Palm Nipomo Parking Structure Project

Draft Environmental Impact Report

SCH# 2017051011

prepared by

City of San Luis Obispo
Public Works Department
919 Palm Street
San Luis Obispo, California 93401
Contact: Scott Lee, Parking Manager

prepared with the assistance of

Rincon Consultants, Inc.
1530 Monterey Street, Suite D
San Luis Obispo, California 93401

December 2017

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Executive Summary

This section summarizes the characteristics of the proposed Palm Nipomo Parking Structure Project, alternatives to the project, and the environmental impacts, mitigation measures, and residual impacts associated with the project. City staff prepared an Initial Study and circulated a Notice of Preparation (NOP) for the project on May 1, 2017. The Initial Study identified potentially significant impacts with respect to aesthetics, cultural resources, noise, and transportation and traffic, and this document is an environmental impact report (EIR) that further analyzes those impacts. All other CEQA issue areas were addressed in the Initial Study (Appendix A) and are summarized in Section 5.0, *Issues Addressed in the Initial Study*.

Project Synopsis

Project Applicant

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919 Palm Street
San Luis Obispo, California 93401
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Lead Agency Contact Person

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Public Works Department
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Project Description

This EIR has been prepared to examine the potential environmental effects of the Palm Nipomo Parking Structure Project. The following is a summary of the full project description, which is located in Section 2.0, *Project Description*.

The project would involve the removal of an existing 77-space surface parking lot and five residential structures (including detached garage) and construction of an above-ground, five-level parking structure, non-profit theater, and commercial space on a 1.38-acre site located in the city of San Luis Obispo. The parking structure would provide up to 445 parking spaces.[1] Main vehicular access to the structure would be provided from Palm Street, with secondary access from Nipomo Street. The theater would entail a three-story structure with a gross floor area of 23,841 square feet

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[1] The parking structure is undergoing design refinement with respect to the ultimate number of parking spaces. Based on the current design, the structure would provide 410 parking spaces; however, the analysis conservatively assumes a maximum of up to 445 parking spaces would be provided.

and up to 255 theater seats fronting Monterey Street. The project would also include 5,000 square feet of commercial space on two levels fronting Nipomo Street. The project would require a General Plan Amendment, Zone Change, Planning Commission Use Permit, and Architectural Review. Table 1 summarizes the characteristics of the proposed project.

Table 1 Project Characteristics

Address	609, 610, 614, 630, 633 Palm Street and 970, 972 Nipomo Street
APN	002-412-001, 002-412-002, 002-412-003, 002-412-004, 002-412-011, and 002-412-012
Maximum Building Height	
Parking Structure	50 feet structure + 14 feet for elevator tower
Commercial	41 feet
Theater	43 feet
Lot Area	Approx. 60,329 square feet (sf) (1.38 acres)
Building Footprint[1]	Approx. 44,487 sf
Building Gross Floor Area[2]	**191,591 sf**
Parking Structure Gross Floor Area	162,750 sf
Ground Floor	32,500 sf
Parking Level 2	32,750 sf
Parking Level 3	32,750 sf
Parking Level 4	32,750 sf
Parking Level 5	32,000 sf
Commercial Gross Floor Area	5,000 sf
1st Floor	2,500 sf
2nd Floor	2,500 sf
Theater Gross Floor Area	23,841 sf
1st Floor (Basement)	6,357 sf
2nd Floor (Main)	9,487 sf
3rd Floor	5,744 sf
Roof Balcony & Exit Stairs	2,253 sf
Total Parking Spaces[3]	445
Net New Parking Spaces	368

[1] Building footprint is sum of ground or main levels of each use.

[2] The gross floor area is the sum of all floors or levels for all uses.

[3] The parking structure is undergoing design refinement with respect to the ultimate number of parking spaces. Based on the current design, the structure would provide 410 parking spaces; however, the analysis conservatively assumes a maximum of up to 445 parking spaces would be provided.

sf = square feet

Project Objectives

Objectives for this project include the following:

- Provide a minimum of 400 parking spaces
- Accommodate cultural uses on Monterey Street in front of the structure
- Include a pedestrian-level public use plaza area at the corner of Nipomo and Monterey Streets
- Provide a direct pedestrian connection from the structure to Monterey Street
- Preserve the large oak tree on site
- Consider contextual sensitivity of surrounding properties (e.g., Lattimer-Hayes adobe)

Project Alternatives

As required by Section 15126(d) of the *State CEQA Guidelines*, this EIR examines a range of reasonable alternatives to the project that could feasibly achieve similar objectives. This includes the following five alternatives:

- **Alternative 1. No Project /No Development** assumes the project is not approved, that none of the proposed entitlements are implemented, and that no further development would occur on the project site.
- **Alternative 2. Project Plus Live/Work Units** would be the same as the proposed project described above, except the 5,000 square feet of commercial space would be reduced to 2,500 square feet of commercial space and four residential units would be included.
- **Alternative 3. Parking Structure, Commercial, and Residential** would be the same as the preferred project described above, except the theater would be replaced with 22 two-bedroom residential units.
- **Alternative 4. Historic Resource Preservation** would include the parking structure and 5,000 square feet of commercial space, but retain the two houses at 610 and 614 Monterey Street. The theater would not be included as part of this alternative.

Alternative 4. The Historic Resource Preservation Alternative would be the environmentally superior alternative, as it would avoid direct impacts to historical resources because the two contributing structures to the Downtown Historic District and the linkage between properties in the district they provide would remain in place. However, aesthetic and noise impacts would remain significant and unavoidable.

Alternative 1. No Project/No Development could also be considered environmentally superior to the proposed project because the site would remain as is and it would not result in any significant environmental impacts; however, it would not meet the project objectives.

Alternative 2. Project Plus Live/Work Units would result in a similar magnitude of environmental impacts as the proposed project, as buildout would be almost identical. This alternative would not reduce any of the significant and unavoidable impacts.

Alternative 3. Parking Structure, Commercial, and Residential would result in a similar magnitude of environmental impacts as the proposed project. The addition of 22 residential units in place of the theater would not result in inferior or superior environmental conditions relative to the proposed project and would not eliminate the significant impacts to historical resources, visual character, or from construction noise. Most of the issues addressed in the Initial Study would be the same as the proposed project, with an incremental increase in public services demanded and water/wastewater generated.

The complete alternatives analysis is included in Section 7.0, *Alternatives*.

Areas of Concern

Pursuant to State CEQA Guidelines § 15123(b)(2), this EIR acknowledges the areas of controversy and issues to be resolved which are known to the City of San Luis Obispo or were raised during the scoping process. An Initial Study and Notice of Preparation (NOP) of an EIR was prepared and circulated for a 30-day agency- and public-review period beginning on May 1, 2017. Several comment letters from members of the public were received in response to the NOP. In addition, an EIR Scoping Meeting was also held at the Planning Commission Meeting on May 10, 2017, and comments on the scope of the EIR were received from members of the public and the City Planning Commissioners. The NOP and Initial Study, and NOP comment letters are included in Appendix A of this EIR. Key issues of concern that were identified in the NOP responses and voiced at the EIR scoping meeting included the following:

Comment/Area of Concern	EIR Section Where Addressed
Impacts on views of Cerro San Luis Obispo	4.1 Aesthetics
Size and scale of the project and its aesthetic compatibility with the historical character or surrounding development	4.1 Aesthetics
Impacts to historical resources, including adobe on the project site	4.2 Cultural and Tribal Cultural Resources
Impacts to tribal cultural resources	4.2 Cultural and Tribal Cultural Resources
Increase in operational noise and its impact on sensitive receptors	4.3 Noise
Vehicle trips generated by project	4.4 Transportation
Pedestrian-vehicle conflicts; pedestrian safety crossing Nipomo Street	4.4 Transportation
Induced travel	4.4 Transportation
Calculation methodology for greenhouse gas emissions	5.0 Issues Addressed in Initial Study
Alternatives to the project	7.0 Alternatives

Summary of Impacts and Mitigation Measures

Table 2 through Table 4 provide a summary of the potential environmental impacts of the project. The mitigation measures associated with each impact, which are to be implemented in order to reduce the environmental impacts to the maximum extent feasible, are also summarized therein. In accordance with the *State CEQA Guidelines*, the tables identify the following types of potential impacts associated with the project:

- **Class I, Significant and Unavoidable.** An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a ‘Statement of Overriding Considerations’ to be issued if the project is approved per §15093 of the State CEQA Guidelines.
- **Class II, Significant but Mitigable.** An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires ‘Findings’ to be made under §15091 of the State CEQA Guidelines.

- **Class III, Less than Significant.** An impact that may be adverse, but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **Class IV, Beneficial.** An effect that would reduce existing environmental problems or hazards.

Significant and Unavoidable Impacts

The project would result in five significant and unavoidable (Class I) impacts. Issue areas with Class I impacts include aesthetics (visual character and cumulative visual character), cultural resources (historic resources and cumulative historic resources), and noise (construction noise) as summarized in Table 2.

Table 2 Class I, Significant and Unavoidable Environmental Impacts

Impact	Mitigation Measures	Residual Impact
Aesthetics		
Impact AES-2. The project would permanently alter the existing visual character of the site because it would introduce new structures that are substantially different in terms of size, scale, and massing. This impact is Class I, significant and unavoidable.	As discussed in the impact analysis and described in the project description, the project includes various features that are intended to mitigate visual impacts. No additional mitigation measures are feasible.	The project design features would reduce visual impacts to the extent feasible; however, due to the size, scale, and massing of the project, impacts related to a change in visual character would remain significant and unavoidable.
Cumulative Aesthetics Impact. The project would result in a significant and unavoidable impact associated with change in visual character due to the increase in size, scale, and massing of the project. This combined with other cumulative development in the area would increase the intensity of development in the area and permanently alter the visual character. Therefore, the project would result in a Class I, significant and unavoidable, cumulative impact.	As discussed in the impact analysis and described in the project description, the project includes various features that are intended to mitigate visual impacts. No additional mitigation measures are feasible to address cumulative impacts.	The project features would reduce the project's visual impacts to the extent feasible; however, impacts to change in visual character would be cumulatively considerable.
Cultural and Tribal Cultural Resources		
Impact CR-1. Construction of the project would result in demolition of two structures on the project site that are historic resources, and adversely affect the Downtown Historic District. This would cause a substantial adverse change in the significance of historic resources as defined in CEQA Guidelines	**CR-1 Historical Building Documentation Packages.** Impacts to historical resources shall be minimized through the preparation of archival historic building documentation packages for both 610 and 614 Monterey Street. Prior to issuance of demolition permits, the City of San Luis Obispo shall ensure that documentation of both properties is completed in the form of a Historic American Building Survey (HABS)-Like documentation that shall comply with the	Implementation of Mitigation Measure CR-1 would reduce impacts to historical resources to the greatest extent possible; however, this measure would not eliminate the

Impact	Mitigation Measures	Residual Impact
§15064.5. This impact is Class I, significant and unavoidable.	Secretary of the Interior's Standards for Architectural and Engineering Documentation (NPS 1990). The documentation shall generally follow the HABS Level III requirements and include high-quality digital photographic recordation of the buildings and their overall setting, detailed historic narrative report, and compilation of historic research. The documentation shall be completed by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for History and/or Architectural History (NPS 1983). Individual archival documentation packages shall be completed both properties and offered as donated material to the San Luis Obispo Library and the History Center of San Luis Obispo County, where it would be available to local researchers. Completion of this mitigation measure shall be monitored and enforced by the lead agency.	permanent impacts to the identified historic resources, and no other feasible mitigation measures are available. Therefore, the project would result in a significant and unavoidable impact to historic resources.
Cumulative Cultural Resources Impact. The project would result in a significant and unavoidable impact associated with the removal of historic structures that contribute to the Downtown Historic District. As such, the project would contribute to the cumulative loss of historic resources in the City. This would be a Class I, significant and unavoidable, cumulative impact to historical resources.	No additional mitigation is available to address cumulative cultural resources impacts.	Implementation of Mitigation Measure CR-1 would reduce this impact to the greatest extent possible; however, cumulative cultural resources impacts would remain significant and unavoidable.
Noise		
Impact N-1. Short-term construction activity would temporarily generate noise that would exceed City noise thresholds. Mitigation is available to reduce temporary construction noise, but would not be sufficient to reduce impacts to less than the applicable thresholds. This impact is Class I, significant and unavoidable.	**N-1(a) Construction Vehicle Travel Route.** Construction vehicles and haul trucks shall utilize roadways which avoid residential neighborhoods and sensitive receptors where possible. The applicant shall submit a proposed construction vehicle and hauling route for City review and approval prior to grading/building permit issuance. The approved construction vehicle and hauling route shall be used for all construction vehicles and hauling trips during the duration of construction. **N-1(b) Construction Activity Timing.** Except for emergency repair of public service utilities, or where an exception is issued by the Community Development Department, no operation of tools or equipment used in construction, drilling, repair, alteration, or demolition work shall occur daily between the hours of 7:00 PM and 7:00 AM, or any time on Sundays, holidays, or after sunset, such that the sound creates a noise disturbance that exceeds 75 dBA for single family residential, 80 dBA for multi-family residential, and 85 dBA for mixed residential/commercial land uses across a residential or commercial property line for a maximum of 10 days. For construction activities lasting more than 10	Mitigation Measures N-1(a) through N-1(d) would require implementation of noise reduction devices and techniques during construction, and would reduce noise associated with on- and offsite construction activity to the maximum extent feasible. However, temporary noise impacts associated with onsite and offsite construction activity would be significant and unavoidable.

Impact	Mitigation Measures	Residual Impact
	days. For construction activities lasting more than 10 days, noise from construction equipment shall not exceed 60 dBA for single family residential, 65 dBA for multi-family residential, and 70 dBA for mixed residential/commercial land uses across a residential or commercial property line. **N-1(c) Construction Equipment Best Management Practices (BMPs).** For all construction activity at the project site, noise attenuation techniques shall be employed to reduce noise levels to extent feasible in accordance with the City of San Luis Obispo Municipal Code, Title 9, Chapter 9.12 (Noise Control). Such techniques shall include: ▪ Sound blankets on noise-generating equipment ▪ Stationary construction equipment that generates noise levels above 60 dBA at the project boundaries shall be shielded with barriers that meet a sound transmission class (a rating of how well noise barriers attenuate sound) of 25 ▪ All diesel equipment shall be operated with closed engine doors and shall be equipped with factory-recommended mufflers ▪ For stationary equipment, the applicant shall designate equipment areas with appropriate acoustic shielding on building and grading plans. Equipment and shielding shall be installed prior to construction and remain in the designated location throughout construction activities ▪ Electrical power shall be used to power air compressors and similar power tools ▪ The movement of construction-related vehicles, with the exception of passenger vehicles, along roadways adjacent to sensitive receptors shall be limited to the hours between 7:00 AM and 7:00 PM, Monday through Saturday and no movement of heavy equipment shall occur on Sundays or official holidays (e.g., Thanksgiving, Labor Day) ▪ Temporary sound barriers shall be constructed between construction sites and affected uses **N-1(d) Neighborhood Property Owner Notification and Construction Noise Complaints.** The contractor shall inform residents and business operators at properties within 300 feet of the project site of proposed construction timelines and noise complaint procedures to minimize potential annoyance related to construction noise. Proof of mailing the notices shall be provided to the Community Development Department before the City issues a zoning clearance. Signs shall be in place before beginning of and throughout grading and construction activities. Noise-related complaints shall be directed to the City's Community Development Department.	

Table 3 Class II, Significant but Mitigable Environmental Impacts

Impact	Mitigation Measures	Residual Impact
Aesthetics		
Impact AES-3. Implementation of the project would result in an increase in nighttime lighting and daytime glare at the project street; however, with mitigation, this increase would not adversely affect day or nighttime views in the area. This impact would be Class II, significant but mitigable.	**AES-3(a) Lighting Plan.** Prior to issuance of building permits, the applicant shall prepare and submit a comprehensive lighting plan for Architectural Review Committee review and approval. The lighting plan shall be consistent with the Municipal Code Night Sky Ordinance, and prepared using guidance and best practices endorsed by the International Dark Sky Association. The lighting plan shall address all aspects of the lighting, including but not limited to all buildings, infrastructure, driveways, paths, plazas, safety, and signage. The lighting plan must include identification of all types, sizes, and intensities of wall mounted building lights and landscape accent lighting, and a photometric map must be provided. The lighting plan shall include the following: a. The point source of all exterior lighting shall be shielded from offsite views b. Light trespass from exterior lights shall be minimized by directing light downward and utilizing cut-off fixtures or shields c. Lumination from exterior lights shall be the lowest level allowed by public safety standards d. Exterior lighting shall be designed to not focus illumination onto exterior walls e. Any signage visible from offsite shall not be internally laminated **AES-3(b) Glare Reduction.** To minimize impacts on residential development in proximity to the project site, roof and building materials shall be non-reflective, and shall be muted in hues consistent with standards in the Community Design Guidelines, Section 6.1-C.	Implementation of Mitigation Measures AES-3(a) and AES-3(b) would reduce impacts associated with light and glare to a less than significant level.
Cultural and Tribal Cultural Resources		
Impact CR-2. Construction of the project would result in ground disturbance that could cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines 15064. This impact would be Class II, significant but mitigable.	**CR-2(a) Retain a Qualified Principal Investigator**. A qualified principal investigator, defined as an archaeologist who meets the Secretary of the Interior's Standards for professional archaeology (hereafter qualified archaeologist), shall be retained to carry out all mitigation measures related to archaeological resources. **CR-2(b) City of San Luis Obispo Consolidated Approach for Archaeological Investigations.** Mitigation of archaeological resources within the project area shall follow the Consolidated Approach as outlined in the City of San Luis Obispo Archaeological Resource Preservation Program Guidelines. The Consolidated Approach shall include (1) the preparation of a Research Design and Mitigation Plan prepared by the qualified archaeologist and submitted for written approval to the City's Community Development Director (Director), which shall include but not be limited to the research design, laboratory and field methods, public interpretation, and location of curation; (2) monitoring of demolition and clearing of pavement within the project area; (3) fieldwork after the removal of pavement consisting of a Phase I inventory, Phase 2 Testing and Evaluation, and Phase	Implementation of Mitigation Measures CR-2(a) through CR-2(d) would reduce impacts to archaeological resources to a less than significant level.

