented, such as sandbag barriers, temporary desilting basins near inlets, gravel driveways, dust controls, and construction worker training. In addition, Cal Poly has developed a *Water Quality Management Plan and a Storm Water Pollution Prevention Program* for development on campus (Cal Poly 2005). The Water Quality Management Plan outlines best management practices (BMPs) for construction and operation, which would be applicable to the project.

The redevelopment of the site is not considered a substantive risk to water quality standards. The preparation and implementation of a SWPPP and compliance with the University's *Water Quality Management Plan and a Storm Water Pollution Prevention Program* will be sufficient to reduce risks of water quality standard violation. Impacts are considered less than significant.

b. The project will not be served by groundwater. The project is served by Whale Rock Reservoir via the City's treatment plant. The existing development on-site prevents infiltration of precipitation, with the exception of surrounding landscape areas. The project will not significantly change the infiltration capacity of the site, compared to existing conditions. Impacts are considered less than significant.

c-d. The existing drainage pattern of the site is sheet flow to surrounding streets and storm drains. The site contains no natural drainage features. The project will include the design and installation of new stormwater collection and conveyance systems and subdrain pursuant to building code standards and the recommendations identified in the Geotechnical Engineering Report (Earth Systems Pacific 2015a). The project will also be subject to measures outlined in the SWPPP. Compliance with existing codes and regulations will be sufficient to ensure the project does not result in sediment traveling off-site, or flooding off-site. Impacts are considered less than significant.

e. The project will not increase stormwater reaching existing drainage systems; the site is currently paved and runoff is directed to developed stormwater systems. The project will include the design and installation of new stormwater collection and conveyance systems pursuant to building code standards. The project will also be subject to measures outlined in the SWPPP. Compliance with existing codes and regulations will be sufficient to ensure stormwater systems are designed to accommodate the flow anticipated. Impacts are considered less than significant.

f. The project will not otherwise substantially degrade water quality. The project contains no special uses which would pose a risk to water quality. Impacts are considered less than significant.

g-j. The project site is not located in a 100-year flood hazard area. The project is not located in an area at risk from inundation by dam or levee failure, and is not in an area at risk of mudflow, tsunami or seiche. There is no impact.

Mitigation Measures

None required.

Conclusion

The project site is currently occupied by the existing Vista Grande Dining Facility, which would be demolished prior to redevelopment of the site. The project will include new stormwater systems designed to currently applicable codes, and the project will be required to have an SWPPP prepared, approved and implemented. The site is not subject to special hydrologic hazards. Impacts associated with hydrology and water quality are less than significant.

CULINARY SUPPORT CENTER

Discussion of Checklist Answers

a. Existing stormwater systems onsite includes three culverts installed under the H-1 parking lot to the south, and a rock-lined swale leading from the facilities to the west; both systems discharge directly onto the existing paved parking/access area onsite. Stenner Creek is located approximately 800 feet to the west, and Brizziolari Creek is located approximately 1,200 feet to the south and down-gradient of the project site, and Stenner and Brizziolari Creeks join approximately 3,200 feet south of the project site. Land development between these creeks and the project site includes agricultural fields, fences, roads, parking lots, structures, and landscaping. The site is currently developed with a building, paved parking areas, and a paved access and loading area. During construction and demolition activities, gasoline, diesel fuel, lubricating oils, grease, and solvents could be used on the project site. Accidental spills of these materials during construction activities could result in potentially significant water quality impacts. In addition, soils loosened during excavation and grading could degrade water quality if mobilized and transported off site via water flow. As construction and demolition activities may occur during the rainy season or during a storm event, construction of the proposed project could result in adverse impacts to water quality. Incorporation of an SWPPP and implementation of appropriate BMPs would be required during project construction as part of the project's General Construction Activity Stormwater Permit issued by the Regional Water Quality Control Board. The SWPPP identifies which structural and nonstructural BMPs will be implemented, such as sandbag barriers, temporary desilting basins near inlets, gravel driveways, dust controls, and construction worker training. The expansion of the existing warehouse is not considered a substantive risk to water quality standards. The preparation and implementation of a SWPPP and compliance with the University's *Water Quality Management Plan and a Storm Water Pollution Prevention Program* will be sufficient to reduce risks of water quality standard violation. Impacts are considered less than significant.

b. The project will not be served by groundwater. The project is served by Whale Rock Reservoir via the City's treatment plant. The existing development and pavement on-site prevents infiltration of precipitation, with the exception of surrounding landscape areas. The project will not significantly change the infiltration capacity of the site, compared to existing conditions. Impacts are considered less than significant.

c, d. The existing drainage pattern of the site is sheet flow towards Mt. Bishop Road. The site contains no natural drainage features. The project will include the design and installation of new stormwater collection and conveyance systems pursuant to building code standards. The project will also be subject to measures outlined in the SWPPP and the University's *Water Quality Management Plan and a Storm Water Pollution Prevention Program*. Compliance with existing codes and regulations will be sufficient to ensure the project does not result in sediment traveling off-site, or flooding off-site. Impacts are considered less than significant.

e. The project will not increase stormwater reaching existing drainage systems; the site is currently paved and runoff is directed to developed stormwater systems. The project will include the design and installation of new stormwater collection and conveyance systems pursuant to building code standards. The project will also be subject to measures outlined in the SWPPP and the University's *Water Quality Management Plan and a Storm Water Pollution Prevention Program*. Compliance with existing codes and regulations will be sufficient to ensure stormwater systems are designed to accommodate the flow anticipated. Impacts are considered less than significant.

f. The project will not otherwise substantially degrade water quality. The project contains no special uses which would pose a risk to water quality. Impacts are considered less than significant.

g-j. The project site is not located in a 100-year flood hazard area. The project is not located in an area at risk from inundation by dam or levee failure, and is not in an area at risk of mudflow, tsunami or seiche. There is no impact.

Mitigation Measures

None required.

Conclusion

The project site is currently occupied by the existing Corporation Warehouse and surrounding paved areas. The project will include new stormwater systems designed to currently applicable codes, and the project will be required to have an SWPPP prepared, approved and implemented. The site is not subject to special hydrologic hazards. Impacts associated with hydrology and water quality are less than significant.

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increased Impact
X. LAND USE PLANNING				
Would the project:				
a. Physically divide an established community?				X
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

VISTA GRANDE

Discussion of Checklist Answers

a. The project site is located on campus, and would not physically divide an established community. There is no impact.

b. The project site is not located within an official designation in the *Cal Poly Master Plan and Final EIR*. It is located adjacent to existing residential areas, and proximate to the Performing Arts Center. As noted in the Support Activities and Services Element of the Master Plan, support services must offer options that are responsive to different needs and interests of sub-groups among students, faculty, staff and visitors. Any significant change in the composition of the student population needs to be accompanied by a commensurate increase and/or adjustment in the nature of services provided. These may include service availability during summers, evenings and weekends as more classes and other learning opportunities are scheduled during those times. The Master Plan also notes that services need to be offered in a variety of forms, including food service options and meal plans to accommodate a range of budgets and diets.

The project would result in the demolition and re-construction of the Vista Grande Dining Facility to better serve the campus. The proposed project would be constructed on the existing Cal Poly San Luis Obispo campus in the same location as the existing Vista Grande dining facility, and would not be located immediately adjacent to City of San Luis Obispo residential and commercial retail land uses. As part of the CSU system, the proposed project would not be subject to City of San Luis Obispo General Plan or municipal land use regulations (City of San Luis Obispo 2010). Impacts would be less than significant.

c. There are no HCPs or NCCPs which cover the project site. There is no impact.

Mitigation Measures

None required.

Conclusion

There would be no adverse land use planning impacts as a result of the project.

CULINARY SUPPORT CENTER

Discussion of Checklist Answers

a. The project site is located on campus, and would not physically divide an established community. The project consists of the expansion of the existing Corporation Warehouse, and would provide a Culinary Support Center to serve campus dining facilities. There is no impact.

b. The project site is designated "Public Facilities and Utilities" as delineated in the 2001 *Cal Poly Master Plan and Final EIR* (Cal Poly 2001). Public facilities and utilities include the physical facilities and infrastructure required to support campus operations. The Master Plan notes that the basic facilities that support campus operations should be relocated to allow expansion of the campus instructional core, including Facility Services. The Support Activities and Services Element of the Master Plan notes that institutional support activities, such as warehousing, require relatively large amounts of land and do not need to be within a 10-minute walking distance of the campus core. As such, the proposed project would not conflict with current land use designations as identified in the Cal Poly Master Plan and Environmental Impact Report or Campus Land Use and Design Guidelines. As shown in the University's *Campus Land Use and Design Guidelines*, the project site is located within zone SP-3. This zone is reserved for the Tech Park building and future expansion, as well as compatible uses such as additional research facilities and offices. The adjacent H-1 parking lot is considered a temporary use and may be replaced, in whole or in part, by new buildings. However, parking adequate to support all new uses, especially those intended to attract and support private partners to the campus, shall be provided. No new permanent building shall be developed prior preparation of a specific plan for the zone including the preparation of an analysis of drainage and utility capacities, and a parking/traffic/circulation evaluation. All buildings, temporary or permanent shall be visually compatible with the Tech Park building and complementary to its landscaping treatment. Existing storage facilities, including the Corporation Warehouse, may be moved to other acceptable locations farther from the campus core as this zone fills out. The project would not constitute a new permanent building, as it would be an expansion of the existing Corporation Warehouse, to accommodate the relocation of the Culinary Support Center from the campus core, consistent with the noted guidelines.

   The proposed project would be constructed on the existing Cal Poly San Luis Obispo campus within a currently developed area, and would not be located immediately adjacent to City of San Luis Obispo residential and commercial retail land uses. As part of the CSU system, the proposed project would not be subject to City of San Luis Obispo General Plan or municipal land use regulations (City of San Luis Obispo 2010). Impacts would be less than significant.

c. There are no HCPs or NCCPs which cover the project site. There is no impact.

Mitigation Measures

None required.

Conclusion

There would be no adverse land use planning impacts as a result of the project.

Issues	Potentially Significant New or Increased Impact	Less than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increased Impact
XI. MINERAL RESOURCES **Would the project:**				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

Discussion of Checklist Answers

a-b. There are no known mineral resources located on both project sites. There is no impact.

Mitigation Measures

None required.

Conclusions

There would be no impact to mineral resources as a result of the project.

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increase d Impact
XII. NOISE **Would the project result in:**				
a. 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?			X	
b. Exposure of persons to or generation of excessive groundbourne vibration or groundbourne noise levels?			X	
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increase d Impact
e. 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?				X
f. 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?				X

VISTA GRANDE

Discussion of Checklist Answers

a-d. The existing ambient noise environment includes roadway traffic along Grand Avenue and vehicle noise associated with operation of the parking lot and parking garage on the west side of Grand Avenue. Based on noise measurements conducted for the Student Housing South project (to be located on Grand Avenue near Grand Avenue and Slack Street), the sound levels along the roadway range from 56 to 65 decibels (hourly). The community noise level was calculated to be 67 decibels along Grand Avenue (Cal Poly 2014). The existing dining facility generates noise as a result of truck deliveries in the rear of the building, and ambient noise generated by visitors of the facility. The nearest sensitive receptors include on-campus residential facilities and outdoor use areas adjacent to the existing dining facility. The nearest off-campus sensitive receptors include residential areas and school facilities approximately 0.25 mile to the south.

The project will generate both construction-related and operational noise. Each is addressed in the following paragraphs.

Construction-related Noise. Construction-related noise is a short-term, periodic, and temporary impact of the project. Earthmoving, materials handling, stationary equipment, and construction vehicles generate noise during clearing, excavation, grading, structure, and utility construction. Typical construction equipment noise levels are provided in Table 7~~6~~.

Table 7. Typical Construction Equipment Noise Levels

Type of Equipment	Maximum Level, dB (50 ft)
Scrapers	88
Bulldozers	87
Backhoe	85
Pneumatic Tools	85

Source: Student Housing South EIR 2014

Actual noise levels at receiving site such as residences will vary based on the type and volume of equipment present and operating on the site at any one time. During construction activity, noise would potentially impact sensitive land uses, including schools and residences, in the vicinity. Construction noise will be temporary, restricted to daylight hours, and further conditioned by the application of Master Plan mitigation identified below. The project is not expected to require pile drivers, or other atypical equipment, which would increase potential for vibration or noise above typical levels. Impacts associated with construction noise are therefore considered less than significant.

<u>*Operation-related Noise.*</u> Once occupied, the site will generate noise similar to existing conditions, including smaller deliver vans and trucks, and student voices. Impacts are therefore considered less than significant.

e-f. The proposed project site is not located within an airport land use plan, and is not located within 2 miles of a public or private airstrip. The closest airport is the San Luis Obispo County Regional Airport, located approximately 4 miles from the project site. Therefore, noise associated with airports would be less than significant.

Mitigation

To ensure construction noise impacts are reduced to a level that is less than significant, MM N-1 is provided in accordance with the *Cal Poly Master Plan and Final EIR* (Cal Poly 2001):

MM N-1: Cal Poly shall apply the following during construction:

Cal Poly Standard Requirements

A. The requirements of the Article are in addition to those of Article 4.02 of the Contract General Conditions.
B. Maximum noise levels within 1,000 feet of any classroom, laboratory, residence, business, adjacent buildings, or other populated area; noise levels for trenchers, pavers, graders and trucks shall not exceed 90 dBA at 50 feet as measured under the noisiest operating conditions. For all other equipment, noise levels shall not exceed 85 dBA at 50 feet.
C. Equipment: equip jackhammers with exhaust mufflers and steel muffling sleeves. Air compressors should be of a quiet type such as a "whisperized" compressor. Compressor hoods shall be closed while equipment is in operation. Use electrically powered rather than gasoline or diesel powered forklifts. Provide portable noise barriers around jack hammering, and barriers constructed of 3/4-inch plywood lined with 1-inch thick fiberglass on the work side.
D. Operations: keep noisy equipment as far as possible from noise-sensitive site boundaries. Machines should not be left idling. Use electric power in lieu of internal combustion engine power wherever possible. Maintain equipment properly to reduce noise from excessive vibration, faulty mufflers, or other sources. All engines shall have properly functioning mufflers.
E. Scheduling: schedule noisy operations so as to minimize their duration at any given location, and to minimize disruption to the adjoining users. Notify the Trustees and the Architect in advance of performing work creating unusual noise and schedule such work at times mutually agreeable.
F. Do not play radios, tape recorders, televisions, and other similar items at construction site.
G. When work occurs in or near occupied buildings, the Contractor is cautioned to keep noise associated with any activities to a minimum. If excessively noisy operations that disrupt academic activities are anticipated, they must be scheduled after normal work hours.
H. All work in the area of the residence halls will be restricted to 10:00 a.m. to 10:00 p.m., seven days per week, throughout the year. No work will be allowed in the residence hall areas during the finals week. University reserves the right to stop construction work, including but not limited to noisy work, during the following events: Spring and Winter Commencement, Open House, Finals Week, residence hall move-in, or at other times that may be identified by the University. University reserves the right to stop noisy work at any time when said work disrupts classes or other planned events.

In addition to these standard measures, the following measures are recommended:

- A haul route plan shall be prepared for review and approval by the University which designates hall routes as far as possible from sensitive receptors.
- Stockpiling and vehicle staging areas shall be located as far as practical from occupied structures.
- Whenever practical, the noisiest construction operations shall be scheduled to occur together in the construction program to avoid continuous periods of noise generation. Scheduling of noisier construction activities shall also take advantage of summer sessions and other times when classes are not in session.
- Project construction activities that generate noise in excess of 60 dB at the project site boundary shall be limited to the hours of 7 a.m. to 6 p.m.

Pile Driver Use. If possible, the use of pile drivers shall be minimized in construction. Alternative techniques that produce less noise, such as drilled or bored piles, shall be considered.

Conclusion

Impacts associated with noise are considered less than significant.

<u>CULINARY SUPPORT CENTER</u>

Discussion of Checklist Answers

a-d. The proposed project is located in the extended campus, outside of the central campus core, and no sensitive receptors are located proximate to the proposed project site. Construction of the project would result in construction-related noise (refer to Table 7~~6~~ above). No blasting, pile driving, or other special construction methods associated with high noise or groundborne vibrations are anticipated during project construction. Therefore, based on the location of the project site, it is anticipated that noise and vibration generated during construction or operation of the proposed project would not affect sensitive receptors. During operation, ambient noise levels may increase due to additional truck deliveries; however, these trucks will be re-directed from the campus core, which may result in a beneficial effect due to the reduction of noise within the campus core. Impacts are therefore considered less than significant.

e-f. The proposed project site is not located within an airport land use plan, and is not located within 2 miles of a public or private airstrip. The closest airport is the San Luis Obispo County Regional Airport, located approximately 4.5 miles from the project site. Therefore, noise associated with airports would be less than significant.

Mitigation

None required.

Conclusion

Impacts associated with noise are considered less than significant.

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increased Impact
XIII. POPULATION AND HOUSING				
Would the project result in:				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

Discussion of Checklist Answers

a. The project will serve an existing student population, and will not result in extension of infrastructure to new locations. The project will not, therefore, induce substantial population growth. Impacts are considered less than significant.

b-c. The project will not displace housing or populations. There is no impact.

Mitigation Measures

None required.

Conclusion

Impacts to population and housing are considered less than significant.

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increased Impact
XIV. PUBLIC SERVICES				
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?			X	
ii. Police protection?			X	
iii. Schools?				X
iv. Parks?				X
v. Other Public Facilities?				X

Discussion of Checklist Answers

a-i. The campus is served by the California Department of Forestry and Fire Protection (CAL FIRE) for emergency response and fire suppression. The project is designed to meet or exceed applicable fire code requirements, including sprinklers. The implementation of the project would not result in additional campus structures requiring protection. In addition, by upgrading the facility and complying with existing fire codes, the University minimizes risk to the extent feasible. Impacts are considered less than significant.

a-ii. The campus is served by University police. The University police may call upon City and County of San Luis Obispo law enforcement for backup as needed. The project would not alter enrollment; therefore, the total population served by University police would be unchanged. No new or physically altered police facilities are anticipated as a result of this project; therefore, no environmental impacts associated with construction of new facilities are expected. Impacts are considered less than significant.

a-iii. The project would not increase populations of school-age children, or otherwise increase potential demand for school facilities. There is no impact.

a-iv. Students will continue to be served by recreational facilities on campus. The project would not increase student enrollment or population in the city, necessitating additional park space. There is no impact.

a-v. The project would not adversely impact other governmental facilities such as libraries or government functions. There is no impact.

Mitigation Measures

None required.

Conclusion

Impacts to public services are considered less than significant.

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increased Impact
XV. RECREATION				
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

Discussion of Checklist Answers

a-b. Existing athletic, recreational, and open space areas are provided on campus for use by students and the campus community. The project would not increase use of city parks or recreational facilities or result in substantial physical deterioration of city facilities. The project would not result in construction of recreational facilities which may adversely affect the environment. The University actively manages recreational facilities and programs on campus; major facilities proximate to the proposed project recently underwent substantive upgrades. The project would not increase enrollment and therefore would not result in additional impacts to existing campus recreational facilities. Impacts are less than significant.

Mitigation Measures

None required.

Conclusion

Impacts to recreation are considered less than significant.

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increased Impact
XVI. TRANSPORTATION/TRAFFIC **Would the proposal:**				
a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			X	
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?			X	
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e. Result in inadequate emergency access?			X	
f. Result in inadequate parking capacity?			X	
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			X	

REGULATORY SETTING

The project would add traffic to transportation facilities operated by the CSU system, California Department of Transportation (Caltrans), and the City of San Luis Obispo. Excerpted standards relevant to the proposed project and study locations are summarized below.

California State University

The CSU *Transportation Impact Study Manual* notes the following thresholds of significance for off-site transportation impacts:

- A roadway segment or intersection operates at LOS D or better under a no project scenario and the
- addition of project trips causes overall traffic operations on the facility to operate unacceptably (LOS E or F).
- A roadway segment or intersection operates at LOS E or LOS F under a no project scenario and the project adds both 10 or more peak hour trips and five seconds or more of peak hour delay, during the same peak hour. If an intersection operates at a very poor LOS F (control delay of 120 seconds or more), the threshold of significance shall be an increase in v/c ratio of 0.02 or more.

Caltrans

Caltrans' *Guide for the Preparation of Traffic Impact Studies* notes that "Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities…If an existing State highway facility is operating at less than the appropriate target LOS, the existing measure of effectiveness should be maintained."

City of San Luis Obispo

The City's *Multimodal Transportation Impact Study Guidelines* specify the following standards for signalized intersections:

- Project traffic causes an intersection operating at LOS A, B, C, or D to degrade to LOS E or F for bicycles or autos or causes an intersection operating at LOS A, B, or C to degrade to LOS D, E, or F for pedestrians; or
- Project traffic increases auto volume-to-capacity ratio by 0.01 or more at an intersection currently operating at LOS E or F; or
- Project traffic degrades bicycle or pedestrian LOS at an intersection currently operating at an unacceptable level (LOS E or F for bicycles, LOS D, E, or F for pedestrians) or
- Project causes or exacerbates 95th percentile turning movement queues exceeding available turn pocket capacity.

The City's *Multimodal Transportation Impact Study Guidelines* allow discretion allow discretion when identifying impacts to non-auto modes based on whether the impacts are contextually significant.

<u>VISTA GRANDE</u>

Background

The project includes demolition of the existing Vista Grande Dining Facility, and reconstruction in place. The project does not include additional parking, and is not anticipated to result in increased trips, as the dining facility would continue to serve similar populations of diners and Corporation staff. Therefore, a project-specific transportation study has not been completed for this component of the project.

Discussion of Checklist Answers

a, b. The existing dining facility is primarily accessed by pedestrians and bicyclists. Redevelopment of the site would not result in increased traffic, as the facility would not result in an increase in campus enrollment or residential units, and the facility would continue to provide dining options for on-campus residents, students, and visitors. These on-campus dining facilities are not typically destinations, and primary trips are generated by students living on campus and/or attending class, and visitors to the campus or Performing Arts Center. Delivery trucks would continue to access the loading dock located on Deer Road, and truck deliveries are not anticipated to increase during operation. Therefore, the project is not anticipated to result in increased traffic or congestion and no significant impact would occur.

c. The proposed structure would not be located within a Safety Area, as identified in the San Luis Obispo County Airport Land Use Plan (San Luis Obispo County 2005). The structure would be 57 feet in height, and would not include any features that may result in an air traffic hazard. No significant impact would occur.

d. The project does not include any design features that may result in a hazard; the facility would continue to be accessed similar to existing conditions. During construction, standard measures would be implemented to ensure pedestrian and bicycle safety near the project site. No significant impact would occur.

e. Emergency responders would continue to access the project site from Grand Avenue and Deer Road. Construction and staging would not block or otherwise interfere with emergency response to the site or surrounding areas. Therefore, no significant impact would occur.

f. The project does not require parking. The facility would continue to be accessed by students and visitors to the University; parking would continue to be provided within campus parking lots including the parking garage and residential parking areas in the vicinity. The facility is primarily accessed by visitors on foot or bicycle. Therefore, no significant impact would occur.

g. The proposed project is located near an existing transit stop, and would not affect the existing bike lane and bicycle racks associated with the adjacent student residential area. The project would provide on-campus services and facilities near an existing student residential area, and would be accessible via sidewalks, bicycle lanes, and transit; therefore, the project would not conflict with any adopted policies, plans, or programs supporting alternative transportation.

Mitigation Measures

To ensure traffic safety impacts are less than significant, MM TR-1 is provided in accordance with the *Cal Poly Master Plan and Final EIR* (Cal Poly 2001):

MM TR-1: Circulation Plan. Where vehicle and pedestrian routes and residential areas conflict with construction activities, a circulation plan will be developed, which will include warning signs and detours, as well as efforts to minimize noise in residential areas.

Conclusion

Impacts associated with transportation and traffic are considered less than significant.

CULINARY SUPPORT CENTER

Background

Information regarding transportation and traffic was derived from the Cal Poly Vista Grande Transportation Analysis (Central Coast Transportation Consulting 2015). The Transportation Analysis identifies existing and cumulative conditions, and analyzes the project's impact on affected intersections under existing plus project and cumulative plus project conditions. The results of the report are incorporated into the analysis below.

Discussion of Checklist Answers

a, b. The existing Corporation Warehouse receives approximately 10 small delivery vehicles per day, and 6 freight trailer deliveries. Building 19 (the existing Culinary Support Center) receives 12 to 22 truck deliveries per day during the week, including food, paper, and freight deliveries. Truck deliveries also occur on the weekends, including 3 trips on Saturday and 2 trips on Sunday. These trips include freight trailers, bobtail trucks, auto vans, and industrial vans. Periodically, additional deliveries include tractor trailers, freight and pick-up truck deliveries, resulting in approximately 90 trips per week (round-trip). Materials and supplies are then dispersed throughout the campus by smaller vans and trucks (approximately 6 round-trips per day). The Culinary Support Center within the campus core receives dining facility-related deliveries directly; this function would be relocated to the Corporation Warehouse upon project implementation. It is anticipated that approximately 90 weekly truck deliveries would be diverted from the campus core to the Corporation Warehouse as a result of the project.

Based on the Transportation Analysis, off-site intersection levels of service is LOS C at the Santa Rosa Street (Highway 1)/Highland Drive intersection during the AM and PM peak hours, and LOS D at the Santa Rosa Street (Highway 1)/Foothill Boulevard intersection during the AM and PM peak hours (refer to Table 8~~7~~ below). This is acceptable under CSU and City standards. The Santa Rosa Street/Foothill Boulevard operates below the Caltrans desired LOS C service level.

Table 8. Level of Service Existing Conditions

Intersection	Peak Hour	V/C[1]	Delay[2]	LOS
Santa Rosa Street (Highway 1)/Highland Drive	AM PM	0.88 0.84	25.3 25.9	C C
Santa Rosa Street (Highway 1)/Foothill Boulevard	AM PM	1.00 0.83	37.8 43.3	D D

Source: Central Coast Transportation Consulting 2015

[1] Volume to capacity ratio reported for worst movement.

[2] HCM 2010 average control delay in seconds per vehicle.

The following assumptions were applied in developing a trip generation estimate for the project:

- As a worst-case scenario, 22 trucks were assumed to deliver to the site on a single day. This corresponds to 44 one-way truck trips. Trip generation is shown in Table 9~~8~~ on the following page.
- On weekdays, 40% of the trucks were assumed to arrive and depart during the AM and 40% during the PM peak hours with the remaining 20% arriving outside of the peak hours. This represents a conservative analysis, since deliveries would typically be spread more evenly throughout the day.
- Because trucks typically accelerate, travel, and maneuver more slowly than passenger cars the number of trips has been expressed in terms of passenger car equivalents (PCEs). Each truck was assumed to be equal to 2.5 passenger cars, per Exhibit 11-10 of the 2010 Highway Capacity Manual (HCM) for rolling terrain. The number of passenger car equivalent trips was added to the roadway network to show the impact of the project.

Table 9. Project Trip Generation

Land Use	Number of Trips[1]						
	Daily	AM In	AM Out	AM Total	PM In	PM Out	PM Total
Campus Dining Warehouse	44	9	9	18	9	9	18
Passenger Car Equivalency[2]	110	23	23	46	23	23	46

Source: Central Coast Transportation Consulting 2015

[1] Deliveries assumed 40% of daily trips occur during the AM and 40% during the PM peak hour.

[2] Converts truck trips to passenger car equivalent using a factor of 2.5 per exhibit 11-10 of the 2010 HCM.

The analysis assumed that existing truck delivery trips would be diverted to Highland Drive; therefore, conservatively assumes that all of the delivery trucks would access the University from the southeast on Santa Rosa Street and pass through both study intersections before reaching the site. Upon exiting the site all trucks were assumed to return along the Santa Rosa Street corridor towards U.S. 101.

As shown in Table 10~~9~~, below, the addition of project traffic does not change the worst approach volume to capacity (V/C) ratio and increases delay by less than one second at both study intersections. This is a less-than-significant impact under CSU, City of San Luis Obispo, and Caltrans standards.

Table 10. Existing and Existing Plus Project Intersection Levels of Service

Intersection	Peak Hour	Existing			Existing Plus Project			
		V/C[1]	Delay[2]	LOS	V/C[1]	V/C Delta	Delay[2]	LOS
Santa Rosa Street (Highway 1)/Highland Drive	AM	0.88	25.3	C	0.88	0.00	25.6	C
	PM	0.84	25.9	C	0.84	0.00	26.7	C
Santa Rosa Street (Highway 1)/Foothill Boulevard	AM	1.00	38.9	D	1.00	0.00	39.5	D
	PM	0.83	35.3	D	0.84	0.01	35.8	D

Source: Central Coast Transportation Consulting 2015

[1] Volume to capacity ratio reported for the worst movement.

[2] HCM 2010 average control delay in sections per vehicle.

Table 11~~10~~ on the following page, summarizes the queues for the study locations under Existing and Existing Plus Project conditions. While CSU and Caltrans standards do not address queues, City standards do; therefore, this information is presented below.

Table 11. Existing and Existing Plus Project Queues

Intersection	Movement	Storage Length (feet)	Peak Hour	95th Percentile Queues (feet)[1]	
				Existing	Existing Plus Project
Santa Rosa Street (Highway 1)/Highland Drive	WBL	70	AM PM	25 **138**	57 **152**
	SBL	260	AM PM	#159 70	#159 70
Santa Rosa Street (Highway 1)/Foothill Boulevard	EBL	200	AM PM	189 136	189 136
	WBL	125	AM PM	72 **143**	72 **143**
	NBL	250	AM PM	93 145	93 145
	SBL	350	AM PM	80 169	80 169

Source: Central Coast Transportation Consulting 2015

[1] Queue length that would not be exceeded 95% of the time. Queues are reported only for turning movements where queues exceed storage capacity. Movements with queues exceeding storage are highlighted with bold numbers.

#. 95th percentile volume exceeds capacity, queue may be longer.

The intersection of Santa Rosa Street/Highland Drive operates with a 95th percentile queue length that exceeds the storage length for the westbound left movement during the PM peak hour both with and without the project. The westbound approach is controlled by CSU, which does not have a significance threshold for queuing, so this is a less-than-significant impact. The intersection of Santa Rosa Street/Foothill Boulevard operates with a 95th percentile queue length that exceeds the storage length for the westbound left movement during the PM peak hour both with and without the project. The project would not add traffic to this movement, and the queue length would not change with the addition of project traffic to the intersection. This is a less-than-significant impact.

Cumulative conditions reflect build-out of the City of San Luis Obispo's General Plan. Cumulative traffic forecasts were obtained from the Cal Poly Student Housing South Transportation Impact Analysis (Fehr & Peers November 2013), which is incorporated into the Student Housing South Final EIR, and applies the City's Transportation Demand Model to forecast future travel. Trips from the Student Housing South project have been included in the Cumulative forecasts. No roadway network improvements were assumed to be in place under Cumulative conditions, so the network is the same as Existing conditions. Table 12~~11~~, on the following page, summarizes vehicular LOS under Cumulative and Cumulative Plus Project conditions.

The intersection of Santa Rosa Street/Highland Drive would operate at LOS D during the PM peak hour both with and without the project. This is acceptable under CSU and City standards, but below Caltrans' desired LOS C operations. The addition of project traffic does not change the service level and changes delay by less than one second. This is a less-than-significant impact. The intersection of Santa Rosa Street/Foothill Boulevard would operate at LOS E under Cumulative and Cumulative Plus Project conditions. The addition of project traffic does not change the V/C ratio and increases delay by less than two seconds. This is a less-than-significant impact.

Table 12. Cumulative and Cumulative Plus Project Intersection Levels of Service

Intersection	Peak Hour	Cumulative			Cumulative Plus Project			
		V/C[1]	Delay[2]	LOS	V/C[1]	V/C Delta	Delay[2]	LOS
Santa Rosa Street (Highway 1)/Highland Drive	AM	1.15	33.2	C	1.15	0.00	34.8	C
	PM	0.92	37.6	D	0.92	0.00	37.5	D
Santa Rosa Street (Highway 1)/Foothill Boulevard	AM	**1.15**	**67.3**	**E**	**1.15**	**0.00**	**68.7**	**E**
	PM	**1.03**	**61.7**	**E**	**1.03**	**0.00**	**63.0**	**E**

Source: Central Coast Transportation Consulting 2015

[1] Volume to capacity ratio reported for the worst movement.

[2] HCM 2010 average control delay in sections per vehicle.

Table 13~~12~~, below, summarizes the queues for the study locations under Cumulative and Cumulative Plus Project conditions. While CSU and Caltrans standards do not address queues, City standards do; therefore, this information is presented below.

Table 13. Cumulative and Cumulative Plus Project Queues

Intersection	Movement	Storage Length (feet)	Peak Hour	95th Percentile Queues (feet)[1]	
				Existing	Existing Plus Project
Santa Rosa Street (Highway 1)/Highland Drive	WBL	70	AM	76	91
			PM	**134**	**161**
	SBL	260	AM	**#344**	**#344**
			PM	143	143
Santa Rosa Street (Highway 1)/Foothill Boulevard	EBL	200	AM	**#334**	**#334**
			PM	**#298**	**#298**
	WBL	125	AM	**#167**	**#167**
			PM	**#268**	**#268**
	NBL	250	AM	#121	#121
			PM	#231	#231
	SBL	350	AM	#263	#263
			PM	#219	#219

Source: Central Coast Transportation Consulting 2015

[1] Queue length that would not be exceeded 95% of the time. Queues are reported only for turning movements where queues exceed storage capacity. Movements with queues exceeding storage are highlighted with bold numbers.

#. 95th percentile volume exceeds capacity, queue may be longer.

The intersection of Santa Rosa Street/Highland Drive operates with a 95th percentile queue length that exceeds the storage length for the westbound left and the southbound left movements. No queuing issues are reported for the City-controlled west (eastbound) leg of the intersection, and the westbound approach is controlled by the CSU, which does not have a significance threshold for queueing; therefore, this is a less-than-significant impact. The intersection of Santa Rosa Street/Foothill Boulevard operates with a 95th percentile queue length that exceeds the storage length for the eastbound left and westbound left movements during the AM and PM peak hours. The project would not add traffic to this movement, and the queue length would not change with the addition of project traffic to the intersection. This is a less-than-significant impact.

c. The proposed structure would not be located within a Safety Area, as identified in the San Luis Obispo County Airport Land Use Plan (San Luis Obispo County 2005). The structure would be 31 feet in height, and would not include any features that may result in an air traffic hazard. No significant impact would occur.

d. The project does not include any design features that may result in a hazard; the facility would continue to be accessed similar to existing conditions. No significant impact would occur.

e. Emergency responders would continue to access the project site from Mt. Bishop Road. Construction and staging would not block or otherwise interfere with emergency response to the site or surrounding areas. Therefore, no significant impact would occur.

f. Parking areas would continue to be provided on-site and within adjacent parking lots (H-1). Truck bays would remain in place, as well as on-site parking for on-campus delivery vehicles. Therefore, no significant impact would occur.

g. Based on the Transportation Analysis, the pedestrian and bicycle operating conditions on Santa Rosa Street/Highland Drive and Santa Rosa Street/Foothill Boulevard range from LOS A to C, which is within City standards. Both study intersections operate acceptably at LOS C or better for pedestrians and bicycles with the addition of project traffic under Existing Plus Project conditions. Under Cumulative conditions, the intersection of Santa Rosa Street/Highland Drive would operate at LOS D for pedestrians for the northbound and southbound directions both with and without the project. This is below the City's desired service level for pedestrians. The addition of project traffic increases the pedestrian LOS score by .02 or less and would not result in a noticeable degradation in service levels for pedestrians. This is a contextually insignificant change (refer to Appendix B, Transportation Analysis). In addition, the project would not increase demand for multi-modal transportation. Therefore, the project would not conflict with any adopted policies, plans, or programs supporting alternative transportation.