Impact	Mitigation Measures	Residual Impact
	3 Data Recovery aimed at locating archaeological remains, evaluating their significance and integrity, and mitigating impacts through data recovery excavation; (4) the completion of special studies, such as faunal analysis, if appropriate, and the curation of recovered artifacts; and (5) the completion of a technical report documenting the results of the consolidated approach prepared in accordance with current professional standards and submitted to the Director. **CR-2(c) Archaeological Monitoring.** An archaeological monitor shall be present for all project-related ground-disturbing construction activities. The monitor(s) shall be onsite on a full-time basis during earthmoving activities, including grading, trenching, vegetation removal, or other excavation activities. Under consultation between the qualified archaeologist and the City, monitoring may be reduced or eliminated based on observed conditions. **CR-2(d) Unanticipated Discovery of Archaeological Resources.** In the event that cultural resources are encountered during the implementation of mitigation measures CR-2b or CR-2c, all work shall be halted in the vicinity of the discovery until a qualified archaeologist can assess the significance of the resource. If the resources are found to be significant, they must be avoided or mitigated pursuant to the qualified archaeologist's direction and the testing plan outlined under MM CR-2b. Mitigation may involve preservation in place or documentation and excavation of the resource. A report by the archaeologist evaluating the find and identifying mitigation actions taken shall be submitted to the City.	
Impact CR-3. Construction of the project would result in ground disturbance that could indirectly or directly destroy a unique paleontological resource. This impact would be Class II, significant but mitigable.	**CR-3(a) Qualified Project Paleontologist.** A qualified project paleontologist, defined as a paleontologist who meets the standards of the SVP (2010), shall be retained to carry out all mitigation measures related to paleontological resources. **CR-3(b) Worker Environmental Awareness Program (WEAP).** Prior to the start of construction, the project paleontologist or his or her designee shall conduct training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff. The WEAP shall be fulfilled at the time of a preconstruction meeting at which a qualified paleontologist shall attend. **CR-3(c) Paleontological Monitoring.** Ground-disturbing construction activities (including grading, trenching, foundation work, and other excavations) in previously undisturbed sediments that exceed 10 feet in depth shall be monitored on a full-time basis during initial ground disturbance. Monitoring shall be conducted by a qualified paleontological monitor, who is defined as an individual who has experience with collection and salvage of paleontological resources and meets the minimum standards of the SVP (2010). The duration and timing of the monitoring will be determined by the project paleontologist and the location and extent of proposed ground disturbance. If the project paleontologist determines that full-time monitoring is no longer warranted, based on the	Implementation of Mitigation Measures CR-3(a) through CR-3(d) would reduce impacts to paleontological resources to a less than significant level.

Impact	Mitigation Measures	Residual Impact
	specific geologic conditions at the surface or at depth, the project paleontologist may recommend that monitoring be reduced to periodic spot-checking or cease entirely. Monitoring is not necessary in artificial fill or for activities that do not reach 10 feet in depth. **CR-3(d) Fossil Discoveries.** In the event of a fossil discovery by the paleontological monitor or construction personnel, all work in the immediate vicinity of the find shall cease. The project paleontologist shall evaluate the find before restarting construction activity in the area. If it is determined that the fossil(s) is (are) scientifically significant, the project paleontologist shall complete the following conditions to mitigate impacts to significant fossil resources: 1) Salvage of Fossils. The project paleontologist (or paleontological monitor) shall recover significant fossils following standard field procedures for collecting paleontological resources, as described by the SVP (2010). Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case the paleontologist shall have the authority to temporarily direct, divert or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner. 2) Preparation and Curation of Recovered Fossils. Once salvaged, significant fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection (such as the University of California Museum of Paleontology), along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the project paleontologist.	
Impact CR-5. Ground-disturbing activities associated with construction of the project have the potential to disturb unidentified human remains. This impact would be Class II, significant but mitigable.	Compliance with existing regulations and Mitigation Measure CR-2(d) would ensure that impacts to human remains and burial grounds would remain less than significant.	Implementation of Mitigation Measure CR-2(d) would reduce this impact to a less than significant level.
Cumulative Noise Impact. Construction of the proposed project could overlap with the construction of other projects in the vicinity (Monterey Place and the Vesper Hotel at the Creamery) which would result in a significant cumulative impact. The project's incremental contribution would be cumulatively considerable.	**N-4 Coordination of Construction Timing**. Prior to the issuance of grading permits, the City of San Luis Obispo shall review and coordinate the construction schedules of any other projects within 300 feet of the project to ensure that construction schedules do not overlap.	Implementation of Mitigation Measure N-4 would avoid additional cumulative construction noise impacts and reduce cumulative impacts to a less than significant level.

Impact	Mitigation Measures	Residual Impact
Transportation		
Impact T-3. Implementation of the project would result in pedestrian access impacts due to the difficulty of crossing Nipomo Street at an uncontrolled location. This impact would be Class II, significant but mitigable.	**T-3 Pedestrian Access.** Subject to approval of the Public Works Director, the City shall incorporate improvements to the intersections of Dana Street/Nipomo Street and Monterey Street/Nipomo Street to enhance pedestrian safety and accessibility. The improvements shall be consistent with the City's Circulation Element and Downtown Physical Concept Plan (2017) and shall balance the needs of each mode of use. At a minimum the project should consider: ▪ High visibility crosswalk, or other intersection enhancements, with directional curb ramps across Nipomo Street from the northwest corner of Dana Street/Nipomo Street to the southwest corner of the parking structure. ▪ High visibility crosswalk, or other intersection enhancements, with directional curb ramps from the southeast corner of Monterey Street/Nipomo Street across Nipomo Street. ▪ Standard crosswalks, or other intersection enhancements, with directional curb ramps across Monterey Street and Dana Street where they intersect with Nipomo Street. ▪ Reduce the curb radii on the southwest corner of Dana Street/Nipomo Street and the northeast corner of Monterey Street/Nipomo Street.	Implementation of Mitigation Measure T-3 would reduce this impact to a less than significant level.
Cumulative Traffic Impact. Under Cumulative plus Project conditions, one study intersection (the project driveway at Nipomo Street) would operate at an unacceptable level of service for pedestrians during the evening peak hour. This impact would be Class II, significant but mitigable.	Mitigation Measure T-3 would be required.	Implementation of Mitigation Measure T-3 would reduce impacts to a less than significant level.
Air Quality (from Initial Study)		
Construction of the project would generate temporary increases in localized air pollutant emissions (fugitive dust, ozone precursors, and diesel particulate matter emissions) within 1,000 of sensitive receptors. In addition the South Coast Air Basin is in non-attainment for SCCAB is in non-attainment for $PM_{10.}$ This impact would be Class II, significant but mitigable.	**AQ-1 Fugitive Dust Control Measures**. Construction projects shall implement the following dust control measures so as to reduce PM_{10} emissions in accordance with San Luis Obispo Air Pollution Control District (SLOAPCD) requirements. ▪ Reduce the amount of the disturbed area where possible ▪ Water trucks or sprinkler systems shall be used during construction in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency shall be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water shall be used whenever possible ▪ All dirt stock pile areas shall be sprayed daily as needed ▪ Permanent dust control measures identified in the approved project revegetation and landscape plans shall be implemented as soon as possible following	Implementation of Mitigation Measures AQ-1 and AQ-2(a) through AQ-2(c) would reduce impacts to a less than significant level.

Impact	Mitigation Measures	Residual Impact
	completion of any soil disturbing activities ▪ Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established ▪ All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the SLOAPCD ▪ All roadways, driveways, sidewalks, etc. to be paved shall be completed as soon as possible after grading unless seeding or soil binders are used ▪ Vehicle speed for all construction vehicles shall not exceed 15 miles per hour (mph) on any unpaved surface at the construction site ▪ All trucks hauling dirt, sand, soil, or other loose materials are to be covered or shall maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with California Vehicle Code Section 23114 ▪ Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site ▪ Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water shall be used where feasible ▪ All of these fugitive dust mitigation measures shall be shown on grading and building plans ▪ 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, reduce visible emissions below 20 percent opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SLOAPCD Compliance Division prior to the start of any grading, earthwork, or demolition. **AQ-2(a) Standard Control Measures for Construction Equipment**. The following standard air quality mitigation measures shall be implemented during construction activities at the project site: ▪ Maintain all construction equipment in proper tune according to manufacturer's specifications ▪ Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for sue off-road) ▪ 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 on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty	

Impact	Mitigation Measures	Residual Impact
	diesel engines, and comply with the State On-Road Regulation ▪ Construction or trucking companies with fleets 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 ▪ 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 ▪ Diesel idling within 1,000 feet of sensitive receptors is not permitted ▪ Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors ▪ Electrify equipment when feasible ▪ Substitute gasoline-powered in place of diesel-powered equipment, where feasible ▪ Use alternatively fueled construction equipment onsite where feasible, such as compressed natural gas, liquefied natural gas, propane or biodiesel **AQ-2(b) Best Available Control Technology (BACT) for Construction Equipment**. The following BACT for diesel-fueled construction equipment shall be implemented during construction activities at the project site, where feasible: ▪ Further reduce emissions by expanding use of Tier 3 and Tier 4 off-road and 2010 on-road compliant engines where feasible ▪ Repower equipment with the cleanest engines available ▪ Install California Verified Diesel Emission Control Strategies, such as level 2 diesel particulate filters (these strategies are listed at: www.arb.ca.gov/diesel/verdev/vt/cvt.htm) **AQ-2(c) Architectural Coating**. To reduce ROG and NOX levels during the architectural coating phase, low or no VOC-emission paint shall be used with levels of 50 g/L or less.	
Biological Resources (from Initial Study)		
Construction of the project would involve general construction activity and tree removal that may affect protected nesting birds. Impacts to migratory bird species would be potentially significant unless mitigation is incorporated.	**BIO-1 Nesting Bird Protection.** To avoid disturbance of nesting and special-status birds, activities related to the project, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (typically February through August in the project region). If construction must begin within the breeding season, then a pre-construction nesting bird survey shall be conducted no more than 3 days prior to initiation of ground disturbance and vegetation removal activities. The nesting bird pre-construction survey shall be conducted within the Project Boundary, including a 300-foot buffer (500-foot for raptors), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in the area. If nests are found, an avoidance buffer (which is dependent upon the species, the proposed	Implementation of Mitigation Measure BIO-1 would reduce impacts to a less than significant level.

Impact	Mitigation Measures	Residual Impact
	work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary. All construction personnel shall be notified as to the existence of the buffer zone and to avoid entering the buffer zone during the nesting season. No ground-disturbing activities shall occur within this buffer until the avian biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist.	
Geology and Soils (from Initial Study)		
Implementation of the project would occur on soils that have moderate to high expansion potential. This impact would be potentially significant unless mitigation is incorporated.	**GEO-1 Minimization of Expansive Soil Hazards.** Once the final maximum loads of the project have been determined, a design-level geotechnical report shall be prepared that identifies the most appropriate geotechnical improvements to onsite soils, the foundation, and parking structure to minimize expansive soil hazards. Recommendations could include, but are not limited to the following: ▪ Use imported non-expansive materials combined with pre-moistening of the soils to provide protection for slabs and flatwork ▪ Provide a layer of non-expansive material 18 to 24 inches thick ▪ Use post-tensioned slabs-on-grade ▪ Implement shoring methods, such as shotcrete-faced soil nail walls, tangent drilled caissons, whaler-braced retaining walls, and steel I-beam and lagging walls ▪ Use over-excavation and recompaction ▪ Utilize a deep foundation system, such as caissons or rammed aggregate piers A certified soils engineer shall be retained for monitoring during construction of the project. The certified soils engineer shall also provide any necessary soil testing during construction, to ensure compliance with the design-level geotechnical report, and to provide site-specific guidance as subsurface materials are encountered.	Implementation of Mitigation Measure GEO-1 would reduce impacts to a less than significant level.
Hazardous Materials (from Initial Study)		
Construction of the project would require excavation and removal of existing fill, which has the potential to be contaminated. Therefore, construction activities could expose workers to contaminated soil onsite. This impact would be potentially significant unless mitigation is incorporated.	**HAZ-1 Hazardous Materials Soil Sampling and Remediation.** Prior to issuance of grading permits, additional soil samples testing for total petroleum hydrocarbons shall be performed. A work plan shall be completed to address the sampling protocols to be followed, as well as the number of samples to be taken and the chemical analysis required. Upon City of San Luis Obispo approval, the work plan shall be implemented and the results of the soil sampling shall be forwarded to the City of San Luis Obispo. The City shall review the data to determine if any additional investigation or remedial activities are deemed necessary. No work shall resume in that area until the lead local regulatory agency has provided written authorization that the area does not warrant any additional action. If concentrations of contaminants warrant remediation,	Implementation of Mitigation Measure HAZ-1 would reduce impacts to a less than significant level

Impact	Mitigation Measures	Residual Impact
	contaminated materials shall be remediated either prior to or concurrent with construction. Remediation shall generally include a management plan which establishes design and implementation of remediation. Cleanup may include excavation, disposal, bio-remediation, or any other treatment of conditions subject to regulatory action. All necessary reports, regulations and permits shall be followed to achieve cleanup of the site. The contaminated materials shall be remediated under the supervision of an environmental consultant licensed to oversee such remediation and under the direction of the lead oversight agency. The remediation program shall also be approved by the San Luis Obispo Fire Department. All proper waste handling and disposal procedures shall be followed. Upon completion of the remediation, the environmental consultant shall prepare a report summarizing the project, the remediation approach implemented, and the analytical results after completion of the remediation, including all waste disposal or treatment manifests.	
Transportation (from Initial Study)		
Construction of the project would result in short term construction traffic, construction parking, and modifications to existing pedestrian, bicycle, and transit circulation during the construction period. This impact would be potentially significant unless mitigation is incorporated.	**T-1 Construction Management Plan**. Prior to the issuance of each building permit, the construction contractor shall meet with the Public Works department to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project. The construction contractor will develop a construction management plan for review and approval by the Public Works department. The plan shall include at least the following items and requirements: ▪ A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic and pedestrian hours, detour signs if required, lane closure procedures, sidewalk closure procedures, signs, cones for drivers, and designated construction access routes. ▪ Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur. ▪ Location of construction staging areas for materials, equipment, and vehicles (must be located on the project site). ▪ Identification of haul routes for movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety; and provision for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project applicant. ▪ Temporary construction fences to contain debris and material and to secure the site. ▪ Provisions for removal of trash generated by project construction activity. ▪ A process for responding to and tracking complaints pertaining to construction activity.	Implementation of Mitigation Measure T-1 would reduce impacts to a less than significant level.

Impact	Mitigation Measures	Residual Impact
	- Provisions for monitoring surface streets used for truck routes so that any damage and debris attributable to the trucks can be identified and corrected. - It is anticipated that this Construction Traffic Management Plan would be developed in the context of a larger Construction Management Plan, which would address other issues such as hours of construction onsite, limitations on noise and dust emissions, and other applicable items.	

Table 4 Class III, Less than Significant Environmental Impacts

Impact	Mitigation Measures	Residual Impact
Aesthetics		
Impact AES-1. The project would not have a substantial adverse impact on a scenic vista because it is not located in a city-designated scenic vista. This impact would be Class III, less than significant.	No mitigation measures are required.	Less than Significant
Cultural and Tribal Cultural Resources		
Impact CR-4. No Tribal Cultural Resources were identified within the project site, but area is generally considered sensitive for cultural resources. This impact would be Class III, less than significant.	No mitigation measures are required.	Less than Significant
Noise		
Impact N-2. Short term construction activities would generate intermittent levels of groundborne vibration that would be perceptible, but would not exceed applicable thresholds. This impact would be Class III, less than significant.	No mitigation measures are required.	Less than Significant
Impact N-3. The project would generate operational noise from project-generated traffic and new commercial and parking uses. Noise from the project would not exceed acceptable noise levels at existing off -site sensitive receptors. This impact would be Class III, less than significant.	No mitigation measures are required.	Less than Significant
Cumulative Noise Impact. Under Cumulative Plus Project Conditions, noise levels would not exceed thresholds. Impacts would not be significant or cumulatively considerable.	No mitigation measures are required.	Less than Significant
Transportation		
Impact T-1. Under Existing Plus Project conditions, all intersections and segments would operate at acceptable levels of service for vehicles, pedestrians, bicycles, and transit. These impacts would be Class III, less than significant.	No mitigation measures are required.	Less than Significant
Impact T-2. The project would not add roadway capacity that would induce travel and would not generate new travel demand as a land use. In addition, the City actively manages parking demand and encourages non-auto modes of travel. Therefore, the project would have a negligible impact on vehicle miles traveled (VMT). This impact would be Class III, less than significant.	No mitigation measures are required.	Less than Significant
Cumulative Traffic Impact. Under Cumulative plus Project conditions, all study intersections and segments would operate at acceptable levels of service for vehicles, and all segments would operate at acceptable levels of service for bicycles and transit. These impacts would be Class III, less than significant.	No mitigation measures are required.	Less than Significant

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1 Introduction

This document is an Environmental Impact Report (EIR) that examines the potential effects of constructing the Palm-Nipomo Project on a 1.38-acre site in the City of San Luis Obispo, California. The project is described in detail in Section 2.0, *Project Description*. This chapter describes: (1) the background of the EIR; (2) the purpose of and legal authority for the EIR; (3) the scope and content of the EIR; (4) lead, responsible and trustee agencies; and (5) the environmental review process required under the California Environmental Quality Act (CEQA).