Mitigation Measures

None required.

Conclusion

Impacts associated with transportation and traffic are considered less than significant.

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increase d Impact
XVII. UTILITIES AND SERVICE SYSTEMS **Would the project:**				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could have significant environmental effects?			X	
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements necessary?			X	
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g. Comply with federal, state, and local statutes and regulations related to solid waste?			X	

Discussion of Checklist Answers

a, b, e. The City provides wastewater collection and treatment services to the University through a contractual agreement, which provides Cal Poly a share of the City's sewer collection and treatment infrastructure. The University is responsible for providing and maintaining collections infrastructure on campus. Campus wastewater is collected via internal infrastructure which terminates at a main in California Boulevard. The City meters flow at the main, where campus infrastructure ties into City lines. The City's wastewater treatment plant is located at Prado Road. Existing plant capacity totals 5.1 million gallons per day (mgd). Current citywide flows, including Cal Poly, total approximately 4.2 mgd. Cal Poly's current share totals approximately 0.471 mgd, calculated as a monthly average. Cal Poly's average daily flow, calculated annually, is currently 0.251 mgd; peak flow months total 0.313 mgd (Cal Poly 2014).

Vista Grande and the Sage Restaurant generated approximately 5,596,833 gallons of wastewater annually (averaged over the past 11 fiscal years), which includes restrooms and kitchen facilities. It is anticipated that wastewater generation would not increase upon construction of the new Vista Grande dining facility; however, additional wastewater would be generated at the proposed Culinary Support Center. Building 19 currently generates approximately 6,409,000 gallons of wastewater annually related to the preparation of campus meals; upon implementation of the project, the proposed Culinary Support Center would generate approximately 19,448,000 gallons of wastewater annually. Therefore, the relocation of the Culinary Support Facilities from the campus core to the Corporation Warehouse would result in the generation of an additional approximately 13,039,000 gallons of wastewater per year, or approximately 0.0357 mgd.

Table 14. Existing + Project Wastewater Demand

Use	Total (mgd)
Current Disposal	0.313
Approved Projects	0.044
Project Demand	0.036
Total Generation	**0.393**
Total Current Share	**0.471**
Surplus	***0.078***

Source: Cal Poly 2014, 2015

As shown in Table 14~~13~~ above, there is sufficient surplus capacity within Cal Poly's current share to accommodate the project. The project will not result, in an exceedance of treatment requirements at the City's plant. Construction wash-water and other potential sources of wastewater will be confined to the site and will not be disposed of into the community wastewater system. Portable toilets will be installed and maintained as needed during construction. Impacts are considered less than significant.

Based on preliminary review, an upgrade to the sewage collection system at Building 82 would be required, including removal and replacement of approximately 400 linear feet of an existing sewer line located beneath the parking area east of Building 82 (proposed Culinary Support Center). These effects are addressed within each resource section.

c. *Vista Grande*. Stormwater on-site currently flows down-gradient towards Grand Avenue. Development of the site would include project-specific stormwater improvements, which would continue to direct flows towards the existing drainage system in Grand Avenue. Impacts are as described for the entire project in each appropriate resource section.

Culinary Support Center. Stormwater on-site currently flows across the site towards Mt. Bishop Road. Development of the site would include project-specific stormwater improvements, including redesign of the existing stormwater management system (rock-lined swale, culverts), all located within paved and developed areas. Impacts are as described for the entire project in each appropriate resource section.

d. The University obtains water from both surface and groundwater sources. Cal Poly owns 33.71% capacity in Whale Rock Reservoir, located east of the town of Cayucos. The 33.71% ownership translates into approximately 13,136 acre feet. The City, which also has ownership in the reservoir, has modeled safe annual yields (SAY) for water users. The SAY for Cal Poly's share was recently estimated at 1,306 afy in December 2013. Average total Cal Poly demand for the last 3 years on record is 1,071 afy. Agricultural and landscape irrigation demand is a significant portion of the total; average agricultural demand for the same period was 501 acre feet (47% of total) and annual water demand for irrigation averaged 280 acre feet (26%). Approximately 289 AFY (27%) was used for indoor or domestic purposes during that period. The current Cal Poly water surplus for Whale Rock Reservoir averages 235 AFY. When groundwater supplies are included, as discussed below, the current Cal Poly water surplus averages 482 AFY (Cal Poly 2014).

According to the University's *2015 Drought Response Plan* (Cal Poly 2015), Cal Poly has been an excellent steward of its water resources, having implemented hundreds of conservation measures over the years. Total usage since 2003 has remained nearly flat despite a 60% growth in building square footage and 100% growth of on-campus residency over the same period. Cal Poly still maintains nearly 6 years of supply in Whale Rock Reservoir. Water from Whale Rock Reservoir is treated at the Stenner Canyon water treatment facility. Peak treatment capacity is 16 mgd. Water treated at the plant comes from Whale Rock Reservoir, the Nacimiento Water Project, or the Salinas Reservoir. Cal Poly is entitled to 1,000 AFY in treatment capacity at the plant. Cal Poly's domestic demand from the plant has averaged 544 AFY in the last 3 years (551 in 2010, 552 in 2011, and 529 in 2012), or 54.4% of its treatment capacity (Cal Poly 2014). Projects under construction which are not represented in the existing demand are as follows:

- Wine and Viticulture Center (22,000 square feet of production/lab/office space in planning) – consolidation of existing functions and (3) new staff
- Center for Science (completed in 2013) – (11) additional students, (0) additional staff
- Recreation Center (completed 2012) – minor increase in professional staff, mainly student staff

Renovation of the Center for Science is expected to yield significant improvements in water efficiency due to upgraded lab spaces, infrastructure, and fixtures. The Recreation Center renovation was likewise completed with significant water conservation features. The Wine and Viticulture Center consolidates existing operations on campus. Potential increases in enrollment and staff associated with these projects are included in estimates for baseline year 2015.

Operation of Vista Grande and Sage Restaurant required approximately 6,584,510 gallons of water annually (20.3 afy), averaged over the past 11 fiscal years. The project includes removal of existing landscaping, and based on project design, less landscaped area would be provided. Drought-tolerant species would be planted within planter boxes connected to a controlled irrigation system. It can be reasonably expected that establishment of new planter boxes may require up to 1.4 acre-feet of water during the first year of establishment, and water demand would be reduced as the plants are established.

It is anticipated that average water demand would not increase upon construction and operation of the new dining facility; however, additional water demand would be generated by the proposed Culinary Support Center. Building 19 currently requires 7,540,000 gallons of water per year (23 afy) for the preparation of campus meals. The project would require 22,880,000 gallons of water per year (70 afy), which results in an additional demand of 15,340,000 gallons per year (47 afy) during operation. The safe annual yield (1,306 afy) accounts for multiple-year drought conditions. Total project demand, including existing and approved project demand, would not exceed the safe annual yield (refer to Table 15~~14~~ below). Therefore, impacts to water supply are considered less than significant; there is adequate existing supply to meet project demand.

Table 15. Existing + Project Water Demand

Use	Total Water Usage (afy)
Existing Domestic (3-year average)	289
Approved Domestic Projects, Enrollment, Staff, and Faculty	25.22
Existing Non-Potable (Agriculture, Irrigation)	782
Approved Non-Potable Projects	7.7
Proposed Project	47
Total Demand	**1,151**
Whale Rock Reservoir Supply	1,306
Groundwater Supply	247
Total Supply	**1,553**
Surplus	***402***

Source: Cal Poly 2014, 2015

The project is required to provide sufficient water flow for fire protection. Based on preliminary analysis, the University has adequate "fire flow" at each project site (Joel Neel, Director of Facilities Planning & Capital Projects, pers. comm. 2015). Based on the analysis above, implementation of the project would not result in any significant impacts related to water demand.

f, g. Cal Poly operates an integrated waste management program that includes source use reduction, recycling, composting of food waste, greenwaste, and manure, resale of scrap metal and surplus equipment, and zero waste event catering. Cal Poly contracts with San Luis Garbage for collection of solid waste and recycling. Recycling containers are provided to faculty, staff, and students by Facility Services, and collection is performed by Custodial Services and the campus Recycling Coordinator. Cal Poly has a 50% diversion goal for solid waste. The University has met or exceeded that goal since 2003, with almost 80% diversion achieved in 2010. Paper, cardboard, aluminum, glass and plastics are collected and sent to recycling facilities. Campus Dining sends food waste to a composting operation. The University also encourages recycling through its procurement policies: to the extent possible, all products must be recyclable or made from recycled materials. The University also requires contractors to divert as much waste as possible during construction projects. Recent development projects on campus have achieved construction diversion rates as high at 97%. Solid waste which is not diverted by the University is transported to the Cold Canyon Landfill. The Landfill is located approximately 7 miles from San Luis Obispo. The landfill serves private entities and municipalities throughout San Luis Obispo County. The landfill has recently expanded and now operates near 50% of permitted capacity (250,000 tons per year [tpy] of a 500,000 tpy capacity) (Cal Poly 2014).

Solid waste would be generated during site preparation, construction, and project occupancy. Waste generated during site preparation will include greenwaste, soil, and pavement. The University intends to reuse as much material as possible, including use on campus. Soil excavated on-site may be used on campus, in landfill operations, or be disposed of at an alternate location. The ultimate disposal methodology may have several impacts not previously disclosed in this document, including increased air quality impacts associated with hauling (the air quality modeling assumed soils would be disposed of at the landfill site). The proposed facility would be affixed with traditional trash and recycling service. The proposed project would be consistent with all state and local regulations regarding solid waste diversion, and at least 50% of the campus' solid waste is diverted to a licensed recycling facility, as noted above. Impacts would be less than significant. Maintaining the existing diversion rate would ensure compliance with Assembly Bill 75, which requires all large state facilities to divert at least 50% of solid waste from landfills. Therefore, a less-than-significant impact to solid waste policies and programs would occur.

Mitigation Measures

None required.

Conclusion

Impacts associated with utilities are considered less than significant; sufficient capacity exists to accommodate increased demand for services.

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife species population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, and the effects of probable future projects)			X	

Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

Discussion of Checklist Answers

a. As described throughout this document, the project may degrade the quality of environment, including air quality and traffic congestion. Mitigation provided in the document would reduce all impacts to a less than significant level. The project would not substantially reduce habitat or fish or wildlife populations. The project would not impact historic resources. The project consists of redevelopment of an existing surface parking lot with residential structures.

b. Impacts of the project can be mitigated to a less than significant level. Impacts are largely confined to the project itself, and would not lead to cumulatively considerable impacts.

c. As described throughout this document, the project may degrade the quality of environment, including air quality. Mitigation provided in the document would reduce all impacts to a less than significant level.

DETERMINATION

Pursuant to Sections 15152 and 15168 of the State CEQA Guidelines, this initial study has been prepared to evaluate the potential impacts of the proposed project.

On the basis of this initial evaluation:

____ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

_X_ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because of the mitigation measures described in the initial study. **A NEGATIVE DECLARATION** will be prepared.

____ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

____ I find that the proposed project **MAY** have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

____ I find that although the proposed project could have a significant effect on the environment, there **WILL NOT** be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project.

________________________________ ________________________

Name Date

CITATIONS

General

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Earth Systems Pacific. 2015a. Geotechnical Engineering Report Vista Grande Dining Facility Building 112 California Polytechnic State University San Luis Obispo, California. February 9, 2015.

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Hazards

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McKenna Environmental. 2015. Hazardous Materials Investigation Report. February 21, 2015.

State Water Resources Control Board. 2015. GeoTracker database. Available at: < http://geotracker.waterboards.ca.gov/ >. Accessed June 30, 2015.

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Utilities

California Polytechnic State University. 2015. 2015 Drought Response Plan. April 24, 2015.

LIST OF PREPARERS

Shawna Scott, Senior Planner, SWCA

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Jaimie Jones, Document QA/QC, SWCA

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APPENDIX A. AIR QUALITY TABLES

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Vista Grande

San Luis Obispo County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	7.00	1000sqft	0.16	7,000.00	0
Other Asphalt Surfaces	0.50	Acre	0.50	21,780.00	0
Fast Food Restaurant w/o Drive Thru	33.50	1000sqft	0.77	33,500.00	0
Convenience Market (24 Hour)	1.50	1000sqft	0.03	1,500.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 3.2 **Precipitation Freq (Days)** 44

Climate Zone 4 **Operational Year** 2018

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 641.35 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction period, approximately 2 years. Architectural coating will require 20 days of application.

Demolition -

Grading - Approximate acreage of disturbance.

Vehicle Trips - No new trips will be generated. Delivery truck trips are captured in the Culinary Support Center model output.

Construction Off-road Equipment Mitigation - Estimated use of tier 3 engines.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	200.00	402.00
tblConstructionPhase	NumDays	20.00	66.00
tblConstructionPhase	NumDays	4.00	25.00
tblConstructionPhase	NumDays	2.00	7.00
tblConstructionPhase	PhaseEndDate	5/29/2018	5/25/2018
tblConstructionPhase	PhaseEndDate	6/8/2018	5/14/2018
tblConstructionPhase	PhaseStartDate	5/2/2018	4/30/2018
tblConstructionPhase	PhaseStartDate	10/15/2016	10/17/2016
tblConstructionPhase	PhaseStartDate	9/10/2016	9/12/2016
tblConstructionPhase	PhaseStartDate	5/26/2018	5/1/2018
tblGrading	AcresOfGrading	9.38	1.50
tblGrading	AcresOfGrading	3.50	1.00
tblGrading	MaterialExported	0.00	2,000.00
tblGrading	MaterialImported	0.00	1,000.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	ST_TR	696.00	0.00

tblVehicleTrips	ST_TR	2.37	0.00
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	0.98	0.00
tblVehicleTrips	WD_TR	737.99	0.00
tblVehicleTrips	WD_TR	716.00	0.00
tblVehicleTrips	WD_TR	11.01	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.2360	1.9675	1.5324	2.0300e-003	0.1249	0.1158	0.2407	0.0508	0.1091	0.1599	0.0000	180.4495	180.4495	0.0376	0.0000	181.2380
2017	0.4125	2.6019	2.2229	3.4400e-003	0.0383	0.1608	0.1992	0.0103	0.1551	0.1654	0.0000	286.2259	286.2259	0.0520	0.0000	287.3175
2018	0.8691	0.8613	0.7812	1.2600e-003	0.0139	0.0508	0.0647	3.7400e-003	0.0490	0.0527	0.0000	104.2625	104.2625	0.0186	0.0000	104.6539
Total	**1.5176**	**5.4307**	**4.5365**	**6.7300e-003**	**0.1772**	**0.3274**	**0.5046**	**0.0649**	**0.3132**	**0.3780**	**0.0000**	**570.9378**	**570.9378**	**0.1082**	**0.0000**	**573.2094**

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					
2016	0.1630	1.4938	1.4503	2.0300e-003	0.0661	0.0868	0.1529	0.0255	0.0825	0.1080	0.0000	180.4493	180.4493	0.0376	0.0000	181.2378
2017	0.2857	1.8114	2.2747	3.4400e-003	0.0383	0.1154	0.1537	0.0103	0.1137	0.1240	0.0000	286.2256	286.2256	0.0520	0.0000	287.3172
2018	0.8287	0.6340	0.8145	1.2600e-003	0.0139	0.0387	0.0526	3.7400e-003	0.0381	0.0419	0.0000	104.2623	104.2623	0.0186	0.0000	104.6538
Total	**1.2774**	**3.9391**	**4.5395**	**6.7300e-003**	**0.1183**	**0.2408**	**0.3591**	**0.0396**	**0.2343**	**0.2739**	**0.0000**	**570.9372**	**570.9372**	**0.1082**	**0.0000**	**573.2088**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**15.83**	**27.47**	**-0.07**	**0.00**	**33.21**	**26.45**	**28.83**	**39.00**	**25.17**	**27.54**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3231	1.0000e-005	7.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3900e-003	1.3900e-003	0.0000	0.0000	1.4700e-003
Energy	0.0388	0.3527	0.2962	2.1200e-003		0.0268	0.0268		0.0268	0.0268	0.0000	763.3179	763.3179	0.0245	0.0106	767.1149
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	80.5671	0.0000	80.5671	4.7614	0.0000	180.5561
Water						0.0000	0.0000		0.0000	0.0000	3.6559	19.6462	23.3021	0.3764	9.0500e-003	34.0117
Total	**0.3619**	**0.3527**	**0.2970**	**2.1200e-003**	**0.0000**	**0.0268**	**0.0268**	**0.0000**	**0.0268**	**0.0268**	**84.2230**	**782.9655**	**867.1885**	**5.1623**	**0.0196**	**981.6842**

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	0.3044	1.0000e-005	7.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3900e-003	1.3900e-003	0.0000	0.0000	1.4700e-003
Energy	0.0388	0.3527	0.2962	2.1200e-003		0.0268	0.0268		0.0268	0.0268	0.0000	763.3179	763.3179	0.0245	0.0106	767.1149
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	40.2836	0.0000	40.2836	2.3807	0.0000	90.2781
Water						0.0000	0.0000		0.0000	0.0000	3.6559	19.6462	23.3021	0.3763	9.0400e-003	34.0059
Total	**0.3432**	**0.3527**	**0.2970**	**2.1200e-003**	**0.0000**	**0.0268**	**0.0268**	**0.0000**	**0.0268**	**0.0268**	**43.9395**	**782.9655**	**826.9050**	**2.7815**	**0.0196**	**891.4004**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**5.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**47.83**	**0.00**	**4.65**	**46.12**	**0.05**	**9.20**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2016	8/31/2016	5	66	
2	Site Preparation	Site Preparation	9/1/2016	9/9/2016	5	7	
3	Grading	Grading	9/12/2016	10/14/2016	5	25	
4	Building Construction	Building Construction	10/17/2016	5/1/2018	5	402	
5	Architectural Coating	Architectural Coating	4/30/2018	5/25/2018	5	20	
6	Paving	Paving	5/1/2018	5/14/2018	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 95,670; Non-Residential Outdoor: 31,890 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	273.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	250.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	26.00	10.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2016

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					0.0305	0.0000	0.0305	4.6200e-003	0.0000	4.6200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0959	0.9325	0.7094	8.1000e-004		0.0576	0.0576		0.0539	0.0539	0.0000	74.4574	74.4574	0.0188	0.0000	74.8528
Total	**0.0959**	**0.9325**	**0.7094**	**8.1000e-004**	**0.0305**	**0.0576**	**0.0881**	**4.6200e-003**	**0.0539**	**0.0585**	**0.0000**	**74.4574**	**74.4574**	**0.0188**	**0.0000**	**74.8528**

3.2 Demolition - 2016

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	3.5100e-003	0.0444	0.0358	1.0000e-004	2.3200e-003	5.6000e-004	2.8800e-003	6.4000e-004	5.2000e-004	1.1600e-003	0.0000	9.4018	9.4018	7.0000e-005	0.0000	9.4032
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9500e-003	3.0600e-003	0.0273	5.0000e-005	4.1300e-003	3.0000e-005	4.1600e-003	1.1000e-003	3.0000e-005	1.1300e-003	0.0000	3.5223	3.5223	2.1000e-004	0.0000	3.5267
Total	**5.4600e-003**	**0.0475**	**0.0631**	**1.5000e-004**	**6.4500e-003**	**5.9000e-004**	**7.0400e-003**	**1.7400e-003**	**5.5000e-004**	**2.2900e-003**	**0.0000**	**12.9240**	**12.9240**	**2.8000e-004**	**0.0000**	**12.9299**

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					0.0137	0.0000	0.0137	2.0800e-003	0.0000	2.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0639	0.7476	0.6480	8.1000e-004		0.0456	0.0456		0.0428	0.0428	0.0000	74.4574	74.4574	0.0188	0.0000	74.8527
Total	**0.0639**	**0.7476**	**0.6480**	**8.1000e-004**	**0.0137**	**0.0456**	**0.0593**	**2.0800e-003**	**0.0428**	**0.0449**	**0.0000**	**74.4574**	**74.4574**	**0.0188**	**0.0000**	**74.8527**

3.2 Demolition - 2016

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	3.5100e-003	0.0444	0.0358	1.0000e-004	2.3200e-003	5.6000e-004	2.8800e-003	6.4000e-004	5.2000e-004	1.1600e-003	0.0000	9.4018	9.4018	7.0000e-005	0.0000	9.4032
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9500e-003	3.0600e-003	0.0273	5.0000e-005	4.1300e-003	3.0000e-005	4.1600e-003	1.1000e-003	3.0000e-005	1.1300e-003	0.0000	3.5223	3.5223	2.1000e-004	0.0000	3.5267
Total	**5.4600e-003**	**0.0475**	**0.0631**	**1.5000e-004**	**6.4500e-003**	**5.9000e-004**	**7.0400e-003**	**1.7400e-003**	**5.5000e-004**	**2.2900e-003**	**0.0000**	**12.9240**	**12.9240**	**2.8000e-004**	**0.0000**	**12.9299**

3.3 Site Preparation - 2016

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					0.0190	0.0000	0.0190	0.0102	0.0000	0.0102	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5500e-003	0.0902	0.0578	6.0000e-005		4.8900e-003	4.8900e-003		4.5000e-003	4.5000e-003	0.0000	5.6552	5.6552	1.7100e-003	0.0000	5.6910
Total	**8.5500e-003**	**0.0902**	**0.0578**	**6.0000e-005**	**0.0190**	**4.8900e-003**	**0.0239**	**0.0102**	**4.5000e-003**	**0.0147**	**0.0000**	**5.6552**	**5.6552**	**1.7100e-003**	**0.0000**	**5.6910**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	2.0000e-004	1.7800e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2299	0.2299	1.0000e-005	0.0000	0.2302
Total	**1.3000e-004**	**2.0000e-004**	**1.7800e-003**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2299**	**0.2299**	**1.0000e-005**	**0.0000**	**0.2302**

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					8.5400e-003	0.0000	8.5400e-003	4.5900e-003	0.0000	4.5900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8700e-003	0.0666	0.0514	6.0000e-005		3.5700e-003	3.5700e-003		3.3200e-003	3.3200e-003	0.0000	5.6552	5.6552	1.7100e-003	0.0000	5.6910
Total	**5.8700e-003**	**0.0666**	**0.0514**	**6.0000e-005**	**8.5400e-003**	**3.5700e-003**	**0.0121**	**4.5900e-003**	**3.3200e-003**	**7.9100e-003**	**0.0000**	**5.6552**	**5.6552**	**1.7100e-003**	**0.0000**	**5.6910**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	2.0000e-004	1.7800e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2299	0.2299	1.0000e-005	0.0000	0.2302
Total	**1.3000e-004**	**2.0000e-004**	**1.7800e-003**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2299**	**0.2299**	**1.0000e-005**	**0.0000**	**0.2302**

3.4 Grading - 2016

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					0.0575	0.0000	0.0575	0.0312	0.0000	0.0312	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.2630	0.1709	1.8000e-004		0.0143	0.0143		0.0131	0.0131	0.0000	16.5884	16.5884	5.0000e-003	0.0000	16.6935
Total	**0.0249**	**0.2630**	**0.1709**	**1.8000e-004**	**0.0575**	**0.0143**	**0.0718**	**0.0312**	**0.0131**	**0.0443**	**0.0000**	**16.5884**	**16.5884**	**5.0000e-003**	**0.0000**	**16.6935**

3.4 Grading - 2016

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	3.2100e-003	0.0407	0.0328	9.0000e-005	2.1200e-003	5.2000e-004	2.6400e-003	5.8000e-004	4.7000e-004	1.0600e-003	0.0000	8.6097	8.6097	6.0000e-005	0.0000	8.6109
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	7.1000e-004	6.3600e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.6000e-004	0.0000	0.8210	0.8210	5.0000e-005	0.0000	0.8221
Total	**3.6600e-003**	**0.0414**	**0.0392**	**1.0000e-004**	**3.0800e-003**	**5.3000e-004**	**3.6100e-003**	**8.4000e-004**	**4.8000e-004**	**1.3200e-003**	**0.0000**	**9.4307**	**9.4307**	**1.1000e-004**	**0.0000**	**9.4330**

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					0.0259	0.0000	0.0259	0.0140	0.0000	0.0140	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0173	0.1957	0.1515	1.8000e-004		0.0105	0.0105		9.7500e-003	9.7500e-003	0.0000	16.5884	16.5884	5.0000e-003	0.0000	16.6935
Total	**0.0173**	**0.1957**	**0.1515**	**1.8000e-004**	**0.0259**	**0.0105**	**0.0364**	**0.0140**	**9.7500e-003**	**0.0238**	**0.0000**	**16.5884**	**16.5884**	**5.0000e-003**	**0.0000**	**16.6935**

3.4 Grading - 2016

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	3.2100e-003	0.0407	0.0328	9.0000e-005	2.1200e-003	5.2000e-004	2.6400e-003	5.8000e-004	4.7000e-004	1.0600e-003	0.0000	8.6097	8.6097	6.0000e-005	0.0000	8.6109
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	7.1000e-004	6.3600e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.6000e-004	0.0000	0.8210	0.8210	5.0000e-005	0.0000	0.8221
Total	**3.6600e-003**	**0.0414**	**0.0392**	**1.0000e-004**	**3.0800e-003**	**5.3000e-004**	**3.6100e-003**	**8.4000e-004**	**4.8000e-004**	**1.3200e-003**	**0.0000**	**9.4307**	**9.4307**	**1.1000e-004**	**0.0000**	**9.4330**

3.5 Building Construction - 2016

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	0.0905	0.5650	0.4045	6.0000e-004		0.0376	0.0376		0.0362	0.0362	0.0000	51.0663	51.0663	0.0112	0.0000	51.3020
Total	**0.0905**	**0.5650**	**0.4045**	**6.0000e-004**		**0.0376**	**0.0376**		**0.0362**	**0.0362**	**0.0000**	**51.0663**	**51.0663**	**0.0112**	**0.0000**	**51.3020**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5800e-003	0.0226	0.0402	5.0000e-005	1.2300e-003	3.1000e-004	1.5400e-003	3.5000e-004	2.9000e-004	6.4000e-004	0.0000	4.2270	4.2270	4.0000e-005	0.0000	4.2278
Worker	3.2500e-003	5.1100e-003	0.0455	8.0000e-005	6.8800e-003	6.0000e-005	6.9400e-003	1.8300e-003	5.0000e-005	1.8800e-003	0.0000	5.8705	5.8705	3.5000e-004	0.0000	5.8779
Total	**6.8300e-003**	**0.0278**	**0.0857**	**1.3000e-004**	**8.1100e-003**	**3.7000e-004**	**8.4800e-003**	**2.1800e-003**	**3.4000e-004**	**2.5200e-003**	**0.0000**	**10.0975**	**10.0975**	**3.9000e-004**	**0.0000**	**10.1057**

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	0.0599	0.3671	0.4096	6.0000e-004		0.0256	0.0256		0.0253	0.0253	0.0000	51.0662	51.0662	0.0112	0.0000	51.3019
Total	**0.0599**	**0.3671**	**0.4096**	**6.0000e-004**		**0.0256**	**0.0256**		**0.0253**	**0.0253**	**0.0000**	**51.0662**	**51.0662**	**0.0112**	**0.0000**	**51.3019**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5800e-003	0.0226	0.0402	5.0000e-005	1.2300e-003	3.1000e-004	1.5400e-003	3.5000e-004	2.9000e-004	6.4000e-004	0.0000	4.2270	4.2270	4.0000e-005	0.0000	4.2278
Worker	3.2500e-003	5.1100e-003	0.0455	8.0000e-005	6.8800e-003	6.0000e-005	6.9400e-003	1.8300e-003	5.0000e-005	1.8800e-003	0.0000	5.8705	5.8705	3.5000e-004	0.0000	5.8779
Total	**6.8300e-003**	**0.0278**	**0.0857**	**1.3000e-004**	**8.1100e-003**	**3.7000e-004**	**8.4800e-003**	**2.1800e-003**	**3.4000e-004**	**2.5200e-003**	**0.0000**	**10.0975**	**10.0975**	**3.9000e-004**	**0.0000**	**10.1057**

3.5 Building Construction - 2017

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	0.3841	2.4842	1.8604	2.8500e-003		0.1593	0.1593		0.1537	0.1537	0.0000	239.9115	239.9115	0.0503	0.0000	240.9686
Total	**0.3841**	**2.4842**	**1.8604**	**2.8500e-003**		**0.1593**	**0.1593**		**0.1537**	**0.1537**	**0.0000**	**239.9115**	**239.9115**	**0.0503**	**0.0000**	**240.9686**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0155	0.0967	0.1785	2.2000e-004	5.7900e-003	1.2600e-003	7.0500e-003	1.6600e-003	1.1600e-003	2.8200e-003	0.0000	19.6486	19.6486	1.6000e-004	0.0000	19.6519
Worker	0.0129	0.0211	0.1840	3.7000e-004	0.0325	2.4000e-004	0.0328	8.6500e-003	2.2000e-004	8.8700e-003	0.0000	26.6658	26.6658	1.4800e-003	0.0000	26.6969
Total	**0.0284**	**0.1177**	**0.3625**	**5.9000e-004**	**0.0383**	**1.5000e-003**	**0.0398**	**0.0103**	**1.3800e-003**	**0.0117**	**0.0000**	**46.3143**	**46.3143**	**1.6400e-003**	**0.0000**	**46.3488**

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	0.2573	1.6936	1.9123	2.8500e-003		0.1139	0.1139		0.1123	0.1123	0.0000	239.9112	239.9112	0.0503	0.0000	240.9684
Total	**0.2573**	**1.6936**	**1.9123**	**2.8500e-003**		**0.1139**	**0.1139**		**0.1123**	**0.1123**	**0.0000**	**239.9112**	**239.9112**	**0.0503**	**0.0000**	**240.9684**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0155	0.0967	0.1785	2.2000e-004	5.7900e-003	1.2600e-003	7.0500e-003	1.6600e-003	1.1600e-003	2.8200e-003	0.0000	19.6486	19.6486	1.6000e-004	0.0000	19.6519
Worker	0.0129	0.0211	0.1840	3.7000e-004	0.0325	2.4000e-004	0.0328	8.6500e-003	2.2000e-004	8.8700e-003	0.0000	26.6658	26.6658	1.4800e-003	0.0000	26.6969
Total	**0.0284**	**0.1177**	**0.3625**	**5.9000e-004**	**0.0383**	**1.5000e-003**	**0.0398**	**0.0103**	**1.3800e-003**	**0.0117**	**0.0000**	**46.3143**	**46.3143**	**1.6400e-003**	**0.0000**	**46.3488**

3.5 Building Construction - 2018

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	0.1123	0.7533	0.6019	9.5000e-004		0.0458	0.0458		0.0443	0.0443	0.0000	79.7701	79.7701	0.0160	0.0000	80.1065
Total	**0.1123**	**0.7533**	**0.6019**	**9.5000e-004**		**0.0458**	**0.0458**		**0.0443**	**0.0443**	**0.0000**	**79.7701**	**79.7701**	**0.0160**	**0.0000**	**80.1065**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.9900e-003	0.0296	0.0579	7.0000e-005	1.9400e-003	3.9000e-004	2.3300e-003	5.5000e-004	3.6000e-004	9.1000e-004	0.0000	6.4629	6.4629	5.0000e-005	0.0000	6.4640
Worker	3.6700e-003	6.2000e-003	0.0532	1.2000e-004	0.0109	8.0000e-005	0.0110	2.8900e-003	7.0000e-005	2.9600e-003	0.0000	8.5860	8.5860	4.5000e-004	0.0000	8.5954
Total	**8.6600e-003**	**0.0358**	**0.1111**	**1.9000e-004**	**0.0128**	**4.7000e-004**	**0.0133**	**3.4400e-003**	**4.3000e-004**	**3.8700e-003**	**0.0000**	**15.0488**	**15.0488**	**5.0000e-004**	**0.0000**	**15.0593**

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	0.0769	0.5474	0.6313	9.5000e-004		0.0350	0.0350		0.0346	0.0346	0.0000	79.7700	79.7700	0.0160	0.0000	80.1064
Total	**0.0769**	**0.5474**	**0.6313**	**9.5000e-004**		**0.0350**	**0.0350**		**0.0346**	**0.0346**	**0.0000**	**79.7700**	**79.7700**	**0.0160**	**0.0000**	**80.1064**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.9900e-003	0.0296	0.0579	7.0000e-005	1.9400e-003	3.9000e-004	2.3300e-003	5.5000e-004	3.6000e-004	9.1000e-004	0.0000	6.4629	6.4629	5.0000e-005	0.0000	6.4640
Worker	3.6700e-003	6.2000e-003	0.0532	1.2000e-004	0.0109	8.0000e-005	0.0110	2.8900e-003	7.0000e-005	2.9600e-003	0.0000	8.5860	8.5860	4.5000e-004	0.0000	8.5954
Total	**8.6600e-003**	**0.0358**	**0.1111**	**1.9000e-004**	**0.0128**	**4.7000e-004**	**0.0133**	**3.4400e-003**	**4.3000e-004**	**3.8700e-003**	**0.0000**	**15.0488**	**15.0488**	**5.0000e-004**	**0.0000**	**15.0593**

3.6 Architectural Coating - 2018

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	0.7391					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5584
Total	**0.7420**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5584**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.7000e-004	2.3500e-003	1.0000e-005	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3796	0.3796	2.0000e-005	0.0000	0.3800
Total	**1.6000e-004**	**2.7000e-004**	**2.3500e-003**	**1.0000e-005**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3796**	**0.3796**	**2.0000e-005**	**0.0000**	**0.3800**

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	0.7391					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	0.0136	0.0183	3.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5584
Total	**0.7396**	**0.0136**	**0.0183**	**3.0000e-005**		**9.5000e-004**	**9.5000e-004**		**9.5000e-004**	**9.5000e-004**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5584**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.7000e-004	2.3500e-003	1.0000e-005	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3796	0.3796	2.0000e-005	0.0000	0.3800
Total	**1.6000e-004**	**2.7000e-004**	**2.3500e-003**	**1.0000e-005**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3796**	**0.3796**	**2.0000e-005**	**0.0000**	**0.3800**

3.7 Paving - 2018

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	5.0300e-003	0.0515	0.0444	7.0000e-005		3.0100e-003	3.0100e-003		2.7800e-003	2.7800e-003	0.0000	6.0173	6.0173	1.8400e-003	0.0000	6.0558
Paving	6.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.6900e-003**	**0.0515**	**0.0444**	**7.0000e-005**		**3.0100e-003**	**3.0100e-003**		**2.7800e-003**	**2.7800e-003**	**0.0000**	**6.0173**	**6.0173**	**1.8400e-003**	**0.0000**	**6.0558**

3.7 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	3.6000e-004	3.0500e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.4935	0.4935	3.0000e-005	0.0000	0.4940
Total	**2.1000e-004**	**3.6000e-004**	**3.0500e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.4935**	**0.4935**	**3.0000e-005**	**0.0000**	**0.4940**

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	2.3900e-003	0.0366	0.0485	7.0000e-005		2.1900e-003	2.1900e-003		2.1200e-003	2.1200e-003	0.0000	6.0172	6.0172	1.8400e-003	0.0000	6.0558
Paving	6.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.0500e-003**	**0.0366**	**0.0485**	**7.0000e-005**		**2.1900e-003**	**2.1900e-003**		**2.1200e-003**	**2.1200e-003**	**0.0000**	**6.0172**	**6.0172**	**1.8400e-003**	**0.0000**	**6.0558**

3.7 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	3.6000e-004	3.0500e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.4935	0.4935	3.0000e-005	0.0000	0.4940
Total	**2.1000e-004**	**3.6000e-004**	**3.0500e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.4935**	**0.4935**	**3.0000e-005**	**0.0000**	**0.4940**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 Hour)	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market (24 Hour)	13.00	5.00	5.00	0.90	80.10	19.00	24	15	61
Fast Food Restaurant w/o Drive	13.00	5.00	5.00	1.50	79.50	19.00	51	37	12
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455853	0.042261	0.214795	0.150173	0.067787	0.009860	0.017887	0.023366	0.002328	0.001394	0.008768	0.000846	0.004683

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

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						0.0000	0.0000		0.0000	0.0000	0.0000	379.4126	379.4126	0.0172	3.5500e-003	380.8732
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	379.4126	379.4126	0.0172	3.5500e-003	380.8732
NaturalGas Mitigated	0.0388	0.3527	0.2962	2.1200e-003		0.0268	0.0268		0.0268	0.0268	0.0000	383.9054	383.9054	7.3600e-003	7.0400e-003	386.2418
NaturalGas Unmitigated	0.0388	0.3527	0.2962	2.1200e-003		0.0268	0.0268		0.0268	0.0268	0.0000	383.9054	383.9054	7.3600e-003	7.0400e-003	386.2418

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	7.06984e+006	0.0381	0.3466	0.2911	2.0800e-003		0.0263	0.0263		0.0263	0.0263	0.0000	377.2736	377.2736	7.2300e-003	6.9200e-003	379.5696
General Office Building	120540	6.5000e-004	5.9100e-003	4.9600e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	6.4325	6.4325	1.2000e-004	1.2000e-004	6.4716
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 Hour)	3735	2.0000e-005	1.8000e-004	1.5000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1993	0.1993	0.0000	0.0000	0.2005
Total		**0.0388**	**0.3527**	**0.2962**	**2.1200e-003**		**0.0268**	**0.0268**		**0.0268**	**0.0268**	**0.0000**	**383.9054**	**383.9054**	**7.3500e-003**	**7.0400e-003**	**386.2418**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant w/o Drive Thru	7.06984e+006	0.0381	0.3466	0.2911	2.0800e-003		0.0263	0.0263		0.0263	0.0263	0.0000	377.2736	377.2736	7.2300e-003	6.9200e-003	379.5696
General Office Building	120540	6.5000e-004	5.9100e-003	4.9600e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	6.4325	6.4325	1.2000e-004	1.2000e-004	6.4716
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 Hour)	3735	2.0000e-005	1.8000e-004	1.5000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1993	0.1993	0.0000	0.0000	0.2005
Total		**0.0388**	**0.3527**	**0.2962**	**2.1200e-003**		**0.0268**	**0.0268**		**0.0268**	**0.0268**	**0.0000**	**383.9054**	**383.9054**	**7.3500e-003**	**7.0400e-003**	**386.2418**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market (24 Hour)	17535	5.1011	2.3000e-004	5.0000e-005	5.1208
Fast Food Restaurant w/o Drive Thru	1.14872e+006	334.1744	0.0151	3.1300e-003	335.4608
General Office Building	137970	40.1371	1.8100e-003	3.8000e-004	40.2916
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**379.4126**	**0.0172**	**3.5600e-003**	**380.8732**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market (24 Hour)	17535	5.1011	2.3000e-004	5.0000e-005	5.1208
Fast Food Restaurant w/o Drive Thru	1.14872e+006	334.1744	0.0151	3.1300e-003	335.4608
General Office Building	137970	40.1371	1.8100e-003	3.8000e-004	40.2916
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**379.4126**	**0.0172**	**3.5600e-003**	**380.8732**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Mitigated	0.3044	1.0000e-005	7.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3900e-003	1.3900e-003	0.0000	0.0000	1.4700e-003
Unmitigated	0.3231	1.0000e-005	7.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3900e-003	1.3900e-003	0.0000	0.0000	1.4700e-003

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Architectural Coating	0.0739					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2491					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3900e-003	1.3900e-003	0.0000	0.0000	1.4700e-003
Total	**0.3231**	**1.0000e-005**	**7.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3900e-003**	**1.3900e-003**	**0.0000**	**0.0000**	**1.4700e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0739					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2305					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3900e-003	1.3900e-003	0.0000	0.0000	1.4700e-003
Total	**0.3045**	**1.0000e-005**	**7.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3900e-003**	**1.3900e-003**	**0.0000**	**0.0000**	**1.4700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	23.3021	0.3763	9.0400e-003	34.0059
Unmitigated	23.3021	0.3764	9.0500e-003	34.0117

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 Hour)	0.111109 / 0.0680989	0.2795	3.6300e-003	9.0000e-005	0.3830
Fast Food Restaurant w/o Drive Thru	10.1684 / 0.649045	19.8931	0.3321	7.9800e-003	29.3406
General Office Building	1.24414 / 0.762535	3.1295	0.0407	9.8000e-004	4.2882
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**23.3021**	**0.3764**	**9.0500e-003**	**34.0117**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 Hour)	0.111109 / 0.0680989	0.2795	3.6300e-003	9.0000e-005	0.3829
Fast Food Restaurant w/o Drive Thru	10.1684 / 0.649045	19.8931	0.3320	7.9700e-003	29.3355
General Office Building	1.24414 / 0.762535	3.1295	0.0407	9.8000e-004	4.2875
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**23.3021**	**0.3763**	**9.0400e-003**	**34.0059**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	40.2836	2.3807	0.0000	90.2781
Unmitigated	80.5671	4.7614	0.0000	180.5561

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 Hour)	4.51	0.9155	0.0541	0.0000	2.0517
Fast Food Restaurant w/o Drive Thru	385.88	78.3302	4.6292	0.0000	175.5429
General Office Building	6.51	1.3215	0.0781	0.0000	2.9615
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**80.5671**	**4.7614**	**0.0000**	**180.5561**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 Hour)	2.255	0.4577	0.0271	0.0000	1.0258
Fast Food Restaurant w/o Drive Thru	192.94	39.1651	2.3146	0.0000	87.7715
General Office Building	3.255	0.6607	0.0391	0.0000	1.4808
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**40.2836**	**2.3807**	**0.0000**	**90.2781**

9.0 Operational Offroad

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

10.0 Vegetation

Vista Grande

San Luis Obispo County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	7.00	1000sqft	0.16	7,000.00	0
Other Asphalt Surfaces	0.50	Acre	0.50	21,780.00	0
Fast Food Restaurant w/o Drive Thru	33.50	1000sqft	0.77	33,500.00	0
Convenience Market (24 Hour)	1.50	1000sqft	0.03	1,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction period, approximately 2 years. Architectural coating will require 20 days of application.

Demolition -

Grading - Approximate acreage of disturbance.

Vehicle Trips - No new trips will be generated. Delivery truck trips are captured in the Culinary Support Center model output.

Construction Off-road Equipment Mitigation - Estimated use of tier 3 engines.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	200.00	402.00
tblConstructionPhase	NumDays	20.00	66.00
tblConstructionPhase	NumDays	4.00	25.00
tblConstructionPhase	NumDays	2.00	7.00
tblConstructionPhase	PhaseEndDate	5/29/2018	5/25/2018
tblConstructionPhase	PhaseEndDate	6/8/2018	5/14/2018
tblConstructionPhase	PhaseStartDate	5/2/2018	4/30/2018
tblConstructionPhase	PhaseStartDate	10/15/2016	10/17/2016
tblConstructionPhase	PhaseStartDate	9/10/2016	9/12/2016
tblConstructionPhase	PhaseStartDate	5/26/2018	5/1/2018
tblGrading	AcresOfGrading	9.38	1.50
tblGrading	AcresOfGrading	3.50	1.00
tblGrading	MaterialExported	0.00	2,000.00
tblGrading	MaterialImported	0.00	1,000.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	ST_TR	696.00	0.00

tblVehicleTrips	ST_TR	2.37	0.00
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	0.98	0.00
tblVehicleTrips	WD_TR	737.99	0.00
tblVehicleTrips	WD_TR	716.00	0.00
tblVehicleTrips	WD_TR	11.01	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	3.5599	29.6874	23.5495	0.0290	5.4999	1.7627	6.8990	2.9338	1.6494	4.2209	0.0000	2,917.4701	2,917.4701	0.6381	0.0000	2,930.8701
2017	3.1908	20.0097	17.3135	0.0264	0.3026	1.2373	1.5399	0.0812	1.1930	1.2742	0.0000	2,424.1408	2,424.1408	0.4408	0.0000	2,433.3976
2018	78.1998	30.5494	28.1722	0.0447	0.4805	1.8185	2.2990	0.1284	1.7341	1.8625	0.0000	4,157.4185	4,157.4185	0.8583	0.0000	4,175.4423
Total	**84.9506**	**80.2465**	**69.0352**	**0.1001**	**6.2830**	**4.8184**	**10.7379**	**3.1433**	**4.5765**	**7.3576**	**0.0000**	**9,499.0294**	**9,499.0294**	**1.9372**	**0.0000**	**9,539.7100**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	2.4466	24.0841	21.6868	0.0290	2.5185	1.4007	3.5377	1.3317	1.3129	2.2801	0.0000	2,917.4701	2,917.4701	0.6381	0.0000	2,930.8701
2017	2.2151	13.9288	17.7120	0.0264	0.3026	0.8874	1.1900	0.0812	0.8746	0.9558	0.0000	2,424.1408	2,424.1408	0.4408	0.0000	2,433.3976
2018	76.6197	22.1757	29.6536	0.0447	0.4805	1.3502	1.8307	0.1284	1.3268	1.4552	0.0000	4,157.4185	4,157.4185	0.8583	0.0000	4,175.4423
Total	**81.2814**	**60.1886**	**69.0524**	**0.1001**	**3.3016**	**3.6383**	**6.5584**	**1.5413**	**3.5143**	**4.6911**	**0.0000**	**9,499.0294**	**9,499.0294**	**1.9372**	**0.0000**	**9,539.7100**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	4.32	25.00	-0.02	0.00	47.45	24.49	38.92	50.97	23.21	36.24	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.7703	4.0000e-005	4.4000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.3000e-003	9.3000e-003	3.0000e-005		9.8400e-003
Energy	0.2126	1.9323	1.6232	0.0116		0.1469	0.1469		0.1469	0.1469		2,318.8123	2,318.8123	0.0444	0.0425	2,332.9242
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.9828**	**1.9324**	**1.6276**	**0.0116**	**0.0000**	**0.1469**	**0.1469**	**0.0000**	**0.1469**	**0.1469**		**2,318.8216**	**2,318.8216**	**0.0445**	**0.0425**	**2,332.9340**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6682	4.0000e-005	4.4000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.3000e-003	9.3000e-003	3.0000e-005		9.8400e-003
Energy	0.2126	1.9323	1.6232	0.0116		0.1469	0.1469		0.1469	0.1469		2,318.8123	2,318.8123	0.0444	0.0425	2,332.9242
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.8808**	**1.9324**	**1.6276**	**0.0116**	**0.0000**	**0.1469**	**0.1469**	**0.0000**	**0.1469**	**0.1469**		**2,318.8216**	**2,318.8216**	**0.0445**	**0.0425**	**2,332.9340**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	5.15	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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2016	8/31/2016	5	66	
2	Site Preparation	Site Preparation	9/1/2016	9/9/2016	5	7	
3	Grading	Grading	9/12/2016	10/14/2016	5	25	
4	Building Construction	Building Construction	10/17/2016	5/1/2018	5	402	
5	Architectural Coating	Architectural Coating	4/30/2018	5/25/2018	5	20	
6	Paving	Paving	5/1/2018	5/14/2018	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 95,670; Non-Residential Outdoor: 31,890 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	273.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	250.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	26.00	10.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9237	0.0000	0.9237	0.1399	0.0000	0.1399			0.0000			0.0000
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328		2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**	**0.9237**	**1.7445**	**2.6683**	**0.1399**	**1.6328**	**1.7726**		**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1134	1.3351	1.2089	3.1200e-003	0.0720	0.0171	0.0891	0.0197	0.0158	0.0354		313.6266	313.6266	2.2400e-003		313.6737
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0631	0.0944	0.8426	1.4000e-003	0.1285	1.0100e-003	0.1295	0.0341	9.1000e-004	0.0350		116.7139	116.7139	7.0600e-003		116.8622
Total	**0.1765**	**1.4295**	**2.0515**	**4.5200e-003**	**0.2005**	**0.0181**	**0.2186**	**0.0538**	**0.0167**	**0.0704**		**430.3405**	**430.3405**	**9.3000e-003**		**430.5359**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4157	0.0000	0.4157	0.0630	0.0000	0.0630			0.0000			0.0000
Off-Road	1.9366	22.6546	19.6353	0.0245		1.3825	1.3825		1.2962	1.2962	0.0000	2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**1.9366**	**22.6546**	**19.6353**	**0.0245**	**0.4157**	**1.3825**	**1.7982**	**0.0630**	**1.2962**	**1.3592**	**0.0000**	**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1134	1.3351	1.2089	3.1200e-003	0.0720	0.0171	0.0891	0.0197	0.0158	0.0354		313.6266	313.6266	2.2400e-003		313.6737
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0631	0.0944	0.8426	1.4000e-003	0.1285	1.0100e-003	0.1295	0.0341	9.1000e-004	0.0350		116.7139	116.7139	7.0600e-003		116.8622
Total	**0.1765**	**1.4295**	**2.0515**	**4.5200e-003**	**0.2005**	**0.0181**	**0.2186**	**0.0538**	**0.0167**	**0.0704**		**430.3405**	**430.3405**	**9.3000e-003**		**430.5359**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.4208	0.0000	5.4208	2.9128	0.0000	2.9128			0.0000			0.0000
Off-Road	2.4428	25.7718	16.5144	0.0171		1.3985	1.3985		1.2866	1.2866		1,781.0872	1,781.0872	0.5372		1,792.3693
Total	**2.4428**	**25.7718**	**16.5144**	**0.0171**	**5.4208**	**1.3985**	**6.8193**	**2.9128**	**1.2866**	**4.1994**		**1,781.0872**	**1,781.0872**	**0.5372**		**1,792.3693**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0388	0.0581	0.5185	8.6000e-004	0.0791	6.2000e-004	0.0797	0.0210	5.6000e-004	0.0215		71.8239	71.8239	4.3500e-003		71.9152
Total	**0.0388**	**0.0581**	**0.5185**	**8.6000e-004**	**0.0791**	**6.2000e-004**	**0.0797**	**0.0210**	**5.6000e-004**	**0.0215**		**71.8239**	**71.8239**	**4.3500e-003**		**71.9152**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4394	0.0000	2.4394	1.3108	0.0000	1.3108			0.0000			0.0000
Off-Road	1.6767	19.0285	14.6916	0.0171		1.0187	1.0187		0.9478	0.9478	0.0000	1,781.0872	1,781.0872	0.5372		1,792.3693
Total	**1.6767**	**19.0285**	**14.6916**	**0.0171**	**2.4394**	**1.0187**	**3.4580**	**1.3108**	**0.9478**	**2.2586**	**0.0000**	**1,781.0872**	**1,781.0872**	**0.5372**		**1,792.3693**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0388	0.0581	0.5185	8.6000e-004	0.0791	6.2000e-004	0.0797	0.0210	5.6000e-004	0.0215		71.8239	71.8239	4.3500e-003		71.9152
Total	**0.0388**	**0.0581**	**0.5185**	**8.6000e-004**	**0.0791**	**6.2000e-004**	**0.0797**	**0.0210**	**5.6000e-004**	**0.0215**		**71.8239**	**71.8239**	**4.3500e-003**		**71.9152**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.6023	0.0000	4.6023	2.4929	0.0000	2.4929			0.0000			0.0000
Off-Road	1.9908	21.0361	13.6704	0.0141		1.1407	1.1407		1.0494	1.0494		1,462.8468	1,462.8468	0.4413		1,472.1130
Total	**1.9908**	**21.0361**	**13.6704**	**0.0141**	**4.6023**	**1.1407**	**5.7430**	**2.4929**	**1.0494**	**3.5423**		**1,462.8468**	**1,462.8468**	**0.4413**		**1,472.1130**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2742	3.2276	2.9227	7.5400e-003	0.1740	0.0414	0.2154	0.0476	0.0381	0.0857		758.2182	758.2182	5.4200e-003		758.3320
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0388	0.0581	0.5185	8.6000e-004	0.0791	6.2000e-004	0.0797	0.0210	5.6000e-004	0.0215		71.8239	71.8239	4.3500e-003		71.9152
Total	**0.3130**	**3.2857**	**3.4412**	**8.4000e-003**	**0.2530**	**0.0420**	**0.2951**	**0.0686**	**0.0386**	**0.1072**		**830.0422**	**830.0422**	**9.7700e-003**		**830.2472**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0710	0.0000	2.0710	1.1218	0.0000	1.1218			0.0000			0.0000
Off-Road	1.3799	15.6520	12.1223	0.0141		0.8385	0.8385		0.7800	0.7800	0.0000	1,462.8468	1,462.8468	0.4413		1,472.1130
Total	**1.3799**	**15.6520**	**12.1223**	**0.0141**	**2.0710**	**0.8385**	**2.9095**	**1.1218**	**0.7800**	**1.9018**	**0.0000**	**1,462.8468**	**1,462.8468**	**0.4413**		**1,472.1130**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2742	3.2276	2.9227	7.5400e-003	0.1740	0.0414	0.2154	0.0476	0.0381	0.0857		758.2182	758.2182	5.4200e-003		758.3320
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0388	0.0581	0.5185	8.6000e-004	0.0791	6.2000e-004	0.0797	0.0210	5.6000e-004	0.0215		71.8239	71.8239	4.3500e-003		71.9152
Total	**0.3130**	**3.2857**	**3.4412**	**8.4000e-003**	**0.2530**	**0.0420**	**0.2951**	**0.0686**	**0.0386**	**0.1072**		**830.0422**	**830.0422**	**9.7700e-003**		**830.2472**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2915	20.5459	14.7074	0.0220		1.3656	1.3656		1.3176	1.3176		2,046.9432	2,046.9432	0.4499		2,056.3913
Total	**3.2915**	**20.5459**	**14.7074**	**0.0220**		**1.3656**	**1.3656**		**1.3176**	**1.3176**		**2,046.9432**	**2,046.9432**	**0.4499**		**2,056.3913**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1422	0.8148	1.6583	1.6900e-003	0.0455	0.0116	0.0571	0.0130	0.0106	0.0236		168.3796	168.3796	1.4700e-003		168.4106
Worker	0.1262	0.1889	1.6852	2.8000e-003	0.2570	2.0200e-003	0.2591	0.0682	1.8300e-003	0.0700		233.4277	233.4277	0.0141		233.7244
Total	**0.2684**	**1.0037**	**3.3435**	**4.4900e-003**	**0.3026**	**0.0136**	**0.3162**	**0.0812**	**0.0125**	**0.0936**		**401.8074**	**401.8074**	**0.0156**		**402.1349**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1782	13.3482	14.8926	0.0220		0.9325	0.9325		0.9195	0.9195	0.0000	2,046.9432	2,046.9432	0.4499		2,056.3913
Total	**2.1782**	**13.3482**	**14.8926**	**0.0220**		**0.9325**	**0.9325**		**0.9195**	**0.9195**	**0.0000**	**2,046.9432**	**2,046.9432**	**0.4499**		**2,056.3913**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1422	0.8148	1.6583	1.6900e-003	0.0455	0.0116	0.0571	0.0130	0.0106	0.0236		168.3796	168.3796	1.4700e-003		168.4106
Worker	0.1262	0.1889	1.6852	2.8000e-003	0.2570	2.0200e-003	0.2591	0.0682	1.8300e-003	0.0700		233.4277	233.4277	0.0141		233.7244
Total	**0.2684**	**1.0037**	**3.3435**	**4.4900e-003**	**0.3026**	**0.0136**	**0.3162**	**0.0812**	**0.0125**	**0.0936**		**401.8074**	**401.8074**	**0.0156**		**402.1349**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9546	19.1088	14.3110	0.0220		1.2257	1.2257		1.1823	1.1823		2,034.2860	2,034.2860	0.4268		2,043.2497
Total	**2.9546**	**19.1088**	**14.3110**	**0.0220**		**1.2257**	**1.2257**		**1.1823**	**1.1823**		**2,034.2860**	**2,034.2860**	**0.4268**		**2,043.2497**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1301	0.7360	1.5657	1.6900e-003	0.0456	9.7900e-003	0.0553	0.0130	9.0000e-003	0.0220		165.5628	165.5628	1.3800e-003		165.5918
Worker	0.1062	0.1648	1.4368	2.8000e-003	0.2570	1.8700e-003	0.2589	0.0682	1.7100e-003	0.0699		224.2920	224.2920	0.0126		224.5562
Total	**0.2362**	**0.9008**	**3.0025**	**4.4900e-003**	**0.3026**	**0.0117**	**0.3143**	**0.0812**	**0.0107**	**0.0919**		**389.8548**	**389.8548**	**0.0140**		**390.1480**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9788	13.0280	14.7096	0.0220		0.8757	0.8757		0.8639	0.8639	0.0000	2,034.2860	2,034.2860	0.4268		2,043.2497
Total	**1.9788**	**13.0280**	**14.7096**	**0.0220**		**0.8757**	**0.8757**		**0.8639**	**0.8639**	**0.0000**	**2,034.2860**	**2,034.2860**	**0.4268**		**2,043.2497**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1301	0.7360	1.5657	1.6900e-003	0.0456	9.7900e-003	0.0553	0.0130	9.0000e-003	0.0220		165.5628	165.5628	1.3800e-003		165.5918
Worker	0.1062	0.1648	1.4368	2.8000e-003	0.2570	1.8700e-003	0.2589	0.0682	1.7100e-003	0.0699		224.2920	224.2920	0.0126		224.5562
Total	**0.2362**	**0.9008**	**3.0025**	**4.4900e-003**	**0.3026**	**0.0117**	**0.3143**	**0.0812**	**0.0107**	**0.0919**		**389.8548**	**389.8548**	**0.0140**		**390.1480**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5826	17.3173	13.8357	0.0220		1.0532	1.0532		1.0172	1.0172		2,021.4136	2,021.4136	0.4059		2,029.9373
Total	**2.5826**	**17.3173**	**13.8357**	**0.0220**		**1.0532**	**1.0532**		**1.0172**	**1.0172**		**2,021.4136**	**2,021.4136**	**0.4059**		**2,029.9373**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1248	0.6728	1.5203	1.6900e-003	0.0455	9.0200e-003	0.0546	0.0130	8.2900e-003	0.0213		162.7434	162.7434	1.3500e-003		162.7719
Worker	0.0901	0.1451	1.2364	2.7900e-003	0.2570	1.7700e-003	0.2588	0.0682	1.6300e-003	0.0698		215.8220	215.8220	0.0113		216.0598
Total	**0.2149**	**0.8178**	**2.7567**	**4.4800e-003**	**0.3026**	**0.0108**	**0.3134**	**0.0812**	**9.9200e-003**	**0.0911**		**378.5654**	**378.5654**	**0.0127**		**378.8316**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7687	12.5845	14.5118	0.0220		0.8055	0.8055		0.7959	0.7959	0.0000	2,021.4136	2,021.4136	0.4059		2,029.9373
Total	**1.7687**	**12.5845**	**14.5118**	**0.0220**		**0.8055**	**0.8055**		**0.7959**	**0.7959**	**0.0000**	**2,021.4136**	**2,021.4136**	**0.4059**		**2,029.9373**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1248	0.6728	1.5203	1.6900e-003	0.0455	9.0200e-003	0.0546	0.0130	8.2900e-003	0.0213		162.7434	162.7434	1.3500e-003		162.7719
Worker	0.0901	0.1451	1.2364	2.7900e-003	0.2570	1.7700e-003	0.2588	0.0682	1.6300e-003	0.0698		215.8220	215.8220	0.0113		216.0598
Total	**0.2149**	**0.8178**	**2.7567**	**4.4800e-003**	**0.3026**	**0.0108**	**0.3134**	**0.0812**	**9.9200e-003**	**0.0911**		**378.5654**	**378.5654**	**0.0127**		**378.8316**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	73.9051					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**74.2037**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0173	0.0279	0.2378	5.4000e-004	0.0494	3.4000e-004	0.0498	0.0131	3.1000e-004	0.0134		41.5042	41.5042	2.1800e-003		41.5500
Total	**0.0173**	**0.0279**	**0.2378**	**5.4000e-004**	**0.0494**	**3.4000e-004**	**0.0498**	**0.0131**	**3.1000e-004**	**0.0134**		**41.5042**	**41.5042**	**2.1800e-003**		**41.5500**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	73.9051					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**73.9645**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0173	0.0279	0.2378	5.4000e-004	0.0494	3.4000e-004	0.0498	0.0131	3.1000e-004	0.0134		41.5042	41.5042	2.1800e-003		41.5500
Total	**0.0173**	**0.0279**	**0.2378**	**5.4000e-004**	**0.0494**	**3.4000e-004**	**0.0498**	**0.0131**	**3.1000e-004**	**0.0134**		**41.5042**	**41.5042**	**2.1800e-003**		**41.5500**

3.7 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0052	10.3081	8.8698	0.0133		0.6027	0.6027		0.5553	0.5553		1,326.5758	1,326.5758	0.4051		1,335.0833
Paving	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1362**	**10.3081**	**8.8698**	**0.0133**		**0.6027**	**0.6027**		**0.5553**	**0.5553**		**1,326.5758**	**1,326.5758**	**0.4051**		**1,335.0833**

3.7 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0450	0.0725	0.6182	1.4000e-003	0.1285	8.9000e-004	0.1294	0.0341	8.2000e-004	0.0349		107.9110	107.9110	5.6600e-003		108.0299
Total	**0.0450**	**0.0725**	**0.6182**	**1.4000e-003**	**0.1285**	**8.9000e-004**	**0.1294**	**0.0341**	**8.2000e-004**	**0.0349**		**107.9110**	**107.9110**	**5.6600e-003**		**108.0299**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4782	7.3159	9.6968	0.0133		0.4375	0.4375		0.4247	0.4247	0.0000	1,326.5758	1,326.5758	0.4051		1,335.0833
Paving	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6092**	**7.3159**	**9.6968**	**0.0133**		**0.4375**	**0.4375**		**0.4247**	**0.4247**	**0.0000**	**1,326.5758**	**1,326.5758**	**0.4051**		**1,335.0833**

3.7 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0450	0.0725	0.6182	1.4000e-003	0.1285	8.9000e-004	0.1294	0.0341	8.2000e-004	0.0349		107.9110	107.9110	5.6600e-003		108.0299
Total	**0.0450**	**0.0725**	**0.6182**	**1.4000e-003**	**0.1285**	**8.9000e-004**	**0.1294**	**0.0341**	**8.2000e-004**	**0.0349**		**107.9110**	**107.9110**	**5.6600e-003**		**108.0299**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 Hour)	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market (24 Hour)	13.00	5.00	5.00	0.90	80.10	19.00	24	15	61
Fast Food Restaurant w/o Drive	13.00	5.00	5.00	1.50	79.50	19.00	51	37	12
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455853	0.042261	0.214795	0.150173	0.067787	0.009860	0.017887	0.023366	0.002328	0.001394	0.008768	0.000846	0.004683

5.0 Energy Detail

Historical Energy Use: N

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	lb/day										lb/day					
NaturalGas Mitigated	0.2126	1.9323	1.6232	0.0116		0.1469	0.1469		0.1469	0.1469		2,318.8123	2,318.8123	0.0444	0.0425	2,332.9242
NaturalGas Unmitigated	0.2126	1.9323	1.6232	0.0116		0.1469	0.1469		0.1469	0.1469		2,318.8123	2,318.8123	0.0444	0.0425	2,332.9242

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	19369.4	0.2089	1.8990	1.5951	0.0114		0.1443	0.1443		0.1443	0.1443		2,278.7558	2,278.7558	0.0437	0.0418	2,292.6240
General Office Building	330.247	3.5600e-003	0.0324	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003		38.8525	38.8525	7.4000e-004	7.1000e-004	39.0890
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 Hour)	10.2329	1.1000e-004	1.0000e-003	8.4000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		1.2039	1.2039	2.0000e-005	2.0000e-005	1.2112
Total		**0.2126**	**1.9323**	**1.6232**	**0.0116**		**0.1469**	**0.1469**		**0.1469**	**0.1469**		**2,318.8123**	**2,318.8123**	**0.0444**	**0.0425**	**2,332.9242**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	19.3694	0.2089	1.8990	1.5951	0.0114		0.1443	0.1443		0.1443	0.1443		2,278.7558	2,278.7558	0.0437	0.0418	2,292.6240
General Office Building	0.330247	3.5600e-003	0.0324	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003		38.8525	38.8525	7.4000e-004	7.1000e-004	39.0890
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 Hour)	0.0102329	1.1000e-004	1.0000e-003	8.4000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		1.2039	1.2039	2.0000e-005	2.0000e-005	1.2112
Total		**0.2126**	**1.9323**	**1.6232**	**0.0116**		**0.1469**	**0.1469**		**0.1469**	**0.1469**		**2,318.8123**	**2,318.8123**	**0.0444**	**0.0425**	**2,332.9242**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

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	lb/day										lb/day					
Mitigated	1.6682	4.0000e-005	4.4000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.3000e-003	9.3000e-003	3.0000e-005		9.8400e-003
Unmitigated	1.7703	4.0000e-005	4.4000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.3000e-003	9.3000e-003	3.0000e-005		9.8400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4050					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3649					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.2000e-004	4.0000e-005	4.4000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.3000e-003	9.3000e-003	3.0000e-005		9.8400e-003
Total	**1.7703**	**4.0000e-005**	**4.4000e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.3000e-003**	**9.3000e-003**	**3.0000e-005**		**9.8400e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4050					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.2000e-004	4.0000e-005	4.4000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.3000e-003	9.3000e-003	3.0000e-005		9.8400e-003
Total	**1.6682**	**4.0000e-005**	**4.4000e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.3000e-003**	**9.3000e-003**	**3.0000e-005**		**9.8400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Vegetation

Vista Grande

San Luis Obispo County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	7.00	1000sqft	0.16	7,000.00	0
Other Asphalt Surfaces	0.50	Acre	0.50	21,780.00	0
Fast Food Restaurant w/o Drive Thru	33.50	1000sqft	0.77	33,500.00	0
Convenience Market (24 Hour)	1.50	1000sqft	0.03	1,500.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 3.2 **Precipitation Freq (Days)** 44

Climate Zone 4 **Operational Year** 2018

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 641.35 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction period, approximately 2 years. Architectural coating will require 20 days of application.

Demolition -

Grading - Approximate acreage of disturbance.

Vehicle Trips - No new trips will be generated. Delivery truck trips are captured in the Culinary Support Center model output.