1.1 Environmental Impact Report Background

The City of San Luis Obispo prepared an Initial Study and circulated a Notice of Preparation (NOP) of this EIR for a 30-day agency and public review period starting on May 1, 2017. The Initial Study serves as the scoping document for this EIR. The Initial Study determined that the proposed project required the preparation of an EIR to further evaluate potential impacts related to the following environmental issue areas: aesthetics, cultural resources, noise, and transportation. The City received two letters in response to the NOP. The Initial Study, NOP, and NOP comment letters are presented in Appendix A to this EIR. An EIR scoping meeting was also held on May 10, 2017, in the City Council Chamber, and comments on the scope of the EIR were received from private citizens and the Planning Commissioners.

Key issues of concern that were noted in the NOP responses and voiced at the EIR scoping meeting included the following:

- Impacts on views of Cerro San Luis Obispo
- Size and scale of the project and its aesthetic compatibility with the historical character or surrounding development
- Impacts to historical resources, including the adobe on the project site
- Impacts to tribal cultural resources
- Increase in operational noise and its impact on sensitive receptors
- Vehicle trips generated by project
- Pedestrian-vehicle conflicts; pedestrian safety crossing Nipomo Street
- Induced travel
- Sources of greenhouse gas emissions
- Alternatives to the project

1.2 Purpose and Legal Authority

This EIR has been prepared in accordance with CEQA and the CEQA Guidelines. In accordance with Section 15121(a) of the CEQA Guidelines, the purpose of this EIR is to serve as an informational document that:

> "will inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project"

This report serves as an informational document for the public and the City of San Luis Obispo decision-makers. The proposed project requires discretionary approval from the City and, therefore, is subject to CEQA's environmental review requirements. The process will culminate with Planning Commission and City Council hearings to consider certification of a Final EIR and make a decision whether to approve the proposed project, possibly with conditions of approval, or with modifications to the project.

1.3 Scope and Content

This EIR addresses the issues determined to be potentially significant in the Initial Study, and based on responses to the NOP and scoping discussions among the public, consulting staff, and the City. The environmental issues addressed in impact sections in this EIR include:

- Aesthetics
- Cultural Resources
- Noise
- Transportation

All other impacts were addressed in the Initial Study and the associated technical studies prepared as part of the project application and are summarized in Section 5.0, *Issues Addressed in the Initial Study*.

The impact analysis contained in Section 4.0 includes a description of the physical and regulatory setting, followed by an analysis of the proposed project's impacts in that area. Each potential impact is numbered separately, followed by an explanation of how the level of impact was determined. When appropriate, the EIR identifies feasible mitigation measures. Following the mitigation measures are a discussion of any residual impacts or secondary impacts.

The alternatives section of the EIR (Section 7.0) was prepared in accordance with Section 15126.6 of the *CEQA Guidelines* that requires an EIR to examine a reasonable range of alternatives capable of avoiding or minimizing a project's significant effects while achieving most of the basic project objectives. The alternatives discussion evaluates the CEQA-required "no project" alternative and three alternative development scenarios for the site. It also identifies the environmentally superior alternative among the alternatives assessed.

In preparing the EIR, use was made of pertinent City policies and guidelines, existing EIRs and background documents prepared by the City, and documents that guide land use in the city. A full reference list is contained in Section 8.0, *References*, of this EIR.

The level of detail contained throughout this EIR is consistent with the requirements of CEQA and applicable court decisions. The *State CEQA Guidelines* provide the standard of adequacy on which this document is based. The Guidelines state:

> "An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of the proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR

should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good faith effort at full disclosure (Section 15151)."

1.4 Lead, Responsible, and Trustee Agencies

The *State CEQA Guidelines* define "lead," "responsible" and "trustee" agencies. The City of San Luis Obispo is the lead agency for the project because it has the principal responsibility for approving the project.

A "responsible agency" refers to a public agency other than the lead agency that has discretionary approval over the project. The Regional Water Quality Control Board is a Responsible Agency because the proposed project would require a National Pollutant Discharge Elimination System Permit.

A "trustee agency" refers to a state agency having jurisdiction by law over natural resources affected by a project. There are no trustee agencies with jurisdiction on the site.

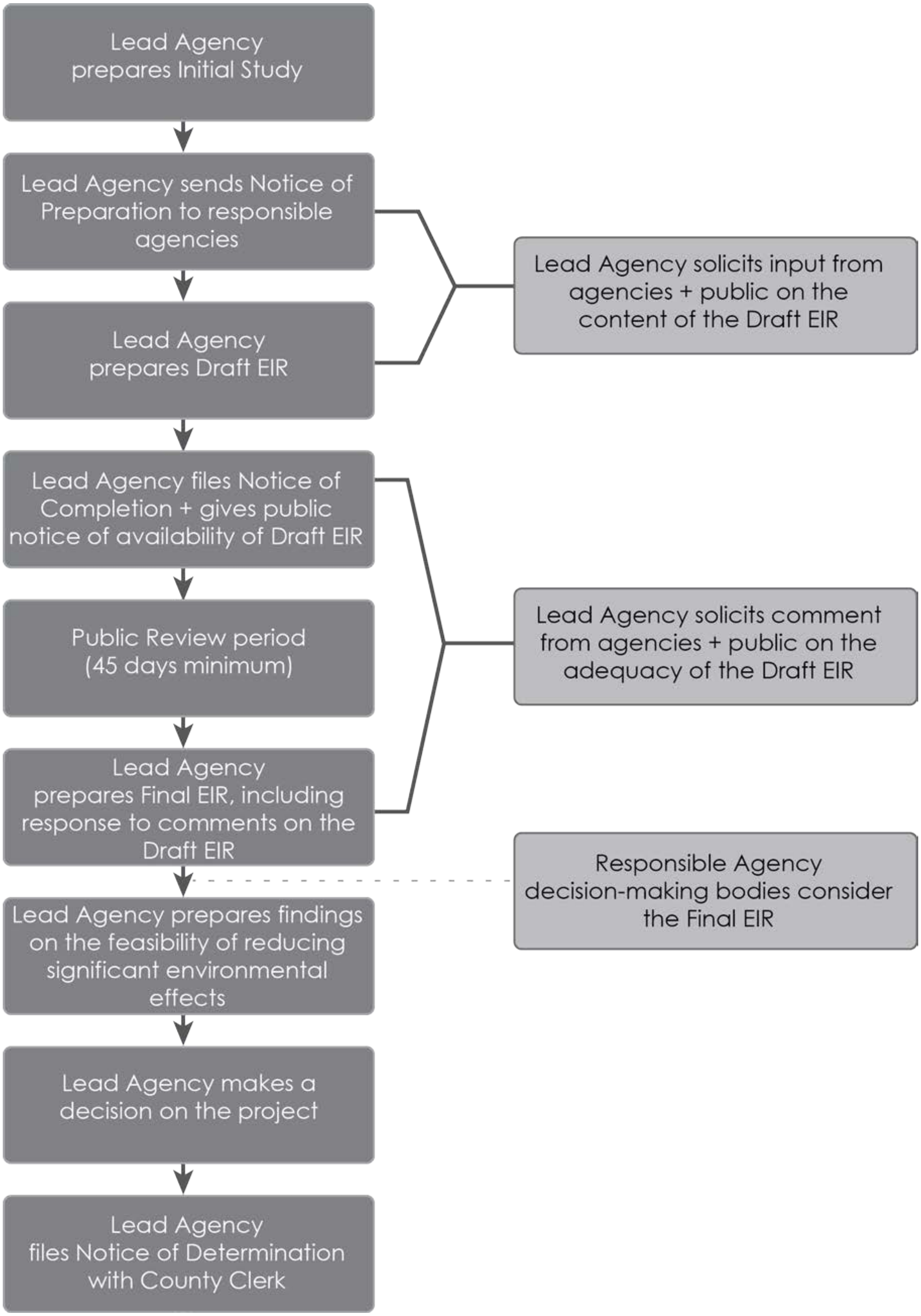
1.5 Environmental Review Process

The environmental review process required under CEQA is summarized below and shown in Figure 1. The steps appear in sequential order.

1. **Notice of Preparation (NOP) Distributed.** Immediately after deciding that an EIR is required, the lead agency must file a NOP soliciting input on the EIR scope to "responsible," "trustee," and involved federal agencies; to the State Clearinghouse, if one or more state agencies is a responsible or trustee agency; and to parties previously requesting notice in writing. The NOP must be posted in the County Clerk's office for 30 days. A scoping meeting to solicit public input on the issues to be assessed in the EIR is not required, but may be conducted by the lead agency.
2. **Draft EIR Prepared.** The Draft EIR must contain: a) table of contents or index; b) summary; c) project description; d) environmental setting; e) significant impacts (direct, indirect, cumulative, growth-inducing and unavoidable impacts); f) alternatives; g) mitigation measures; and h) irreversible changes.
3. **Public Notice and Review.** A lead agency must prepare a Public Notice of Availability of an EIR. The Notice must be placed in the County Clerk's office for 30 days (Public Resources Code Section 21092) and sent to anyone requesting it. Additionally, public notice of Draft EIR availability must be given through at least one of the following procedures: a) publication in a newspaper of general circulation; b) posting on and off the project site; and c) direct mailing to owners and occupants of contiguous properties. The lead agency must consult with and request comments on the Draft EIR from responsible and trustee agencies, and adjacent cities and counties. The minimum public review period for a Draft EIR is 30 days. When a Draft EIR is sent to the State Clearinghouse for review, the public review period must be 45 days, unless a shorter period is approved by the Clearinghouse (Public Resources Code 21091). Distribution of the Draft EIR may be required through the State Clearinghouse.
4. **Notice of Completion.** A lead agency must file a Notice of Completion with the State Clearinghouse as soon as it completes a Draft EIR.

5. **Final EIR.** A Final EIR must include a) the Draft EIR; b) copies of comments received during public review; c) list of persons and entities commenting; and d) responses to comments.
6. **Certification of Final EIR.** The lead agency shall certify: a) the Final EIR has been completed in compliance with CEQA; b) the Final EIR was presented to the decision-making body of the lead agency; and c) the decision-making body reviewed and considered the information in the Final EIR prior to approving a project.
7. **Lead Agency Project Decision.** A lead agency may: a) disapprove a project because of its significant environmental effects; b) require changes to a project to reduce or avoid significant environmental effects; or c) approve a project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted.
8. **Findings/Statement of Overriding Considerations.** For each significant impact of the project identified in the EIR, the lead or responsible agency must find, based on substantial evidence, that either: a) the project has been changed to avoid or substantially reduce the magnitude of the impact; b) changes to the project are within another agency's jurisdiction and such changes have or should be adopted; or c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible. If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of Overriding Considerations that set forth the specific social, economic or other reasons supporting the agency's decision.
9. **Mitigation Monitoring/Reporting Program.** When an agency makes findings on significant effects identified in the EIR, it must adopt a reporting or monitoring program for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects.
10. **Notice of Determination.** An agency must file a Notice of Determination after deciding to approve a project for which an EIR is prepared. A local agency must file the Notice with the County Clerk. The Notice must be posted for 30 days and sent to anyone previously requesting notice. Posting of the Notice starts a 30-day statute of limitations on CEQA challenges.

Figure 1 Environmental Review Process



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2 Project Description

This section describes the proposed project, including the project applicant, the project site and surrounding land uses, major project characteristics, project objectives, and discretionary actions needed for approval.

2.1 Project Applicant

City of San Luis Obispo
919 Palm Street
San Luis Obispo, California 93401
(805) 781-7203

2.2 Lead Agency Contact Person

City of San Luis Obispo
Public Works Department
919 Palm Street
San Luis Obispo, California 93401
(805) 781-7203
Contact: Scott Lee, Parking Manager

2.3 Project Location

The project site is a 1.38-acre property located in San Luis Obispo, California. Figure 2 shows the regional location of the project. The site lies in the City's Downtown Planning Area, adjacent to the Downtown Core. The majority of the site (except for APN 002-412-003) is also located in the City's Downtown Historic District. Figure 3 shows the location of the project in the context of these planning areas. The project site located at the intersections of Palm and Nipomo streets and Nipomo and Monterey streets (609, 610, 614, 630, 633 Palm Street and 970, 972 Nipomo Street). The property consists of six parcels, including Assessor's Parcel Numbers (APN) 002-412-001, 002-412-002, 002-412-003, 002-412-004, 002-412-011, and 002-412-012 (Figure 4).

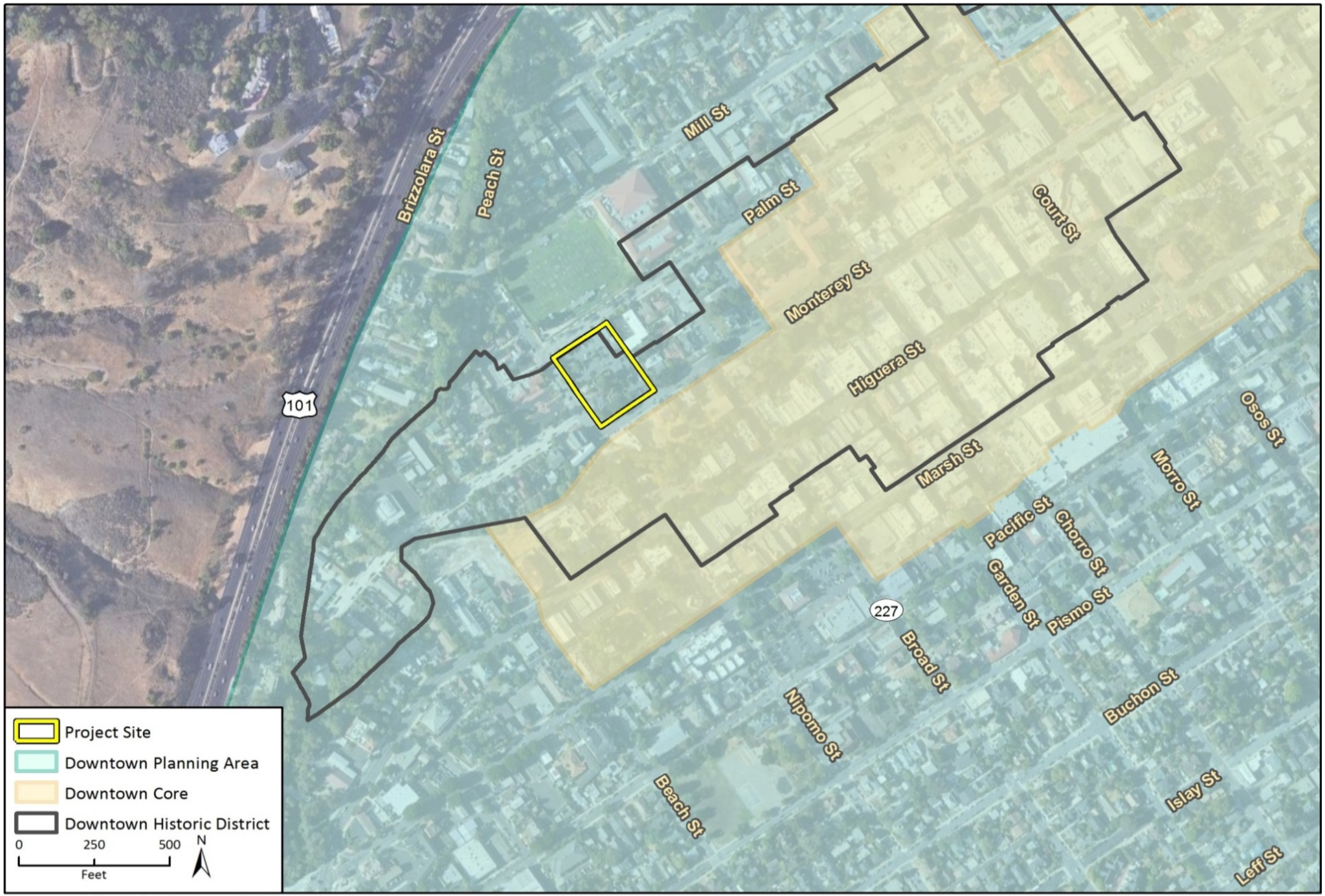
2.4 Existing Site Characteristics

This section describes the current characteristics of the project site. Additional details of the current setting at the site and surrounding locations can be found in Section 3.0, *Environmental Setting*, as well as in the individual issue area discussions in Section 4.0, *Environmental Impact Analysis*.

Figure 2 Regional Location

Imagery provided by ESRI and its licensors © 2016.

Figure 3 Project Planning Area



Imagery provided by Google and its licensors © 2017.
Additional data provided by City of San Luis Obispo, 2017.

Fig X Project Vicinity

Figure 4 Project Site Location and Surrounding Uses

Imagery provided by Google and its licensors © 2017.

Fig 2 Project Location

2.4.1 Setting

As shown in Figure 3, the project site is located within the City's Downtown Planning Area, adjacent to the City's Downtown Core. The majority of the site (except for APN 002-412-003) is also located in the City's Downtown Historic District. As such, the existing setting is urban and characterized by a wide variety of uses. The project site has been previously graded and developed and is surrounded by roads and urban structures. A 77-space surface parking lot, one detached garage, and four residential structures with five residences (three single-family residences and one secondary unit adjacent to Palm Street with two apartments) currently occupy the site. Two of the residential units, 610 and 614 Monterey Street, are on the City's List of Contributing Historic Resources, which identifies structures that contribute to the significance of designated historic districts. The existing parking lot provides public parking in metered stalls owned and operated by the City of San Luis Obispo. Ingress and egress to the lot is available from an at-grade driveway on Palm Street.

Elevations onsite range from 190 and 206 feet above mean sea level, and slopes are generally toward the northwest. Mature trees are scattered throughout the site and located on surrounding public sidewalks on Nipomo and Palm Streets. One of the trees on the site is a large oak tree along Monterey Street, which has the potential to be recognized as a "significant tree" by the City Council Tree Committee. The project site also includes several landscaped planting medians and areas. Partial views of Cerro San Luis are available from the central portion of the site.

2.4.2 Current Land Use Designation and Zoning

The project site is composed of six parcels. Five of the parcels are currently zoned Office with a Historic Overlay (O-H), as defined by the City's Zoning Ordinance, and have Office General Plan land use designations (APN 002-412-001, 002-412-002, 002-412-004, 002-412-011, and 002-412-012). These five parcels are located in the City's Downtown Historic District. One parcel is zoned Medium-High Density Residential (R-3) and has a Medium-High Density Residential General Plan land use designation (APN 002-412-003).

2.4.3 Surrounding Land Uses

The area surrounding the site is urbanized. The existing uses surrounding the site are shown in Figure 4, and include the following:

- **West**. Existing development across Nipomo Street includes the Reis Family Mortuary & Crematory with surface parking lot and a residential complex comprised of multiple buildings. The area comprising the mortuary has a land use designation of Office and is zoned Office with a Historic Overlay (O-H), while the residential complex has a land use designation of Medium-High Density Residential and is zoned Medium-High Density Residential (R-3).
- **South**. South of the site is the San Luis Obispo Children's Museum and two residences designated as City contributing historic resources along Monterey Street. The parcel that houses the museum has a land use designation of Public and is zoned Public Facility with a Historic Overlay (PF-H), while the parcels containing the residential units have land use designation of General Retail and are zoned Downtown Commercial with a Special Consideration and Historic Overlay (C-D-S-H). Along Nipomo to the southwest is the Soda Works mixed commercial and residential complex with a land use designation of General Retail and zoned Downtown Commercial with a Planned Development and Historic Overlay (C-D-H-PD).

- **East**. Adjacent to the project site is a two-story multi-family residential complex with surface parking fronting Palm Street and a single-family residence with detached garage, identified as the Hays-Lattimer Adobe historic resource, fronting Monterey Street. The multi-family residential building has a land use designation of Medium-High Density Residential and is zoned Medium-High Density Residential (R-3), while the single family residence has a land use designation of Office and is zoned Office with Historic Overlay (O-H).
- **North**. The Mission College Preparatory School athletic field is located north of the project site across Palm Street. The school is located just west of the athletic field along Palm Street. The area has a land use designation of Medium-High Density Residential. The athletic field is zoned Medium-High Density Residential (R-3), while the school is zoned Medium-High Density Residential with a Historic Overlay (R-3-H).

2.5 Project Characteristics

The project would involve the removal of an existing 77-space surface parking lot and five residential structures (including detached garage) and construction of an above-ground five-level parking structure, non-profit theater, and commercial space. Figure 5 shows the proposed site plan. The parking structure would provide up to 445 parking spaces.[2] Main vehicular access to the structure would be from Palm Street, with secondary access from Nipomo Street. Vehicle access would not be provided from Monterey Street; however, a direct pedestrian connection would be provided from the structure to Monterey Street. Pedestrian access would also be provided to public sidewalks from each corner of the structure and bicycle access would be provided from Nipomo Street. The parking structure’s maximum height, excluding elevator towers, would be 50 feet. The maximum height of the elevator towers would be 64 feet above grade. The top deck of the parking structure would include a public use space in the northwest corner nearest to Palm and Nipomo Streets.

The project would also include 5,000 square feet of commercial space on two levels fronting Nipomo Street. The maximum height of the commercial space would be 41 feet above existing grade. In addition, the project would include a new structure for the San Luis Obispo Little Theatre (now the San Luis Obispo Repertory Theatre or SLO REP) that would front Monterey Street. The theater would be a three-story structure with a gross floor area of roughly 23,841 square feet. The base level would house a rehearsal area, workshop, storage and other amenities. The main level would be comprised of a main theater with 155 seats, and a smaller theatre with 100 reconfigurable seats, generating a total of 255 seats. The third floor would include offices and a conference room. Entry to the theater would be provided at the street level through a public plaza along Monterey Street. The street level plaza would include a public seating area and incorporate public art. The maximum height of the theater would be approximately 43 feet above existing grade.

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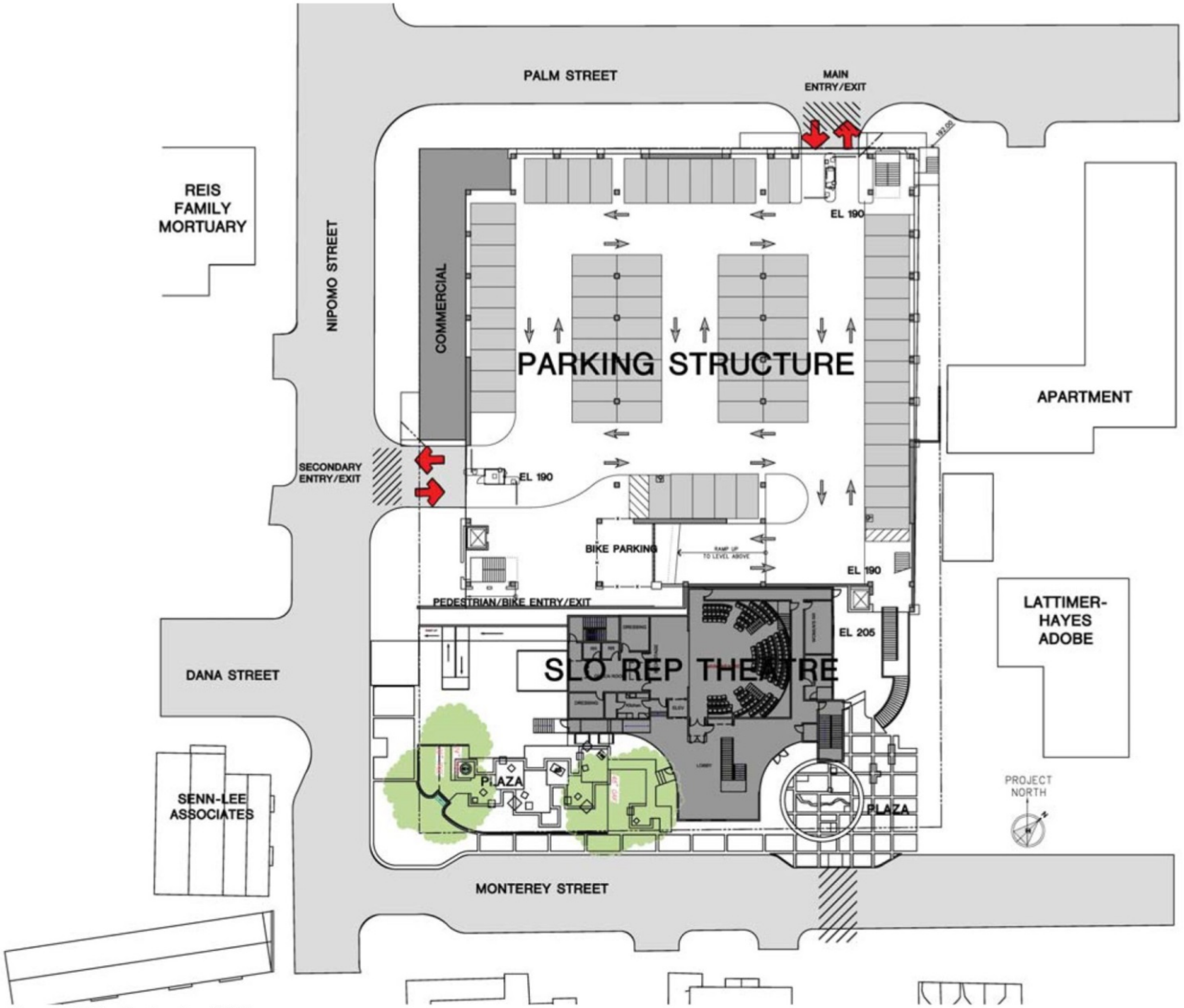
[2] The parking structure is undergoing design refinement with respect to the ultimate number of parking spaces. Based on the current design, the structure would provide 410 parking spaces; however, the analysis conservatively assumes a maximum of up to 445 parking spaces would be provided. Motorcycle parking would be provided in accordance with the ratios required in the City’s Zoning Regulations (§17.16.060).

Figure 5 Site Plan



Source: Watry Design, Inc. 2017

Construction and Demolition

Project construction would last approximately 12 months and is anticipated to start in 2019. Project construction would include site preparation, demolition, grading, building construction, architectural coating, and paving. The project would involve the removal of almost all existing public and private improvements and existing trees and vegetation on the site, with the exception of the large oak tree along Monterey Street and the two trees at the corner of Nipomo and Monterey Streets. Demolition activities would involve removal of the existing surface parking lot, four residential structures[3], and detached garage.

The project would excavate to a depth of approximately 14 feet at the highest point of the site, along the southern and eastern boundaries of the parking structure. In total, earthwork for buildout of the project is estimated to require 6,400 cubic yards of cut, and 700 cubic yards of fill, resulting in a need for approximately 5,700 cubic yards of soil export.

The parking structure would be constructed using drilled caissons or rammed aggregate piers to support the structure. The project would not utilize the method of driven piles.

Site Access and Circulation

Vehicle

As mentioned above, vehicle access into and out of the parking structure would be provided via driveways on Palm Street and Nipomo Street, with one lane for ingress and one lane for egress at each driveway. Each driveway entrance would have storage to accommodate two inbound vehicles. The parking structure exits would be designed so that exiting vehicles would have at least 10 feet of a clear sight triangle to the sidewalk on both sides of the exit, unobstructed by building corners, columns, or any other visual impediments. This distance is measured from eight feet behind the stop bar and two feet to the right of the centerline where a driver would be located in a stopped vehicle. Motorcycle parking would be provided in accordance with the ratios required in the City’s Zoning Regulations.

Pedestrian

Sidewalks on Nipomo Street would be widened to approximately 12 to 18.5 feet. The sidewalks on Palm Street and Monterey Street would be reconstructed, but remain at their current widths. As shown on Figure 5, a pedestrian crosswalk would be installed across Monterey Street, as well as a “bump out” of the sidewalk that extends into the street to increase pedestrian visibility at the crosswalk.

Bicycle

Bicycle parking would be provided near the parking structure’s Nipomo Street entrance. Access would be shared with the pedestrian entrance, but the width would be 10 feet wide to accommodate both. Short- and long-term bicycle parking would be provided in accordance with the ratios required in the City’s Zoning Regulations.

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[3] As noted in Section 2.4.1 Setting, there are four residential structures containing five residences (three single-family residences and one secondary unit containing two separate apartments).

Conceptual Design

The following characteristics are proposed design features of the project.

- The parking structure would be set back ten feet from the eastern boundary. The theater would be set back from Monterey Street with a public plaza area in front.
- The façade of parking structure and commercial space would be designed to resemble a neighborhood building instead of a typical parking structure and with an architectural style similar to the surrounding Spanish Colonial architecture. Architectural design elements would include arches, stucco, tile roof, rusticated base, and multi-paned mullion pattern (Figure 6).
- The openings on the parking structure would be articulated with mullions and sized to reflect traditional window openings in a building. Openings on the east side would have solid rails approximately 3.5 feet high.
- The Nipomo Street facade reflects and would complement the downtown architecture and steps down the building form to a two-story structure along Nipomo Street (Figure 7).
- The theater would have a contemporary design with the primary exterior finish materials being a multi-colored terra cotta, rain-screen panel system eliciting a color scheme complimenting that of the nearby historic Mission San Luis Obispo de Tolosa-namely white, dun, and varying shades of terra cotta clay. Accent and secondary materials would be smooth troweled stucco in a dun tone, and split face and split fluted concrete masonry unit blocks in a terra cotta tone. In addition, there would be two prominent, curved glass curtain walls with brushed aluminum muntins that face Monterey Street.

Conceptual Lighting

Outdoor lighting would be fully shielded or recessed and downcast, consistent with the City's Municipal Code. Proposed exterior lighting would consist of dimmable white light-emitting diodes (LED) mounted to the buildings. Lighting inside the parking structure would consist of LED downlights with shielding elements. When viewed from outside of the parking structure, these shielding elements would eliminate any direct views of the light source.

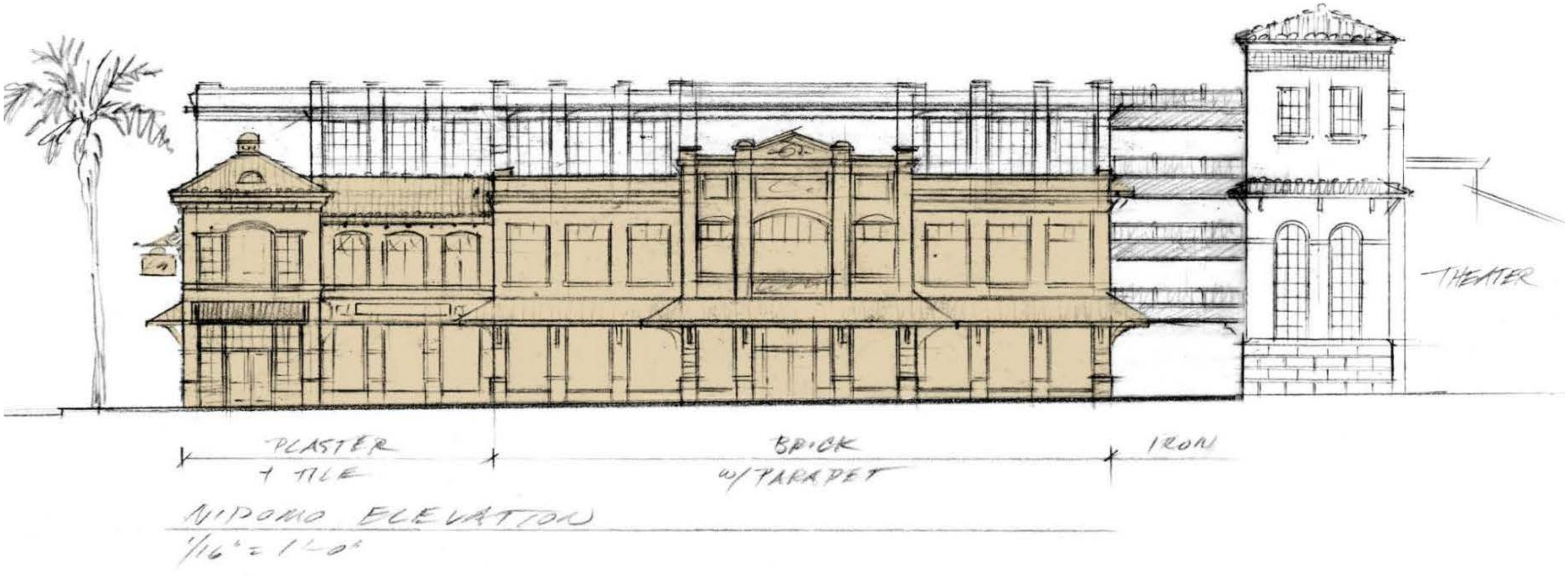
Lighting on the rooftop parking level would be provided by pole-mounted LED luminaires compliant with the City of San Luis Obispo Municipal Code, which requires rooftop lights to minimize spill and include full-cutoffs that reduce light pollution at night. To comply with the Title 24 energy codes, the parking structure would be controlled with photocells to conserve energy during daytime operational hours. The parking structure would also utilize occupancy sensors which would turn the lights off when no activity is detected in the structure.

The lighting concept for the plaza area is to provide low-level pedestrian lights (recessed wall lights and/or bollard lights) that give a safe light level for night use. Additionally, there would be accent lighting in the planters to illuminate the courtyard trees. Non-emergency lighting would be on automatic shut-off timers and lighting would be on motion-activated sensors where appropriate. Streetlights would be installed per City Engineering Standards, and the approved conceptual Downtown Lighting Plan (for streetlights along Monterey Street).

Figure 6 Conceptual Project Renderings (View of Parking Structure and Commercial Space from Corner of Palm and Nipomo Streets)

Source: RRM Design Group, 2016

Figure 7 Conceptual Project Renderings (View of Commercial Space and Parking Structure from Nipomo Streets)



Source: RRM Design Group, 2016

Landscaping and Trees

Landscaping would consist of new street trees in accordance with the City of San Luis Obispo's street tree list (e.g., Brisbane Box, Carrotwood, Ficus, Queen Palms) along Palm, Nipomo, and Monterey streets, ranging from 8 to 12 feet high. After five years, the trees would be expected to achieve heights in the range of 16 to 30 feet tall. Existing trees, including the fern pine and oak on the corner of Monterey and Nipomo streets and the large oak tree on Monterey Street would remain. In addition, landscaping would include drought-tolerant shrub planters along the pedestrian plaza/walkways. Landscape irrigation would be designed to minimize the use of water and meet all water conservation practices required by the City's Municipal Code.