Construction Off-road Equipment Mitigation - Estimated use of tier 3 engines.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	NumDays	200.00	402.00
tblConstructionPhase	NumDays	20.00	66.00
tblConstructionPhase	NumDays	4.00	25.00
tblConstructionPhase	NumDays	2.00	7.00
tblConstructionPhase	PhaseEndDate	5/29/2018	5/25/2018
tblConstructionPhase	PhaseEndDate	6/8/2018	5/14/2018
tblConstructionPhase	PhaseStartDate	5/2/2018	4/30/2018
tblConstructionPhase	PhaseStartDate	10/15/2016	10/17/2016
tblConstructionPhase	PhaseStartDate	9/10/2016	9/12/2016
tblConstructionPhase	PhaseStartDate	5/26/2018	5/1/2018
tblGrading	AcresOfGrading	9.38	1.50
tblGrading	AcresOfGrading	3.50	1.00
tblGrading	MaterialExported	0.00	2,000.00
tblGrading	MaterialImported	0.00	1,000.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	ST_TR	696.00	0.00

tblVehicleTrips	ST_TR	2.37	0.00
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	0.98	0.00
tblVehicleTrips	WD_TR	737.99	0.00
tblVehicleTrips	WD_TR	716.00	0.00
tblVehicleTrips	WD_TR	11.01	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	3.5238	29.6458	23.2124	0.0291	5.4999	1.7626	6.8990	2.9338	1.6494	4.2209	0.0000	2,923.873 1	2,923.873 1	0.6381	0.0000	2,937.272 5
2017	3.1595	19.9791	16.8003	0.0266	0.3026	1.2372	1.5397	0.0812	1.1929	1.2740	0.0000	2,436.873 8	2,436.873 8	0.4408	0.0000	2,446.129 7
2018	78.1677	30.5102	27.6871	0.0449	0.4805	1.8183	2.2988	0.1284	1.7340	1.8623	0.0000	4,177.032 5	4,177.032 5	0.8582	0.0000	4,195.055 2
Total	**84.8510**	**80.1351**	**67.6998**	**0.1006**	**6.2830**	**4.8181**	**10.7376**	**3.1433**	**4.5762**	**7.3573**	**0.0000**	**9,537.779 4**	**9,537.779 4**	**1.9370**	**0.0000**	**9,578.457 4**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	2.4105	24.0425	21.3497	0.0291	2.5185	1.4006	3.5377	1.3317	1.3128	2.2801	0.0000	2,923.873 1	2,923.873 1	0.6381	0.0000	2,937.272 5
2017	2.1838	13.8982	17.1989	0.0266	0.3026	0.8872	1.1898	0.0812	0.8745	0.9557	0.0000	2,436.873 8	2,436.873 8	0.4408	0.0000	2,446.129 7
2018	76.5875	22.1365	29.1684	0.0449	0.4805	1.3500	1.8306	0.1284	1.3267	1.4550	0.0000	4,177.032 5	4,177.032 5	0.8582	0.0000	4,195.055 2
Total	**81.1818**	**60.0772**	**67.7170**	**0.1006**	**3.3016**	**3.6379**	**6.5581**	**1.5413**	**3.5140**	**4.6908**	**0.0000**	**9,537.779 4**	**9,537.779 4**	**1.9370**	**0.0000**	**9,578.457 4**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	4.32	25.03	-0.03	0.00	47.45	24.49	38.92	50.97	23.21	36.24	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.7703	4.0000e-005	4.4000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.3000e-003	9.3000e-003	3.0000e-005		9.8400e-003
Energy	0.2126	1.9323	1.6232	0.0116		0.1469	0.1469		0.1469	0.1469		2,318.8123	2,318.8123	0.0444	0.0425	2,332.9242
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.9828**	**1.9324**	**1.6276**	**0.0116**	**0.0000**	**0.1469**	**0.1469**	**0.0000**	**0.1469**	**0.1469**		**2,318.8216**	**2,318.8216**	**0.0445**	**0.0425**	**2,332.9340**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6682	4.0000e-005	4.4000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.3000e-003	9.3000e-003	3.0000e-005		9.8400e-003
Energy	0.2126	1.9323	1.6232	0.0116		0.1469	0.1469		0.1469	0.1469		2,318.8123	2,318.8123	0.0444	0.0425	2,332.9242
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.8808**	**1.9324**	**1.6276**	**0.0116**	**0.0000**	**0.1469**	**0.1469**	**0.0000**	**0.1469**	**0.1469**		**2,318.8216**	**2,318.8216**	**0.0445**	**0.0425**	**2,332.9340**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**5.15**	**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**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2016	8/31/2016	5	66	
2	Site Preparation	Site Preparation	9/1/2016	9/9/2016	5	7	
3	Grading	Grading	9/12/2016	10/14/2016	5	25	
4	Building Construction	Building Construction	10/17/2016	5/1/2018	5	402	
5	Architectural Coating	Architectural Coating	4/30/2018	5/25/2018	5	20	
6	Paving	Paving	5/1/2018	5/14/2018	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 95,670; Non-Residential Outdoor: 31,890 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	273.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	250.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	26.00	10.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9237	0.0000	0.9237	0.1399	0.0000	0.1399			0.0000			0.0000
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328		2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**	**0.9237**	**1.7445**	**2.6683**	**0.1399**	**1.6328**	**1.7726**		**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0970	1.3045	0.8836	3.1200e-003	0.0720	0.0171	0.0890	0.0197	0.0157	0.0354		314.3567	314.3567	2.2100e-003		314.4032
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0586	0.0834	0.8309	1.4700e-003	0.1285	1.0100e-003	0.1295	0.0341	9.1000e-004	0.0350		122.3868	122.3868	7.0600e-003		122.5351
Total	**0.1557**	**1.3879**	**1.7145**	**4.5900e-003**	**0.2005**	**0.0181**	**0.2186**	**0.0538**	**0.0166**	**0.0704**		**436.7435**	**436.7435**	**9.2700e-003**		**436.9383**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4157	0.0000	0.4157	0.0630	0.0000	0.0630			0.0000			0.0000
Off-Road	1.9366	22.6546	19.6353	0.0245		1.3825	1.3825		1.2962	1.2962	0.0000	2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**1.9366**	**22.6546**	**19.6353**	**0.0245**	**0.4157**	**1.3825**	**1.7982**	**0.0630**	**1.2962**	**1.3592**	**0.0000**	**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0970	1.3045	0.8836	3.1200e-003	0.0720	0.0171	0.0890	0.0197	0.0157	0.0354		314.3567	314.3567	2.2100e-003		314.4032
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0586	0.0834	0.8309	1.4700e-003	0.1285	1.0100e-003	0.1295	0.0341	9.1000e-004	0.0350		122.3868	122.3868	7.0600e-003		122.5351
Total	**0.1557**	**1.3879**	**1.7145**	**4.5900e-003**	**0.2005**	**0.0181**	**0.2186**	**0.0538**	**0.0166**	**0.0704**		**436.7435**	**436.7435**	**9.2700e-003**		**436.9383**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.4208	0.0000	5.4208	2.9128	0.0000	2.9128			0.0000			0.0000
Off-Road	2.4428	25.7718	16.5144	0.0171		1.3985	1.3985		1.2866	1.2866		1,781.0872	1,781.0872	0.5372		1,792.3693
Total	**2.4428**	**25.7718**	**16.5144**	**0.0171**	**5.4208**	**1.3985**	**6.8193**	**2.9128**	**1.2866**	**4.1994**		**1,781.0872**	**1,781.0872**	**0.5372**		**1,792.3693**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0361	0.0513	0.5113	9.0000e-004	0.0791	6.2000e-004	0.0797	0.0210	5.6000e-004	0.0215		75.3149	75.3149	4.3500e-003		75.4062
Total	**0.0361**	**0.0513**	**0.5113**	**9.0000e-004**	**0.0791**	**6.2000e-004**	**0.0797**	**0.0210**	**5.6000e-004**	**0.0215**		**75.3149**	**75.3149**	**4.3500e-003**		**75.4062**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4394	0.0000	2.4394	1.3108	0.0000	1.3108			0.0000			0.0000
Off-Road	1.6767	19.0285	14.6916	0.0171		1.0187	1.0187		0.9478	0.9478	0.0000	1,781.0872	1,781.0872	0.5372		1,792.3693
Total	**1.6767**	**19.0285**	**14.6916**	**0.0171**	**2.4394**	**1.0187**	**3.4580**	**1.3108**	**0.9478**	**2.2586**	**0.0000**	**1,781.0872**	**1,781.0872**	**0.5372**		**1,792.3693**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0361	0.0513	0.5113	9.0000e-004	0.0791	6.2000e-004	0.0797	0.0210	5.6000e-004	0.0215		75.3149	75.3149	4.3500e-003		75.4062
Total	**0.0361**	**0.0513**	**0.5113**	**9.0000e-004**	**0.0791**	**6.2000e-004**	**0.0797**	**0.0210**	**5.6000e-004**	**0.0215**		**75.3149**	**75.3149**	**4.3500e-003**		**75.4062**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.6023	0.0000	4.6023	2.4929	0.0000	2.4929			0.0000			0.0000
Off-Road	1.9908	21.0361	13.6704	0.0141		1.1407	1.1407		1.0494	1.0494		1,462.8468	1,462.8468	0.4413		1,472.1130
Total	**1.9908**	**21.0361**	**13.6704**	**0.0141**	**4.6023**	**1.1407**	**5.7430**	**2.4929**	**1.0494**	**3.5423**		**1,462.8468**	**1,462.8468**	**0.4413**		**1,472.1130**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2345	3.1538	2.1361	7.5400e-003	0.1740	0.0413	0.2152	0.0476	0.0379	0.0855		759.9833	759.9833	5.3500e-003		760.0956
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0361	0.0513	0.5113	9.0000e-004	0.0791	6.2000e-004	0.0797	0.0210	5.6000e-004	0.0215		75.3149	75.3149	4.3500e-003		75.4062
Total	**0.2706**	**3.2051**	**2.6474**	**8.4400e-003**	**0.2530**	**0.0419**	**0.2949**	**0.0686**	**0.0385**	**0.1071**		**835.2982**	**835.2982**	**9.7000e-003**		**835.5018**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0710	0.0000	2.0710	1.1218	0.0000	1.1218			0.0000			0.0000
Off-Road	1.3799	15.6520	12.1223	0.0141		0.8385	0.8385		0.7800	0.7800	0.0000	1,462.8468	1,462.8468	0.4413		1,472.1130
Total	**1.3799**	**15.6520**	**12.1223**	**0.0141**	**2.0710**	**0.8385**	**2.9095**	**1.1218**	**0.7800**	**1.9018**	**0.0000**	**1,462.8468**	**1,462.8468**	**0.4413**		**1,472.1130**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2345	3.1538	2.1361	7.5400e-003	0.1740	0.0413	0.2152	0.0476	0.0379	0.0855		759.9833	759.9833	5.3500e-003		760.0956
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0361	0.0513	0.5113	9.0000e-004	0.0791	6.2000e-004	0.0797	0.0210	5.6000e-004	0.0215		75.3149	75.3149	4.3500e-003		75.4062
Total	**0.2706**	**3.2051**	**2.6474**	**8.4400e-003**	**0.2530**	**0.0419**	**0.2949**	**0.0686**	**0.0385**	**0.1071**		**835.2982**	**835.2982**	**9.7000e-003**		**835.5018**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2915	20.5459	14.7074	0.0220		1.3656	1.3656		1.3176	1.3176		2,046.9432	2,046.9432	0.4499		2,056.3913
Total	**3.2915**	**20.5459**	**14.7074**	**0.0220**		**1.3656**	**1.3656**		**1.3176**	**1.3176**		**2,046.9432**	**2,046.9432**	**0.4499**		**2,056.3913**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1150	0.8023	1.1448	1.7000e-003	0.0455	0.0114	0.0569	0.0130	0.0105	0.0235		170.2028	170.2028	1.4300e-003		170.2327
Worker	0.1173	0.1667	1.6617	2.9400e-003	0.2570	2.0200e-003	0.2591	0.0682	1.8300e-003	0.0700		244.7736	244.7736	0.0141		245.0702
Total	**0.2323**	**0.9690**	**2.8065**	**4.6400e-003**	**0.3026**	**0.0134**	**0.3160**	**0.0812**	**0.0123**	**0.0935**		**414.9763**	**414.9763**	**0.0156**		**415.3029**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1782	13.3482	14.8926	0.0220		0.9325	0.9325		0.9195	0.9195	0.0000	2,046.9432	2,046.9432	0.4499		2,056.3913
Total	**2.1782**	**13.3482**	**14.8926**	**0.0220**		**0.9325**	**0.9325**		**0.9195**	**0.9195**	**0.0000**	**2,046.9432**	**2,046.9432**	**0.4499**		**2,056.3913**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1150	0.8023	1.1448	1.7000e-003	0.0455	0.0114	0.0569	0.0130	0.0105	0.0235		170.2028	170.2028	1.4300e-003		170.2327
Worker	0.1173	0.1667	1.6617	2.9400e-003	0.2570	2.0200e-003	0.2591	0.0682	1.8300e-003	0.0700		244.7736	244.7736	0.0141		245.0702
Total	**0.2323**	**0.9690**	**2.8065**	**4.6400e-003**	**0.3026**	**0.0134**	**0.3160**	**0.0812**	**0.0123**	**0.0935**		**414.9763**	**414.9763**	**0.0156**		**415.3029**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9546	19.1088	14.3110	0.0220		1.2257	1.2257		1.1823	1.1823		2,034.2860	2,034.2860	0.4268		2,043.2497
Total	**2.9546**	**19.1088**	**14.3110**	**0.0220**		**1.2257**	**1.2257**		**1.1823**	**1.1823**		**2,034.2860**	**2,034.2860**	**0.4268**		**2,043.2497**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1057	0.7249	1.0590	1.7000e-003	0.0456	9.6200e-003	0.0552	0.0130	8.8500e-003	0.0219		167.3622	167.3622	1.3300e-003		167.3902
Worker	0.0993	0.1454	1.4302	2.9300e-003	0.2570	1.8700e-003	0.2589	0.0682	1.7100e-003	0.0699		235.2256	235.2256	0.0126		235.4898
Total	**0.2050**	**0.8702**	**2.4893**	**4.6300e-003**	**0.3026**	**0.0115**	**0.3141**	**0.0812**	**0.0106**	**0.0917**		**402.5878**	**402.5878**	**0.0139**		**402.8800**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9788	13.0280	14.7096	0.0220		0.8757	0.8757		0.8639	0.8639	0.0000	2,034.2860	2,034.2860	0.4268		2,043.2497
Total	**1.9788**	**13.0280**	**14.7096**	**0.0220**		**0.8757**	**0.8757**		**0.8639**	**0.8639**	**0.0000**	**2,034.2860**	**2,034.2860**	**0.4268**		**2,043.2497**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1057	0.7249	1.0590	1.7000e-003	0.0456	9.6200e-003	0.0552	0.0130	8.8500e-003	0.0219		167.3622	167.3622	1.3300e-003		167.3902
Worker	0.0993	0.1454	1.4302	2.9300e-003	0.2570	1.8700e-003	0.2589	0.0682	1.7100e-003	0.0699		235.2256	235.2256	0.0126		235.4898
Total	**0.2050**	**0.8702**	**2.4893**	**4.6300e-003**	**0.3026**	**0.0115**	**0.3141**	**0.0812**	**0.0106**	**0.0917**		**402.5878**	**402.5878**	**0.0139**		**402.8800**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5826	17.3173	13.8357	0.0220		1.0532	1.0532		1.0172	1.0172		2,021.4136	2,021.4136	0.4059		2,029.9373
Total	**2.5826**	**17.3173**	**13.8357**	**0.0220**		**1.0532**	**1.0532**		**1.0172**	**1.0172**		**2,021.4136**	**2,021.4136**	**0.4059**		**2,029.9373**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1017	0.6627	1.0244	1.7000e-003	0.0455	8.8700e-003	0.0544	0.0130	8.1500e-003	0.0212		164.5167	164.5167	1.3100e-003		164.5441
Worker	0.0848	0.1279	1.2427	2.9300e-003	0.2570	1.7700e-003	0.2588	0.0682	1.6300e-003	0.0698		226.3642	226.3642	0.0113		226.6020
Total	**0.1864**	**0.7906**	**2.2671**	**4.6300e-003**	**0.3026**	**0.0106**	**0.3132**	**0.0812**	**9.7800e-003**	**0.0910**		**390.8809**	**390.8809**	**0.0126**		**391.1461**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7687	12.5845	14.5118	0.0220		0.8055	0.8055		0.7959	0.7959	0.0000	2,021.413 6	2,021.413 6	0.4059		2,029.937 3
Total	**1.7687**	**12.5845**	**14.5118**	**0.0220**		**0.8055**	**0.8055**		**0.7959**	**0.7959**	**0.0000**	**2,021.413 6**	**2,021.413 6**	**0.4059**		**2,029.937 3**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1017	0.6627	1.0244	1.7000e-003	0.0455	8.8700e-003	0.0544	0.0130	8.1500e-003	0.0212		164.5167	164.5167	1.3100e-003		164.5441
Worker	0.0848	0.1279	1.2427	2.9300e-003	0.2570	1.7700e-003	0.2588	0.0682	1.6300e-003	0.0698		226.3642	226.3642	0.0113		226.6020
Total	**0.1864**	**0.7906**	**2.2671**	**4.6300e-003**	**0.3026**	**0.0106**	**0.3132**	**0.0812**	**9.7800e-003**	**0.0910**		**390.8809**	**390.8809**	**0.0126**		**391.1461**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	73.9051					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**74.2037**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0163	0.0246	0.2390	5.6000e-004	0.0494	3.4000e-004	0.0498	0.0131	3.1000e-004	0.0134		43.5316	43.5316	2.1800e-003		43.5773
Total	**0.0163**	**0.0246**	**0.2390**	**5.6000e-004**	**0.0494**	**3.4000e-004**	**0.0498**	**0.0131**	**3.1000e-004**	**0.0134**		**43.5316**	**43.5316**	**2.1800e-003**		**43.5773**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	73.9051					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**73.9645**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0163	0.0246	0.2390	5.6000e-004	0.0494	3.4000e-004	0.0498	0.0131	3.1000e-004	0.0134		43.5316	43.5316	2.1800e-003		43.5773
Total	**0.0163**	**0.0246**	**0.2390**	**5.6000e-004**	**0.0494**	**3.4000e-004**	**0.0498**	**0.0131**	**3.1000e-004**	**0.0134**		**43.5316**	**43.5316**	**2.1800e-003**		**43.5773**

3.7 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0052	10.3081	8.8698	0.0133		0.6027	0.6027		0.5553	0.5553		1,326.5758	1,326.5758	0.4051		1,335.0833
Paving	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1362**	**10.3081**	**8.8698**	**0.0133**		**0.6027**	**0.6027**		**0.5553**	**0.5553**		**1,326.5758**	**1,326.5758**	**0.4051**		**1,335.0833**

3.7 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0424	0.0640	0.6214	1.4600e-003	0.1285	8.9000e-004	0.1294	0.0341	8.2000e-004	0.0349		113.1821	113.1821	5.6600e-003		113.3010
Total	**0.0424**	**0.0640**	**0.6214**	**1.4600e-003**	**0.1285**	**8.9000e-004**	**0.1294**	**0.0341**	**8.2000e-004**	**0.0349**		**113.1821**	**113.1821**	**5.6600e-003**		**113.3010**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4782	7.3159	9.6968	0.0133		0.4375	0.4375		0.4247	0.4247	0.0000	1,326.5758	1,326.5758	0.4051		1,335.0833
Paving	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6092**	**7.3159**	**9.6968**	**0.0133**		**0.4375**	**0.4375**		**0.4247**	**0.4247**	**0.0000**	**1,326.5758**	**1,326.5758**	**0.4051**		**1,335.0833**

3.7 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0424	0.0640	0.6214	1.4600e-003	0.1285	8.9000e-004	0.1294	0.0341	8.2000e-004	0.0349		113.1821	113.1821	5.6600e-003		113.3010
Total	**0.0424**	**0.0640**	**0.6214**	**1.4600e-003**	**0.1285**	**8.9000e-004**	**0.1294**	**0.0341**	**8.2000e-004**	**0.0349**		**113.1821**	**113.1821**	**5.6600e-003**		**113.3010**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 Hour)	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market (24 Hour)	13.00	5.00	5.00	0.90	80.10	19.00	24	15	61
Fast Food Restaurant w/o Drive	13.00	5.00	5.00	1.50	79.50	19.00	51	37	12
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455853	0.042261	0.214795	0.150173	0.067787	0.009860	0.017887	0.023366	0.002328	0.001394	0.008768	0.000846	0.004683

5.0 Energy Detail

Historical Energy Use: N

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	lb/day										lb/day					
NaturalGas Mitigated	0.2126	1.9323	1.6232	0.0116		0.1469	0.1469		0.1469	0.1469		2,318.8123	2,318.8123	0.0444	0.0425	2,332.9242
NaturalGas Unmitigated	0.2126	1.9323	1.6232	0.0116		0.1469	0.1469		0.1469	0.1469		2,318.8123	2,318.8123	0.0444	0.0425	2,332.9242

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	19369.4	0.2089	1.8990	1.5951	0.0114		0.1443	0.1443		0.1443	0.1443		2,278.7558	2,278.7558	0.0437	0.0418	2,292.6240
General Office Building	330.247	3.5600e-003	0.0324	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003		38.8525	38.8525	7.4000e-004	7.1000e-004	39.0890
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 Hour)	10.2329	1.1000e-004	1.0000e-003	8.4000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		1.2039	1.2039	2.0000e-005	2.0000e-005	1.2112
Total		**0.2126**	**1.9323**	**1.6232**	**0.0116**		**0.1469**	**0.1469**		**0.1469**	**0.1469**		**2,318.8123**	**2,318.8123**	**0.0444**	**0.0425**	**2,332.9242**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0.330247	3.5600e-003	0.0324	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003		38.8525	38.8525	7.4000e-004	7.1000e-004	39.0890
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 Hour)	0.0102329	1.1000e-004	1.0000e-003	8.4000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		1.2039	1.2039	2.0000e-005	2.0000e-005	1.2112
Fast Food Restaurant w/o Drive Thru	19.3694	0.2089	1.8990	1.5951	0.0114		0.1443	0.1443		0.1443	0.1443		2,278.7558	2,278.7558	0.0437	0.0418	2,292.6240
Total		**0.2126**	**1.9323**	**1.6232**	**0.0116**		**0.1469**	**0.1469**		**0.1469**	**0.1469**		**2,318.8123**	**2,318.8123**	**0.0444**	**0.0425**	**2,332.9242**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

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	lb/day										lb/day					
Mitigated	1.6682	4.0000e-005	4.4000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.3000e-003	9.3000e-003	3.0000e-005		9.8400e-003
Unmitigated	1.7703	4.0000e-005	4.4000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.3000e-003	9.3000e-003	3.0000e-005		9.8400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4050					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3649					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.2000e-004	4.0000e-005	4.4000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.3000e-003	9.3000e-003	3.0000e-005		9.8400e-003
Total	**1.7703**	**4.0000e-005**	**4.4000e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.3000e-003**	**9.3000e-003**	**3.0000e-005**		**9.8400e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4050					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.2000e-004	4.0000e-005	4.4000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.3000e-003	9.3000e-003	3.0000e-005		9.8400e-003
Total	**1.6682**	**4.0000e-005**	**4.4000e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.3000e-003**	**9.3000e-003**	**3.0000e-005**		**9.8400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Vegetation

Corporate Warehouse Expansion

San Luis Obispo County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	12.06	1000sqft	0.28	12,060.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Estimated expansion = 12,060 square feet.

Demolition -

Grading -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Construction Phase - Estimated construction period = 18 months total

Vehicle Trips - The project will not generate new trips, as all existing trips will be diverted from the campus core to the proposed Culinary Support Center. For the purposes of disclosure, such diverted trips (26 weekday, 3 weekend) are included in the model input.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	373.00
tblConstructionPhase	PhaseEndDate	7/7/2017	6/30/2017
tblConstructionPhase	PhaseStartDate	7/1/2017	6/26/2017
tblConstructionPhase	PhaseStartDate	6/24/2017	6/26/2017
tblGrading	MaterialExported	0.00	800.00
tblGrading	MaterialImported	0.00	800.00
tblProjectCharacteristics	OperationalYear	2014	2016
tblVehicleTrips	CC_TL	5.00	13.00
tblVehicleTrips	CNW_TL	5.00	13.00
tblVehicleTrips	ST_TR	2.59	0.25
tblVehicleTrips	SU_TR	2.59	0.25
tblVehicleTrips	WD_TR	2.59	2.16

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					
2016	0.1890	1.8347	1.1827	1.6800e-003	0.0128	0.1226	0.1354	3.3600e-003	0.1129	0.1163	0.0000	156.4728	156.4728	0.0418	0.0000	157.3515
2017	0.2257	0.8337	0.5620	8.0000e-004	4.0200e-003	0.0555	0.0596	1.0800e-003	0.0511	0.0522	0.0000	73.5364	73.5364	0.0211	0.0000	73.9786
Total	**0.4147**	**2.6684**	**1.7447**	**2.4800e-003**	**0.0168**	**0.1781**	**0.1949**	**4.4400e-003**	**0.1641**	**0.1685**	**0.0000**	**230.0091**	**230.0091**	**0.0629**	**0.0000**	**231.3300**

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					
2016	0.1890	1.8347	1.1827	1.6800e-003	0.0110	0.1226	0.1336	2.9300e-003	0.1129	0.1159	0.0000	156.4726	156.4726	0.0418	0.0000	157.3513
2017	0.2257	0.8337	0.5620	8.0000e-004	4.0200e-003	0.0555	0.0596	1.0800e-003	0.0511	0.0522	0.0000	73.5363	73.5363	0.0211	0.0000	73.9785
Total	**0.4147**	**2.6684**	**1.7447**	**2.4800e-003**	**0.0150**	**0.1781**	**0.1931**	**4.0100e-003**	**0.1641**	**0.1681**	**0.0000**	**230.0089**	**230.0089**	**0.0629**	**0.0000**	**231.3298**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**10.70**	**0.00**	**0.92**	**9.68**	**0.00**	**0.26**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0611	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.2000e-004
Energy	2.5000e-004	2.2600e-003	1.9000e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	37.0576	37.0576	1.6100e-003	3.7000e-004	37.2058
Mobile	0.0200	0.0681	0.2419	4.5000e-004	0.0323	8.2000e-004	0.0331	8.6500e-003	7.5000e-004	9.4000e-003	0.0000	36.2818	36.2818	1.6500e-003	0.0000	36.3164
Waste						0.0000	0.0000		0.0000	0.0000	2.3019	0.0000	2.3019	0.1360	0.0000	5.1588
Water						0.0000	0.0000		0.0000	0.0000	0.8848	4.3900	5.2748	0.0911	2.1900e-003	7.8653
Total	**0.0814**	**0.0704**	**0.2440**	**4.6000e-004**	**0.0323**	**9.9000e-004**	**0.0333**	**8.6500e-003**	**9.2000e-004**	**9.5700e-003**	**3.1867**	**77.7299**	**80.9166**	**0.2304**	**2.5600e-003**	**86.5467**

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	0.0611	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.2000e-004
Energy	2.5000e-004	2.2600e-003	1.9000e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	37.0576	37.0576	1.6100e-003	3.7000e-004	37.2058
Mobile	0.0200	0.0681	0.2419	4.5000e-004	0.0323	8.2000e-004	0.0331	8.6500e-003	7.5000e-004	9.4000e-003	0.0000	36.2818	36.2818	1.6500e-003	0.0000	36.3164
Waste						0.0000	0.0000		0.0000	0.0000	2.3019	0.0000	2.3019	0.1360	0.0000	5.1588
Water						0.0000	0.0000		0.0000	0.0000	0.8848	4.3900	5.2748	0.0911	2.1800e-003	7.8639
Total	**0.0814**	**0.0704**	**0.2440**	**4.6000e-004**	**0.0323**	**9.9000e-004**	**0.0333**	**8.6500e-003**	**9.2000e-004**	**9.5700e-003**	**3.1867**	**77.7299**	**80.9166**	**0.2304**	**2.5500e-003**	**86.5453**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.39**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/23/2017	5	373	
5	Paving	Paving	6/26/2017	6/30/2017	5	5	
6	Architectural Coating	Architectural Coating	6/26/2017	6/30/2017	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 18,089; Non-Residential Outdoor: 6,030 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	19.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	200.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	5.00	2.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.1100e-003	0.0000	2.1100e-003	3.2000e-004	0.0000	3.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**	**2.1100e-003**	**4.0200e-003**	**6.1300e-003**	**3.2000e-004**	**3.8400e-003**	**4.1600e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

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	2.4000e-004	3.0900e-003	2.4900e-003	1.0000e-005	1.6000e-004	4.0000e-005	2.0000e-004	4.0000e-005	4.0000e-005	8.0000e-005	0.0000	0.6543	0.6543	0.0000	0.0000	0.6544
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	3.6000e-004	3.1800e-003	1.0000e-005	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4105	0.4105	2.0000e-005	0.0000	0.4110
Total	**4.7000e-004**	**3.4500e-003**	**5.6700e-003**	**2.0000e-005**	**6.4000e-004**	**4.0000e-005**	**6.9000e-004**	**1.7000e-004**	**4.0000e-005**	**2.1000e-004**	**0.0000**	**1.0649**	**1.0649**	**2.0000e-005**	**0.0000**	**1.0655**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.5000e-004	0.0000	9.5000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**	**9.5000e-004**	**4.0200e-003**	**4.9700e-003**	**1.4000e-004**	**3.8400e-003**	**3.9800e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

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	2.4000e-004	3.0900e-003	2.4900e-003	1.0000e-005	1.6000e-004	4.0000e-005	2.0000e-004	4.0000e-005	4.0000e-005	8.0000e-005	0.0000	0.6543	0.6543	0.0000	0.0000	0.6544
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	3.6000e-004	3.1800e-003	1.0000e-005	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4105	0.4105	2.0000e-005	0.0000	0.4110
Total	**4.7000e-004**	**3.4500e-003**	**5.6700e-003**	**2.0000e-005**	**6.4000e-004**	**4.0000e-005**	**6.9000e-004**	**1.7000e-004**	**4.0000e-005**	**2.1000e-004**	**0.0000**	**1.0649**	**1.0649**	**2.0000e-005**	**0.0000**	**1.0655**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	2.0000e-005	1.6000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0205	0.0205	0.0000	0.0000	0.0206
Total	**1.0000e-005**	**2.0000e-005**	**1.6000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0205**	**0.0205**	**0.0000**	**0.0000**	**0.0206**

3.3 Site Preparation - 2016

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					1.2000e-004	0.0000	1.2000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**1.2000e-004**	**4.2000e-004**	**5.4000e-004**	**1.0000e-005**	**3.8000e-004**	**3.9000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	2.0000e-005	1.6000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0205	0.0205	0.0000	0.0000	0.0206
Total	**1.0000e-005**	**2.0000e-005**	**1.6000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0205**	**0.0205**	**0.0000**	**0.0000**	**0.0206**

3.4 Grading - 2016

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					9.0000e-004	0.0000	9.0000e-004	4.4000e-004	0.0000	4.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**9.0000e-004**	**8.0000e-004**	**1.7000e-003**	**4.4000e-004**	**7.7000e-004**	**1.2100e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

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	2.5700e-003	0.0325	0.0263	8.0000e-005	1.7000e-003	4.1000e-004	2.1100e-003	4.7000e-004	3.8000e-004	8.5000e-004	0.0000	6.8877	6.8877	5.0000e-005	0.0000	6.8888
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	7.0000e-005	6.4000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0821	0.0821	0.0000	0.0000	0.0822
Total	**2.6200e-003**	**0.0326**	**0.0269**	**8.0000e-005**	**1.8000e-003**	**4.1000e-004**	**2.2100e-003**	**5.0000e-004**	**3.8000e-004**	**8.8000e-004**	**0.0000**	**6.9698**	**6.9698**	**5.0000e-005**	**0.0000**	**6.9710**

3.4 Grading - 2016

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					4.1000e-004	0.0000	4.1000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**4.1000e-004**	**8.0000e-004**	**1.2100e-003**	**2.0000e-004**	**7.7000e-004**	**9.7000e-004**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

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	2.5700e-003	0.0325	0.0263	8.0000e-005	1.7000e-003	4.1000e-004	2.1100e-003	4.7000e-004	3.8000e-004	8.5000e-004	0.0000	6.8877	6.8877	5.0000e-005	0.0000	6.8888
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	7.0000e-005	6.4000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0821	0.0821	0.0000	0.0000	0.0822
Total	**2.6200e-003**	**0.0326**	**0.0269**	**8.0000e-005**	**1.8000e-003**	**4.1000e-004**	**2.2100e-003**	**5.0000e-004**	**3.8000e-004**	**8.8000e-004**	**0.0000**	**6.9698**	**6.9698**	**5.0000e-005**	**0.0000**	**6.9710**

3.5 Building Construction - 2016

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	0.1713	1.6995	1.0183	1.4100e-003		0.1165	0.1165		0.1072	0.1072	0.0000	132.5767	132.5767	0.0400	0.0000	133.4165
Total	**0.1713**	**1.6995**	**1.0183**	**1.4100e-003**		**0.1165**	**0.1165**		**0.1072**	**0.1072**	**0.0000**	**132.5767**	**132.5767**	**0.0400**	**0.0000**	**133.4165**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2300e-003	0.0204	0.0363	4.0000e-005	1.1000e-003	2.8000e-004	1.3900e-003	3.2000e-004	2.6000e-004	5.8000e-004	0.0000	3.8120	3.8120	3.0000e-005	0.0000	3.8127
Worker	2.8200e-003	4.4300e-003	0.0395	7.0000e-005	5.9700e-003	5.0000e-005	6.0200e-003	1.5900e-003	4.0000e-005	1.6300e-003	0.0000	5.0905	5.0905	3.1000e-004	0.0000	5.0969
Total	**6.0500e-003**	**0.0248**	**0.0757**	**1.1000e-004**	**7.0700e-003**	**3.3000e-004**	**7.4100e-003**	**1.9100e-003**	**3.0000e-004**	**2.2100e-003**	**0.0000**	**8.9025**	**8.9025**	**3.4000e-004**	**0.0000**	**8.9096**

3.5 Building Construction - 2016

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	0.1713	1.6995	1.0183	1.4100e-003		0.1165	0.1165		0.1072	0.1072	0.0000	132.5766	132.5766	0.0400	0.0000	133.4163
Total	**0.1713**	**1.6995**	**1.0183**	**1.4100e-003**		**0.1165**	**0.1165**		**0.1072**	**0.1072**	**0.0000**	**132.5766**	**132.5766**	**0.0400**	**0.0000**	**133.4163**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2300e-003	0.0204	0.0363	4.0000e-005	1.1000e-003	2.8000e-004	1.3900e-003	3.2000e-004	2.6000e-004	5.8000e-004	0.0000	3.8120	3.8120	3.0000e-005	0.0000	3.8127
Worker	2.8200e-003	4.4300e-003	0.0395	7.0000e-005	5.9700e-003	5.0000e-005	6.0200e-003	1.5900e-003	4.0000e-005	1.6300e-003	0.0000	5.0905	5.0905	3.1000e-004	0.0000	5.0969
Total	**6.0500e-003**	**0.0248**	**0.0757**	**1.1000e-004**	**7.0700e-003**	**3.3000e-004**	**7.4100e-003**	**1.9100e-003**	**3.0000e-004**	**2.2100e-003**	**0.0000**	**8.9025**	**8.9025**	**3.4000e-004**	**0.0000**	**8.9096**

3.5 Building Construction - 2017

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	0.0796	0.7921	0.5025	7.1000e-004		0.0535	0.0535		0.0492	0.0492	0.0000	65.7443	65.7443	0.0201	0.0000	66.1673
Total	**0.0796**	**0.7921**	**0.5025**	**7.1000e-004**		**0.0535**	**0.0535**		**0.0492**	**0.0492**	**0.0000**	**65.7443**	**65.7443**	**0.0201**	**0.0000**	**66.1673**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4900e-003	9.2900e-003	0.0172	2.0000e-005	5.6000e-004	1.2000e-004	6.8000e-004	1.6000e-004	1.1000e-004	2.7000e-004	0.0000	1.8893	1.8893	2.0000e-005	0.0000	1.8896
Worker	1.2000e-003	1.9500e-003	0.0170	3.0000e-005	3.0100e-003	2.0000e-005	3.0300e-003	8.0000e-004	2.0000e-005	8.2000e-004	0.0000	2.4654	2.4654	1.4000e-004	0.0000	2.4683
Total	**2.6900e-003**	**0.0112**	**0.0342**	**5.0000e-005**	**3.5700e-003**	**1.4000e-004**	**3.7100e-003**	**9.6000e-004**	**1.3000e-004**	**1.0900e-003**	**0.0000**	**4.3547**	**4.3547**	**1.6000e-004**	**0.0000**	**4.3579**

3.5 Building Construction - 2017

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	0.0796	0.7921	0.5025	7.1000e-004		0.0535	0.0535		0.0492	0.0492	0.0000	65.7442	65.7442	0.0201	0.0000	66.1673
Total	**0.0796**	**0.7921**	**0.5025**	**7.1000e-004**		**0.0535**	**0.0535**		**0.0492**	**0.0492**	**0.0000**	**65.7442**	**65.7442**	**0.0201**	**0.0000**	**66.1673**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4900e-003	9.2900e-003	0.0172	2.0000e-005	5.6000e-004	1.2000e-004	6.8000e-004	1.6000e-004	1.1000e-004	2.7000e-004	0.0000	1.8893	1.8893	2.0000e-005	0.0000	1.8896
Worker	1.2000e-003	1.9500e-003	0.0170	3.0000e-005	3.0100e-003	2.0000e-005	3.0300e-003	8.0000e-004	2.0000e-005	8.2000e-004	0.0000	2.4654	2.4654	1.4000e-004	0.0000	2.4683
Total	**2.6900e-003**	**0.0112**	**0.0342**	**5.0000e-005**	**3.5700e-003**	**1.4000e-004**	**3.7100e-003**	**9.6000e-004**	**1.3000e-004**	**1.0900e-003**	**0.0000**	**4.3547**	**4.3547**	**1.6000e-004**	**0.0000**	**4.3579**