Utilities

Water, firewater, and wastewater service for the project would be provided by the City via adjacent main lines that surround the project site. No utility extensions would be required.

2.5.1 Project Objectives

Objectives for this project include the following:

- Provide a minimum of 400 parking spaces
- Accommodate cultural uses on Monterey Street in front of the structure
- Include a pedestrian-level public use plaza area at the corner of Nipomo and Monterey Streets
- Provide a direct pedestrian connection from the structure to Monterey Street
- Preserve the large oak tree on site
- Consider contextual sensitivity of surrounding properties (e.g., Lattimer-Hayes adobe)

2.5.2 Required Approvals

The following approvals would be required for the project:

- **General Plan Amendment.** Amend General Plan Land Use Map from Office and Medium-High Density Residential to Public
- **Zone Change.** Amend Zoning Map from Office with Historic Overlay (O-H) and Medium-High Density Residential to Public Facility with a Historic Overlay (PF-H)
- **Planning Commission Use Permit.** To allow the multi-level parking structure and non-profit theater, and to request variances for the floor to area ratio to exceed 1.0 and to exceed the 60 percent maximum lot coverage[4]
- **Architectural Review.** Including both Cultural Heritage Committee and Architectural Review Commission review

In addition, the following approval would be required:

- Regional Water Quality Control Board – National Pollutant Discharge Elimination System Permit

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[4] **Zoning Regulations Table 9: Subsection 6. Parking as a principal use.** Use Permit approval may include deviations to otherwise applicable setback requirements and building height limits. A multi-level parking facility shall require the approval of a Use Permit by the Planning Commission.

3 Environmental Setting

This section describes the general environmental setting near the project site. Specific description of the setting in each of environmental issue areas studied in this EIR can be found in the relevant chapters of Section 4.0, *Environmental Impact Analysis.*

3.1 Regional Setting

San Luis Obispo County is bounded by the Pacific Ocean to the west, Monterey County to the north, Kern County to the east, and Santa Barbara County to the south. As a region, San Luis Obispo County is moderately urbanized, but remains as a generally low-density, rural, agricultural area of California that has grown as a major tourist destination. The region includes seven incorporated cities: Arroyo Grande, Atascadero, Grover Beach, Morro Bay, Paso Robles, Pismo Beach, and San Luis Obispo. The seven incorporated urban areas include approximately 57 percent of the County's total population (2017 Census). All of the urban areas in San Luis Obispo County are linked to either State Route 1 or U.S. Highway 101 (U.S. 101), which are the primary transportation corridors serving the region.

San Luis Obispo is located between the San Lucia Mountains and the coastal mountains that frame the Los Osos Valley, including the Irish Hills and volcanic Morros. The City of San Luis Obispo is the business and government hub of San Luis Obispo County, and is the largest incorporated city between Santa Maria and Salinas. Cuesta Ridge lies to the north and east of the City, the Edna Valley is to the southeast and the ridges of the Davenport and Irish Hills are to the southwest. Agricultural valleys and open space surround most of the City, including vineyards and field crops, scrub oak, and grassland communities.

The City's topography and its proximity to the Pacific Ocean serve not only as major contributors to the scenic nature of the area, but also define the local climate. San Luis Obispo enjoys a Mediterranean climate, with mild winters, warm summers, and moderate rainfall. Weather systems are dominated by the Pacific High, a pressure zone centered off the coast of California that diverts storm tracks northward during the summer. The warmest month is generally September with an average maximum of about 77 degrees Fahrenheit (°F) and the coolest month is generally January with an average minimum of about 41°F, though highs in the 90s and lows in the 30s are not uncommon. Precipitation primarily falls between November and April, with an average annual rainfall of about 22 inches. San Luis Obispo is located in a seismically active region subject to sporadic seismic events of varying intensity.

3.2 Project Site Setting

The Palm Nipomo Parking Structure Project site is located south of Palm Street, east of Nipomo Street and north of Monterey Street in the City's Downtown Planning Area (City of San Luis Obispo 2014). The majority of the project site is also located in the City's Downtown Historic District. As such, the existing setting is urban and characterized by a wide variety of uses. These uses include, residential units, commercial and mixed-use development, the Mission College Preparatory school athletic field, and the San Luis Obispo Children's Museum.

The project site has been previously graded and developed and is surrounded by roads and urban structures. A 77-space surface parking lot, one detached garage, and four residential structures with five residences (three single-family residences and one secondary unit adjacent to Palm Street with two apartments) occupy the site. The existing parking lot provides public parking in metered stalls owned and operated by the City of San Luis Obispo. Ingress and egress to the lot is available from an at-grade driveway on Palm Street. Two of the residential units, 610 and 614 Monterey Street, are on the City's List of Contributing Historic Resources, which identifies structures that contribute to the significance of designated historic districts.

Elevations onsite range from 190 and 206 feet above mean sea level, and slopes are generally toward the northwest. Mature trees are scattered throughout the site and located on surrounding public sidewalks on Nipomo and Palm Streets. One of the trees on the site is a large oak tree along Monterey Street, which has the potential to be recognized as a "significant tree" by the City Council Tree Committee. The project site also includes several landscaped planting medians and areas. Partial views of Cerro San Luis are available from the central portion of the site.

Additional setting information is included in Section 2.4, *Existing Site Characteristics*, and each environmental topic subsection in Section 4.0, *Environmental Impact Analysis.*

3.3 Cumulative Development

Cumulative impacts are defined as two or more individual events that, when evaluated together, are significant or would compound other environmental impacts. Cumulative impacts are the changes in the environment that result from the incremental impact of development of the proposed project and other nearby projects. For example, traffic impacts of two nearby projects may be inconsequential when analyzed separately, but could have a substantial impact when analyzed together.

Section 15130 of the CEQA Guidelines requires a discussion of cumulative impacts. The CEQA Guidelines indicate that discussion of reasonably foreseeable cumulative projects may be drawn from either a "list of past, present, and probable future projects producing related or cumulative impacts" or a "summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact."

This EIR examines cumulative impacts based on a "summary of projections" of long-range general plan buildout of the City of San Luis Obispo. This includes buildout of existing vacant and underutilized parcels in the City through a buildout horizon of the year 2035, in accordance with existing General Plan land use designations established in the 2014 City of San Luis Obispo General Plan Land Use Element, as amended. The 2035 buildout cumulative land use reflects all major developments envisioned in the City's 2014 General Plan. Planned/programmed infrastructure improvements with an identified funding source identified within adopted City planning documents were also included as part of the cumulative scenario.

Cumulative impacts are discussed in each of the specific impact analysis discussions in Section 4.0, *Environmental Impact Analysis*.

4 Environmental Impact Analysis

This section discusses the possible environmental effects of the Palm Nipomo Parking Structure Project for the specific issue areas that were identified through the scoping process as having the potential to experience significant effects. "Significant effect" is defined by the CEQA Guidelines §15382 as:

> "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant."

The assessment of each issue area begins with a discussion of the environmental setting related to the issue, which is followed by the impact analysis. In the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds," which are those criteria adopted by the City and other agencies, universally recognized, or developed specifically for this analysis to determine whether potential effects are significant. The next subsection describes each impact of the proposed project, mitigation measures for significant impacts, and the level of significance after mitigation. Each effect under consideration for an issue area is separately listed in bold text with the discussion of the effect and its significance. Each bolded impact statement also contains a statement of the significance determination for the environmental impact as follows:

- **Significant and Unavoidable.** An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per §15093 of the CEQA Guidelines.
- **Less than Significant with Mitigation Incorporated.** An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under §15091 of the CEQA Guidelines.
- **Less than Significant.** An impact that may be adverse, but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact.** The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Following each environmental impact discussion is a listing of mitigation measures (if recommended or required) and the residual effects or level of significance remaining after the implementation of the measures. In those cases where the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed and evaluated as a secondary impact. The impact analysis concludes with a discussion of cumulative effects, which evaluates the impacts associated with the project in conjunction with other future development in the area.

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4.1 Aesthetics

In an urban context, the visual resources of a community consist in part of unique or architecturally recognized buildings, historic structures, and well-designed and harmonious buildings that contribute to community continuity and identity. They also consist of important street trees, plazas, parks, key vegetation, view corridors, and natural features that impart an overall visual impression on the community's landscape. This section addresses the potential for the project to create visual impacts as defined by the CEQA analysis and by the applicable City of San Luis Obispo visual policies, guidelines, and architectural compatibility standards with adjacent downtown structures.

4.1.1 Setting

a. Environmental Setting

Visual Character

The visual character of the area surrounding the city is generally defined by several low hills and ridges formed by the more resistant volcanic rocks of the area such as Bishop Peak and Cerro San Luis Obispo. These peaks are also known as Morros and provide a scenic focal point for much of the city. Along with the Morros, the Santa Lucia Mountains and Irish Hills visually frame San Luis Obispo and are considered the scenic backdrop for much of the city. The surrounding hills have created a hard urban edge for the City where development has remained in the lower elevations.

San Luis Obispo's downtown has been recognized for its distinctive main street environment, in part due to a planning focus on maintaining a visual quality of defined by a combination of features broadly characterized as pedestrian-orientated and historic (City of San Luis Obispo 2014). This characterization is created with continuous building storefronts, mid-block pedestrian connections, and trees and features in the public realm that are designed for and oriented to pedestrians. It is also created by the traditional development pattern that is prevalent within the Downtown Historic District. This traditional development pattern is associated with the numerous historic buildings in the Downtown Core and their components, such as traditional building materials, decorated parapets and cornices, and a combination of land use activities, including residential apartments or offices above retail storefronts (City of San Luis Obispo 2014).

The project site is located in the northwestern portion of the City's designated Downtown Planning Area, adjacent to the Downtown Core. The visual setting surrounding the site is that of an urbanized area with a mix of retail, office, tourist-serving, and residential land uses. These uses include residential, commercial, and mixed-use development; the Mission College Preparatory school and athletic field; and the San Luis Obispo Children's Museum. There are also two five-level parking structures and one three-story parking structure located within 0.25 mile of the project site in the downtown area. The majority of the project site and adjacent parcels to the east, south, and west are located within the City's Downtown Historic District, which affects its visual context along Monterey and Nipomo Streets. Figure 3 in Section 2.0, *Project Description*, shows the location of the project site in the context of the Downtown Planning Area, Downtown Core, and Downtown Historic District. The project site is located adjacent to the historic Hays-Lattimer Adobe and across Nipomo Street from the historic Harmony Creamery. Several properties along Nipomo and Monterey Streets in the immediate project vicinity, including two of the residences on the project site (further described below), are also designated contributors to the Downtown Historic District.

The downtown and project area contain a mix of historical buildings and newer developments. Buildings in the greater downtown area generally range between one and five stories in height and consist of a mix of architectural styles and building materials. Existing structures immediately near the project generally range from one to three stories. Architectural styles in the project area range from Spanish Colonial, Spanish Eclectic, Main Street or Traditional American Commercial, Post-World War II, and Modernistic. Figure 8, Photos 1 through 4, show views of surrounding structures from the project site.

Visual Character of the Project Site

The project site currently contains urban development, including a 77-space surface parking lot, four residential structures containing five residences (three single-family residences and one secondary unit adjacent to Palm Street that has two apartments), and one detached garage. These buildings range from one to two stories and vary in architectural style and building materials. The residences at 633 and 633-1/2 Palm Street are one- and two-story buildings respectively with clad walls, and wide beveled wood boards on most of the north facade and plaster on all remaining facades. The single-family residences located at 610 and 614 Monterey Street are designated by the City as contributors to the Downtown Historic District, providing continuity to the historic streetscape (Section 4.2, *Cultural and Tribal Cultural Resources*). The 610 Monterey Street residence is a single-story vernacular residence with a detached garage. The walls are clad with plaster and the structures do not exhibit distinctive architectural characteristics or high artistic values (Applied EarthWorks 2011). The 614 Monterey Street residence is single-story, mission-influenced vernacular residence constructed of adobe. A large oak tree in the front yard is an important landscape feature on this property. Figure 8, Photo 5 shows these two residences and oak tree from Monterey Street and Figure 8, Photo 6 shows the 610 Monterey Street residence and detached garage from Nipomo Street. Mature landscaping and trees are interspersed between the parking spaces in the parking lot and between the existing residences. Mature street trees also line the property edge along Palm Street and a portion of Nipomo Street (Figure 8, Photo 7). The utility poles and wires that surround and cross over the site are another dominant visual feature of the project site. Elevations onsite range from 190 and 206 feet above mean sea level, and slopes are generally toward the northwest.

Views of the Project Site

Because of the project site's location in a developed urban area, views of the project site are generally limited to short-range views (views adjacent to the site), while long-range views (views that are more than a quarter mile from the site) are blocked by existing development or vegetation. Short-range views of the project site are generally available to private properties that immediately border the site and travelers along the Nipomo, Monterey, and Palm Streets. These views are partially screened by the existing mature vegetation and generally blend with surrounding development.

Scenic Vistas

The City's General Plan Conservation and Open Space Element (2006) identifies scenic vistas and roadways in the city. The project site is not located in a City-designated scenic vista or in the viewshed of a scenic roadway. While not receiving special view protection status in the General Plan, limited views of Cerro San Luis Obispo are available from public sidewalks surrounding the site and from the open parking area on the site. Figure 8, Photo 3, shows the view from the project site at the corner of Monterey and Nipomo streets; Figure 8, Photo 5, shows the view along Monterey Street; and Figure 8, Photo 8, shows the view from the parking area on the project site.

Figure 8 Site Photographs

Photograph 1. View of 667 Monterey Street from project site looking south

Photograph 2. View of mixed-use Soda Works building from project site looking west

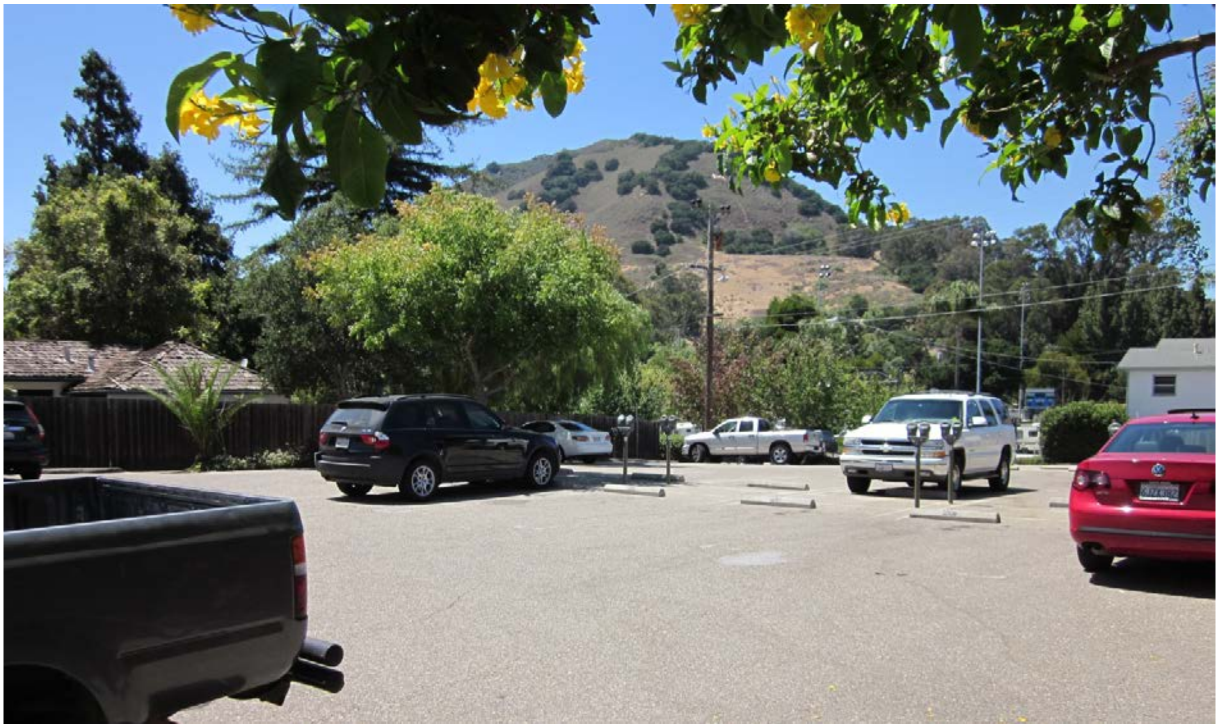
Photograph 3. View of historic Harmony Creamery (Reis Family Mortuary) from project site at the corner of Monterey and Nipomo streets looking northwest

Photograph 4. View of San Luis Obispo Children's Museum from project site looking southwest

Photograph 5. View of project site (existing residences at 610 and 614 Monterey Street) from Monterey Street, looking north

Photograph 6. View of project site (existing residence at 610 Monterey Street and detached garage) from Nipomo Street, looking east

Photograph 7. View of project site at intersection of Nipomo and Palm Street, looking southeast



Photograph 8. View of Cerro San Luis Obispo from project site, looking northwest

Light and Glare

Nighttime lighting conditions vary throughout the city, from heavily lit areas of commercial development to more rural areas with little night lighting. There is existing street lighting within the project vicinity at the corners of Nipomo and Palm Streets and Monterey and Nipomo Streets, as well as along Nipomo and Monterey Streets. The Mission High School athletic field emits a large quantity of nighttime lighting during evening athletic sporting events. The majority of light and glare in the project vicinity is generated by commercial development in the form of security lighting on buildings and parking lots. Lighting and glare levels in the project vicinity (i.e., surrounding the site) are typical of urban areas. Vehicle headlights, street lighting at intersections and along the streets, and building lighting, contribute to the existing light setting to the north, south, and east of the project site. Existing sources of lighting on the project site include outdoor lighting from the residential units and one overhead parking lot light with two lamps.