3.6 Paving - 2017

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	2.6000e-003	0.0246	0.0181	3.0000e-005		1.5000e-003	1.5000e-003		1.3900e-003	1.3900e-003	0.0000	2.4243	2.4243	6.7000e-004	0.0000	2.4384
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.6000e-003**	**0.0246**	**0.0181**	**3.0000e-005**		**1.5000e-003**	**1.5000e-003**		**1.3900e-003**	**1.3900e-003**	**0.0000**	**2.4243**	**2.4243**	**6.7000e-004**	**0.0000**	**2.4384**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	2.8000e-004	2.4500e-003	0.0000	4.3000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3550	0.3550	2.0000e-005	0.0000	0.3554
Total	**1.7000e-004**	**2.8000e-004**	**2.4500e-003**	**0.0000**	**4.3000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3550**	**0.3550**	**2.0000e-005**	**0.0000**	**0.3554**

3.6 Paving - 2017

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	2.6000e-003	0.0246	0.0181	3.0000e-005		1.5000e-003	1.5000e-003		1.3900e-003	1.3900e-003	0.0000	2.4243	2.4243	6.7000e-004	0.0000	2.4384
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.6000e-003**	**0.0246**	**0.0181**	**3.0000e-005**		**1.5000e-003**	**1.5000e-003**		**1.3900e-003**	**1.3900e-003**	**0.0000**	**2.4243**	**2.4243**	**6.7000e-004**	**0.0000**	**2.4384**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	2.8000e-004	2.4500e-003	0.0000	4.3000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3550	0.3550	2.0000e-005	0.0000	0.3554
Total	**1.7000e-004**	**2.8000e-004**	**2.4500e-003**	**0.0000**	**4.3000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3550**	**0.3550**	**2.0000e-005**	**0.0000**	**0.3554**

3.7 Architectural Coating - 2017

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	0.1397					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3000e-004	5.4600e-003	4.6700e-003	1.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	0.6383	0.6383	7.0000e-005	0.0000	0.6397
Total	**0.1406**	**5.4600e-003**	**4.6700e-003**	**1.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.6383**	**0.6383**	**7.0000e-005**	**0.0000**	**0.6397**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	2.0000e-005	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0197	0.0197	0.0000	0.0000	0.0198
Total	**1.0000e-005**	**2.0000e-005**	**1.4000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0197**	**0.0197**	**0.0000**	**0.0000**	**0.0198**

3.7 Architectural Coating - 2017

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	0.1397					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3000e-004	5.4600e-003	4.6700e-003	1.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	0.6383	0.6383	7.0000e-005	0.0000	0.6397
Total	**0.1406**	**5.4600e-003**	**4.6700e-003**	**1.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.6383**	**0.6383**	**7.0000e-005**	**0.0000**	**0.6397**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	2.0000e-005	1.4000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0197	0.0197	0.0000	0.0000	0.0198
Total	**1.0000e-005**	**2.0000e-005**	**1.4000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0197**	**0.0197**	**0.0000**	**0.0000**	**0.0198**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0200	0.0681	0.2419	4.5000e-004	0.0323	8.2000e-004	0.0331	8.6500e-003	7.5000e-004	9.4000e-003	0.0000	36.2818	36.2818	1.6500e-003	0.0000	36.3164
Unmitigated	0.0200	0.0681	0.2419	4.5000e-004	0.0323	8.2000e-004	0.0331	8.6500e-003	7.5000e-004	9.4000e-003	0.0000	36.2818	36.2818	1.6500e-003	0.0000	36.3164

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	25.99	3.00	3.00	85,717	85,717
Total	25.99	3.00	3.00	85,717	85,717

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Refrigerated Warehouse-No Rail	13.00	13.00	13.00	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455937	0.042338	0.214948	0.150714	0.068093	0.009944	0.017510	0.022507	0.002330	0.001401	0.008743	0.000855	0.004680

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	34.5928	34.5928	1.5600e-003	3.2000e-004	34.7259
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	34.5928	34.5928	1.5600e-003	3.2000e-004	34.7259
NaturalGas Mitigated	2.5000e-004	2.2600e-003	1.9000e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4649	2.4649	5.0000e-005	5.0000e-005	2.4799
NaturalGas Unmitigated	2.5000e-004	2.2600e-003	1.9000e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4649	2.4649	5.0000e-005	5.0000e-005	2.4799

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	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
	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	46189.8	2.5000e-004	2.2600e-003	1.9000e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4649	2.4649	5.0000e-005	5.0000e-005	2.4799
Total		**2.5000e-004**	**2.2600e-003**	**1.9000e-003**	**1.0000e-005**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**2.4649**	**2.4649**	**5.0000e-005**	**5.0000e-005**	**2.4799**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	46189.8	2.5000e-004	2.2600e-003	1.9000e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4649	2.4649	5.0000e-005	5.0000e-005	2.4799
Total		**2.5000e-004**	**2.2600e-003**	**1.9000e-003**	**1.0000e-005**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**2.4649**	**2.4649**	**5.0000e-005**	**5.0000e-005**	**2.4799**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	118912	34.5928	1.5600e-003	3.2000e-004	34.7259
Total		**34.5928**	**1.5600e-003**	**3.2000e-004**	**34.7259**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	118912	34.5928	1.5600e-003	3.2000e-004	34.7259
Total		**34.5928**	**1.5600e-003**	**3.2000e-004**	**34.7259**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0611	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.2000e-004
Unmitigated	0.0611	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.2000e-004

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	0.0140					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0471					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.2000e-004
Total	**0.0611**	**0.0000**	**2.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-004**	**4.0000e-004**	**0.0000**	**0.0000**	**4.2000e-004**

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	0.0140					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0471					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-004	4.0000e-004	0.0000	0.0000	4.2000e-004
Total	**0.0611**	**0.0000**	**2.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-004**	**4.0000e-004**	**0.0000**	**0.0000**	**4.2000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.2748	0.0911	2.1800e-003	7.8639
Unmitigated	5.2748	0.0911	2.1900e-003	7.8653

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	2.78888 / 0	5.2748	0.0911	2.1900e-003	7.8653
Total		**5.2748**	**0.0911**	**2.1900e-003**	**7.8653**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	2.78888 / 0	5.2748	0.0911	2.1800e-003	7.8639
Total		**5.2748**	**0.0911**	**2.1800e-003**	**7.8639**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.3019	0.1360	0.0000	5.1588
Unmitigated	2.3019	0.1360	0.0000	5.1588

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	11.34	2.3019	0.1360	0.0000	5.1588
Total		**2.3019**	**0.1360**	**0.0000**	**5.1588**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	11.34	2.3019	0.1360	0.0000	5.1588
Total		**2.3019**	**0.1360**	**0.0000**	**5.1588**

9.0 Operational Offroad

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

10.0 Vegetation

Corporate Warehouse Expansion

San Luis Obispo County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	12.06	1000sqft	0.28	12,060.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Estimated expansion = 12,060 square feet.

Demolition -

Grading -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Construction Phase - Estimated construction period = 18 months total

Vehicle Trips - The project will not generate new trips, as all existing trips will be diverted from the campus core to the proposed Culinary Support Center. For the purposes of disclosure, such diverted trips (26 weekday, 3 weekend) are included in the model input.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	373.00
tblConstructionPhase	PhaseEndDate	7/7/2017	6/30/2017
tblConstructionPhase	PhaseStartDate	7/1/2017	6/26/2017
tblConstructionPhase	PhaseStartDate	6/24/2017	6/26/2017
tblGrading	MaterialExported	0.00	800.00
tblGrading	MaterialImported	0.00	800.00
tblProjectCharacteristics	OperationalYear	2014	2016
tblVehicleTrips	CC_TL	5.00	13.00
tblVehicleTrips	CNW_TL	5.00	13.00
tblVehicleTrips	ST_TR	2.59	0.25
tblVehicleTrips	SU_TR	2.59	0.25
tblVehicleTrips	WD_TR	2.59	2.16

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	4.1028	43.5873	38.5795	0.0885	2.7384	1.2187	3.9571	0.9383	1.1488	2.0871	0.0000	8,865.5728	8,865.5728	0.3585	0.0000	8,873.1014
2017	57.3463	12.8527	10.1612	0.0161	0.1878	0.8577	0.9643	0.0498	0.7890	0.8048	0.0000	1,514.2903	1,514.2903	0.3580	0.0000	1,521.8078
Total	**61.4491**	**56.4400**	**48.7407**	**0.1046**	**2.9263**	**2.0763**	**4.9214**	**0.9881**	**1.9378**	**2.8919**	**0.0000**	**10,379.8632**	**10,379.8632**	**0.7165**	**0.0000**	**10,394.9092**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	4.1028	43.5873	38.5795	0.0885	2.2434	1.2187	3.4621	0.6985	1.1488	1.8473	0.0000	8,865.5728	8,865.5728	0.3585	0.0000	8,873.1014
2017	57.3463	12.8527	10.1612	0.0161	0.1878	0.8577	0.9643	0.0498	0.7890	0.8048	0.0000	1,514.2903	1,514.2903	0.3580	0.0000	1,521.8078
Total	**61.4491**	**56.4400**	**48.7407**	**0.1046**	**2.4312**	**2.0763**	**4.4264**	**0.7483**	**1.9378**	**2.6520**	**0.0000**	**10,379.8632**	**10,379.8632**	**0.7165**	**0.0000**	**10,394.9092**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**16.92**	**0.00**	**10.06**	**24.27**	**0.00**	**8.29**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3348	1.0000e-005	1.2600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6400e-003	2.6400e-003	1.0000e-005		2.8000e-003
Energy	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.8879	14.8879	2.9000e-004	2.7000e-004	14.9785
Mobile	0.1555	0.5017	1.8362	3.3200e-003	0.2435	6.0300e-003	0.2495	0.0651	5.5400e-003	0.0707		292.6426	292.6426	0.0134		292.9236
Total	**0.4916**	**0.5141**	**1.8478**	**3.3900e-003**	**0.2435**	**6.9700e-003**	**0.2505**	**0.0651**	**6.4800e-003**	**0.0716**		**307.5332**	**307.5332**	**0.0137**	**2.7000e-004**	**307.9050**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3348	1.0000e-005	1.2600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6400e-003	2.6400e-003	1.0000e-005		2.8000e-003
Energy	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.8879	14.8879	2.9000e-004	2.7000e-004	14.9785
Mobile	0.1555	0.5017	1.8362	3.3200e-003	0.2435	6.0300e-003	0.2495	0.0651	5.5400e-003	0.0707		292.6426	292.6426	0.0134		292.9236
Total	**0.4916**	**0.5141**	**1.8478**	**3.3900e-003**	**0.2435**	**6.9700e-003**	**0.2505**	**0.0651**	**6.4800e-003**	**0.0716**		**307.5332**	**307.5332**	**0.0137**	**2.7000e-004**	**307.9050**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/23/2017	5	373	
5	Paving	Paving	6/26/2017	6/30/2017	5	5	
6	Architectural Coating	Architectural Coating	6/26/2017	6/30/2017	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 18,089; Non-Residential Outdoor: 6,030 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	19.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	200.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	5.00	2.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4217	0.0000	0.4217	0.0639	0.0000	0.0639			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.4217**	**0.8039**	**1.2256**	**0.0639**	**0.7674**	**0.8312**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0521	0.6133	0.5553	1.4300e-003	0.0331	7.8700e-003	0.0409	9.0400e-003	7.2300e-003	0.0163		144.0615	144.0615	1.0300e-003		144.0831
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0485	0.0727	0.6481	1.0800e-003	0.0989	7.8000e-004	0.0996	0.0262	7.0000e-004	0.0269		89.7799	89.7799	5.4300e-003		89.8940
Total	**0.1006**	**0.6859**	**1.2035**	**2.5100e-003**	**0.1319**	**8.6500e-003**	**0.1406**	**0.0353**	**7.9300e-003**	**0.0432**		**233.8414**	**233.8414**	**6.4600e-003**		**233.9771**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1898	0.0000	0.1898	0.0287	0.0000	0.0287			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.1898**	**0.8039**	**0.9936**	**0.0287**	**0.7674**	**0.7961**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0521	0.6133	0.5553	1.4300e-003	0.0331	7.8700e-003	0.0409	9.0400e-003	7.2300e-003	0.0163		144.0615	144.0615	1.0300e-003		144.0831
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0485	0.0727	0.6481	1.0800e-003	0.0989	7.8000e-004	0.0996	0.0262	7.0000e-004	0.0269		89.7799	89.7799	5.4300e-003		89.8940
Total	**0.1006**	**0.6859**	**1.2035**	**2.5100e-003**	**0.1319**	**8.6500e-003**	**0.1406**	**0.0353**	**7.9300e-003**	**0.0432**		**233.8414**	**233.8414**	**6.4600e-003**		**233.9771**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**		**973.0842**	**973.0842**	**0.2935**		**979.2481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0243	0.0363	0.3241	5.4000e-004	0.0494	3.9000e-004	0.0498	0.0131	3.5000e-004	0.0135		44.8900	44.8900	2.7200e-003		44.9470
Total	**0.0243**	**0.0363**	**0.3241**	**5.4000e-004**	**0.0494**	**3.9000e-004**	**0.0498**	**0.0131**	**3.5000e-004**	**0.0135**		**44.8900**	**44.8900**	**2.7200e-003**		**44.9470**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.2386**	**0.8338**	**1.0724**	**0.0258**	**0.7671**	**0.7928**	**0.0000**	**973.0842**	**973.0842**	**0.2935**		**979.2481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0243	0.0363	0.3241	5.4000e-004	0.0494	3.9000e-004	0.0498	0.0131	3.5000e-004	0.0135		44.8900	44.8900	2.7200e-003		44.9470
Total	**0.0243**	**0.0363**	**0.3241**	**5.4000e-004**	**0.0494**	**3.9000e-004**	**0.0498**	**0.0131**	**3.5000e-004**	**0.0135**		**44.8900**	**44.8900**	**2.7200e-003**		**44.9470**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9000	0.0000	0.9000	0.4361	0.0000	0.4361			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.9000**	**0.8039**	**1.7039**	**0.4361**	**0.7674**	**1.2034**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.7421	32.2762	29.2266	0.0754	1.7395	0.4140	2.1536	0.4760	0.3808	0.8568		7,582.1823	7,582.1823	0.0542		7,583.3198
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0485	0.0727	0.6481	1.0800e-003	0.0989	7.8000e-004	0.0996	0.0262	7.0000e-004	0.0269		89.7799	89.7799	5.4300e-003		89.8940
Total	**2.7906**	**32.3488**	**29.8747**	**0.0765**	**1.8384**	**0.4148**	**2.2532**	**0.5022**	**0.3815**	**0.8837**		**7,671.9622**	**7,671.9622**	**0.0596**		**7,673.2138**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4050	0.0000	0.4050	0.1962	0.0000	0.1962			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.4050**	**0.8039**	**1.2089**	**0.1962**	**0.7674**	**0.9636**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.7421	32.2762	29.2266	0.0754	1.7395	0.4140	2.1536	0.4760	0.3808	0.8568		7,582.1823	7,582.1823	0.0542		7,583.3198
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0485	0.0727	0.6481	1.0800e-003	0.0989	7.8000e-004	0.0996	0.0262	7.0000e-004	0.0269		89.7799	89.7799	5.4300e-003		89.8940
Total	**2.7906**	**32.3488**	**29.8747**	**0.0765**	**1.8384**	**0.4148**	**2.2532**	**0.5022**	**0.3815**	**0.8837**		**7,671.9622**	**7,671.9622**	**0.0596**		**7,673.2138**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646		1,178.554 9	1,178.554 9	0.3555		1,186.020 2
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**		**1,178.554 9**	**1,178.554 9**	**0.3555**		**1,186.020 2**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0285	0.1630	0.3317	3.4000e-004	9.1100e-003	2.3100e-003	0.0114	2.6000e-003	2.1300e-003	4.7300e-003		33.6759	33.6759	2.9000e-004		33.6821
Worker	0.0243	0.0363	0.3241	5.4000e-004	0.0494	3.9000e-004	0.0498	0.0131	3.5000e-004	0.0135		44.8900	44.8900	2.7200e-003		44.9470
Total	**0.0527**	**0.1993**	**0.6557**	**8.8000e-004**	**0.0585**	**2.7000e-003**	**0.0612**	**0.0157**	**2.4800e-003**	**0.0182**		**78.5659**	**78.5659**	**3.0100e-003**		**78.6291**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646	0.0000	1,178.554 9	1,178.554 9	0.3555		1,186.020 2
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**	**0.0000**	**1,178.554 9**	**1,178.554 9**	**0.3555**		**1,186.020 2**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0285	0.1630	0.3317	3.4000e-004	9.1100e-003	2.3100e-003	0.0114	2.6000e-003	2.1300e-003	4.7300e-003		33.6759	33.6759	2.9000e-004		33.6821
Worker	0.0243	0.0363	0.3241	5.4000e-004	0.0494	3.9000e-004	0.0498	0.0131	3.5000e-004	0.0135		44.8900	44.8900	2.7200e-003		44.9470
Total	**0.0527**	**0.1993**	**0.6557**	**8.8000e-004**	**0.0585**	**2.7000e-003**	**0.0612**	**0.0157**	**2.4800e-003**	**0.0182**		**78.5659**	**78.5659**	**3.0100e-003**		**78.6291**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2740	12.6738	8.0395	0.0113		0.8553	0.8553		0.7869	0.7869		1,159.5310	1,159.5310	0.3553		1,166.9919
Total	**1.2740**	**12.6738**	**8.0395**	**0.0113**		**0.8553**	**0.8553**		**0.7869**	**0.7869**		**1,159.5310**	**1,159.5310**	**0.3553**		**1,166.9919**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0260	0.1472	0.3131	3.4000e-004	9.1100e-003	1.9600e-003	0.0111	2.6000e-003	1.8000e-003	4.4000e-003		33.1126	33.1126	2.8000e-004		33.1184
Worker	0.0204	0.0317	0.2763	5.4000e-004	0.0494	3.6000e-004	0.0498	0.0131	3.3000e-004	0.0134		43.1331	43.1331	2.4200e-003		43.1839
Total	**0.0464**	**0.1789**	**0.5894**	**8.8000e-004**	**0.0585**	**2.3200e-003**	**0.0609**	**0.0157**	**2.1300e-003**	**0.0178**		**76.2456**	**76.2456**	**2.7000e-003**		**76.3022**

3.5 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2740	12.6738	8.0395	0.0113		0.8553	0.8553		0.7869	0.7869	0.0000	1,159.5310	1,159.5310	0.3553		1,166.9919
Total	**1.2740**	**12.6738**	**8.0395**	**0.0113**		**0.8553**	**0.8553**		**0.7869**	**0.7869**	**0.0000**	**1,159.5310**	**1,159.5310**	**0.3553**		**1,166.9919**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0260	0.1472	0.3131	3.4000e-004	9.1100e-003	1.9600e-003	0.0111	2.6000e-003	1.8000e-003	4.4000e-003		33.1126	33.1126	2.8000e-004		33.1184
Worker	0.0204	0.0317	0.2763	5.4000e-004	0.0494	3.6000e-004	0.0498	0.0131	3.3000e-004	0.0134		43.1331	43.1331	2.4200e-003		43.1839
Total	**0.0464**	**0.1789**	**0.5894**	**8.8000e-004**	**0.0585**	**2.3200e-003**	**0.0609**	**0.0157**	**2.1300e-003**	**0.0178**		**76.2456**	**76.2456**	**2.7000e-003**		**76.3022**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0406	9.8344	7.2432	0.0111		0.6018	0.6018		0.5572	0.5572		1,068.936 6	1,068.936 6	0.2968		1,075.169 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0406**	**9.8344**	**7.2432**	**0.0111**		**0.6018**	**0.6018**		**0.5572**	**0.5572**		**1,068.936 6**	**1,068.936 6**	**0.2968**		**1,075.169 8**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0735	0.1141	0.9947	1.9400e-003	0.1780	1.3000e-003	0.1793	0.0472	1.1900e-003	0.0484		155.2790	155.2790	8.7100e-003		155.4620
Total	**0.0735**	**0.1141**	**0.9947**	**1.9400e-003**	**0.1780**	**1.3000e-003**	**0.1793**	**0.0472**	**1.1900e-003**	**0.0484**		**155.2790**	**155.2790**	**8.7100e-003**		**155.4620**

3.6 Paving - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0406	9.8344	7.2432	0.0111		0.6018	0.6018		0.5572	0.5572	0.0000	1,068.936 6	1,068.936 6	0.2968		1,075.169 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0406**	**9.8344**	**7.2432**	**0.0111**		**0.6018**	**0.6018**		**0.5572**	**0.5572**	**0.0000**	**1,068.936 6**	**1,068.936 6**	**0.2968**		**1,075.169 8**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0735	0.1141	0.9947	1.9400e-003	0.1780	1.3000e-003	0.1793	0.0472	1.1900e-003	0.0484		155.2790	155.2790	8.7100e-003		155.4620
Total	**0.0735**	**0.1141**	**0.9947**	**1.9400e-003**	**0.1780**	**1.3000e-003**	**0.1793**	**0.0472**	**1.1900e-003**	**0.0484**		**155.2790**	**155.2790**	**8.7100e-003**		**155.4620**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	55.8958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**56.2281**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.0800e-003	6.3400e-003	0.0553	1.1000e-004	9.8900e-003	7.0000e-005	9.9600e-003	2.6200e-003	7.0000e-005	2.6900e-003		8.6266	8.6266	4.8000e-004		8.6368
Total	**4.0800e-003**	**6.3400e-003**	**0.0553**	**1.1000e-004**	**9.8900e-003**	**7.0000e-005**	**9.9600e-003**	**2.6200e-003**	**7.0000e-005**	**2.6900e-003**		**8.6266**	**8.6266**	**4.8000e-004**		**8.6368**

3.7 Architectural Coating - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	55.8958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**56.2281**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.0800e-003	6.3400e-003	0.0553	1.1000e-004	9.8900e-003	7.0000e-005	9.9600e-003	2.6200e-003	7.0000e-005	2.6900e-003		8.6266	8.6266	4.8000e-004		8.6368
Total	**4.0800e-003**	**6.3400e-003**	**0.0553**	**1.1000e-004**	**9.8900e-003**	**7.0000e-005**	**9.9600e-003**	**2.6200e-003**	**7.0000e-005**	**2.6900e-003**		**8.6266**	**8.6266**	**4.8000e-004**		**8.6368**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1555	0.5017	1.8362	3.3200e-003	0.2435	6.0300e-003	0.2495	0.0651	5.5400e-003	0.0707		292.6426	292.6426	0.0134		292.9236
Unmitigated	0.1555	0.5017	1.8362	3.3200e-003	0.2435	6.0300e-003	0.2495	0.0651	5.5400e-003	0.0707		292.6426	292.6426	0.0134		292.9236

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	25.99	3.00	3.00	85,717	85,717
Total	25.99	3.00	3.00	85,717	85,717

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Refrigerated Warehouse-No Rail	13.00	13.00	13.00	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455937	0.042338	0.214948	0.150714	0.068093	0.009944	0.017510	0.022507	0.002330	0.001401	0.008743	0.000855	0.004680

5.0 Energy Detail

Historical Energy Use: N

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	lb/day										lb/day					
NaturalGas Mitigated	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.8879	14.8879	2.9000e-004	2.7000e-004	14.9785
NaturalGas Unmitigated	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.8879	14.8879	2.9000e-004	2.7000e-004	14.9785

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Refrigerated Warehouse-No Rail	126.547	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.8879	14.8879	2.9000e-004	2.7000e-004	14.9785
Total		**1.3600e-003**	**0.0124**	**0.0104**	**7.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**		**14.8879**	**14.8879**	**2.9000e-004**	**2.7000e-004**	**14.9785**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Refrigerated Warehouse-No Rail	0.126547	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.8879	14.8879	2.9000e-004	2.7000e-004	14.9785
Total		**1.3600e-003**	**0.0124**	**0.0104**	**7.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**		**14.8879**	**14.8879**	**2.9000e-004**	**2.7000e-004**	**14.9785**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3348	1.0000e-005	1.2600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6400e-003	2.6400e-003	1.0000e-005		2.8000e-003
Unmitigated	0.3348	1.0000e-005	1.2600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6400e-003	2.6400e-003	1.0000e-005		2.8000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0766					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2581					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2000e-004	1.0000e-005	1.2600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6400e-003	2.6400e-003	1.0000e-005		2.8000e-003
Total	**0.3348**	**1.0000e-005**	**1.2600e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.6400e-003**	**2.6400e-003**	**1.0000e-005**		**2.8000e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	0.2581					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2000e-004	1.0000e-005	1.2600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6400e-003	2.6400e-003	1.0000e-005		2.8000e-003
Architectural Coating	0.0766					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.3348**	**1.0000e-005**	**1.2600e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.6400e-003**	**2.6400e-003**	**1.0000e-005**		**2.8000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Corporate Warehouse Expansion

San Luis Obispo County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	12.06	1000sqft	0.28	12,060.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Estimated expansion = 12,060 square feet.

Demolition -

Grading -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Construction Phase - Estimated construction period = 18 months total

Vehicle Trips - The project will not generate new trips, as all existing trips will be diverted from the campus core to the proposed Culinary Support Center. For the purposes of disclosure, such diverted trips (26 weekday, 3 weekend) are included in the model input.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	373.00
tblConstructionPhase	PhaseEndDate	7/7/2017	6/30/2017
tblConstructionPhase	PhaseStartDate	7/1/2017	6/26/2017
tblConstructionPhase	PhaseStartDate	6/24/2017	6/26/2017
tblGrading	MaterialExported	0.00	800.00
tblGrading	MaterialImported	0.00	800.00
tblProjectCharacteristics	OperationalYear	2014	2016
tblVehicleTrips	CC_TL	5.00	13.00
tblVehicleTrips	CNW_TL	5.00	13.00
tblVehicleTrips	ST_TR	2.59	0.25
tblVehicleTrips	SU_TR	2.59	0.25
tblVehicleTrips	WD_TR	2.59	2.16

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	3.7026	42.8404	30.7051	0.0886	2.7384	1.2172	3.9556	0.9383	1.1475	2.0858	0.0000	8,887.587 2	8,887.587 2	0.3585	0.0000	8,895.115 6
2017	57.3412	12.8468	10.1564	0.0162	0.1878	0.8576	0.9643	0.0498	0.7890	0.8047	0.0000	1,522.280 3	1,522.280 3	0.3580	0.0000	1,529.797 6
Total	**61.0439**	**55.6872**	**40.8616**	**0.1048**	**2.9263**	**2.0748**	**4.9199**	**0.9881**	**1.9365**	**2.8905**	**0.0000**	**10,409.86 75**	**10,409.86 75**	**0.7165**	**0.0000**	**10,424.91 31**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	3.7026	42.8404	30.7051	0.0886	2.2434	1.2172	3.4606	0.6985	1.1475	1.8459	0.0000	8,887.587 2	8,887.587 2	0.3585	0.0000	8,895.115 6
2017	57.3412	12.8468	10.1564	0.0162	0.1878	0.8576	0.9643	0.0498	0.7890	0.8047	0.0000	1,522.280 3	1,522.280 3	0.3580	0.0000	1,529.797 6
Total	**61.0439**	**55.6872**	**40.8616**	**0.1048**	**2.4312**	**2.0748**	**4.4249**	**0.7483**	**1.9365**	**2.6506**	**0.0000**	**10,409.86 75**	**10,409.86 75**	**0.7165**	**0.0000**	**10,424.91 31**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**16.92**	**0.00**	**10.06**	**24.27**	**0.00**	**8.30**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3348	1.0000e-005	1.2600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6400e-003	2.6400e-003	1.0000e-005		2.8000e-003
Energy	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.8879	14.8879	2.9000e-004	2.7000e-004	14.9785
Mobile	0.1446	0.4732	1.7365	3.4400e-003	0.2435	6.0100e-003	0.2495	0.0651	5.5200e-003	0.0706		302.8409	302.8409	0.0134		303.1218
Total	**0.4807**	**0.4856**	**1.7482**	**3.5100e-003**	**0.2435**	**6.9500e-003**	**0.2504**	**0.0651**	**6.4600e-003**	**0.0716**		**317.7315**	**317.7315**	**0.0137**	**2.7000e-004**	**318.1032**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3348	1.0000e-005	1.2600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6400e-003	2.6400e-003	1.0000e-005		2.8000e-003
Energy	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.8879	14.8879	2.9000e-004	2.7000e-004	14.9785
Mobile	0.1446	0.4732	1.7365	3.4400e-003	0.2435	6.0100e-003	0.2495	0.0651	5.5200e-003	0.0706		302.8409	302.8409	0.0134		303.1218
Total	**0.4807**	**0.4856**	**1.7482**	**3.5100e-003**	**0.2435**	**6.9500e-003**	**0.2504**	**0.0651**	**6.4600e-003**	**0.0716**		**317.7315**	**317.7315**	**0.0137**	**2.7000e-004**	**318.1032**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/23/2017	5	373	
5	Paving	Paving	6/26/2017	6/30/2017	5	5	
6	Architectural Coating	Architectural Coating	6/26/2017	6/30/2017	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 18,089; Non-Residential Outdoor: 6,030 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	19.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	200.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	5.00	2.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4217	0.0000	0.4217	0.0639	0.0000	0.0639			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.4217**	**0.8039**	**1.2256**	**0.0639**	**0.7674**	**0.8312**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0446	0.5992	0.4059	1.4300e-003	0.0331	7.8400e-003	0.0409	9.0400e-003	7.2100e-003	0.0163		144.3968	144.3968	1.0200e-003		144.4182
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0451	0.0641	0.6391	1.1300e-003	0.0989	7.8000e-004	0.0996	0.0262	7.0000e-004	0.0269		94.1437	94.1437	5.4300e-003		94.2578
Total	**0.0897**	**0.6634**	**1.0450**	**2.5600e-003**	**0.1319**	**8.6200e-003**	**0.1405**	**0.0353**	**7.9100e-003**	**0.0432**		**238.5405**	**238.5405**	**6.4500e-003**		**238.6759**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1898	0.0000	0.1898	0.0287	0.0000	0.0287			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.1898**	**0.8039**	**0.9936**	**0.0287**	**0.7674**	**0.7961**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0446	0.5992	0.4059	1.4300e-003	0.0331	7.8400e-003	0.0409	9.0400e-003	7.2100e-003	0.0163		144.3968	144.3968	1.0200e-003		144.4182
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0451	0.0641	0.6391	1.1300e-003	0.0989	7.8000e-004	0.0996	0.0262	7.0000e-004	0.0269		94.1437	94.1437	5.4300e-003		94.2578
Total	**0.0897**	**0.6634**	**1.0450**	**2.5600e-003**	**0.1319**	**8.6200e-003**	**0.1405**	**0.0353**	**7.9100e-003**	**0.0432**		**238.5405**	**238.5405**	**6.4500e-003**		**238.6759**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**		**973.0842**	**973.0842**	**0.2935**		**979.2481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0226	0.0321	0.3196	5.6000e-004	0.0494	3.9000e-004	0.0498	0.0131	3.5000e-004	0.0135		47.0718	47.0718	2.7200e-003		47.1289
Total	**0.0226**	**0.0321**	**0.3196**	**5.6000e-004**	**0.0494**	**3.9000e-004**	**0.0498**	**0.0131**	**3.5000e-004**	**0.0135**		**47.0718**	**47.0718**	**2.7200e-003**		**47.1289**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.2386**	**0.8338**	**1.0724**	**0.0258**	**0.7671**	**0.7928**	**0.0000**	**973.0842**	**973.0842**	**0.2935**		**979.2481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0226	0.0321	0.3196	5.6000e-004	0.0494	3.9000e-004	0.0498	0.0131	3.5000e-004	0.0135		47.0718	47.0718	2.7200e-003		47.1289
Total	**0.0226**	**0.0321**	**0.3196**	**5.6000e-004**	**0.0494**	**3.9000e-004**	**0.0498**	**0.0131**	**3.5000e-004**	**0.0135**		**47.0718**	**47.0718**	**2.7200e-003**		**47.1289**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9000	0.0000	0.9000	0.4361	0.0000	0.4361			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.9000**	**0.8039**	**1.7039**	**0.4361**	**0.7674**	**1.2034**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.3453	31.5378	21.3612	0.0754	1.7395	0.4125	2.1521	0.4760	0.3794	0.8554		7,599.8329	7,599.8329	0.0535		7,600.9558
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0451	0.0641	0.6391	1.1300e-003	0.0989	7.8000e-004	0.0996	0.0262	7.0000e-004	0.0269		94.1437	94.1437	5.4300e-003		94.2578
Total	**2.3904**	**31.6020**	**22.0004**	**0.0766**	**1.8384**	**0.4133**	**2.2517**	**0.5022**	**0.3801**	**0.8823**		**7,693.9766**	**7,693.9766**	**0.0589**		**7,695.2135**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4050	0.0000	0.4050	0.1962	0.0000	0.1962			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.610 6	1,193.610 6	0.2386		1,198.621 7
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.4050**	**0.8039**	**1.2089**	**0.1962**	**0.7674**	**0.9636**	**0.0000**	**1,193.610 6**	**1,193.610 6**	**0.2386**		**1,198.621 7**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.3453	31.5378	21.3612	0.0754	1.7395	0.4125	2.1521	0.4760	0.3794	0.8554		7,599.832 9	7,599.832 9	0.0535		7,600.955 8
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0451	0.0641	0.6391	1.1300e-003	0.0989	7.8000e-004	0.0996	0.0262	7.0000e-004	0.0269		94.1437	94.1437	5.4300e-003		94.2578
Total	**2.3904**	**31.6020**	**22.0004**	**0.0766**	**1.8384**	**0.4133**	**2.2517**	**0.5022**	**0.3801**	**0.8823**		**7,693.976 6**	**7,693.976 6**	**0.0589**		**7,695.213 5**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646		1,178.554 9	1,178.554 9	0.3555		1,186.020 2
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**		**1,178.554 9**	**1,178.554 9**	**0.3555**		**1,186.020 2**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0230	0.1605	0.2290	3.4000e-004	9.1100e-003	2.2700e-003	0.0114	2.6000e-003	2.0900e-003	4.6900e-003		34.0406	34.0406	2.9000e-004		34.0465
Worker	0.0226	0.0321	0.3196	5.6000e-004	0.0494	3.9000e-004	0.0498	0.0131	3.5000e-004	0.0135		47.0718	47.0718	2.7200e-003		47.1289
Total	**0.0456**	**0.1925**	**0.5485**	**9.0000e-004**	**0.0585**	**2.6600e-003**	**0.0612**	**0.0157**	**2.4400e-003**	**0.0182**		**81.1124**	**81.1124**	**3.0100e-003**		**81.1754**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646	0.0000	1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**	**0.0000**	**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0230	0.1605	0.2290	3.4000e-004	9.1100e-003	2.2700e-003	0.0114	2.6000e-003	2.0900e-003	4.6900e-003		34.0406	34.0406	2.9000e-004		34.0465
Worker	0.0226	0.0321	0.3196	5.6000e-004	0.0494	3.9000e-004	0.0498	0.0131	3.5000e-004	0.0135		47.0718	47.0718	2.7200e-003		47.1289
Total	**0.0456**	**0.1925**	**0.5485**	**9.0000e-004**	**0.0585**	**2.6600e-003**	**0.0612**	**0.0157**	**2.4400e-003**	**0.0182**		**81.1124**	**81.1124**	**3.0100e-003**		**81.1754**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2740	12.6738	8.0395	0.0113		0.8553	0.8553		0.7869	0.7869		1,159.5310	1,159.5310	0.3553		1,166.9919
Total	**1.2740**	**12.6738**	**8.0395**	**0.0113**		**0.8553**	**0.8553**		**0.7869**	**0.7869**		**1,159.5310**	**1,159.5310**	**0.3553**		**1,166.9919**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0211	0.1450	0.2118	3.4000e-004	9.1100e-003	1.9200e-003	0.0110	2.6000e-003	1.7700e-003	4.3700e-003		33.4724	33.4724	2.7000e-004		33.4780
Worker	0.0191	0.0280	0.2751	5.6000e-004	0.0494	3.6000e-004	0.0498	0.0131	3.3000e-004	0.0134		45.2357	45.2357	2.4200e-003		45.2865
Total	**0.0402**	**0.1729**	**0.4869**	**9.0000e-004**	**0.0585**	**2.2800e-003**	**0.0608**	**0.0157**	**2.1000e-003**	**0.0178**		**78.7081**	**78.7081**	**2.6900e-003**		**78.7645**

3.5 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2740	12.6738	8.0395	0.0113		0.8553	0.8553		0.7869	0.7869	0.0000	1,159.5310	1,159.5310	0.3553		1,166.9919
Total	**1.2740**	**12.6738**	**8.0395**	**0.0113**		**0.8553**	**0.8553**		**0.7869**	**0.7869**	**0.0000**	**1,159.5310**	**1,159.5310**	**0.3553**		**1,166.9919**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0211	0.1450	0.2118	3.4000e-004	9.1100e-003	1.9200e-003	0.0110	2.6000e-003	1.7700e-003	4.3700e-003		33.4724	33.4724	2.7000e-004		33.4780
Worker	0.0191	0.0280	0.2751	5.6000e-004	0.0494	3.6000e-004	0.0498	0.0131	3.3000e-004	0.0134		45.2357	45.2357	2.4200e-003		45.2865
Total	**0.0402**	**0.1729**	**0.4869**	**9.0000e-004**	**0.0585**	**2.2800e-003**	**0.0608**	**0.0157**	**2.1000e-003**	**0.0178**		**78.7081**	**78.7081**	**2.6900e-003**		**78.7645**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0406	9.8344	7.2432	0.0111		0.6018	0.6018		0.5572	0.5572		1,068.936 6	1,068.936 6	0.2968		1,075.169 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0406**	**9.8344**	**7.2432**	**0.0111**		**0.6018**	**0.6018**		**0.5572**	**0.5572**		**1,068.936 6**	**1,068.936 6**	**0.2968**		**1,075.169 8**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0687	0.1007	0.9902	2.0300e-003	0.1780	1.3000e-003	0.1793	0.0472	1.1900e-003	0.0484		162.8485	162.8485	8.7100e-003		163.0314
Total	**0.0687**	**0.1007**	**0.9902**	**2.0300e-003**	**0.1780**	**1.3000e-003**	**0.1793**	**0.0472**	**1.1900e-003**	**0.0484**		**162.8485**	**162.8485**	**8.7100e-003**		**163.0314**

3.6 Paving - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0406	9.8344	7.2432	0.0111		0.6018	0.6018		0.5572	0.5572	0.0000	1,068.9366	1,068.9366	0.2968		1,075.1698
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0406**	**9.8344**	**7.2432**	**0.0111**		**0.6018**	**0.6018**		**0.5572**	**0.5572**	**0.0000**	**1,068.9366**	**1,068.9366**	**0.2968**		**1,075.1698**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0687	0.1007	0.9902	2.0300e-003	0.1780	1.3000e-003	0.1793	0.0472	1.1900e-003	0.0484		162.8485	162.8485	8.7100e-003		163.0314
Total	**0.0687**	**0.1007**	**0.9902**	**2.0300e-003**	**0.1780**	**1.3000e-003**	**0.1793**	**0.0472**	**1.1900e-003**	**0.0484**		**162.8485**	**162.8485**	**8.7100e-003**		**163.0314**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	55.8958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**56.2281**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.8200e-003	5.5900e-003	0.0550	1.1000e-004	9.8900e-003	7.0000e-005	9.9600e-003	2.6200e-003	7.0000e-005	2.6900e-003		9.0471	9.0471	4.8000e-004		9.0573
Total	**3.8200e-003**	**5.5900e-003**	**0.0550**	**1.1000e-004**	**9.8900e-003**	**7.0000e-005**	**9.9600e-003**	**2.6200e-003**	**7.0000e-005**	**2.6900e-003**		**9.0471**	**9.0471**	**4.8000e-004**		**9.0573**

3.7 Architectural Coating - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	55.8958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**56.2281**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.8200e-003	5.5900e-003	0.0550	1.1000e-004	9.8900e-003	7.0000e-005	9.9600e-003	2.6200e-003	7.0000e-005	2.6900e-003		9.0471	9.0471	4.8000e-004		9.0573
Total	**3.8200e-003**	**5.5900e-003**	**0.0550**	**1.1000e-004**	**9.8900e-003**	**7.0000e-005**	**9.9600e-003**	**2.6200e-003**	**7.0000e-005**	**2.6900e-003**		**9.0471**	**9.0471**	**4.8000e-004**		**9.0573**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1446	0.4732	1.7365	3.4400e-003	0.2435	6.0100e-003	0.2495	0.0651	5.5200e-003	0.0706		302.8409	302.8409	0.0134		303.1218
Unmitigated	0.1446	0.4732	1.7365	3.4400e-003	0.2435	6.0100e-003	0.2495	0.0651	5.5200e-003	0.0706		302.8409	302.8409	0.0134		303.1218

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	25.99	3.00	3.00	85,717	85,717
Total	25.99	3.00	3.00	85,717	85,717

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Refrigerated Warehouse-No	13.00	13.00	13.00	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455937	0.042338	0.214948	0.150714	0.068093	0.009944	0.017510	0.022507	0.002330	0.001401	0.008743	0.000855	0.004680

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

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	lb/day										lb/day					
NaturalGas Mitigated	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.8879	14.8879	2.9000e-004	2.7000e-004	14.9785
NaturalGas Unmitigated	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.8879	14.8879	2.9000e-004	2.7000e-004	14.9785

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Refrigerated Warehouse-No Rail	126.547	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.8879	14.8879	2.9000e-004	2.7000e-004	14.9785
Total		**1.3600e-003**	**0.0124**	**0.0104**	**7.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**		**14.8879**	**14.8879**	**2.9000e-004**	**2.7000e-004**	**14.9785**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Refrigerated Warehouse-No Rail	0.126547	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.8879	14.8879	2.9000e-004	2.7000e-004	14.9785
Total		**1.3600e-003**	**0.0124**	**0.0104**	**7.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**		**14.8879**	**14.8879**	**2.9000e-004**	**2.7000e-004**	**14.9785**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3348	1.0000e-005	1.2600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6400e-003	2.6400e-003	1.0000e-005		2.8000e-003
Unmitigated	0.3348	1.0000e-005	1.2600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6400e-003	2.6400e-003	1.0000e-005		2.8000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0766					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2581					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2000e-004	1.0000e-005	1.2600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6400e-003	2.6400e-003	1.0000e-005		2.8000e-003
Total	**0.3348**	**1.0000e-005**	**1.2600e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.6400e-003**	**2.6400e-003**	**1.0000e-005**		**2.8000e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	0.2581					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2000e-004	1.0000e-005	1.2600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.6400e-003	2.6400e-003	1.0000e-005		2.8000e-003
Architectural Coating	0.0766					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.3348**	**1.0000e-005**	**1.2600e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.6400e-003**	**2.6400e-003**	**1.0000e-005**		**2.8000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

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APPENDIX B. TRANSPORTATION ANALYSIS

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Central Coast Transportation Consulting
Traffic Engineering & Transportation Planning

MEMORANDUM

Date: August 4, 2015

To: Shawna Scott, SWCA Environmental Consultants, Inc.

From: Joe Fernandez and Lance Knox, CCTC

Subject: Cal Poly Vista Grande Transportation Analysis

This memorandum summarizes our evaluation of transportation issues related to the proposed reconstruction of the Vista Grande dining facility on the Cal Poly San Luis Obispo campus.

BACKGROUND

The project consists of demolition of the existing single level 20,000 square foot dining facility and construction and operation of a new three story 39,000 square foot dining facility. The expansion is planned to support on-campus operations.

The project includes expansion of the existing Corporation Warehouse (Building 82, on Mt. Bishop road north of Highland Drive) to include a Culinary Support Center which would receive truck deliveries for campus food services. Currently trucks deliver food to Building 19 on campus (located in the campus core bounded by S Polyview Drive, Via Carta, and S. Perimeter Road); these truck trips would be diverted to the newly expanded Building 82. This study evaluates the potential transportation impacts associated with the diversion of trucks to the proposed Culinary Support Center.

Study Area and Analysis Scenarios

The study locations and approach were developed in consultation with Cal Poly Facilities staff. The project would shift the truck delivery routes to use the Highland Drive entrance to campus, and would therefore increase trips along the Santa Rosa Street (Highway 1) corridor. The following intersections are evaluated in this study:

1. Santa Rosa Street (Highway 1)/Highland Drive
2. Santa Rosa Street (Highway 1)/Foothill Drive

The City of San Luis Obispo controls the west leg of the Santa Rosa Street/Highland Drive intersection, CSU controls the east leg, and Caltrans controls the north and south legs and operates the signal. The City controls the east and west legs of the Santa Rosa Street/Foothill Drive intersection, while Caltrans controls the north and south legs and operates the signal.

The study intersections are evaluated under the following scenarios:

- **Existing conditions** reflect traffic counts collected in 2014 at the study intersections and the current intersection configurations.
- **Existing Plus Project conditions** add the estimated project trips to existing traffic volumes.
- **Cumulative conditions** reflect buildout of the City of San Luis Obispo's General Plan.
- **Cumulative Plus Project conditions** add the estimated project trips to Cumulative traffic volumes.

The project is not expected to add pedestrian, transit, or bicycle demand to the study intersections so the analysis focuses on vehicular impacts, except where required by City of San Luis Obispo standards.

REGULATORY SETTING

The project would add traffic to transportation facilities operated by the California State University (CSU) system, Caltrans, and the City of San Luis Obispo. Excerpted standards relevant to the proposed project and study locations are summarized below.

California State University

The CSU *Transportation Impact Study Manual* notes the following thresholds of significance for off-site transportation impacts:

- A roadway segment or intersection operates at LOS D or better under a no project scenario and the addition of project trips causes overall traffic operations on the facility to operate unacceptably (LOS E or F).
- A roadway segment or intersection operates at LOS E or LOS F under a no project scenario and the project adds both 10 or more peak hour trips and five seconds or more of peak hour delay, during the same peak hour.
- If an intersection operates at a very poor LOS F (control delay of 120 seconds or more), the threshold of significance shall be an increase in v/c ratio of 0.02 or more.

Caltrans

Caltrans' *Guide for the Preparation of Traffic Impact Studies* notes that "Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities…If an existing State highway facility is operating at less than the appropriate target LOS, the existing measure of effectiveness should be maintained."

City of San Luis Obispo

The City's *Multimodal Transportation Impact Study Guidelines* specify the following standards for signalized intersections:

- Project traffic causes an intersection operating at LOS A, B, C, or D to degrade to LOS E or F for bicycles or autos or causes an intersection operating at LOS A, B, or C to degrade to LOS D, E, or F for pedestrians; or
- Project traffic increases auto volume-to-capacity ratio by 0.01 or more at an intersection currently operating at LOS E or F; or
- Project traffic degrades bicycle or pedestrian LOS at an intersection currently operating at an unacceptable level (LOS E or F for bicycles, LOS D, E, or F for pedestrians) or
- Project causes or exacerbates 95th percentile turning movement queues exceeding available turn pocket capacity.

The City's *Multimodal Transportation Impact Study Guidelines* allow discretion when identifying impacts to non-auto modes based on whether the impacts are contextually significant.

EXISTING CONDITIONS

This section describes the existing transportation system and current operating conditions in the study area.

Existing Roadway Network

Santa Rosa Street/Highway 1 is a north-south facility connecting Northern California to Southern California along the Pacific coastline. The facility also serves as a regional connector to Morro Bay, Los Osos, and Cayucos with four lanes in the study area. Santa Rosa Street/Highway 1 connects to US 101 via access ramps at Olive Street and Walnut Street.

Highland Drive is an east-west arterial with two lanes in the study area. Highland Drive connects residential areas and the University to Santa Rosa Street/Highway 1.

Foothill Boulevard is an east-west arterial with four lanes in the study area. Foothill Boulevard connects Santa Rosa Street/Highway 1 and various commercial and residential areas.

Existing Transportation Conditions

Vehicle, pedestrian, and bicycle counts were collected in 2014. Figure 1 shows the existing traffic volumes, with detailed count sheets provided in Appendix A. Table 1 summarizes the existing vehicular operating conditions at the study intersections.

Table 1: Existing Intersection Auto Levels of Service

Intersection	Peak Hour	V/C[1]	Delay[2]	LOS
1. Santa Rosa	AM	0.88	25.3	C
Street/Highland Drive	PM	0.84	25.9	C
2.Santa Rosa	AM	1.00	38.9	D
Street/Foothill Blvd.	PM	0.83	35.3	D

1. Volume to capacity ratio reported for worst movement.
2. HCM 2010 average control delay in seconds per vehicle.

Both intersections operate at LOS D or better during both peak hours under Existing conditions. This is acceptable under CSU and City standards. The Santa Rosa Street/Foothill Boulevard operates below the Caltrans desired LOS C service level.

Table 2 summarizes the pedestrian and bicycle operating conditions at the study intersections.

Table 2: Existing Intersection Pedestrian and Bicycle Levels of Service						
			Existing AM		Existing PM	
	Intersection	Direction	LOS Score	LOS[1]	LOS Score	LOS[1]
Pedestrian	1. Santa Rosa Street/Highland Drive	NB	3.36	C	3.40	C
		SB	3.41	C	3.31	C
		EB	2.29	B	2.27	B
		WB	2.41	B	2.43	B
	2.Santa Rosa Street/Foothill Blvd.	NB	2.99	C	2.98	C
		SB	3.04	C	3.00	C
		EB	2.68	B	2.68	B
		WB	2.59	B	2.60	B
Bicycle	1. Santa Rosa Street/Highland Drive	NB	2.68	B	2.21	B
		SB	1.93	A	2.29	B
		WB	1.84	A	1.73	A
		EB	1.55	A	1.84	A
	2.Santa Rosa Street/Foothill Blvd.	NB	2.20	B	1.98	A
		SB	2.18	B	2.54	B
		EB	3.02	C	2.61	B
		WB	2.18	B	2.13	B

1.HCM 2010 pedestrian/bicycle score and LOS.

Both study intersections operate at LOS C or better for pedestrians and bicycles under existing conditions. This is acceptable under City standards. CSU and Caltrans do not provide standards for bicycle and pedestrian LOS.

EXISTING PLUS PROJECT CONDITIONS

The amount of project traffic affecting the study locations is estimated in three steps: trip generation, trip distribution, and trip assignment. Trip generation refers to the total number of trips generated by the site. Trip distribution identifies the general origins and destination of these trips, and trip assignment specifies the routes taken to reach these origins and destinations.

Trip generation for the site was developed using information contained in the project description. The existing Culinary Support Center currently receives 12 to 22 truck deliveries per day during the week, deliveries that would divert to the Corporation Warehouse.

The following assumptions were applied in developing a trip generation estimate for the project:

- As a worst-case scenario, 22 trucks were assumed to deliver to the site on a single day. This corresponds to 44 one-way truck trips.
- On weekdays, 40% of the trucks were assumed to arrive and depart during the AM and 40% during the PM peak hours with the remaining 20% arriving outside of the peak hours. This represents a conservative analysis, since deliveries would typically be spread more evenly throughout the day.
- Because trucks typically accelerate, travel, and maneuver more slowly than passenger cars the number of trips has been expressed in terms of passenger car equivalents (PCEs). Each truck was assumed to be equal to 2.5 passenger cars, per Exhibit 11-10 of the 2010 Highway Capacity Manual for rolling

terrain. The number of passenger car equivalent trips were added to the roadway network to show the impact of the project.

Table 3 summarizes the resulting trip generation estimates.

Table 3: Project Trip Generation							
	Number of Trips[1]						
		AM Peak Hour			PM Peak Hour		
Land Use	Daily	In	Out	Total	In	Out	Total
Campus Dining Warehouse	44	9	9	18	9	9	18
Passenger Car Equivalency[2]	110	23	23	46	23	23	46

1. Deliveries assumed 40% of daily trips occur during the AM and 40% during the PM peak hour.
2. Converts truck trips to passenger car equivalent using a factor of 2.5 per exhibit 11-10 of the 2010 HCM.

Source: CCTC, 2015

All of the delivery trucks were assumed to enter the study area from the southeast on Santa Rosa Street and pass through both study intersections before reaching the site. Upon exiting the site all trucks were assumed to return along the Santa Rosa Street corridor towards US 101.

Table 4 summarizes vehicular LOS under Existing Plus Project conditions.

Table 4: Existing and Existing Plus Project Intersection Levels of Service								
	Peak	Existing			Existing Plus Project			
Intersection	Hour	V/C[1]	Delay[2]	LOS	V/C[1]	V/C Delta	Delay[2]	LOS
1. Santa Rosa Street/Highland Drive	AM	0.88	25.3	C	0.88	0.00	25.6	C
	PM	0.84	25.9	C	0.84	0.00	26.7	C
2.Santa Rosa Street/Foothill Blvd.	AM	1.00	38.9	D	1.00	0.00	39.5	D
	PM	0.83	35.3	D	0.84	0.01	35.8	D

1. Volume to capacity ratio reported for worst movement.
2. HCM 2010 average control delay in seconds per vehicle.

The addition of project traffic does not change the worst approach V/C ratio and increases delay by less than one second at both study intersections. This is a less-than-significant impact under CSU, City of San Luis Obispo, and Caltrans standards.

Table 5 summarizes the queues for the study locations under Existing and Existing Plus Project conditions. Note that the CSU and Caltrans standards do not address queues, but the City standards do.

Table 5: Existing and Existing Plus Project Queues					
				95th Percentile Queues (feet)[1]	
Intersection	Movement	Storage Length	Peak Hour	Existing	Existing Plus Project
1. Santa Rosa Street/Highland Drive	WBL	70	AM	25	57
			PM	**138**	**152**
	SBL	260	AM	#159	#159
			PM	70	70
2.Santa Rosa Street/Foothill Blvd.	EBL	200	AM	189	189
			PM	136	136
	WBL	125	AM	72	72
			PM	**143**	**143**
	NBL	250	AM	93	93
			PM	145	145
	SBL	350	AM	80	80
			PM	169	169

1. Queue length that would not be exceeded 95 percent of the time. Queues are reported only for turning movements where queues exceed storage capacity.
Movements with queues exceeding storage are highlighted with bold numbers.
#. 95th percentile volume exceeds capacity, queue may be longer.

The intersection of Santa Rosa Street/Highland Drive operates with a 95th percentile queue length that exceeds the storage length for the westbound left movement during the PM peak hour both with and without the project. The westbound approach is controlled by CSU, which does not have a significance threshold for queuing, so this is a less-than-significant impact.

The intersection of Santa Rosa Street/Foothill Boulevard operates with a 95th percentile queue length that exceeds the storage length for the westbound left movement during the PM peak hour both with and without the project. The project would not add traffic to this movement, and the queue length would not change with the addition of project traffic to the intersection. This is a less-than-significant impact.

Table 6 summarizes pedestrian and bicycle LOS under Existing Plus Project conditions.

Table 6: Existing Plus Project Intersection Pedestrian and Bicycle Levels of Service

	Intersection	Peak Hour	Direction	Existing LOS Score	Existing LOS[1]	Existing Plus Project LOS Score	Existing Plus Project LOS[1]
Pedestrian	1. Santa Rosa Street/Highland Drive	AM	NB	3.36	C	3.38	C
			SB	3.41	C	3.41	C
			EB	2.29	B	2.29	B
			WB	2.41	B	2.42	B
		PM	NB	3.40	C	3.41	C
			SB	3.31	C	3.31	C
			EB	2.27	B	2.27	B
			WB	2.43	B	2.44	B
	2.Santa Rosa Street/Foothill Blvd.	AM	NB	2.99	C	3.00	C
			SB	3.04	C	3.04	C
			EB	2.68	B	2.68	B
			WB	2.59	B	2.59	B
		PM	NB	2.98	C	2.99	C
			SB	3.00	C	3.00	C
			EB	2.68	B	2.68	B
			WB	2.60	B	2.60	B
Bicycle	1. Santa Rosa Street/Highland Drive	AM	NB	2.68	B	2.70	B
			SB	1.93	A	1.93	A
			EB	1.84	A	1.84	A
			WB	1.55	A	1.60	A
		PM	NB	2.21	B	2.23	B
			SB	2.29	B	2.29	B
			EB	1.73	A	1.73	A
			WB	1.84	A	1.88	A
	2.Santa Rosa Street/Foothill Blvd.	AM	NB	2.20	B	2.22	B
			SB	2.18	B	2.20	B
			EB	3.02	C	3.02	C
			WB	2.18	B	2.18	B
		PM	NB	1.98	A	2.00	B
			SB	2.54	B	2.56	B
			EB	2.61	B	2.61	B
			WB	2.13	B	2.13	B

1.HCM 2010 pedestrian/bicycle score and LOS.

Both study intersections operate acceptably at LOS C or better for pedestrians and bicycles with the addition of project traffic.

CUMULATIVE CONDITIONS

Cumulative conditions reflect buildout of the City of San Luis Obispo's General Plan. Cumulative traffic forecasts were obtained from the *Cal Poly Student Housing South Transportation Impact Analysis* (Fehr & Peers, November 2013), which applies the City's Transportation Demand Model to forecast future travel. Note that trips from the Student Housing South project have been included in the Cumulative forecasts. No roadway network improvements were assumed to be in place under Cumulative conditions, so the network is the same as Existing conditions.

Cumulative and Cumulative Plus Project volumes are shown on Figure 1. Table 7 summarizes vehicular LOS under Cumulative and Cumulative Plus Project conditions.

Table 7: Cumulative and Cumulative Plus Project Intersection Auto Levels of Service

	Peak	Cumulative			Cumulative Plus Project			
Intersection	**Hour**	**V/C[1]**	**Delay[2]**	**LOS**	**V/C[1]**	**V/C Delta**	**Delay[2]**	**LOS**
1. Santa Rosa Street/Highland Drive	AM	1.15	33.2	C	1.15	0.00	34.8	C
	PM	0.92	37.6	D	0.92	0.00	37.5	D
2.Santa Rosa Street/Foothill Blvd.	AM	**1.15**	**67.3**	**E**	**1.15**	**0.00**	**68.7**	**E**
	PM	**1.03**	**61.7**	**E**	**1.03**	**0.00**	**63.0**	**E**

1. Volume to capacity ratio reported for worst movement.
2. HCM 2010 average control delay in seconds per vehicle.

The intersection of Santa Rosa Street/Highland Drive would operate at LOS D during the PM peak hour both with and without the project. This is acceptable under CSU and City standards, but below Caltrans' desired LOS C operations. The addition of project traffic does not change the service level and changes delay by less than one second. This is a less-than-significant impact.

The intersection of Santa Rosa Street/Foothill Boulevard would operate at LOS E under Cumulative and Cumulative Plus Project conditions. The addition of project traffic does not change the V/C ratio and increases delay by less than two seconds. This is a less-than-significant impact.

Table 8 summarizes the queues under Cumulative and Cumulative Plus Project conditions.

Table 8: Cumulative and Cumulative Plus Project Queues

Intersection	Movement	Storage Length	Peak Hour	95th Percentile Queues (feet)[1] Cumulative	Cumulative Plus Project
1. Santa Rosa Street/Highland Drive	WBL	70	AM	76	91
			PM	**134**	**161**
	SBL	260	AM	**#344**	**#344**
			PM	143	143
2.Santa Rosa Street/Foothill Blvd.	EBL	200	AM	**#334**	**#334**
			PM	**#298**	**#298**
	WBL	125	AM	**#167**	**#167**
			PM	**#268**	**#268**
	NBL	250	AM	#121	#121
			PM	#231	#231
	SBL	350	AM	#263	#263
			PM	#219	#219

1. Queue length that would not be exceeded 95 percent of the time. Queues are reported only for turning movements where queues exceed storage capacity.
Movements with queues exceeding storage are highlighted with bold numbers.
#. 95th percentile volume exceeds capacity, queue may be longer.

The intersection of Santa Rosa Street/Highland Drive operates with a 95th percentile queue length that exceeds the storage length for the westbound left and the southbound left movements. No queueing issues are reported for the City-controlled west leg of the intersection, so this is a less-than-significant impact.

The intersection of Santa Rosa Street/Foothill Boulevard operates with a 95th percentile queue length that exceeds the storage length for the eastbound left and westbound left movements during the AM and PM peak hours. The project would not add traffic to this movement, and the queue length would not change with the addition of project traffic to the intersection. This is a less-than-significant impact.

Table 9 summarizes pedestrian and bicycle LOS under Cumulative Plus Project conditions.

Table 9: Cumulative Plus Project Intersection Pedestrian and Bicycle Levels of Service

	Intersection	Peak Hour	Direction	Cumulative LOS Score	Cumulative LOS[1]	Cumulative Plus Project LOS Score	Cumulative Plus Project LOS[1]
Pedestrian	1. Santa Rosa Street/Highland Drive	AM	**NB**	**3.52**	**D**	**3.54**	**D**
			SB	**3.59**	**D**	**3.59**	**D**
			EB	2.29	B	2.29	B
			WB	2.47	B	2.48	B
		PM	**NB**	**3.52**	**D**	**3.53**	**D**
			SB	**3.62**	**D**	**3.62**	**D**
			EB	2.37	B	2.37	B
			WB	2.44	B	2.45	B
	2.Santa Rosa Street/Foothill Blvd.	AM	NB	3.05	C	3.06	C
			SB	3.12	C	3.13	C
			EB	2.67	B	2.67	B
			WB	2.64	B	2.64	B
		PM	NB	3.10	C	3.10	C
			SB	3.10	C	3.11	C
			EB	2.77	C	2.77	C
			WB	2.70	B	2.70	B
Bicycle	1. Santa Rosa Street/Highland Drive	AM	NB	2.88	C	2.90	C
			SB	2.30	B	2.30	B
			EB	1.83	A	1.83	A
			WB	1.59	A	1.63	A
		PM	NB	2.47	B	2.49	B
			SB	2.56	B	2.56	B
			EB	1.88	A	1.88	A
			WB	2.08	B	2.12	B
	2.Santa Rosa Street/Foothill Blvd.	AM	NB	2.48	B	2.50	B
			SB	2.42	B	2.45	B
			EB	3.14	C	3.14	C
			WB	2.11	B	2.11	B
		PM	NB	2.48	B	2.50	B
			SB	2.72	B	2.74	B
			EB	2.87	C	2.87	C
			WB	2.38	B	2.38	B

1.HCM 2010 pedestrian/bicycle score and LOS.

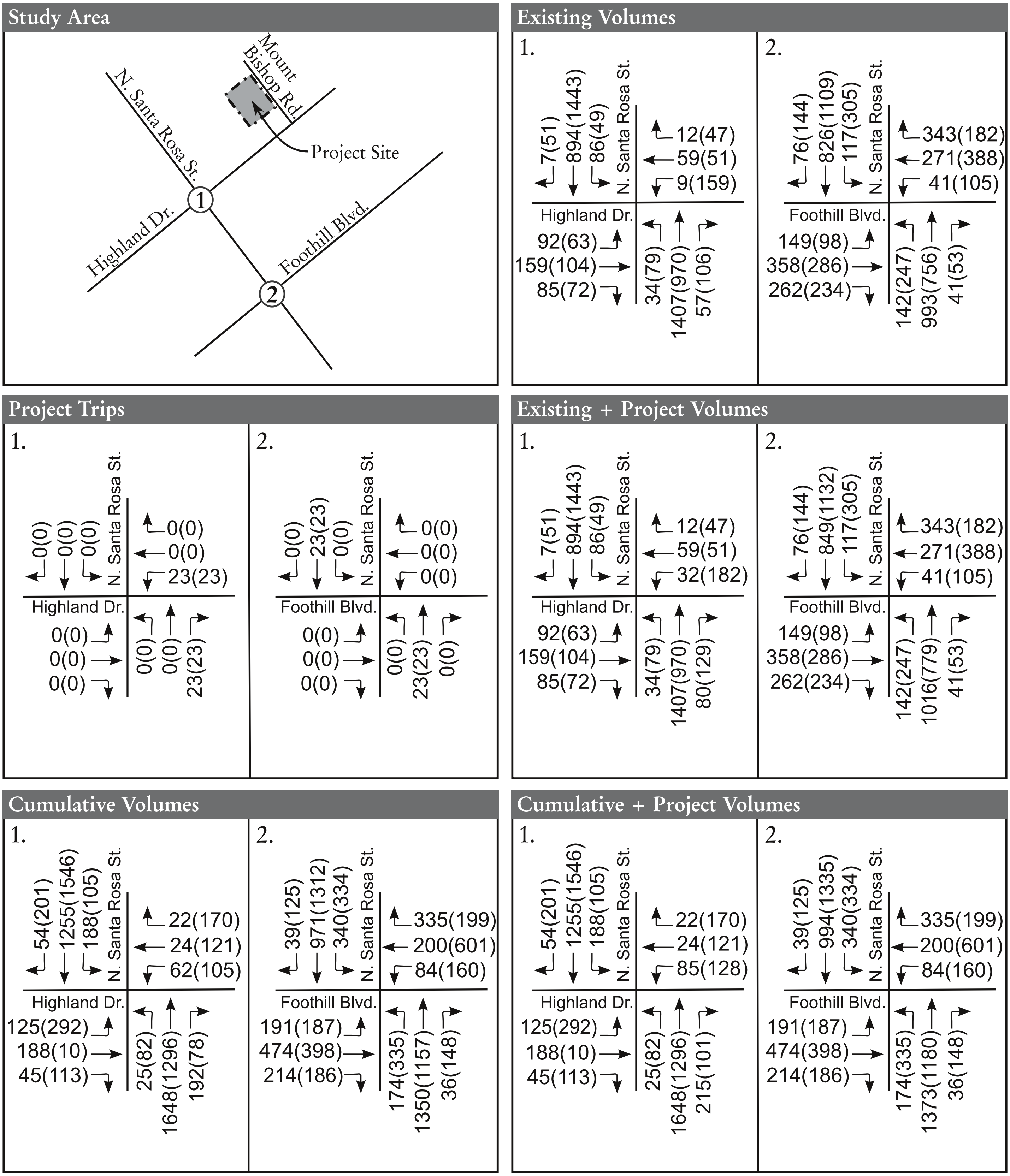
The intersection of Santa Rosa Street/Highland Drive would operate at LOS D for pedestrians for the northbound and southbound directions both with and without the project. This is below the City's desired service level for pedestrians. The addition of project traffic increases the pedestrian LOS score by .02 or less and would not result in a noticeable degradation in service levels for pedestrians. This is a contextually insignificant change.

CONCLUSIONS

The project would not result in significant impacts to the study locations based on CSU, City of San Luis Obispo, and Caltrans standards.