Visual Character of the Project

The project would include the construction of a five-level parking structure, non-profit theater, and commercial space on a 1.38-acre (approximately 60,329 square foot) lot. The parking structure would have a maximum height of 50 feet, excluding elevator towers. The maximum height with elevator towers would be 64 feet above grade. The theater would be a three-story structure with a maximum height of 43 feet. The project would also include 5,000 square feet of commercial space on two levels (approximately 41 feet) fronting Nipomo Street. The parking structure would be set back 10 feet from the eastern boundary. The project’s building footprint would be approximately 44,487 square feet. The gross floor area of all buildings would be 191,591 square feet (Table 1).

Main vehicular access to the structure would be from Palm Street, with secondary access from Nipomo Street. Vehicle access would not be provided from Monterey Street, but a direct pedestrian connection would be provided from the structure to Monterey Street. Pedestrian access would also be provided to public sidewalks from each corner of the structure, and a mid-block pedestrian crosswalk would be installed across Monterey Street. Sidewalks on Nipomo Street would be widened to approximately 12 to 18.5 feet.

The parking structure and commercial space would be Spanish Colonial Revival in style. Architectural design elements of the parking structure and commercial building would include arches, stucco, tile roof, rusticated base, and multi-paned mullion pattern. The openings on the parking structure would be articulated with mullions and sized to reflect traditional window openings in a building. Figure 6 shows a conceptual rendering of the parking structure and commercial space from the corner of Palm and Nipomo streets. Figure 7 shows a conceptual rendering of the commercial space and parking structure from Nipomo Street.

The theater structure would be a modern structure. Architectural design elements of the theater would include a multi-colored terra cotta rain screen panel system, smooth troweled stucco, concrete masonry unit blocks, and two curved glass curtain walls with brushed aluminum muntins.

A public plaza would be provided at the street level along Monterey Street and would provide public seating area and incorporate public art. The top deck of the parking structure would also provide a public use area in the northwest corner nearest to Palm and Nipomo Streets. Landscape features would include the three existing trees that would be retained, new street trees, and a variety of potted palms and shrubs.

b. Regulatory Setting

The City of San Luis Obispo regulates aesthetics of buildings and public spaces through implementation of adopted policies and programs presented in the City's General Plan Land Use Element and Conservation and Open Space Element, and Downtown Concept Plan, as well as the implementing statutes of the Municipal Code/Zoning Regulations, Community Design Guidelines.

City of San Luis Obispo General Plan Land Use Element (2014)

The Land Use Element includes a number of aesthetic and design policies that would apply to the proposed project:

- **Policy 4.5 Walking Environment.** The City shall plan and manage Downtown to include safe, interesting places for walking and pleasant places for sitting. To this end:
  - A. Mid-block walkways, courtyards, and interior malls should be well lit and integrated with new and remodeled buildings, while preserving continuous building faces on most blocks.
  - B. Downtown streets should provide adequate space for pedestrians.
  - C. There should be a nearly continuous tree canopy along sidewalks, and planters should provide additional foliage and flowers near public gathering areas.
  - D. Public art should be placed along pedestrian paths.
  - E. Traffic calming and pedestrian safety should be enhanced, where appropriate, through such features as road tables, pavement changes, bulb outs, and scramble intersection signals.
  - F. Landscaping should mitigate harsh microclimates.
- **Policy 4.6 Commercial Activity in Civic Buildings.** Civic buildings shall incorporate commercial activity at the street level where appropriate.
- **Policy 4.14 Parking.** The City shall ensure there is a diversity of parking opportunities in the Downtown. Any major increments in parking supply should take the form of structures, located at the edges of the commercial core, so people can walk rather than drive between points within the core. Retail uses outside the core, and professional office developments, may have onsite parking for customers and clients.
- **Policy 4.16 Building Conservation and Compatibility**. The City shall ensure that architecturally and historically significant buildings are preserved and restored and that new buildings are compatible with architecturally and historically significant buildings, but not necessarily the same style.
- **Policy 4.17 New Buildings and Views.** Downtown development nearby publicly owned gathering places shall respect views of the hills. In other locations Downtown, views will be provided parallel to the street right-of-way, at intersections where building separation naturally makes more views available, and at upper-level viewing decks.

City of San Luis Obispo General Plan Conservation and Open Space Element (2006)

The following Conservation and Open Space Element policies pertain to visual resources and would apply to the project:

- **Policy 9.1.2 Urban Development.** Urban development should reflect its architectural context. This does not necessarily prescribe a specific style, but requires deliberate design choices that acknowledge human scale, natural site features, and neighboring urban development, and that are compatible with historical and architectural resources. Plans for sub-areas of the City may require certain architectural styles.

- **Policy 9.1.5 View Protection in New Development.** The City will include in all environmental review and carefully consider effects of new development, streets, and road construction on views and visual quality by applying the Community Design Guidelines, height restrictions, hillside standards, Historical Preservation Program Guidelines, and CEQA and the CEQA Guidelines.
- **Policy 9.1.6 Night-sky Preservation.** City will adopt a “night sky” ordinance to preserve nighttime views, prevent light pollution, and to protect public safety by establishing street and public area lighting standards.
- **Policy 9.2.3 Outdoor Lighting.** Outdoor lighting shall avoid: operating at unnecessary locations, levels, and times; spillage to areas not needing or wanting illumination; glare (intense line-of-site contrast); and frequencies (colors) that interfere with astronomical viewing.

City of San Luis Obispo Zoning Regulations

The Zoning Regulations consist of the zoning map, lists of uses allowed in certain zones, property-development standards such as maximum building height and minimum parking, and procedures intended to give the interests of development applicants and other citizen’s fair consideration. The following standards from the Zoning Regulations would apply to the project:

- **Chapter 17.18.030, Illumination.** No lighting or illuminated device shall be operated so as to create glare which creates a hazard or nuisance on other property.
- **Chapter 17.23, Night Sky Preservation.** Establishes lighting regulations that encourage lighting practices and systems that will:
    A. Permit reasonable uses of outdoor lighting for nighttime safety, utility, security, and enjoyment while preserving the ambience of night;
    B. Curtail and reverse any degradation of the nighttime visual environment and the night sky;
    C. Minimize glare and obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary;
    D. Help protect the natural environment from the damaging effects of night lighting; and
    E. Meet the minimum requirements of the California Code of Regulations for Outdoor Lighting and Signs (Title 24, Chapter 6).

City of San Luis Obispo Community Design Guidelines

The Community Design Guidelines are used by the City and its advisory bodies in the review of proposed development projects to help ensure that such projects meet the City's expectation for the quality and character of new development. Design review considers building design, site planning, landscaping, parking layout, signs, and other features that affect project appearance and function. In examining these project features, the design review process looks at the way a project relates to the site, the surrounding neighborhood, and the community as a whole. The City’s Community Design Guidelines (2010) identify the following principles and guidelines related to aesthetics and visual resources:

- **Chapter 2 – General Design Principles.** The main concern in this chapter is for a smooth transition between existing elements, new design, and basic design principles.

- **Chapter 4 – Downtown Design Guidelines.** This chapter notes that design is most important in the downtown area and offers guidelines related to architectural lines, forms, and materials.
- **Chapter 6 – Site Planning and Other Design Details.** This chapter provides guidelines for specific details of site and building design, such as lighting, fences and walls, public art, landscaping, and other items that apply to all development. Section 6.3 provides specific language for the development of parking facilities within the downtown with objectives including encouraging structured parking, parking areas designed to serve pedestrian needs and vehicle needs, parking lots placed behind buildings, minimizing number of driveways, and providing planters along driveways.

Architectural Review Commission

The City's Architectural Review Commission (ARC) reviews and approves the design for proposed buildings within the City. Architectural review is a process whereby the City's ARC examines a proposed project's layout, building design, its relationship to the neighborhood in which it would be located, landscaping, parking, signage, lighting, and other features affecting the project's appearance and function. This process would be applied to the proposed project, and may result in conditions or design modifications that expand on mitigation measures that may be included in this EIR. The ARC uses the City's Community Design Guidelines as a basis for evaluating the suitability and appropriateness of individual project design to help achieve attractive and environmentally sensitive development. Refer to Section 4.2, *Cultural and Tribal Cultural Resources*, for the regulatory oversight and requirements associated with the designation and management of contributing historic resources.

Historic Preservation Guidelines

The staff, City Council, Planning Commission, Cultural Heritage Committee, and other advisory bodies use the Historic Preservation Guidelines to review projects in a historic district or on property with a listed historic resource to ensure protection of historic resources. With regard to aesthetics, the guidelines state "new structures in historic districts shall be designed to architecturally compatible with the district's prevailing historic character as measured by their consistency with the scale, massing, rhythm, signature architectural elements, exterior materials, siting, and street yard setbacks of the districts historic structures" (City of San Luis Obispo 2010:7).

San Luis Obispo Downtown Concept Plan (2017)

This plan presents community's vision for how downtown San Luis Obispo should be developed over the next 25 years. It expresses this vision through a series of design principles, project goals, an illustrative physical plan, mobility diagrams, and an action list of public projects. The plan specifically identifies the proposed project a part of the overall vision. With regards to parking, the plan states, "The intention is to direct drivers to parking structures first, so they will not need to drive through the downtown core." It also states, "Parking structures will have limited street frontage, located behind other uses that are more compatible with a vibrant downtown street. Roofs on some parking structures or adjacent buildings are envisioned with other public benefits, such as parks, plazas, outdoor dining, photovoltaic shade structures, and access to views." In addition, the following goals would apply to the proposed project:

- **2.3.** Provide opportunities for a variety of new public spaces downtown, including pocket parks, plazas, wide sidewalks with seating, an expanded Creek Walk, parklets, and creative uses of rooftops.

- **5.1.** Locate parking structures strategically on the periphery of downtown within easy walking distance to major activity areas.
- **7.1.** Support compatible building heights that fit within the context and scale of current development patterns. Generally, new buildings should not exceed 50 feet in height and should be set back above the second or third story.

4.1.2 Impact Analysis

a. Methodology and Significance Thresholds

The assessment of aesthetic impacts involves qualitative analysis that is inherently subjective in nature. Different viewers react to viewsheds and aesthetic conditions differently. The existing visual character of the site and its surroundings is determined by the attributes of specific features and patterns within the urban environment. Evaluation of potential project impacts on the existing visual character of the site and surroundings requires analysis of the elements of the project that would be introduced and how those changes (separately or collectively) would affect the character of the site and views of it from public offsite locations. The analysis is based on field survey and photo documentation of the project site and a review of project plans, renderings, and Google Earth massing files.

The following criteria are based on Appendix G of the State CEQA Guidelines, but have been modified to reflect local policies pertaining to aesthetics and visual resources. An impact is considered significant if the project would result in one or more of the following conditions:

1. Have a substantial adverse effect on a scenic vista. (For publicly owned gathering places, such as Mission Plaza, projects are to respect views of the hills, framing rather than obscuring them. For other downtown projects more removed from publicly-owned gathering places, such as the proposed project site, the direction is that "views will be provided parallel to the street right-of-way, at intersections where building separation naturally makes more views available, and at upper-level viewing decks")
2. Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway
3. Substantially degrade the existing visual character or quality of the site and its surroundings (This may include loss of visual landmarks or historic structures with visual significance, loss of major onsite landscape features, or degradation by change of character when placed in the context of the existing surroundings)
4. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area

The Initial Study for the project found that the project would not have a substantial effect on a scenic vista (criterion 1) or substantially damage scenic resources within a state scenic highway (criterion 2) because the project is not located in a designated scenic vista or in the viewshed of a state scenic highway. However, in response to the Notice of Preparation circulated on May 1, 2017 for this EIR, concern was expressed regarding views of Cerro San Luis Obispo. To address this concern, potential impacts on a scenic vista are further analyzed in this section. Criterion 2 is discussed in Section 5.0, *Issues Addressed in the Initial Study.*

b. Project Impacts

Impact N-1 **THE PROJECT WOULD NOT HAVE A SUBSTANTIAL ADVERSE IMPACT ON A SCENIC VISTA BECAUSE IT IS NOT LOCATED IN A CITY-DESIGNATED SCENIC VISTA. IMPACTS WOULD BE CLASS III, LESS THAN SIGNIFICANT.**

The project site is currently developed with a surface parking lot, five residences, and a detached garage. It is not considered a publicly owned gathering place and is not located in the vicinity of a City-designated scenic vista or within the viewshed of a scenic roadway (City of San Luis Obispo 2006). Therefore, the project would not have a substantial adverse impact on a designated scenic vista.

While not receiving special view protection status in the General Plan, limited views of Cerro San Luis Obispo are available from public sidewalks surrounding the site and from the open parking area on the site (Figure 8, Photos 3, 5, and 8). The project would involve the removal of the existing surface parking lot, detached garage, and residence and construction of an above-ground five-level parking structure, non-profit theater, and commercial space. The introduction of these new structures would not alter existing views along Nipomo or Palm streets, but would block street-level views from Monterey Street; however, as shown in Figure 8, Photo 5, these views are currently limited due to existing structures and trees on the project site and they are not City-designated scenic views.

The project would include a public use area on the top deck of the parking structure, in the corner nearest to Cerro San Luis Obispo, which would provide for enhanced public views of Cerro San Luis Obispo, which would be a beneficial effect. This is consistent with General Plan Land Use Element Policy 4.17. Therefore, the project would not have a substantial adverse impact on a scenic vista or view and this impact would be less than significant.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

No mitigation measures are required, impacts are less than significant.

Impact N-2 **THE PROJECT WOULD PERMANENTLY ALTER THE EXISTING VISUAL CHARACTER OF THE SITE BECAUSE IT WOULD INTRODUCE NEW STRUCTURES THAT ARE SUBSTANTIALLY DIFFERENT IN TERMS OF SIZE, SCALE, AND MASSING. THIS IMPACT WOULD BE CLASS I, SIGNIFICANT AND UNAVOIDABLE.**

Construction

Project construction would last approximately 12 months and is anticipated to start in 2019. Project construction activities would include site preparation, demolition, grading, building construction, architectural coating, and paving. Site preparation and demolition would involve the removal of the existing surface parking lot, four residential structures, and detached garage, and much of the existing vegetation on the site, with the exception of the large oak tree along Monterey Street and the two trees at the corner of Nipomo and Monterey Streets. Project construction activities, as well as truck traffic and temporary storage of construction materials and equipment would be visible at various times from a limited number of residences and businesses, as well as from motorists and pedestrians on Palm, Nipomo, and Monterey Street. These activities, along with the use of heavy construction equipment, would temporarily change the visual character of the site, such that it would be incompatible with existing adjacent buildings. Construction, however, would be temporary and short-term, and any impacts with construction activity on visual character would be less than significant.

Operation

The project would involve the removal of the existing surface parking lot and one- and two-story residential structures (including detached garage) and the construction of an above-ground five-level parking structure, non-profit theater, and commercial space. The project would require a General Plan amendment/Zone Change to Public/Public Facility with a Historic Overlay (PF-H). It would also require the approval of a Use Permit by the Planning Commission to allow the multi-level parking structure and non-profit theater, as well as deviation to otherwise applicable setback requirements and building height limits. The commercial use would be allowed as accessory use of the parking and theater facilities. In addition, the project would require variances for the floor to area ratio to exceed 1.0 and maximum coverage to exceed 60 percent.

The existing visual character of the site and surrounding area is characterized by one- to three-story buildings that are approximately 50 to 75 feet wide. Although the commercial space and non-profit theater would be 41 to 43 feet high, the maximum height of the parking structure would be 50 feet. The project would also have an approximately 200 x 200 square foot floor area, with a 10 foot setback from the eastern project boundary. This is substantially taller and wider than the other surrounding development, and would alter the surrounding visual setting.

Although the project would generally be consistent with the height and setbacks of other higher-density development in the downtown, including other parking structures, these structures are not close enough to the project to generate a visually similar consistent use from most viewpoints. Therefore, the project would substantially alter the existing visual character of the site and surroundings by inserting a new visual feature that is inconsistent with the height, scale, and massing of surrounding development, and would represent a significant change in visual character from existing conditions.

The parking and commercial structures would include design features intended to minimize visual impacts. The façade of the parking structure would be designed to resemble a neighborhood building instead of a typical parking structure and incorporates design elements, including arches, stucco, tile roof, and rusticated base. The openings on the parking structure would be articulated with mullions and sized to reflect traditional window openings in a building. Figure 6 and Figure 7 show conceptual renderings of the parking structure and commercial components of the project.

In addition, the single, large oak tree along Monterey Street would be retained to maintain the important landscape feature of the project site. Street trees would be replaced, and in some locations, added along Palm, Nipomo, and Monterey Streets with new trees in accordance with the City’s street tree list (e.g., Brisbane Box, Carrotwood, Ficus, Queen Palms). Landscaping, including shrub planters, would also be provided along the pedestrian plazas/walkways. The project would also provide street level features, including a public plaza, seating, and public art. Although the project would include these mitigating features, the size, scale, and massing of the project would nonetheless represent a significant change in visual character. This impact would be significant and unavoidable.

Mitigation Measures

As discussed in the impact analysis and described in the project description, the project includes various features that are intended to mitigate visual impacts. No additional mitigation measures are feasible.

Significance After Mitigation

The project features would reduce visual impacts to the extent feasible, however, due to the size, scale, and massing of the project, impacts related to a change in visual character would remain significant and unavoidable.