Enclosures: Figure 1: Traffic Volume Summary
Attachment A: Traffic Counts
Attachment B: LOS/Queue Calculation Sheets

Figure 1: Traffic Volume Summary



Central Coast Transportation Consulting
Traffic Engineering & Transportation Planning

Legend:
xx(yy) - AM(PM) Peak Hour Traffic Volumes
7 - Study Area Intersection

Appendix A: Traffic Count Sheets

ATLANTIC & PACIFIC DATA CORPORATION

TURNING MOVEMENT COUNTS

SAN LUIS OBISPO

CA14-0221-0068

ALL HOURS

SANTA ROSA — SOUTHBOUND ENTER

	TOTAL	RIGHT	THRU	LEFT
TOTAL	**6,729**	**163**	**6,275**	**291**
AM	**1,871**	19	1,693	159
MD	**2,039**	60	1,918	61
PM	**2,819**	84	2,664	71

SANTA ROSA — NB EXIT

	NB EXIT
TOTAL	**6,816**
AM	2,608
MD	2,128
PM	2,080

HIGHLAND — WESTBOUND ENTER

	PM	MD	AM	TOTAL
TOTAL	**521**	**477**	**174**	**1,172**
RIGHT	117	75	20	**212**
THRU	117	105	136	**358**
LEFT	287	297	18	**602**

HIGHLAND — EB EXIT

PM	MD	AM	TOTAL
398	383	554	**1,335**

HIGHLAND — WB EXIT

TOTAL	AM	MD	PM
805	216	262	327

HIGHLAND — EASTBOUND ENTER

	TOTAL	AM	MD	PM
LEFT	**499**	184	165	150
THRU	**603**	298	149	156
RIGHT	**448**	164	144	140
TOTAL	**1,550**	**646**	**458**	**446**

SANTA ROSA — NORTHBOUND ENTER

	LEFT	THRU	RIGHT	TOTAL
AM	61	2,404	97	**2,562**
MD	97	1,888	173	**2,158**
PM	126	1,813	171	**2,110**
TOTAL	**284**	**6,105**	**441**	**6,830**

SANTA ROSA — SB EXIT

	SB EXIT
AM	1,875
MD	2,359
PM	3,091
TOTAL	**7,325**

PEAK HOUR

AM	7:30 AM
MD	11:30 AM
PM	3:15 PM

SANTA ROSA — SOUTHBOUND ENTER

	TOTAL	RIGHT	THRU	LEFT
TOTAL	**3,572**	**88**	**3,321**	**163**
AM	**987**	7	894	86
MD	**1,042**	30	984	28
PM	**1,543**	51	1,443	49

SANTA ROSA — NB EXIT

	NB EXIT
TOTAL	**3,721**
AM	1,511
MD	1,130
PM	1,080

HIGHLAND — WESTBOUND ENTER

	PM	MD	AM	TOTAL
TOTAL	**257**	**240**	**80**	**577**
RIGHT	47	44	12	**103**
THRU	51	47	59	**157**
LEFT	159	149	9	**317**

HIGHLAND — EB EXIT

PM	MD	AM	TOTAL
259	185	302	**746**

HIGHLAND — WB EXIT

TOTAL	AM	MD	PM
404	100	123	181

HIGHLAND — EASTBOUND ENTER

	TOTAL	AM	MD	PM
LEFT	**247**	92	92	63
THRU	**342**	159	79	104
RIGHT	**217**	85	60	72
TOTAL	**806**	**336**	**231**	**239**

SANTA ROSA — NORTHBOUND ENTER

	LEFT	THRU	RIGHT	TOTAL
AM	34	1,407	57	**1,498**
MD	46	994	78	**1,118**
PM	79	970	106	**1,155**
Total	**159**	**3,371**	**241**	**3,771**

SANTA ROSA — SB EXIT

	SB EXIT
AM	988
MD	1,193
PM	1,674
Total	**3,855**

ATLANTIC & PACIFIC DATA CORPORATION

TURNING MOVEMENT COUNTS

SAN LUIS OBISPO

CA14-0221-0068

ALL HOURS

SANTA ROSA — SOUTHBOUND ENTER

	SOUTHBOUND ENTER	RIGHT	THRU	LEFT
TOTAL	7,076	622	5,186	1,268
AM	1,922	156	1,427	339
MD	2,225	203	1,664	358
PM	2,929	263	2,095	571

	NB EXIT
TOTAL	6,752
AM	2,548
MD	2,128
PM	2,076

FOOTHILL — WESTBOUND ENTER

	WESTBOUND ENTER	RIGHT	THRU	LEFT
TOTAL	3,268	1,291	1,513	464
AM	1,021	592	355	74
MD	980	352	438	190
PM	1,267	347	720	200

	EB EXIT
TOTAL	3,097
AM	1,074
MD	824
PM	1,199

FOOTHILL — EASTBOUND ENTER

	EASTBOUND ENTER	LEFT	THRU	RIGHT
TOTAL	3,569	709	1,566	1,294
AM	1,377	265	650	462
MD	1,017	257	382	378
PM	1,175	187	534	454

	WB EXIT
TOTAL	3,263
AM	769
MD	1,061
PM	1,433

SANTA ROSA — NORTHBOUND ENTER

	LEFT	THRU	RIGHT	NORTHBOUND ENTER
AM	258	1,691	85	2,034
MD	420	1,519	84	2,023
PM	450	1,542	94	2,086
TOTAL	1,128	4,752	263	6,143

	SB EXIT
AM	1,963
MD	2,232
PM	2,749
TOTAL	6,944

PEAK HOUR

AM	7:30 AM
MD	11:45 AM
PM	3:30 PM

SANTA ROSA — SOUTHBOUND ENTER

	SOUTHBOUND ENTER	RIGHT	THRU	LEFT
TOTAL	3,802	331	2,789	682
AM	1,079	76	826	177
MD	1,165	111	854	200
PM	1,558	144	1,109	305

	NB EXIT
TOTAL	3,611
AM	1,485
MD	1,090
PM	1,036

FOOTHILL — WESTBOUND ENTER

	WESTBOUND ENTER	RIGHT	THRU	LEFT
TOTAL	1,781	699	827	255
AM	601	343	217	41
MD	505	174	222	109
PM	675	182	388	105

	EB EXIT
TOTAL	1,638
AM	575
MD	419
PM	644

FOOTHILL — EASTBOUND ENTER

	EASTBOUND ENTER	LEFT	THRU	RIGHT
TOTAL	1,889	381	821	687
AM	768	149	357	262
MD	503	134	178	191
PM	618	98	286	234

	WB EXIT
TOTAL	1,777
AM	435
MD	563
PM	779

SANTA ROSA — NORTHBOUND ENTER

	LEFT	THRU	RIGHT	NORTHBOUND ENTER
AM	142	993	41	1,176
MD	230	782	41	1,053
PM	247	756	53	1,056
Total	619	2,531	135	3,285

	SB EXIT
AM	1,129
MD	1,154
PM	1,448
Total	3,731

Appendix B: LOS Calculation Sheets

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	99	301	10	71	14	40	1675	68	102	1064	8
v/c Ratio	0.47	0.65	0.11	0.73	0.07	0.37	0.84	0.07	0.78	0.49	0.01
Control Delay	51.3	42.4	53.6	91.1	0.7	60.6	24.5	1.7	88.2	13.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.3	42.4	53.6	91.1	0.7	60.6	24.5	1.7	88.2	13.1	0.0
Queue Length 50th (ft)	71	89	7	52	0	27	466	0	71	215	0
Queue Length 95th (ft)	120	125	25	#128	0	61	564	11	#159	275	0
Internal Link Dist (ft)		560		356			532			321	
Turn Bay Length (ft)	70		200		200	190		330	260		340
Base Capacity (vph)	518	1053	92	97	207	113	2067	947	130	2170	971
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.29	0.11	0.73	0.07	0.35	0.81	0.07	0.78	0.49	0.01

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	159	85	9	59	12	34	1407	57	86	894	7
Future Volume (veh/h)	92	159	85	9	59	12	34	1407	57	86	894	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.85	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	110	189	101	11	70	14	40	1675	68	102	1064	8
Adj No. of Lanes	1	2	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	240	309	154	93	98	70	50	1910	841	128	2115	924
Arrive On Green	0.14	0.14	0.14	0.05	0.05	0.05	0.03	0.55	0.55	0.07	0.61	0.61
Sat Flow, veh/h	1740	2235	1114	1740	1827	1318	1740	3471	1529	1740	3471	1516
Grp Volume(v), veh/h	110	152	138	11	70	14	40	1675	68	102	1064	8
Grp Sat Flow(s),veh/h/ln	1740	1827	1521	1740	1827	1318	1740	1736	1529	1740	1736	1516
Q Serve(g_s), s	6.0	8.0	8.8	0.6	3.9	1.0	2.3	43.1	2.2	5.9	17.8	0.2
Cycle Q Clear(g_c), s	6.0	8.0	8.8	0.6	3.9	1.0	2.3	43.1	2.2	5.9	17.8	0.2
Prop In Lane	1.00		0.73	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	240	253	210	93	98	70	50	1910	841	128	2115	924
V/C Ratio(X)	0.46	0.60	0.66	0.12	0.72	0.20	0.80	0.88	0.08	0.80	0.50	0.01
Avail Cap(c_a), veh/h	592	622	518	102	107	77	118	2144	944	135	2178	951
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	41.6	42.0	46.3	47.9	46.5	49.6	20.1	10.9	46.9	11.3	7.9
Incr Delay (d2), s/veh	1.4	2.3	3.5	0.6	18.8	1.4	23.9	4.1	0.0	26.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	4.2	3.9	0.3	2.5	0.4	1.5	21.6	0.9	3.8	8.5	0.1
LnGrp Delay(d),s/veh	42.1	43.9	45.4	46.9	66.7	47.9	73.5	24.2	10.9	73.4	11.5	7.9
LnGrp LOS	D	D	D	D	E	D	E	C	B	E	B	A
Approach Vol, veh/h		400			95			1783			1174	
Approach Delay, s/veh		43.9			61.6			24.8			16.9	
Approach LOS		D			E			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	62.0		18.2	7.0	68.1		9.5
Change Period (Y+Rc), s	5.5	* 5.5		4.0	4.0	5.5		4.0
Max Green Setting (Gmax), s	8.0	* 64		35.0	7.0	64.5		6.0
Max Q Clear Time (g_c+I1), s	7.9	45.1		10.8	4.3	19.8		5.9
Green Ext Time (p_c), s	0.0	11.4		2.3	0.0	9.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		25.3
HCM 2010 LOS		C

Notes

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	51.8	67.9	80.8	73.4
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	10	0	0	30
85th percentile speed (mph)	30	30	55	55
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	65.0	65.0	65.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.29	2.41	3.36	3.41
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	400	95	1783	1174
Effct. Green for Bike (s)	14.2	6.0	61.2	67.0
Cross Street Width (ft)	80.8	73.4	67.9	51.8
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	8.0	8.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	218	92	942	1031
Bicycle Delay (s/bike)	51.6	59.1	18.2	15.3
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	1.84	1.55	2.68	1.93
Bicycle LOS	A	A	B	A

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	171	411	301	47	705	163	1141	47	134	949	87
v/c Ratio	0.71	0.69	0.48	0.42	0.82	0.54	0.84	0.07	0.53	0.72	0.14
Control Delay	61.7	38.9	11.7	62.7	36.4	55.0	35.6	0.2	57.4	31.9	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.7	38.9	11.7	62.7	36.4	55.0	35.6	0.2	57.4	31.9	2.2
Queue Length 50th (ft)	119	262	43	33	187	59	379	0	49	301	0
Queue Length 95th (ft)	189	358	112	72	248	93	461	0	80	372	13
Internal Link Dist (ft)		383			549		522			729	
Turn Bay Length (ft)	200			125		250		250	350		450
Base Capacity (vph)	293	689	685	120	1010	334	1568	719	267	1499	692
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.60	0.44	0.39	0.70	0.49	0.73	0.07	0.50	0.63	0.13

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	358	262	41	271	343	142	993	41	117	826	76
Future Volume (veh/h)	149	358	262	41	271	343	142	993	41	117	826	76
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	171	411	301	47	311	394	163	1141	47	134	949	87
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	203	631	507	60	457	396	227	1415	608	194	1381	593
Arrive On Green	0.12	0.35	0.35	0.03	0.26	0.26	0.07	0.41	0.41	0.06	0.40	0.40
Sat Flow, veh/h	1740	1827	1466	1740	1736	1504	3375	3471	1492	3375	3471	1490
Grp Volume(v), veh/h	171	411	301	47	311	394	163	1141	47	134	949	87
Grp Sat Flow(s),veh/h/ln	1740	1827	1466	1740	1736	1504	1688	1736	1492	1688	1736	1490
Q Serve(g_s), s	10.2	20.2	18.0	2.9	17.1	27.8	5.0	30.9	2.0	4.1	24.1	4.0
Cycle Q Clear(g_c), s	10.2	20.2	18.0	2.9	17.1	27.8	5.0	30.9	2.0	4.1	24.1	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	631	507	60	457	396	227	1415	608	194	1381	593
V/C Ratio(X)	0.84	0.65	0.59	0.79	0.68	1.00	0.72	0.81	0.08	0.69	0.69	0.15
Avail Cap(c_a), veh/h	278	653	524	114	457	396	317	1485	638	254	1420	609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.0	29.4	28.7	51.0	35.2	39.1	48.6	27.8	19.3	49.2	26.5	20.5
Incr Delay (d2), s/veh	15.5	2.2	1.7	19.9	4.1	43.9	4.7	3.3	0.1	5.2	1.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	10.5	7.5	1.7	8.7	16.3	2.5	15.4	0.9	2.1	11.7	1.6
LnGrp Delay(d),s/veh	61.5	31.6	30.4	70.8	39.3	83.0	53.3	31.1	19.3	54.4	27.9	20.6
LnGrp LOS	E	C	C	E	D	F	D	C	B	D	C	C
Approach Vol, veh/h		883			752			1351			1170	
Approach Delay, s/veh		37.0			64.2			33.3			30.4	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	47.9	7.7	40.7	11.1	46.8	16.4	32.0
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0
Max Green Setting (Gmax), s	8.0	45.5	7.0	38.0	10.0	43.5	17.0	28.0
Max Q Clear Time (g_c+I1), s	6.1	32.9	4.9	22.2	7.0	26.1	12.2	29.8
Green Ext Time (p_c), s	0.1	10.5	0.0	8.3	0.2	13.8	0.2	0.0

Intersection Summary			
HCM 2010 Ctrl Delay			38.9
HCM 2010 LOS			D

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	61.5	60.1	84.3	84.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	60	10	10	20
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	49.8	49.8	49.8	49.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.68	2.59	2.99	3.04
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	883	752	1351	1170
Effct. Green for Bike (s)	33.8	23.6	40.6	39.2
Cross Street Width (ft)	84.3	84.0	60.1	61.5
Through Lanes Number	1	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	6.0
Paved Shoulder Width (ft)	0.0	0.0	8.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	588	410	706	682
Bicycle Delay (s/bike)	28.7	36.3	24.1	25.0
Bicycle Compliance	Fair	Poor	Fair	Fair
Bicycle LOS Score	3.02	2.18	2.20	2.18
Bicycle LOS	C	B	B	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	59	190	108	111	49	82	1010	110	51	1503	53
v/c Ratio	0.37	0.51	0.58	0.58	0.17	0.68	0.82	0.18	0.11	0.80	0.06
Control Delay	50.1	30.9	56.3	56.0	1.2	76.7	36.0	4.8	36.0	23.9	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	30.9	56.3	56.0	1.2	76.7	36.0	4.8	36.0	23.9	1.8
Queue Length 50th (ft)	40	39	70	72	0	53	308	0	25	384	0
Queue Length 95th (ft)	85	77	138	142	0	#144	395	34	70	611	12
Internal Link Dist (ft)		328		337			518			354	
Turn Bay Length (ft)	70		200		200	190		330	260		340
Base Capacity (vph)	546	1109	244	250	344	120	2008	945	448	1905	863
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.17	0.44	0.44	0.14	0.68	0.50	0.12	0.11	0.79	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	104	72	159	51	47	79	970	106	49	1443	51
Future Volume (veh/h)	63	104	72	159	51	47	79	970	106	49	1443	51
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	66	108	75	110	132	49	82	1010	110	51	1503	53
Adj No. of Lanes	1	2	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	199	236	148	176	185	149	120	1293	577	340	1790	799
Arrive On Green	0.11	0.11	0.11	0.10	0.10	0.10	0.07	0.37	0.37	0.20	0.52	0.52
Sat Flow, veh/h	1740	2061	1294	1740	1827	1475	1740	3471	1549	1740	3471	1548
Grp Volume(v), veh/h	66	94	89	110	132	49	82	1010	110	51	1503	53
Grp Sat Flow(s),veh/h/ln	1740	1827	1528	1740	1827	1475	1740	1736	1549	1740	1736	1548
Q Serve(g_s), s	3.1	4.2	4.8	5.3	6.1	2.7	4.0	22.6	4.2	2.1	32.5	1.5
Cycle Q Clear(g_c), s	3.1	4.2	4.8	5.3	6.1	2.7	4.0	22.6	4.2	2.1	32.5	1.5
Prop In Lane	1.00		0.85	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	209	175	176	185	149	120	1293	577	340	1790	799
V/C Ratio(X)	0.33	0.45	0.51	0.62	0.71	0.33	0.68	0.78	0.19	0.15	0.84	0.07
Avail Cap(c_a), veh/h	694	728	609	297	312	252	139	2313	1032	340	2194	979
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	36.3	36.5	37.8	38.2	36.7	39.9	24.4	18.6	29.3	18.1	10.7
Incr Delay (d2), s/veh	1.0	1.5	2.3	3.6	5.0	1.3	10.8	1.1	0.2	0.2	2.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.2	2.1	2.7	3.3	1.2	2.3	11.0	1.8	1.0	16.1	0.7
LnGrp Delay(d),s/veh	36.7	37.8	38.8	41.4	43.2	37.9	50.7	25.4	18.8	29.5	20.7	10.7
LnGrp LOS	D	D	D	D	D	D	D	C	B	C	C	B
Approach Vol, veh/h		249			291			1202			1607	
Approach Delay, s/veh		37.9			41.7			26.5			20.7	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	22.6	38.2		14.1	10.1	50.8		12.9
Change Period (Y+Rc), s	5.5	* 5.5		4.0	4.0	5.5		4.0
Max Green Setting (Gmax), s	4.0	* 59		35.0	7.0	55.5		15.0
Max Q Clear Time (g_c+I1), s	4.1	24.6		6.8	6.0	34.5		8.1
Green Ext Time (p_c), s	0.0	8.1		1.4	0.0	10.8		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	25.9
HCM 2010 LOS	C

Notes

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	52.4	68.7	81.5	73.8
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	None	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	0.0	0.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	10	0	30	20
85th percentile speed (mph)	30	30	55	55
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	65.0	65.0	56.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.27	2.43	3.40	3.31
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	249	268	1202	1607
Effct. Green for Bike (s)	10.2	11.6	36.0	55.2
Cross Street Width (ft)	81.5	73.8	68.7	52.4
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	8.0	8.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	157	178	554	849
Bicycle Delay (s/bike)	55.2	53.9	34.0	21.5
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	1.73	1.84	2.21	2.29
Bicycle LOS	A	A	B	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	101	295	241	108	588	255	779	55	314	1143	148
v/c Ratio	0.59	0.77	0.49	0.58	0.70	0.67	0.58	0.09	0.68	0.80	0.21
Control Delay	64.2	54.6	8.6	61.6	39.4	56.7	28.6	0.3	53.2	33.2	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.2	54.6	8.6	61.6	39.4	56.7	28.6	0.3	53.2	33.2	4.3
Queue Length 50th (ft)	72	205	0	77	194	94	231	0	114	375	0
Queue Length 95th (ft)	136	311	67	143	264	145	314	0	169	487	40
Internal Link Dist (ft)		490			549		522			729	
Turn Bay Length (ft)	200			125		250		250	350		450
Base Capacity (vph)	205	504	563	222	958	431	1572	723	563	1709	811
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.59	0.43	0.49	0.61	0.59	0.50	0.08	0.56	0.67	0.18

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	286	234	105	388	182	247	756	53	305	1109	144
Future Volume (veh/h)	98	286	234	105	388	182	247	756	53	305	1109	144
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.91	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	101	295	241	108	400	188	255	779	55	314	1143	148
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	127	451	350	161	595	274	375	1363	588	392	1380	594
Arrive On Green	0.07	0.25	0.25	0.09	0.27	0.27	0.11	0.39	0.39	0.12	0.40	0.40
Sat Flow, veh/h	1740	1827	1417	1740	2234	1029	3375	3471	1499	3375	3471	1495
Grp Volume(v), veh/h	101	295	241	108	309	279	255	779	55	314	1143	148
Grp Sat Flow(s),veh/h/ln	1740	1827	1417	1740	1736	1528	1688	1736	1499	1688	1736	1495
Q Serve(g_s), s	6.0	15.3	16.2	6.3	16.7	17.3	7.6	18.5	1.8	9.5	31.1	5.2
Cycle Q Clear(g_c), s	6.0	15.3	16.2	6.3	16.7	17.3	7.6	18.5	1.8	9.5	31.1	5.2
Prop In Lane	1.00		1.00	1.00		0.67	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	127	451	350	161	462	407	375	1363	588	392	1380	594
V/C Ratio(X)	0.80	0.65	0.69	0.67	0.67	0.69	0.68	0.57	0.09	0.80	0.83	0.25
Avail Cap(c_a), veh/h	198	486	377	215	478	421	417	1518	655	546	1650	711
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.0	35.6	36.0	46.2	34.5	34.7	44.9	25.0	10.5	45.3	28.5	12.0
Incr Delay (d2), s/veh	11.3	2.8	4.8	4.9	3.4	4.4	3.9	0.4	0.1	5.8	3.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	8.1	6.8	3.2	8.4	7.8	3.8	9.0	1.0	4.8	15.5	2.6
LnGrp Delay(d),s/veh	59.2	38.4	40.7	51.1	37.9	39.1	48.8	25.4	10.6	51.1	31.6	12.2
LnGrp LOS	E	D	D	D	D	D	D	C	B	D	C	B
Approach Vol, veh/h		637			696			1089			1605	
Approach Delay, s/veh		42.6			40.4			30.2			33.6	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	45.3	13.7	30.0	15.7	45.8	11.7	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	46.0	13.0	28.0	13.0	50.0	12.0	29.0
Max Q Clear Time (g_c+I1), s	11.5	20.5	8.3	18.2	9.6	33.1	8.0	19.3
Green Ext Time (p_c), s	0.7	8.0	1.8	2.2	2.1	8.7	0.1	3.1

Intersection Summary		
HCM 2010 Ctrl Delay		35.3
HCM 2010 LOS		D

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	61.4	60.1	84.2	84.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	60	10	10	10
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.68	2.60	2.98	3.00
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	637	696	1089	1605
Effct. Green for Bike (s)	22.2	26.2	40.5	43.0
Cross Street Width (ft)	84.2	84.0	60.1	61.4
Through Lanes Number	1	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	6.0
Paved Shoulder Width (ft)	0.0	0.0	8.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	370	437	675	717
Bicycle Delay (s/bike)	39.9	36.7	26.3	24.7
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.61	2.13	1.98	2.54
Bicycle LOS	B	B	A	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	99	301	34	74	14	40	1675	95	102	1064	8
v/c Ratio	0.47	0.65	0.37	0.76	0.07	0.37	0.84	0.10	0.78	0.49	0.01
Control Delay	51.3	42.4	62.8	96.0	0.7	60.6	24.5	3.2	88.2	13.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.3	42.4	62.8	96.0	0.7	60.6	24.5	3.2	88.2	13.1	0.0
Queue Length 50th (ft)	71	89	24	54	0	27	466	2	71	215	0
Queue Length 95th (ft)	120	125	57	#134	0	61	564	22	#159	275	0
Internal Link Dist (ft)		560		356			532			321	
Turn Bay Length (ft)	70		200		200	190		330	260		340
Base Capacity (vph)	518	1053	92	97	207	113	2067	947	130	2170	971
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.29	0.37	0.76	0.07	0.35	0.81	0.10	0.78	0.49	0.01

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	159	85	32	59	12	34	1407	80	86	894	7
Future Volume (veh/h)	92	159	85	32	59	12	34	1407	80	86	894	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.85	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	110	189	101	38	70	14	40	1675	95	102	1064	8
Adj No. of Lanes	1	2	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	240	308	154	96	101	73	50	1908	840	127	2112	923
Arrive On Green	0.14	0.14	0.14	0.06	0.06	0.06	0.03	0.55	0.55	0.07	0.61	0.61
Sat Flow, veh/h	1740	2234	1114	1740	1827	1325	1740	3471	1529	1740	3471	1516
Grp Volume(v), veh/h	110	152	138	38	70	14	40	1675	95	102	1064	8
Grp Sat Flow(s),veh/h/ln	1740	1827	1521	1740	1827	1325	1740	1736	1529	1740	1736	1516
Q Serve(g_s), s	6.0	8.1	8.9	2.2	3.9	1.0	2.4	43.4	3.1	6.0	17.9	0.2
Cycle Q Clear(g_c), s	6.0	8.1	8.9	2.2	3.9	1.0	2.4	43.4	3.1	6.0	17.9	0.2
Prop In Lane	1.00		0.73	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	240	252	210	96	101	73	50	1908	840	127	2112	923
V/C Ratio(X)	0.46	0.60	0.66	0.39	0.69	0.19	0.80	0.88	0.11	0.80	0.50	0.01
Avail Cap(c_a), veh/h	589	619	515	101	106	77	118	2133	939	135	2167	946
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	41.9	42.2	47.1	47.9	46.6	49.9	20.2	11.2	47.1	11.4	8.0
Incr Delay (d2), s/veh	1.4	2.3	3.5	2.6	16.7	1.2	23.9	4.2	0.1	27.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	4.3	3.9	1.1	2.4	0.4	1.5	21.8	1.3	3.8	8.5	0.1
LnGrp Delay(d),s/veh	42.4	44.2	45.7	49.7	64.7	47.8	73.8	24.4	11.2	74.2	11.6	8.0
LnGrp LOS	D	D	D	D	E	D	E	C	B	E	B	A
Approach Vol, veh/h		400			122			1810			1174	
Approach Delay, s/veh		44.2			58.1			24.8			17.0	
Approach LOS		D			E			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.1	62.3		18.3	7.0	68.4		9.7
Change Period (Y+Rc), s	5.5	* 5.5		4.0	4.0	5.5		4.0
Max Green Setting (Gmax), s	8.0	* 64		35.0	7.0	64.5		6.0
Max Q Clear Time (g_c+I1), s	8.0	45.4		10.9	4.4	19.9		5.9
Green Ext Time (p_c), s	0.0	11.4		2.3	0.0	9.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	25.6
HCM 2010 LOS	C

Notes

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	51.8	67.9	80.8	73.4
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	10	0	0	30
85th percentile speed (mph)	30	30	55	55
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	65.0	65.0	65.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.29	2.42	3.38	3.41
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	400	122	1810	1174
Effct. Green for Bike (s)	14.2	6.0	61.2	67.0
Cross Street Width (ft)	80.8	73.4	67.9	51.8
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	8.0	8.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	218	92	942	1031
Bicycle Delay (s/bike)	51.6	59.1	18.2	15.3
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	1.84	1.60	2.70	1.93
Bicycle LOS	A	A	B	A

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	171	411	301	47	705	163	1168	47	134	976	87
v/c Ratio	0.71	0.69	0.49	0.42	0.82	0.54	0.85	0.07	0.53	0.74	0.14
Control Delay	62.0	39.1	11.9	63.0	36.6	55.3	36.5	0.2	57.7	32.4	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.0	39.1	11.9	63.0	36.6	55.3	36.5	0.2	57.7	32.4	2.1
Queue Length 50th (ft)	119	262	45	33	188	59	392	0	49	312	0
Queue Length 95th (ft)	189	358	114	72	248	93	476	0	80	385	13
Internal Link Dist (ft)		383			549		522			729	
Turn Bay Length (ft)	200			125		250		250	350		450
Base Capacity (vph)	290	683	680	119	1003	331	1556	714	265	1487	687
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.60	0.44	0.39	0.70	0.49	0.75	0.07	0.51	0.66	0.13

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	358	262	41	271	343	142	1016	41	117	849	76
Future Volume (veh/h)	149	358	262	41	271	343	142	1016	41	117	849	76
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	171	411	301	47	311	394	163	1168	47	134	976	87
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	203	629	505	60	455	394	226	1422	612	194	1389	596
Arrive On Green	0.12	0.34	0.34	0.03	0.26	0.26	0.07	0.41	0.41	0.06	0.40	0.40
Sat Flow, veh/h	1740	1827	1466	1740	1736	1504	3375	3471	1493	3375	3471	1490
Grp Volume(v), veh/h	171	411	301	47	311	394	163	1168	47	134	976	87
Grp Sat Flow(s),veh/h/ln	1740	1827	1466	1740	1736	1504	1688	1736	1493	1688	1736	1490
Q Serve(g_s), s	10.3	20.3	18.1	2.9	17.2	28.0	5.1	32.0	2.1	4.2	25.1	4.0
Cycle Q Clear(g_c), s	10.3	20.3	18.1	2.9	17.2	28.0	5.1	32.0	2.1	4.2	25.1	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	629	505	60	455	394	226	1422	612	194	1389	596
V/C Ratio(X)	0.84	0.65	0.60	0.79	0.68	1.00	0.72	0.82	0.08	0.69	0.70	0.15
Avail Cap(c_a), veh/h	277	650	521	114	455	394	316	1478	635	253	1413	606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	29.7	28.9	51.2	35.5	39.4	48.9	28.1	19.2	49.4	26.8	20.4
Incr Delay (d2), s/veh	15.7	2.3	1.8	19.8	4.2	45.3	4.7	3.7	0.1	5.3	1.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	10.7	7.5	1.7	8.7	16.5	2.5	16.0	0.9	2.1	12.2	1.6
LnGrp Delay(d),s/veh	62.0	31.9	30.7	71.1	39.7	84.8	53.6	31.8	19.3	54.8	28.3	20.5
LnGrp LOS	E	C	C	E	D	F	D	C	B	D	C	C
Approach Vol, veh/h		883			752			1378			1197	
Approach Delay, s/veh		37.3			65.3			33.9			30.7	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	48.3	7.7	40.8	11.2	47.2	16.5	32.0
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0
Max Green Setting (Gmax), s	8.0	45.5	7.0	38.0	10.0	43.5	17.0	28.0
Max Q Clear Time (g_c+I1), s	6.2	34.0	4.9	22.3	7.1	27.1	12.3	30.0
Green Ext Time (p_c), s	0.1	9.8	0.0	8.2	0.2	13.3	0.2	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.3
HCM 2010 LOS	D

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	61.5	60.1	84.3	84.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	60	10	10	20
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	49.8	49.8	49.8	49.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.68	2.59	3.00	3.04
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	883	752	1378	1197
Effct. Green for Bike (s)	33.9	23.7	41.1	39.7
Cross Street Width (ft)	84.3	84.0	60.1	61.5
Through Lanes Number	1	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	6.0
Paved Shoulder Width (ft)	0.0	0.0	8.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	590	412	715	690
Bicycle Delay (s/bike)	28.6	36.2	23.7	24.7
Bicycle Compliance	Fair	Poor	Fair	Fair
Bicycle LOS Score	3.02	2.18	2.22	2.20
Bicycle LOS	C	B	B	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	59	190	120	123	49	82	1010	134	51	1503	53
v/c Ratio	0.38	0.51	0.61	0.61	0.16	0.69	0.82	0.21	0.12	0.80	0.06
Control Delay	50.5	31.1	57.5	57.3	1.1	77.7	35.9	4.5	36.6	24.4	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	31.1	57.5	57.3	1.1	77.7	35.9	4.5	36.6	24.4	1.8
Queue Length 50th (ft)	40	39	78	81	0	53	308	0	26	393	0
Queue Length 95th (ft)	85	77	152	155	0	#144	395	37	70	611	12
Internal Link Dist (ft)		328		337			518			354	
Turn Bay Length (ft)	70		200		200	190		330	260		340
Base Capacity (vph)	542	1102	242	248	343	119	1994	949	439	1891	857
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.17	0.50	0.50	0.14	0.69	0.51	0.14	0.12	0.79	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	104	72	182	51	47	79	970	129	49	1443	51
Future Volume (veh/h)	63	104	72	182	51	47	79	970	129	49	1443	51
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	66	108	75	122	149	49	82	1010	134	51	1503	53
Adj No. of Lanes	1	2	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	198	234	147	191	201	163	119	1291	576	335	1779	794
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.07	0.37	0.37	0.19	0.51	0.51
Sat Flow, veh/h	1740	2060	1294	1740	1827	1481	1740	3471	1549	1740	3471	1548
Grp Volume(v), veh/h	66	94	89	122	149	49	82	1010	134	51	1503	53
Grp Sat Flow(s),veh/h/ln	1740	1827	1527	1740	1827	1481	1740	1736	1549	1740	1736	1548
Q Serve(g_s), s	3.1	4.3	4.9	6.0	7.1	2.7	4.1	23.1	5.3	2.2	33.3	1.5
Cycle Q Clear(g_c), s	3.1	4.3	4.9	6.0	7.1	2.7	4.1	23.1	5.3	2.2	33.3	1.5
Prop In Lane	1.00		0.85	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	198	207	173	191	201	163	119	1291	576	335	1779	794
V/C Ratio(X)	0.33	0.46	0.51	0.64	0.74	0.30	0.69	0.78	0.23	0.15	0.84	0.07
Avail Cap(c_a), veh/h	680	714	597	291	306	248	136	2267	1012	335	2151	960
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	37.1	37.4	38.1	38.6	36.7	40.8	24.9	19.3	30.1	18.8	11.0
Incr Delay (d2), s/veh	1.0	1.6	2.3	3.5	5.3	1.0	11.6	1.1	0.2	0.2	2.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.3	2.2	3.1	3.9	1.2	2.4	11.1	2.3	1.1	16.6	0.7
LnGrp Delay(d),s/veh	37.6	38.7	39.7	41.6	43.9	37.7	52.3	26.0	19.5	30.3	21.6	11.1
LnGrp LOS	D	D	D	D	D	D	D	C	B	C	C	B
Approach Vol, veh/h		249			320			1226			1607	
Approach Delay, s/veh		38.7			42.1			27.0			21.5	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	22.7	38.8		14.2	10.1	51.4		13.9
Change Period (Y+Rc), s	5.5	* 5.5		4.0	4.0	5.5		4.0
Max Green Setting (Gmax), s	4.0	* 59		35.0	7.0	55.5		15.0
Max Q Clear Time (g_c+I1), s	4.2	25.1		6.9	6.1	35.3		9.1
Green Ext Time (p_c), s	0.0	8.2		1.4	0.0	10.6		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.7
HCM 2010 LOS	C

Notes

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	52.4	68.7	81.5	73.8
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	None	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	0.0	0.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	10	0	30	20
85th percentile speed (mph)	30	30	55	55
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	65.0	65.0	56.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.27	2.44	3.41	3.31
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	249	292	1226	1607
Effct. Green for Bike (s)	10.2	12.2	36.4	55.3
Cross Street Width (ft)	81.5	73.8	68.7	52.4
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	8.0	8.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	157	188	560	851
Bicycle Delay (s/bike)	55.2	53.4	33.7	21.5
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	1.73	1.88	2.23	2.29
Bicycle LOS	A	A	B	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	101	295	241	108	588	255	803	55	314	1167	148
v/c Ratio	0.59	0.77	0.49	0.58	0.70	0.67	0.59	0.09	0.68	0.81	0.21
Control Delay	64.8	55.1	8.6	62.1	39.7	57.2	28.9	0.3	53.6	33.6	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.8	55.1	8.6	62.1	39.7	57.2	28.9	0.3	53.6	33.6	4.3
Queue Length 50th (ft)	73	208	0	78	196	95	241	0	115	386	0
Queue Length 95th (ft)	136	311	67	143	264	145	326	0	169	503	40
Internal Link Dist (ft)		490			549		522			729	
Turn Bay Length (ft)	200			125		250		250	350		450
Base Capacity (vph)	203	498	560	220	948	426	1558	718	557	1691	804
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.59	0.43	0.49	0.62	0.60	0.52	0.08	0.56	0.69	0.18

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	286	234	105	388	182	247	779	53	305	1132	144
Future Volume (veh/h)	98	286	234	105	388	182	247	779	53	305	1132	144
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.91	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	101	295	241	108	400	188	255	803	55	314	1167	148
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	127	447	347	160	590	272	374	1378	595	391	1395	601
Arrive On Green	0.07	0.24	0.24	0.09	0.26	0.26	0.11	0.40	0.40	0.12	0.40	0.40
Sat Flow, veh/h	1740	1827	1416	1740	2234	1029	3375	3471	1499	3375	3471	1495
Grp Volume(v), veh/h	101	295	241	108	309	279	255	803	55	314	1167	148
Grp Sat Flow(s),veh/h/ln	1740	1827	1416	1740	1736	1527	1688	1736	1499	1688	1736	1495
Q Serve(g_s), s	6.1	15.5	16.5	6.4	16.9	17.5	7.7	19.3	1.8	9.6	32.2	5.3
Cycle Q Clear(g_c), s	6.1	15.5	16.5	6.4	16.9	17.5	7.7	19.3	1.8	9.6	32.2	5.3
Prop In Lane	1.00		1.00	1.00		0.67	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	127	447	347	160	458	403	374	1378	595	391	1395	601
V/C Ratio(X)	0.80	0.66	0.69	0.68	0.67	0.69	0.68	0.58	0.09	0.80	0.84	0.25
Avail Cap(c_a), veh/h	196	481	373	213	473	417	413	1502	649	540	1632	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	36.1	36.5	46.7	35.0	35.2	45.5	25.2	10.5	45.8	28.6	11.9
Incr Delay (d2), s/veh	11.7	3.0	5.1	5.2	3.6	4.7	4.0	0.5	0.1	6.1	3.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	8.2	6.9	3.3	8.6	7.9	3.8	9.4	1.0	4.8	16.1	2.6
LnGrp Delay(d),s/veh	60.2	39.2	41.6	51.9	38.7	39.9	49.5	25.6	10.6	51.9	32.1	12.2
LnGrp LOS	E	D	D	D	D	D	D	C	B	D	C	B
Approach Vol, veh/h		637			696			1113			1629	
Approach Delay, s/veh		43.4			41.2			30.4			34.1	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	46.2	13.8	30.0	15.8	46.7	11.8	32.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	46.0	13.0	28.0	13.0	50.0	12.0	29.0
Max Q Clear Time (g_c+I1), s	11.6	21.3	8.4	18.5	9.7	34.2	8.1	19.5
Green Ext Time (p_c), s	0.7	8.1	1.8	2.2	2.1	8.5	0.1	3.0