Impact N-3 IMPLEMENTATION OF THE PROJECT WOULD RESULT IN AN INCREASE IN NIGHTTIME LIGHTING AND DAYTIME GLARE AT THE PROJECT STREET; HOWEVER, WITH MITIGATION, THIS INCREASE WOULD NOT ADVERSELY AFFECT DAY OR NIGHTTIME VIEWS IN THE AREA. IMPACTS WOULD BE CLASS II, SIGNIFICANT BUT MITIGATABLE.

The project would introduce new lighting from car headlights and for parking and pedestrian ways and lighting for the commercial space and theater. Such lighting could create new sources of light or glare. While the project site is located in an urban area where substantial nighttime lighting currently exists, the increased height of the proposed structure and the proximity to residential uses could result in light spillover and additional glare. To address potential impacts from car headlights, the parking structure has been designed to minimize openings on the east side to the extent feasible, while still complying with health and safety code. In addition, the parking structure would have solid rails approximately 3.5 feet high, which would block headlights from directly shining on the adjacent residential properties.

No specific lighting plan is included as part of the project plans at this time. However, the goals of the exterior lighting plan are to provide light in areas such as paths and walkways, entrances and exits, parking and emergency areas, and places and buildings of interest. In addition, exterior lights would be shielded and down-lit to reduce light spillover. Exterior lighting would be controlled by sensors and timers. Furthermore, the project would be subject to the City's Night Sky Ordinance Number 1527 (Chapter 17.23 of the Municipal Code) and the Community Design Guidelines, Section 6.1-C. However, design decisions relating to the City's Night Sky Ordinance do not ensure that the project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Therefore, this impact would be potentially significant.

Mitigation Measures

Mitigation Measure AES-3(a) and AES-3(b) would be required to minimize potential light and glare impacts.

AES-3(a) Lighting Plan

Prior to issuance of building permits, the applicant shall prepare and submit a comprehensive lighting plan for Architectural Review Committee review and approval. The lighting plan shall be consistent with the Municipal Code Night Sky Ordinance, and prepared using guidance and best practices endorsed by the International Dark Sky Association. The lighting plan shall address all aspects of the lighting, including but not limited to all buildings, infrastructure, driveways, paths, plazas, safety, and signage. The lighting plan must include identification of all types, sizes, and intensities of wall mounted building lights and landscape accent lighting, and a photometric map must be provided. The lighting plan shall include the following:

A. The point source of all exterior lighting shall be shielded from offsite views
B. Light trespass from exterior lights shall be minimized by directing light downward and utilizing cut-off fixtures or shields
C. Lumination from exterior lights shall be the lowest level allowed by public safety standards
D. Exterior lighting shall be designed to not focus illumination onto exterior walls
E. Any signage visible offsite shall not be internally laminated

AES-3(b) Glare Reduction

To minimize impacts on residential development in proximity to the project site, roof and building materials shall be non-reflective, and shall be muted in hues consistent with standards in the Community Design Guidelines, Section 6.1-C.

Significance After Mitigation

Adherence to the mitigation measures, in conjunction with the requirement for the Architectural Review Commission to review the development and its proposed lighting and potential glare, would reduce potential lighting and glare impacts to a less than significant level. Application of existing policies and Municipal Code Night Sky Ordinance would further ensure that light and glare impacts would be less than significant.

c. Cumulative Impacts

The project, in combination with approved, pending, and proposed development in San Luis Obispo, would contribute to increasing urbanization of the downtown area. The proposed project, in combination with other cumulative development allowed under the General Plan would increase the intensity of development (size, scale, and massing) in the area, altering the fundamental character from predominantly older one- to two-story structures to a mix of such older buildings interspersed with new taller structures of four- to six-stories. As discussed under Impact AES-2, the project would result in a significant and unavoidable impact associated with the change in visual character due to the increase in size, scale, and massing of the proposed structures. In combination with other development, its contribution to this impact would be cumulatively considerable.

Cumulative development would be subject to similar existing City regulations pertaining to light and glare as discussed under impact AES-3. New sources of light and glare within the urban boundaries of the city would be evaluated on a case-by-case basis to ensure compatibility with surrounding uses. While the proposed project would introduce new sources of light and glare in the project area, implementation of mitigation measures AES-3(a) and AES-3(b) would ensure lighting and glare would be compatible with surrounding uses and compliance with existing policies and design review procedures would reduce impacts on a project-by-project basis. Therefore, the proposed project's impacts to light and glare would not be cumulatively considerable.

Mitigation Measures

No additional mitigation is available to address cumulative impacts to visual character.

Significance After Mitigation

Cumulative visual character impacts would remain significant and unavoidable.

4.2 Cultural and Tribal Cultural Resources

This section analyzes potential impacts to cultural and tribal resources as a result of the proposed project. The analysis is based on the 2011 Cultural Resources Study prepared by Applied Earthworks (Appendix C).

4.2.1 Setting

a. Environmental Setting

Prehistoric Setting

The project site is located in what is described generally as the Central Coast archaeological region, one of eight organizational divisions of California (Jones and Klar 2007, Moratto 1984). The Central Coast archaeological region extends from Monterey Bay to Morro Bay, and includes the County of San Luis Obispo. The prehistoric cultural chronology for the Central Coast is generally divided into six periods: Paleoindian (ca. 10,000–6,000 B.C.), Millingstone (6,000–3,000 B.C.), Early and Early-Middle Transition (3,000–600 B.C.), Middle (600 B.C. - A.D. 1000), Middle-Late Transition (A.D. 1000–A.D. 1250), and Late (A.D. 1250–historic contact [ca. A.D. 1769]) (Jones and Klar 2007).

Several chronological sequences have been devised to understand cultural changes along the Central Coast from the Millingstone Period to contact. Jones (1993) and Jones and Waugh (1995) presented a Central Coast sequence that integrates data from archaeological studies conducted since the 1980s. Three periods, including the Early, Middle, and Late periods, are presented in their prehistoric sequence subsequent to the Millingstone Period. More recently, Jones and Ferneau (2002) updated the sequence following the Millingstone Period as follows: Early, Early-Middle Transition, Middle, Middle-Late Transition, and Late periods. The archaeology of the Central Coast subsequent to the Millingstone Period is distinct from that of the Bay Area to the north and Central Valley to the east. The region has more in common with the Santa Barbara Channel area during the Middle and Middle-Late Transition periods, but few similarities during the Late period (Jones and Ferneau 2002).

Historic Setting

Post-European contact history for California is divided generally into three periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present). The Spanish Period brought the establishment of the California mission system, while the Mexican Period is largely known for the division of the land of California into private land holdings. Following the Mexican-American war, the United States purchased California from Mexico; population of the state subsequently increased, particularly during the Gold Rush.

Following the arrival of the first Europeans, Padre Junipero Serra founded Mission San Luis Obispo de Tolosa in 1772. The population of native people at the mission declined rapidly. In 1803, there was a peak of 919 Native Americans residing at the mission, but by 1838 the population had declined to 170. In 1822, California became a Mexican Territory, and the mission lands gradually became private ranchos through Mexican land grants. In 1846, the Bear Flag Rebellion resulted in California’s independence from Mexico, and control of the territory soon fell into the hands of the United States.

The City of San Luis Obispo was incorporated in 1876 (Angel 1883). The city's early development is closely associated with Mission San Luis Obispo de Tolosa, the Coast Line Stage which carried U.S. mail for Wells Fargo and Company through San Luis Obispo to points north and south of the City, and the pacific railway which made San Luis Obispo the commercial center of the region and provided access for passenger steamer service (Kocher 1972; Tognazzini 1993; Cooper 1875; Angel 1883). The completion of the mainline Southern Pacific rail line allowed travel and shipment of goods with greater opportunities for selling and buying commodities. The establishment of California Polytechnic State University in 1903 as a vocational school on 281 acres was also a significant draw for the city. Later development was driven by the completion of U.S. Highway 101 as San Luis Obispo was a prime location for travelers to rest on the long trip from San Francisco to Los Angeles and the establishment of the nearby military base at Camp San Luis Obispo (City of San Luis Obispo 1983; Krieger 1988; Palmer et al. 2001).

Beginning in 1945, following the end of World War II, San Luis Obispo experienced a period of modernization in the second half of the twentieth century, mainly due to returning soldiers. The influx of new commerce required new development, with older buildings demolished to make way for more modern structures and parking lots. Many of the older buildings demolished were residential homes. City landmarks and many remaining adobes were lost during this period. Growth required an influx of parking to accommodate downtown customers. Many city surface parking lots were established in the downtown, including the one on the current project.

Project Site Historic Context

Properties lining Monterey and Higuera streets between Nipomo and Santa Rosa streets were rapidly developed in the 1860s for both commercial and residential purposes. The Harris and Ward Map established Block 9, bounded by Palm, Broad, Monterey, and Nipomo streets, divided into six lots. The project site encompasses Lots 1 and 2 whose owners were identified as: Lot 1, illegible and Lot 2, Roberto Villa. Roberto Villa presented a Petition for Grant for Lot 2 in 1870. He had settled on the land in 1855 and his property and a solitary structure appear on an 1859 petition for land that also depicts a fence on Lot 1 (at the corner of Palm and Nipomo Streets). By 1874, the project site had been divided into three lots (Applied EarthWorks 2011).

During the last quarter of the nineteenth century, the project area experienced little change while Monterey Street, to the east, continued to develop with commercial and residential infill. Within the project area, dwellings at 610, 614, and 630 Monterey Street exhibited small additions to the rears of the buildings. The 1886, 1888, and 1891 Sanborn Maps show three residences within the project area, including an outhouse at the rear of the adobe on Lot 3. James Moore operated a dyeing and cleaning business in a shed at 614 Monterey Street. Three small ancillary buildings and one a shed were present at 610 Monterey Street. All of the buildings are no longer present on the project site.

Shortly after the turn of the twentieth century, the city began improving streets by grading roads and filling in low places with gravel, and new development followed these improvements. Within the project area, a house was constructed in Lot 1 along with an outhouse or shed. During this same time, James Moore moved his dyeing and cleaning business from 614 Monterey Street to 610 Monterey Street. By the 1930s, the structures at 610 and 614 Monterey Street were demolished and new residences were constructed in their place in 1937 and 1933, respectively. By 1957, the house on Lot 1 was moved to the south of the lot and a welding shop was constructed in its place.

New surface parking lots established in the 1960s and 1970s frequently replaced older buildings and historic uses of the properties. Within the project site, two dwellings and the welding shop were demolished to make room for the parking lot that exists today.

Documented Cultural Resources

This section is based on the results of the 2011 Cultural Resources Study (Appendix C) and 2017 updated records search, of which the methods are further described in section 4.2.2(a) below.

Archaeological Resources

The results of the records searches identify the presence of one archaeological site within the project site (CA-SLO-2341H) and two archaeological sites adjacent to the project site (CA-SLO-1890/H and CA-SLO-2206H). Resource CA-SLO-2341H was identified in 2003 during a citywide water line installation project and consists of a series of historic archaeological features. The nearest component of CA-SLO-2341H to the current project site was a black powder flask (1790-1860) located at the intersection of Palm and Nipomo streets adjacent to the current project site. Resources CA-SLO-1890/H and CA-SLO-2206H both consist of historic refuse deposits. Resource CA-SLO-1890/H also includes a historic house and the remnants of an adobe structure. The site record also suggests that the archaeological site contains a prehistoric component, but no discussion is given for such remains and the site is described as containing “virtually no pre-1880 refuse.”

The results of the records search further identified studies conducted by Bertrando and Bertrando within the project area that consisted of archaeological testing within the project area in 1997 and in 1999. The testing conducted in 1997 identified historical material in the upper 12 inches of soil. The testing conducted in 1999 identified the remains of the rock foundation of a house constructed circa 1905 and additional historic artifacts including glass, ceramics, nails, shell, and ceramic roof tiles all thought to be associated with the house and with a welding shop (1926–1996) that was located on the property.

As part of the 2011 Cultural Resources Study, Applied Earthworks staff also conducted a pedestrian survey of the project site for archaeological and architectural resources. The project area has very little exposed ground surface, though narrow strips of exposed soil are present along the Monterey Street boundary of the project site which contained historic-period debris, including glass, ceramic fragments, ferrous metal items, and shell. The study concluded that it is likely that subsurface cultural remains are intact.

Built Environment Resources

The project site is partially located within the Downtown Historic District, which was locally designated in 1987, and is therefore considered a historical resource under CEQA. Figure 3 shows the boundaries of the Downtown Historic District relative to the project site. The Downtown Historic District extends east from U.S. Highway 101 and Dana Street to just beyond Osos Street, and runs north from Marsh Street to Palm Street. It contains many of the city’s most important historic buildings, and while they are primarily commercial, there is also a small subsection of residential properties largely concentrated west of Broad Street, in the project area. The buildings on the north side of Monterey Street create a historic streetscape that connects the area west of Mission Plaza to the westernmost section of the Downtown Historic District on Dana Street. In this area, the historic district transitions from commercial to residential, which is a physical characteristic of the district that helps conveys the reasons for its significance.

The City maintains a Master List of Historic Resources, which identifies buildings that are considered historically significant on their own merits, and a List of Contributing Historic Resources, which identifies structures that contribute to the significance of designated historic districts, although they may not be individually significant. In general, buildings within the district display a variety of architectural styles but are primarily one to two stories in height and 50 to 75 feet in width.

Two Master List properties and two contributing properties lie within or adjacent to the current project area (Table 5). The single-story vernacular residence with a detached garage at 610 Monterey Street, located on the project site, is a contributing property built in 1937 by Klien Williams. Although the 2011 Cultural Resources Study recommended it as ineligible for the CRHR and local listing, it is currently listed as a contributor to the Downtown Historic District and is thus considered a historical resource for the purposes of CEQA.

The single-story, mission-influenced vernacular residence at 614 Monterey Street, located on the project site, was built by Louis R. Heyd in 1935 and is also is a contributing property to the Downtown Historic District. The 2011 Cultural Resources Study identified this property as being eligible for local listing on the City's Master List because of its rarity and its representation of the vernacular renewal of adobe architecture prior to World War II. The property is therefore considered a historical resource for the purposes of CEQA.

The Hays-Lattimer adobe is a Master List property located immediately adjacent to the east of the project site at 638-642 Monterey Street. Constructed in 1860, the property contains a weather-boarded single-story adobe residence. The two-story Harmony Creamery at 991 Nipomo Street, also located adjacent to the project site, is another Master List property. Built in 1930 by the Harmony Valley Creamer Association, it is Spanish Colonial Revival in style.

The residential buildings on the project site located at 633 and 633 ½ Palm Street are located just outside the City's Downtown Historic District. They were each recommended ineligible for listing on the CRHR and local listing, and were not found to qualify as contributing resources to the Downtown Historic District; neither is considered a historical resource under CEQA as a result.

Table 5 Designated Historic Buildings Within and Adjacent to the Project Site

Address	Local Designation	Location Relative to Project Site
610 Monterey Street	Contributing property to Downtown Historic District	Within
614 Monterey Street	Contributing property to Downtown Historic District	Within
638-342 Monterey Street (Hays-Lattimer Adobe)	On Master List of Historic Resources, Downtown Historic District	Adjacent
991 Nipomo Street (Harmony Creamery)	On Master List of Historic Resources, Downtown Historic District	Adjacent

Paleontological Setting

The project site lies between the San Lucia Mountains and the San Luis Mountains in the Coast Ranges geomorphic province. The Coast Ranges are northwest-trending mountain ranges and valleys that run along the Pacific coast from Santa Barbara to the Oregon border (Norris and Webb, 1990). The Coast Ranges record a thick sequence of sedimentary strata dating back to the Mesozoic Franciscan Melange (~251 million years ago), with granitic and metamorphic rocks of the Salinian block present in the southern Coast Ranges, where the project is located (Norris and Webb 1990).

The Franciscan Melange records deposition of volcanic and clastic sediments into a subduction zone during the Mesozoic era, followed by subsequent metamorphism (Wakabayashi 1992). The Franciscan Melange is known to contain a wide range of fossils, including radiolarians, mollusks, diatoms, foraminifers, and marine vertebrates (Schlocker 1974; Elder 2015; Hilton 2003). A search of the University of California Museum of Paleontology (UCMP) online collection records shows that fossils of all of these organisms have been recovered from Franciscan rocks in and around San Luis Obispo County (UCMP 2017). The most impressive of these fossils is a large marine reptile, Plesiosaur hesternus, recovered from Oakley Ranch (Hilton 2003).

More recently, the Pleistocene history of the region (2.6 million–10,000 years ago) is marked by glacially controlled sea level fluctuations and tectonic uplift during which the shoreline advanced and retreated as much as 30 miles across the continental shelf (Hall 2007). Sea level advance cut a system of marine terraces, 12 of which are exposed in the Point San Luis area eight to nine miles southwest of the city. These terraces range in age from 83,000 to 49,000 years, and reach elevations of 79 feet above modern sea level. The formations that compose these terraces are the most paleontologically productive in the region (City of San Luis Obispo 2014).

Jefferson et al. (1992) reported three vertebrate localities along the coast within nine miles of San Luis Obispo. These localities occur in Pleistocene fluvial deposits overlying marine terraces, and include assemblages of the Rancholabrean mammals Equus sp. and E. occidentalis (horse); Camelops sp. and C. hesternus (camel); Bison antiquus and B. latifrons (bison), and Mammut americanum (mammoth). Other localities in San Luis Obispo County are noted as well (UCMP 2017).

b. Regulatory Setting

The primary applicable federal and state laws and regulations protecting cultural resources are the National Historic Preservation Act, as amended, CEQA, and California Public Resources Code (Cal. Public Res. Code) §§5024.1 and 21084.1. These and other federal, state, and local laws and regulations and ordinances that pertain to cultural resources are described below.