Intersection Summary			
HCM 2010 Ctrl Delay			35.8
HCM 2010 LOS			D

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	61.4	60.1	84.2	84.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	60	10	10	10
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.68	2.60	2.99	3.00
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	637	696	1113	1629
Effct. Green for Bike (s)	22.3	26.3	41.2	43.9
Cross Street Width (ft)	84.2	84.0	60.1	61.4
Through Lanes Number	1	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	6.0
Paved Shoulder Width (ft)	0.0	0.0	8.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	372	438	687	732
Bicycle Delay (s/bike)	39.8	36.6	25.9	24.1
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.61	2.13	2.00	2.56
Bicycle LOS	B	B	B	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	122	267	46	47	24	27	1791	209	204	1364	59
v/c Ratio	0.58	0.61	0.39	0.39	0.10	0.33	0.94	0.23	1.15	0.61	0.06
Control Delay	55.9	47.2	59.5	59.1	0.9	64.0	35.6	5.1	156.1	15.3	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	47.2	59.5	59.1	0.9	64.0	35.6	5.1	156.1	15.3	2.0
Queue Length 50th (ft)	90	91	32	33	0	19	605	17	~170	317	0
Queue Length 95th (ft)	158	137	76	77	0	52	#894	60	#344	460	13
Internal Link Dist (ft)		560		356			532			321	
Turn Bay Length (ft)	70		200		200	190		330	260		340
Base Capacity (vph)	517	1057	138	143	245	81	1902	909	178	2224	993
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.25	0.33	0.33	0.10	0.33	0.94	0.23	1.15	0.61	0.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	188	45	62	24	22	25	1648	192	188	1255	54
Future Volume (veh/h)	125	188	45	62	24	22	25	1648	192	188	1255	54
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.84	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	130	213	49	46	55	24	27	1791	209	204	1364	59
Adj No. of Lanes	1	2	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	218	357	79	84	89	63	36	1887	831	180	2224	971
Arrive On Green	0.13	0.13	0.13	0.05	0.05	0.05	0.02	0.54	0.54	0.10	0.64	0.64
Sat Flow, veh/h	1740	2843	632	1740	1827	1298	1740	3471	1529	1740	3471	1516
Grp Volume(v), veh/h	130	134	128	46	55	24	27	1791	209	204	1364	59
Grp Sat Flow(s),veh/h/ln	1740	1827	1648	1740	1827	1298	1740	1736	1529	1740	1736	1516
Q Serve(g_s), s	7.5	7.4	7.8	2.7	3.1	1.9	1.6	51.7	7.7	11.0	24.7	1.5
Cycle Q Clear(g_c), s	7.5	7.4	7.8	2.7	3.1	1.9	1.6	51.7	7.7	11.0	24.7	1.5
Prop In Lane	1.00		0.38	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	229	207	84	89	63	36	1887	831	180	2224	971
V/C Ratio(X)	0.60	0.59	0.62	0.54	0.62	0.38	0.75	0.95	0.25	1.13	0.61	0.06
Avail Cap(c_a), veh/h	573	602	543	147	155	110	82	1911	841	180	2224	971
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	43.9	44.1	49.4	49.6	49.0	51.8	22.9	12.8	47.6	11.3	7.1
Incr Delay (d2), s/veh	2.6	2.4	3.0	5.4	6.9	3.7	26.3	10.9	0.2	107.3	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	3.9	3.7	1.4	1.8	0.7	1.1	27.5	3.3	10.6	11.9	0.6
LnGrp Delay(d),s/veh	46.5	46.2	47.0	54.8	56.5	52.8	78.1	33.7	13.0	154.9	11.8	7.2
LnGrp LOS	D	D	D	D	E	D	E	C	B	F	B	A
Approach Vol, veh/h		392			125			2027			1627	
Approach Delay, s/veh		46.6			55.1			32.2			29.6	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.5	63.3		17.3	6.2	73.6		9.2
Change Period (Y+Rc), s	5.5	* 5.5		4.0	4.0	5.5		4.0
Max Green Setting (Gmax), s	11.0	* 59		35.0	5.0	64.5		9.0
Max Q Clear Time (g_c+I1), s	13.0	53.7		9.8	3.6	26.7		5.1
Green Ext Time (p_c), s	0.0	4.1		2.2	0.0	13.7		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	33.2
HCM 2010 LOS	C

Notes

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	51.8	67.9	80.8	73.4
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	10	0	0	30
85th percentile speed (mph)	30	30	55	55
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.7	65.5	65.5	65.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.29	2.47	3.52	3.59
Pedestrian Crosswalk LOS	B	B	D	D

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	389	117	2027	1627
Effct. Green for Bike (s)	14.3	7.8	58.9	68.8
Cross Street Width (ft)	80.8	73.4	67.9	51.8
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	8.0	8.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	218	119	899	1050
Bicycle Delay (s/bike)	52.0	57.9	19.8	14.8
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	1.83	1.59	2.88	2.30
Bicycle LOS	A	A	C	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	208	515	233	91	581	189	1467	39	370	1055	42
v/c Ratio	1.15	0.98	0.42	0.87	0.66	0.72	1.02	0.06	1.15	0.71	0.06
Control Delay	158.9	76.7	9.7	111.5	31.7	68.4	63.8	0.2	143.2	29.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	158.9	76.7	9.7	111.5	31.7	68.4	63.8	0.2	143.2	29.9	0.2
Queue Length 50th (ft)	~181	379	21	68	146	71	~608	0	~165	330	0
Queue Length 95th (ft)	#334	#601	86	#167	210	#121	#747	0	#263	408	0
Internal Link Dist (ft)		383			549		522			729	
Turn Bay Length (ft)	200			125		250		250	350		450
Base Capacity (vph)	181	524	554	105	877	263	1433	668	322	1496	691
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.15	0.98	0.42	0.87	0.66	0.72	1.02	0.06	1.15	0.71	0.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	474	214	84	200	335	174	1350	36	340	971	39
Future Volume (veh/h)	191	474	214	84	200	335	174	1350	36	340	971	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	208	515	233	91	217	364	189	1467	39	370	1055	42
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	182	524	417	106	423	366	245	1434	617	323	1514	651
Arrive On Green	0.10	0.29	0.29	0.06	0.24	0.24	0.07	0.41	0.41	0.10	0.44	0.44
Sat Flow, veh/h	1740	1827	1453	1740	1736	1502	3375	3471	1493	3375	3471	1494
Grp Volume(v), veh/h	208	515	233	91	217	364	189	1467	39	370	1055	42
Grp Sat Flow(s),veh/h/ln	1740	1827	1453	1740	1736	1502	1688	1736	1493	1688	1736	1494
Q Serve(g_s), s	12.0	32.2	15.7	6.0	12.4	27.8	6.3	47.5	1.8	11.0	28.3	1.9
Cycle Q Clear(g_c), s	12.0	32.2	15.7	6.0	12.4	27.8	6.3	47.5	1.8	11.0	28.3	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	182	524	417	106	423	366	245	1434	617	323	1514	651
V/C Ratio(X)	1.15	0.98	0.56	0.86	0.51	1.00	0.77	1.02	0.06	1.15	0.70	0.06
Avail Cap(c_a), veh/h	182	524	417	106	423	366	264	1434	617	323	1514	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	40.7	34.8	53.5	37.6	43.4	52.4	33.8	20.3	52.0	26.3	18.8
Incr Delay (d2), s/veh	111.4	34.7	1.7	46.6	1.1	45.8	12.2	29.8	0.0	95.7	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	21.2	6.5	4.2	6.1	16.2	3.4	28.6	0.7	9.4	13.8	0.8
LnGrp Delay(d),s/veh	162.9	75.4	36.5	100.1	38.7	89.3	64.6	63.6	20.4	147.7	27.7	18.9
LnGrp LOS	F	E	D	F	D	F	E	F	C	F	C	B
Approach Vol, veh/h		956			672			1695			1467	
Approach Delay, s/veh		84.9			74.4			62.7			57.7	
Approach LOS		F			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	52.0	11.0	37.0	12.4	54.6	16.0	32.0
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0
Max Green Setting (Gmax), s	11.0	47.5	7.0	33.0	9.0	49.5	12.0	28.0
Max Q Clear Time (g_c+I1), s	13.0	49.5	8.0	34.2	8.3	30.3	14.0	29.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	16.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.3
HCM 2010 LOS	E

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	61.5	60.1	84.3	84.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	60	10	10	20
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	49.8	49.8	49.8	49.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.67	2.64	3.05	3.12
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	956	672	1695	1467
Effct. Green for Bike (s)	33.0	28.0	47.5	49.6
Cross Street Width (ft)	84.3	84.0	60.1	61.5
Through Lanes Number	1	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	6.0
Paved Shoulder Width (ft)	0.0	0.0	8.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	574	487	826	863
Bicycle Delay (s/bike)	29.2	32.9	19.8	18.6
Bicycle Compliance	Fair	Poor	Fair	Fair
Bicycle LOS Score	3.14	2.11	2.48	2.42
Bicycle LOS	C	B	B	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	152	280	98	137	177	85	1350	81	109	1610	209
v/c Ratio	0.65	0.52	0.50	0.67	0.52	0.77	0.86	0.11	0.53	0.91	0.25
Control Delay	57.3	27.7	55.9	64.0	12.9	92.1	34.7	4.2	57.5	35.1	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.3	27.7	55.9	64.0	12.9	92.1	34.7	4.2	57.5	35.1	4.9
Queue Length 50th (ft)	113	57	68	97	0	60	441	0	74	534	12
Queue Length 95th (ft)	189	102	134	#182	66	#161	#671	27	143	#818	58
Internal Link Dist (ft)		328		337			518			354	
Turn Bay Length (ft)	70		200		200	190		330	260		340
Base Capacity (vph)	506	1033	226	237	366	111	1574	752	206	1765	853
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.27	0.43	0.58	0.48	0.77	0.86	0.11	0.53	0.91	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Cal Poly Vista Grande
Cumulative PM Peak
1: Hwy / Santa Rosa & Highland
8/3/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	292	10	113	105	121	170	82	1296	78	105	1546	201
Future Volume (veh/h)	292	10	113	105	121	170	82	1296	78	105	1546	201
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	304	10	118	109	126	177	85	1350	81	109	1610	209
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	464	16	186	236	248	203	114	1498	669	213	1744	778
Arrive On Green	0.13	0.13	0.13	0.14	0.14	0.14	0.07	0.43	0.43	0.12	0.50	0.50
Sat Flow, veh/h	3480	118	1397	1740	1827	1495	1740	3471	1550	1740	3471	1548
Grp Volume(v), veh/h	304	0	128	109	126	177	85	1350	81	109	1610	209
Grp Sat Flow(s),veh/h/ln	1740	0	1515	1740	1827	1495	1740	1736	1550	1740	1736	1548
Q Serve(g_s), s	8.9	0.0	8.6	6.2	6.9	12.5	5.2	38.8	3.4	6.3	46.2	8.3
Cycle Q Clear(g_c), s	8.9	0.0	8.6	6.2	6.9	12.5	5.2	38.8	3.4	6.3	46.2	8.3
Prop In Lane	1.00		0.92	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	464	0	202	236	248	203	114	1498	669	213	1744	778
V/C Ratio(X)	0.65	0.00	0.63	0.46	0.51	0.87	0.75	0.90	0.12	0.51	0.92	0.27
Avail Cap(c_a), veh/h	1135	0	494	243	255	209	114	1601	715	213	1795	801
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.1	0.0	44.0	42.7	43.0	45.4	49.3	28.4	18.3	44.1	24.8	15.4
Incr Delay (d2), s/veh	1.6	0.0	3.3	1.4	1.6	30.1	23.7	7.1	0.1	2.1	8.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	3.8	3.1	3.6	6.8	3.2	20.0	1.5	3.2	23.9	3.6
LnGrp Delay(d),s/veh	45.7	0.0	47.3	44.1	44.6	75.5	73.0	35.5	18.4	46.2	33.2	15.5
LnGrp LOS	D		D	D	D	E	E	D	B	D	C	B
Approach Vol, veh/h		432			412			1516			1928	
Approach Delay, s/veh		46.2			57.8			36.7			32.0	
Approach LOS		D			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.6	51.8		18.3	11.0	59.4		18.6
Change Period (Y+Rc), s	5.5	* 5.5		4.0	4.0	5.5		4.0
Max Green Setting (Gmax), s	13.0	* 50		35.0	7.0	55.5		15.0
Max Q Clear Time (g_c+I1), s	8.3	40.8		10.9	7.2	48.2		14.5
Green Ext Time (p_c), s	3.9	5.5		2.3	0.0	5.7		0.1

Intersection Summary		
HCM 2010 Ctrl Delay		37.6
HCM 2010 LOS		D

Notes

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	52.4	68.7	81.5	73.8
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	None	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	0.0	0.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	10	0	30	20
85th percentile speed (mph)	30	30	55	55
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	65.0	65.0	56.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.37	2.44	3.52	3.62
Pedestrian Crosswalk LOS	B	B	D	D

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	432	412	1516	1928
Effct. Green for Bike (s)	16.3	13.0	49.7	55.7
Cross Street Width (ft)	81.5	73.8	68.7	52.4
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	8.0	8.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	251	200	765	857
Bicycle Delay (s/bike)	49.7	52.7	24.8	21.2
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	1.88	2.08	2.47	2.56
Bicycle LOS	A	B	B	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	193	410	192	165	825	345	1193	153	344	1353	129
v/c Ratio	0.96	0.91	0.39	0.85	1.01	0.95	0.88	0.24	0.88	0.97	0.19
Control Delay	105.9	69.3	7.4	89.0	78.3	89.1	42.5	6.6	76.0	54.6	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.9	69.3	7.4	89.0	78.3	89.1	42.5	6.6	76.0	54.6	4.6
Queue Length 50th (ft)	151	305	0	129	~333	139	445	10	137	534	0
Queue Length 95th (ft)	#298	#479	57	#268	#473	#231	543	53	#219	#697	38
Internal Link Dist (ft)		490			549		522			729	
Turn Bay Length (ft)	200			125		250		250	350		450
Base Capacity (vph)	202	471	507	193	814	364	1360	650	392	1388	675
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.87	0.38	0.85	1.01	0.95	0.88	0.24	0.88	0.97	0.19

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	398	186	160	601	199	335	1157	148	334	1312	125
Future Volume (veh/h)	187	398	186	160	601	199	335	1157	148	334	1312	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.90	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	193	410	192	165	620	205	345	1193	153	344	1353	129
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	203	445	345	199	602	199	366	1360	587	394	1388	598
Arrive On Green	0.12	0.24	0.24	0.11	0.24	0.24	0.11	0.39	0.39	0.12	0.40	0.40
Sat Flow, veh/h	1740	1827	1416	1740	2493	822	3375	3471	1498	3375	3471	1495
Grp Volume(v), veh/h	193	410	192	165	431	394	345	1193	153	344	1353	129
Grp Sat Flow(s),veh/h/ln	1740	1827	1416	1740	1736	1580	1688	1736	1498	1688	1736	1495
Q Serve(g_s), s	13.2	26.3	14.2	11.1	29.0	29.0	12.2	38.2	5.8	12.0	46.0	4.7
Cycle Q Clear(g_c), s	13.2	26.3	14.2	11.1	29.0	29.0	12.2	38.2	5.8	12.0	46.0	4.7
Prop In Lane	1.00		1.00	1.00		0.52	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	445	345	199	419	382	366	1360	587	394	1388	598
V/C Ratio(X)	0.95	0.92	0.56	0.83	1.03	1.03	0.94	0.88	0.26	0.87	0.97	0.22
Avail Cap(c_a), veh/h	203	472	366	199	419	382	366	1360	587	394	1388	598
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	44.2	39.7	52.0	45.5	45.5	53.1	33.8	12.2	52.1	35.4	11.4
Incr Delay (d2), s/veh	49.1	22.8	1.7	24.1	51.4	54.4	32.7	6.8	0.2	19.0	18.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	16.0	5.7	6.7	19.8	18.4	7.4	19.5	2.4	6.6	25.5	2.0
LnGrp Delay(d),s/veh	101.8	67.0	41.4	76.0	96.9	99.9	85.9	40.7	12.4	71.1	53.7	11.6
LnGrp LOS	F	E	D	E	F	F	F	D	B	E	D	B
Approach Vol, veh/h		795			990			1691			1826	
Approach Delay, s/veh		69.3			94.6			47.3			54.0	
Approach LOS		E			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	51.0	17.8	33.2	17.0	52.0	18.0	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	47.0	12.0	31.0	13.0	48.0	14.0	29.0
Max Q Clear Time (g_c+I1), s	14.0	40.2	13.1	28.3	14.2	48.0	15.2	31.0
Green Ext Time (p_c), s	0.0	5.1	0.0	1.0	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		61.7
HCM 2010 LOS		E

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	61.4	60.1	84.2	84.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	60	10	10	10
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.77	2.70	3.10	3.10
Pedestrian Crosswalk LOS	C	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	795	990	1691	1826
Effct. Green for Bike (s)	29.6	29.0	47.0	48.0
Cross Street Width (ft)	84.2	84.0	60.1	61.4
Through Lanes Number	1	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	6.0
Paved Shoulder Width (ft)	0.0	0.0	8.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	493	483	783	800
Bicycle Delay (s/bike)	34.1	34.5	22.2	21.6
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.87	2.38	2.48	2.72
Bicycle LOS	C	B	B	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	122	267	58	60	24	27	1791	234	204	1364	59
v/c Ratio	0.58	0.61	0.47	0.47	0.10	0.33	0.94	0.26	1.15	0.61	0.06
Control Delay	56.1	47.3	62.7	62.7	0.9	64.0	36.0	5.1	157.1	15.5	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.1	47.3	62.7	62.7	0.9	64.0	36.0	5.1	157.1	15.5	2.0
Queue Length 50th (ft)	91	92	42	43	0	19	613	19	~172	322	0
Queue Length 95th (ft)	158	137	91	93	0	52	#894	66	#344	460	13
Internal Link Dist (ft)		560		356			532			321	
Turn Bay Length (ft)	70		200		200	190		330	260		340
Base Capacity (vph)	516	1054	138	141	245	81	1897	915	178	2218	990
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.25	0.42	0.43	0.10	0.33	0.94	0.26	1.15	0.61	0.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	188	45	85	24	22	25	1648	215	188	1255	54
Future Volume (veh/h)	125	188	45	85	24	22	25	1648	215	188	1255	54
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.86	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	130	213	49	59	72	24	27	1791	234	204	1364	59
Adj No. of Lanes	1	2	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	217	355	79	101	106	78	36	1870	823	178	2201	962
Arrive On Green	0.12	0.12	0.12	0.06	0.06	0.06	0.02	0.54	0.54	0.10	0.63	0.63
Sat Flow, veh/h	1740	2843	632	1740	1827	1335	1740	3471	1529	1740	3471	1516
Grp Volume(v), veh/h	130	134	128	59	72	24	27	1791	234	204	1364	59
Grp Sat Flow(s),veh/h/ln	1740	1827	1648	1740	1827	1335	1740	1736	1529	1740	1736	1516
Q Serve(g_s), s	7.6	7.5	7.9	3.6	4.2	1.9	1.7	53.0	9.0	11.0	25.5	1.6
Cycle Q Clear(g_c), s	7.6	7.5	7.9	3.6	4.2	1.9	1.7	53.0	9.0	11.0	25.5	1.6
Prop In Lane	1.00		0.38	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	217	228	206	101	106	78	36	1870	823	178	2201	962
V/C Ratio(X)	0.60	0.59	0.62	0.58	0.68	0.31	0.75	0.96	0.28	1.15	0.62	0.06
Avail Cap(c_a), veh/h	565	593	535	145	153	111	81	1885	830	178	2201	962
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	44.5	44.7	49.5	49.8	48.7	52.5	23.7	13.5	48.4	11.9	7.5
Incr Delay (d2), s/veh	2.6	2.4	3.1	5.2	7.3	2.2	26.8	12.3	0.2	113.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	3.9	3.8	1.9	2.3	0.7	1.1	28.3	3.8	10.8	12.3	0.7
LnGrp Delay(d),s/veh	47.2	47.0	47.8	54.7	57.1	50.9	79.3	35.9	13.7	161.5	12.4	7.5
LnGrp LOS	D	D	D	D	E	D	E	D	B	F	B	A
Approach Vol, veh/h		392			155			2052			1627	
Approach Delay, s/veh		47.3			55.2			34.0			30.9	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.5	63.5		17.4	6.2	73.8		10.3
Change Period (Y+Rc), s	5.5	* 5.5		4.0	4.0	5.5		4.0
Max Green Setting (Gmax), s	11.0	* 59		35.0	5.0	64.5		9.0
Max Q Clear Time (g_c+I1), s	13.0	55.0		9.9	3.7	27.5		6.2
Green Ext Time (p_c), s	0.0	3.1		2.2	0.0	13.6		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	34.8
HCM 2010 LOS	C

Notes

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	51.8	67.9	80.8	73.4
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	10	0	0	30
85th percentile speed (mph)	30	30	55	55
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.7	65.5	65.5	65.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.29	2.48	3.54	3.59
Pedestrian Crosswalk LOS	B	B	D	D

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	389	142	2052	1627
Effct. Green for Bike (s)	14.3	8.1	58.9	68.8
Cross Street Width (ft)	80.8	73.4	67.9	51.8
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	8.0	8.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	218	124	899	1050
Bicycle Delay (s/bike)	52.0	57.7	19.8	14.8
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	1.83	1.63	2.90	2.30
Bicycle LOS	A	A	C	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	208	515	233	91	581	189	1492	39	370	1080	42
v/c Ratio	1.15	0.98	0.42	0.87	0.66	0.72	1.04	0.06	1.15	0.72	0.06
Control Delay	158.9	76.7	9.9	111.5	31.7	68.4	68.9	0.2	143.2	30.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	158.9	76.7	9.9	111.5	31.7	68.4	68.9	0.2	143.2	30.5	0.2
Queue Length 50th (ft)	~181	379	22	68	146	71	~629	0	~165	341	0
Queue Length 95th (ft)	#334	#601	88	#167	210	#121	#767	0	#263	421	0
Internal Link Dist (ft)		383			549		522			729	
Turn Bay Length (ft)	200			125		250		250	350		450
Base Capacity (vph)	181	524	553	105	877	263	1433	668	322	1496	691
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.15	0.98	0.42	0.87	0.66	0.72	1.04	0.06	1.15	0.72	0.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	474	214	84	200	335	174	1373	36	340	994	39
Future Volume (veh/h)	191	474	214	84	200	335	174	1373	36	340	994	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	208	515	233	91	217	364	189	1492	39	370	1080	42
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	182	524	417	106	423	366	245	1434	617	323	1514	651
Arrive On Green	0.10	0.29	0.29	0.06	0.24	0.24	0.07	0.41	0.41	0.10	0.44	0.44
Sat Flow, veh/h	1740	1827	1453	1740	1736	1502	3375	3471	1493	3375	3471	1494
Grp Volume(v), veh/h	208	515	233	91	217	364	189	1492	39	370	1080	42
Grp Sat Flow(s),veh/h/ln	1740	1827	1453	1740	1736	1502	1688	1736	1493	1688	1736	1494
Q Serve(g_s), s	12.0	32.2	15.7	6.0	12.4	27.8	6.3	47.5	1.8	11.0	29.3	1.9
Cycle Q Clear(g_c), s	12.0	32.2	15.7	6.0	12.4	27.8	6.3	47.5	1.8	11.0	29.3	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	182	524	417	106	423	366	245	1434	617	323	1514	651
V/C Ratio(X)	1.15	0.98	0.56	0.86	0.51	1.00	0.77	1.04	0.06	1.15	0.71	0.06
Avail Cap(c_a), veh/h	182	524	417	106	423	366	264	1434	617	323	1514	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	40.7	34.8	53.5	37.6	43.4	52.4	33.8	20.3	52.0	26.5	18.8
Incr Delay (d2), s/veh	111.4	34.7	1.7	46.6	1.1	45.8	12.2	35.1	0.0	95.7	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	21.2	6.5	4.2	6.1	16.2	3.4	29.7	0.7	9.4	14.3	0.8
LnGrp Delay(d),s/veh	162.9	75.4	36.5	100.1	38.7	89.3	64.6	68.8	20.4	147.7	28.2	18.9
LnGrp LOS	F	E	D	F	D	F	E	F	C	F	C	B
Approach Vol, veh/h		956			672			1720			1492	
Approach Delay, s/veh		84.9			74.4			67.2			57.5	
Approach LOS		F			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	52.0	11.0	37.0	12.4	54.6	16.0	32.0
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0
Max Green Setting (Gmax), s	11.0	47.5	7.0	33.0	9.0	49.5	12.0	28.0
Max Q Clear Time (g_c+I1), s	13.0	49.5	8.0	34.2	8.3	31.3	14.0	29.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	16.0	0.0	0.0

Intersection Summary			
HCM 2010 Ctrl Delay			68.7
HCM 2010 LOS			E

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	61.5	60.1	84.3	84.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	60	10	10	20
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	49.8	49.8	49.8	49.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.67	2.64	3.06	3.13
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	956	672	1720	1492
Effct. Green for Bike (s)	33.0	28.0	47.5	49.6
Cross Street Width (ft)	84.3	84.0	60.1	61.5
Through Lanes Number	1	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	6.0
Paved Shoulder Width (ft)	0.0	0.0	8.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	574	487	826	863
Bicycle Delay (s/bike)	29.2	32.9	19.8	18.6
Bicycle Compliance	Fair	Poor	Fair	Fair
Bicycle LOS Score	3.14	2.11	2.50	2.45
Bicycle LOS	C	B	B	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	152	280	120	139	177	85	1350	105	109	1610	209
v/c Ratio	0.65	0.52	0.61	0.68	0.52	0.77	0.86	0.14	0.53	0.91	0.25
Control Delay	57.4	27.8	61.1	64.4	12.8	92.3	34.8	5.7	57.5	35.2	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	27.8	61.1	64.4	12.8	92.3	34.8	5.7	57.5	35.2	4.9
Queue Length 50th (ft)	113	57	85	98	0	60	442	4	74	536	12
Queue Length 95th (ft)	189	102	161	#190	66	#161	#671	39	143	#818	58
Internal Link Dist (ft)		328		337			518			354	
Turn Bay Length (ft)	70		200		200	190		330	260		340
Base Capacity (vph)	506	1032	226	237	366	111	1573	755	206	1764	853
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.27	0.53	0.59	0.48	0.77	0.86	0.14	0.53	0.91	0.25

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	292	10	113	128	121	170	82	1296	101	105	1546	201
Future Volume (veh/h)	292	10	113	128	121	170	82	1296	101	105	1546	201
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1900	1827	1827	1827	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	304	10	118	130	131	177	85	1350	105	109	1610	209
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	464	16	186	237	248	203	113	1499	669	212	1744	778
Arrive On Green	0.13	0.13	0.13	0.14	0.14	0.14	0.07	0.43	0.43	0.12	0.50	0.50
Sat Flow, veh/h	3480	118	1397	1740	1827	1495	1740	3471	1550	1740	3471	1548
Grp Volume(v), veh/h	304	0	128	130	131	177	85	1350	105	109	1610	209
Grp Sat Flow(s),veh/h/ln	1740	0	1515	1740	1827	1495	1740	1736	1550	1740	1736	1548
Q Serve(g_s), s	8.9	0.0	8.6	7.5	7.2	12.5	5.2	38.8	4.4	6.3	46.2	8.3
Cycle Q Clear(g_c), s	8.9	0.0	8.6	7.5	7.2	12.5	5.2	38.8	4.4	6.3	46.2	8.3
Prop In Lane	1.00		0.92	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	464	0	202	237	248	203	113	1499	669	212	1744	778
V/C Ratio(X)	0.65	0.00	0.63	0.55	0.53	0.87	0.75	0.90	0.16	0.51	0.92	0.27
Avail Cap(c_a), veh/h	1135	0	494	243	255	209	113	1601	715	212	1795	801
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	0.0	44.0	43.3	43.2	45.4	49.3	28.4	18.6	44.1	24.8	15.4
Incr Delay (d2), s/veh	1.6	0.0	3.3	2.5	1.9	30.0	23.7	7.1	0.1	2.1	8.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	3.8	3.8	3.7	6.8	3.2	20.0	1.9	3.2	23.9	3.6
LnGrp Delay(d),s/veh	45.7	0.0	47.3	45.8	45.1	75.5	73.0	35.5	18.7	46.3	33.2	15.5
LnGrp LOS	D		D	D	D	E	E	D	B	D	C	B
Approach Vol, veh/h		432			438			1540			1928	
Approach Delay, s/veh		46.2			57.6			36.4			32.0	
Approach LOS		D			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.6	51.8		18.3	11.0	59.4		18.6
Change Period (Y+Rc), s	5.5	* 5.5		4.0	4.0	5.5		4.0
Max Green Setting (Gmax), s	13.0	* 50		35.0	7.0	55.5		15.0
Max Q Clear Time (g_c+I1), s	8.3	40.8		10.9	7.2	48.2		14.5
Green Ext Time (p_c), s	3.9	5.5		2.3	0.0	5.7		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	37.5
HCM 2010 LOS	D

Notes

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	52.4	68.7	81.5	73.8
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	None	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	0.0	0.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	10	0	30	20
85th percentile speed (mph)	30	30	55	55
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	65.0	65.0	56.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.37	2.45	3.53	3.62
Pedestrian Crosswalk LOS	B	B	D	D

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	432	436	1540	1928
Effct. Green for Bike (s)	16.3	13.1	49.7	55.8
Cross Street Width (ft)	81.5	73.8	68.7	52.4
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	8.0	8.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	251	202	765	858
Bicycle Delay (s/bike)	49.7	52.6	24.8	21.2
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	1.88	2.12	2.49	2.56
Bicycle LOS	A	B	B	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	193	410	192	165	825	345	1216	153	344	1376	129
v/c Ratio	0.96	0.91	0.39	0.85	1.01	0.95	0.89	0.24	0.88	0.99	0.19
Control Delay	105.9	69.3	7.4	89.0	78.3	89.1	44.0	6.8	76.0	58.3	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.9	69.3	7.4	89.0	78.3	89.1	44.0	6.8	76.0	58.3	4.6
Queue Length 50th (ft)	151	305	0	129	~333	139	458	11	137	550	0
Queue Length 95th (ft)	#298	#479	57	#268	#473	#231	#571	54	#219	#716	38
Internal Link Dist (ft)		490			549		522			729	
Turn Bay Length (ft)	200			125		250		250	350		450
Base Capacity (vph)	202	471	507	193	814	364	1360	649	392	1388	675
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.87	0.38	0.85	1.01	0.95	0.89	0.24	0.88	0.99	0.19

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	398	186	160	601	199	335	1180	148	334	1335	125
Future Volume (veh/h)	187	398	186	160	601	199	335	1180	148	334	1335	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.90	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1827	1827	1900	1827	1827	1827	1827	1827	1827
Adj Flow Rate, veh/h	193	410	192	165	620	205	345	1216	153	344	1376	129
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	203	445	345	199	602	199	366	1360	587	394	1388	598
Arrive On Green	0.12	0.24	0.24	0.11	0.24	0.24	0.11	0.39	0.39	0.12	0.40	0.40
Sat Flow, veh/h	1740	1827	1416	1740	2493	822	3375	3471	1498	3375	3471	1495
Grp Volume(v), veh/h	193	410	192	165	431	394	345	1216	153	344	1376	129
Grp Sat Flow(s),veh/h/ln	1740	1827	1416	1740	1736	1580	1688	1736	1498	1688	1736	1495
Q Serve(g_s), s	13.2	26.3	14.2	11.1	29.0	29.0	12.2	39.4	5.8	12.0	47.3	4.7
Cycle Q Clear(g_c), s	13.2	26.3	14.2	11.1	29.0	29.0	12.2	39.4	5.8	12.0	47.3	4.7
Prop In Lane	1.00		1.00	1.00		0.52	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	445	345	199	419	382	366	1360	587	394	1388	598
V/C Ratio(X)	0.95	0.92	0.56	0.83	1.03	1.03	0.94	0.89	0.26	0.87	0.99	0.22
Avail Cap(c_a), veh/h	203	472	366	199	419	382	366	1360	587	394	1388	598
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	44.2	39.7	52.0	45.5	45.5	53.1	34.2	12.2	52.1	35.8	11.4
Incr Delay (d2), s/veh	49.1	22.8	1.7	24.1	51.4	54.4	32.7	8.0	0.2	19.0	21.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	16.0	5.7	6.7	19.8	18.4	7.4	20.3	2.4	6.6	26.8	2.0
LnGrp Delay(d),s/veh	101.8	67.0	41.4	76.1	96.9	99.9	85.9	42.2	12.4	71.1	57.7	11.6
LnGrp LOS	F	E	D	E	F	F	F	D	B	E	E	B
Approach Vol, veh/h		795			990			1714			1849	
Approach Delay, s/veh		69.3			94.6			48.3			57.0	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	51.0	17.8	33.2	17.0	52.0	18.0	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	47.0	12.0	31.0	13.0	48.0	14.0	29.0
Max Q Clear Time (g_c+I1), s	14.0	41.4	13.1	28.3	14.2	49.3	15.2	31.0
Green Ext Time (p_c), s	0.0	4.4	0.0	1.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	63.0
HCM 2010 LOS	E

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	61.4	60.1	84.2	84.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	60	10	10	10
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.77	2.70	3.10	3.11
Pedestrian Crosswalk LOS	C	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	795	990	1714	1849
Effct. Green for Bike (s)	29.6	29.0	47.0	48.0
Cross Street Width (ft)	84.2	84.0	60.1	61.4
Through Lanes Number	1	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	6.0
Paved Shoulder Width (ft)	0.0	0.0	8.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	493	483	783	800
Bicycle Delay (s/bike)	34.1	34.5	22.2	21.6
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.87	2.38	2.50	2.74
Bicycle LOS	C	B	B	B