Federal

The project does not involve federal funding or permitting, and as a result, does not have a federal nexus. Therefore, compliance with reference to the National Historic Preservation Act (NHPA) of 1966 and other federal laws is provided here for informational purposes only.

National Historic Preservation Act [16 United States Code (U.S.C.) Section 470 et seq.]

The NHPA establishes the federal government policy on historic preservation and the programs, including the National Register of Historic Places (NRHP), through which this policy is implemented. Under the NHPA, significant cultural resources, referred to as "historic properties," include any prehistoric or historic district, site, building, structure, or object included in, or determined eligible for inclusion in, the NRHP. Historic properties also include resources determined to be National Historic Landmarks. National Historic Landmarks are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting United States heritage. A property is considered historically significant if it meets one of the NRHP criteria and retains sufficient historic integrity to convey its significance. This act also established the Advisory Council on Historic Preservation, an independent federal agency that administers Section 106 of the NHPA by developing procedures to protect cultural resources included in, or eligible for inclusion in, the NRHP. Regulations are published in 36 Code of Federal Regulations (C.F.R.) Parts 60, 63, and 800.

Archaeological Resources Protection Act (ARPA) [16 U.S.C. 470]

This statute was enacted to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands and Indian lands. It was also enacted to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals (Sec. 2(4)(b)).

State

California Environmental Quality Act, Public Resources Code §21083.2 and California Code of Regulations (CCR), Title 14, §15064.5

CEQA requires a lead agency to consider the effects of a project on historical resources (Cal. Public Res. Code §21084.1). The CEQA Guidelines §15064.5(b) provides specific guidance for determining the significance of impacts on historical resources and unique archaeological resources (CEQA Guidelines §15064.5(b) and Cal. Public Res. Code §21083.2). Under CEQA, these resources are called “historical resources” whether they are of historic or prehistoric age. Public Resources Code §21084.1 defines historical resources as those listed, or eligible for listing, in the California Register of Historical Resources (CRHR), or those listed in the historical register of a local jurisdiction (county or city) unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant. NRHP-listed “historic properties” located in California are considered historical resources for the purposes of CEQA and are also listed in the CRHR. The CRHR criteria for listing such resources are based on, and are very similar to, the NRHP criteria. Cal. Public Res. Code §21083.2 and CEQA Guidelines §15064.5(c) provide further definitions and guidance for archaeological sites and their treatment.

Different legal rules apply to the two different categories of cultural resources, though the two categories sometimes overlap where a “unique archaeological resource” also qualifies as a “historical resource.” In such an instance, the more stringent rules for the protection of archaeological resources that are historical resources apply.

CEQA Guidelines §15064.5 also prescribes a process and procedures for addressing the existence of, or probable likelihood, of Native American human remains, as well as the unexpected discovery of any human remains during implementation of a project. This includes consultations with appropriate Native American tribes.

The CEQA Guidelines define procedures, types of activities, persons, and public agencies required to comply with CEQA. CEQA Guidelines §15064.5(b) prescribes that project effects that would “cause a substantial adverse change in the significance of an historical resource” are significant effects on the environment. Substantial adverse changes include physical changes to both the historical resource and its immediate surroundings.

Section 15126.4(a)(1) states that an EIR shall describe feasible measures which could minimize significant adverse impacts. Section 15126.5(b) describes mitigation measures related to impacts on historical resources.

CEQA also requires that public agencies and private interests identify the potential environmental consequences of their proposed projects on any object or site considered to be a historical resource of California, including paleontological resources (Cal. Public Res. Code §21084.1, CCR Title 14, §15064.5).

California Register of Historical Resources (Cal. Public Res. Code §5024.1 and 14 CCR §4850)

Cal. Public Res. Code §5024.1 establishes the CRHR, which lists all California properties considered to be significant historical resources. The CRHR also includes all properties listed or determined eligible for listing in the NRHP, including properties evaluated and determined eligible under §106. The criteria for listing on the CRHR, criteria 1–4, are similar to those of the NRHP:

1. [Resources that are] associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
2. [Resources that are] associated with the lives of persons important in our past
3. [Resources that] embody the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value
4. [Resources that have] yielded, or may be likely to yield, information important in prehistory or history

The CRHR regulations govern the nomination of resources to the CRHR (14 CCR §4850). The regulations set forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

California Public Resources Code

Cal. Public Res. Code also protects paleontological resources in specific contexts. In particular, Cal. Public Res. Code §5097.5 prohibits "knowing and willful" excavation, removal, destruction, injury, and defacement of any paleontological feature on public lands without express authorization from the agency with jurisdiction. Violation of this prohibition is a misdemeanor and is subject to fine and/or imprisonment (Cal. Public Res. Code § 5097.5(c)), and persons convicted of such a violation may also be required to provide restitution (Cal. Public Res. Code § 5097.5(d)(1)). Additionally, Cal. Public Res. Code §30244 requires "reasonable mitigation measures" to address impacts on paleontological resources identified by the State Historic Preservation Officer.

Section 5097.5 of the Cal. Public Res. Code states:

> "No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor."

As used in this Cal. Public Res. Code section, "public lands" means lands owned by, or under the jurisdiction of, the state or any city, county, district, authority, or public corporation, or any agency thereof. Consequently, local agencies are required to comply with Cal. Public Res. Code §5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others.

Codes Governing Human Remains

Section 15064.5 of the CEQA Guidelines also assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. The disposition of human remains is governed by Health and Safety Code §7050.5 and Cal. Public Res. Code §§5097.94 and 5097.98, and falls within the jurisdiction of the NAHC. If human remains are discovered, the County Coroner must be notified within 48 hours and there should be no further disturbance to the site where the remains were found. If the remains are determined by the coroner to be Native American, the coroner is responsible for contacting the NAHC within 24 hours. The NAHC, pursuant to Cal. Public Res. Code §5097.98, will immediately notify those persons it believes to be most likely descended from the deceased Native Americans so they can inspect the burial site and make recommendations for treatment or disposal.

California Tribal Cultural Resources and Consultation (Assembly Bill 52, Chapter 532)

Assembly Bill (AB) 52 became law on January 1, 2015. It establishes a formal consultation process for California Indian tribes as part of CEQA and equates significant impacts on tribal cultural resources with significant environmental impacts. Several new Public Resources Codes have been written to codify the law's requirements. Cal. Public Res. Code §21074 defines a California Native American Tribe as a tribe located in California that is on the contact list maintained by the Native American Heritage Commission. It also defines what types of resources are to be considered tribal cultural resources. Cal. Public Res. Code §21080.3.1 describes formal tribal consultation requirements; Cal. Public Res. Code §21080.3.2 provides that if the California tribe requests consultation to include project alternatives and mitigation measures, such consultation would be required; Cal. Public Res. Code §21082.3 provides that any mitigation measures agreed upon during consultation shall be recommended for inclusion in the environmental document and affirms the lead agency's obligation to keep confidential any information obtained from a Native American tribe during the consultation process; and Cal. Public Res. Code §21083.4 provides examples of mitigation for impacts to Tribal Cultural Resources.

Senate Bill 18 (Chapter 905, Statutes of 2004)

Senate Bill (SB) 18 requires cities and counties to consult with Native American tribes to help protect traditional tribal cultural places through the land use planning process for general plan adoption or amendments and to specific plan adoption or amendments.

Local

San Luis Obispo Zoning Regulations, Chapter 17.54

Establishes the Historical Preservation Overlay Zone (H) and describes its purposes and application, allowed uses and property development standards.

Historic Preservation Ordinance, San Luis Obispo Municipal Code 14.1

The City Municipal Code contains specific requirements for the demolition and relocation of structures listed in the inventory of historic resources. These requirements are stated in Municipal Code §§14.01.100 and 14.01.110.

The City Municipal Code states that the Cultural Heritage Committee (CHC) shall review and make recommendations to the City Council regarding demolition applications for structures listed in the inventory of historic resources. An application for demolition of a listed historic resource shall be approved only if the proposed demolition is found consistent with the general plan, and 1) the historic resource is a hazard to public health of safety, and repair or stabilization is not structurally feasible; or 2) denial of the application will constitute an economic hardship as described in §14.01.100(J)(1-3) of the municipal code. Additional procedures regarding the timing of the demolition, documentation and acknowledgment of the historic resource are also delineated.

Likewise, the relocation of a structure listed on the inventory of historical resources is subject to review by the CHC and Architectural Review Commission (ARC). Relocation shall be permitted only when relocation is consistent with the goals and policies of the general plan, any applicable area or specific plans, and the Historic Preservation Program Guidelines, as well as additional criteria defined in Municipal Code §14.01.110(B)(1-6). The timing, plan, procedures, and documentation are also delineated.

City of San Luis Obispo Municipal Code Demolition and Moving of Buildings

Appendix Chapter 2, Chapter 201, of the San Luis Obispo Municipal Code, establishes procedures and requirements for the relocation or demolition of historic buildings.

City of San Luis Obispo Historic Preservation Program Guidelines

The guidelines establish procedures for the treatment of historic resources, including construction in historic districts and on properties with historic resources. They also include a discussion of the city’s existing historic districts and provide a summary of their significance and character-defining features.

City of San Luis Obispo Archaeological Resource Preservation Program Guidelines

The guidelines establish procedures to be used for the identification, evaluation, and preservation of archaeological and other cultural resources. Cultural resources refer to the artifacts, human remains, and sites containing evidence of past human activities, including prehistoric Native American archaeological sites, historic archaeological sites, sites or natural landscapes associated with important human events, and Native American sacred places and cultural landscapes.

City of San Luis Obispo Community Design Guidelines

The guidelines establish site and architectural design standards for development projects, including projects involving historic resources and historic districts, and demolitions.

City of San Luis Obispo General Plan Conservation and Open Space Element. The Conservation and Open Space Element of the General Plan establishes citywide policies and programs regarding identification and treatment of cultural resources. The following policies apply to this project:

- **Policy 3.3.1 Historic Preservation.** Significant historic and architectural resources should be identified, preserved, and rehabilitated.
- **Policy 3.3.2 Demolitions.** Historically or architecturally significant buildings shall not be demolished or substantially changed in outward appearance, unless doing so is necessary to

remove a threat to health and safety and other means to eliminate or reduce the threat to acceptable levels are infeasible.

- **Policy 3.3.3 Historical Documentation**. Buildings and other cultural features that are not historically significant but which have historical or architectural value should be preserved or relocated where feasible. Where preservation or relocation is not feasible, the resources shall be documented and the information retained in a secure but publicly accessible location. An acknowledgement of the resources should be incorporated within the site through historic signage and the reuse or display of historic material and artifacts.
- **Policy 3.5.1. Archaeological Resource Protection**. The City shall provide for the protection of both known and potential archaeological resources. To avoid significant damage to important archaeological sites, all available measures, including purchase of the property in fee or easement, shall be explored at the time of a development proposal. Where such measures are not feasible and development would adversely affect identified archaeological or paleontological resources, mitigation shall be required pursuant to the Archaeological Resource Preservation Program Guidelines.
- **Policy 3.5.2. Native American Sites**. All Native American cultural and archaeological sites shall be protected as open space wherever possible.
- **Policy 3.5.4 Archaeological Sensitive Areas.** Development within an archaeologically sensitive area shall require a preliminary site survey by a qualified archaeologist knowledgeable in Native American cultures, prior to a determination of the potential environmental impacts of the project.
- **Policy 3.5.5 Archaeological Resources Present**. Where a preliminary site survey finds substantial archaeological resources, before permitting construction, the City shall require a mitigation plan to protect the resources. Possible mitigation measures include: presence of a qualified professional during initial grading or trenching; project redesign; covering with a layer of fill; excavation removal and curation in an appropriate facility under the direction of a qualified professional.
- **Policy 3.5.6 Qualified Archaeologist Present**. Where substantial archaeological resources are discovered during construction or grading activities, all such activities in the immediate area of the find shall cease until a qualified archaeologist knowledgeable in Native American cultures can determine the significance of the resource and recommend alternative mitigation measures.
- **Policy 3.5.7 Native American Participation**. Native American participation shall be included in the City’s Guidelines for resource assessment and impact mitigation. Native American representatives should be present during archaeological excavation and during construction in an area likely to contain cultural resources. The Native American community shall be consulted as knowledge of cultural resources expands and as the City considered updates or significant changes to its General Plan.
- **Policy 3.6.3 Construction within Historic Districts**. The Cultural Heritage Committee and Architectural Review Commission will provide specific guidance on the construction of new buildings within historic districts.

4.2.2 Impact Analysis

a. Methodology and Significance Thresholds

Methodology

Cultural Resources Methodology

Direct impacts are assessed by identifying known cultural resources in the project study area, determining if any archaeological sites or historic structures are located within the project area, assessing the significance of the resources that may be affected, and determining the appropriate mitigation. Removal, demolition, or alteration of historical resources can permanently impact the historic fabric of an archaeological site, structure, or historic district.

As previously mentioned, in 2011 Applied Earthworks prepared a Cultural Resources Study of the project site and vicinity (Appendix C). The study involved a records search at the Central Coast Information Center of the California Historical Resources Information System at the University of California Santa Barbara, archival and historical research, field survey of the property, predictive modeling of archaeological resources, evaluation of any potentially significant historic structures on the property, and assessment of potential impacts to the surrounding Downtown Historic District.

The records search was conducted to identify previous cultural resources evaluations and previously recorded cultural resources on the project site as well as within a 200-foot radius of the project site. The archival research focused on the review of primary and secondary source materials related to the history and development of the project site and vicinity. Sources examined during the records and archival search included maps pinpointing cultural resources locations, survey coverage maps, site record and report files, city directories, Great Registers, historical maps, and newspapers. The State Historic Property Data Files, National Register of Historic Places, National Register of Determined Eligible Properties, California Points of Historic Interest, California Office of Historic Preservation Archaeological Determinations of Eligibility, and the California Department of Transportation State and Local Bridge Surveys were also analyzed. The results of the records search further identified studies conducted by Bertrando and Bertrando within the project site that consisted of archaeological testing in 1997 and 1999. In 2017, Rincon Consultants conducted an updated records search to expand the radius to 0.25-mile and to identify any cultural resources recorded since 2011.

Archaeological sites and historic structures located within the project area are described in Section 4.2.1, *Setting*.

Native American Consultation

The City conducted Native American consultation consistent with Senate Bill 18 and Assembly Bill 52 for the project to identify potential concerns or issues associated with Native American cultural resources near the project. Rincon contacted the NAHC to determine if any sites recorded in the NAHC's Sacred Lands File occur in or near the project site. The NAHC responded on May 1, 2017 that the search of the sacred land files for the USGS quadrangle in which the project is located "provided negative results" (citation). The NAHC did provide a list of Native American tribes with traditional lands or cultural places in the project area that may have knowledge of cultural resources at the project site. The Native American scoping did not identify any specific resources important to the consulted groups in or near the project site. However, Patti Dunton of the Salinan Tribe of Monterey and San Luis Obispo Counties noted that the project site is sensitive for cultural resources and requested an archaeological survey of the project area before and after the asphalt is removed. She asked that if resources are identified that all further ground-disturbing areas be monitored by a cultural resources specialist from the Salinan Tribe. Native American correspondence can be found in Appendix C.

Paleontological Resources Methodology

Rincon Consultants paleontologists evaluated the paleontological sensitivity of the geologic units present on the project site based on a review of existing information in the primary literature on known fossils within those geologic units, review of previous geotechnical studies of the project site, and consultation of the online database maintained by the University of California Museum of Paleontology (UCMP) for fossil localities in San Luis Obispo County recorded from geologic units present in the project site.

Rincon Consultants' paleontologists assigned paleontological sensitivity to each geologic unit within the project site. The potential for impacts to significant paleontological resources is based on the potential for ground disturbance to directly impact paleontologically sensitive geologic units. Paleontological sensitivity is defined by the Society of Vertebrate Paleontology (SVP).

The SVP broadly defines significant paleontological resources as follows (SVP 2010:11):

> "Fossils and fossiliferous deposits consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years)."

Significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, diagnostically important, or are common but have the potential to provide valuable scientific information for evaluating evolutionary patterns and processes, or which could improve our understanding of paleochronology, paleoecology, paleophylogeography, or depositional histories. New or unique specimens can provide new insights into evolutionary history; however, additional specimens of even well represented lineages can be equally important for studying evolutionary pattern and process, evolutionary rates, and paleophylogeography. Even unidentifiable material can provide useful data for dating geologic units if radiocarbon dating is possible. As such, common fossils (especially vertebrates) may be scientifically important, and therefore considered highly significant.

The SVP (2010) describes sedimentary rock units as having high, low, undetermined, or no potential for containing significant nonrenewable paleontological resources. This criterion is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present. While these standards were specifically written to protect vertebrate paleontological resources, all fields of paleontology have adopted these guidelines:

I. HIGH POTENTIAL (SENSITIVITY)

Rock units from which significant vertebrate or significant invertebrate fossils or significant suites of plant fossils have been recovered are considered to have a high potential for containing significant non-renewable fossiliferous resources. These units include but are not limited to, sedimentary formations and some volcanic formations which contain significant nonrenewable paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils. Sensitivity comprises both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, or botanical and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, ecologic, or stratigraphic data. Areas which contain potentially datable organic remains older than Recent, including deposits associated with nests or middens, and areas which may contain new vertebrate deposits, traces, or trackways are also classified as significant.

II. LOW POTENTIAL (SENSITIVITY)

Sedimentary rock units that are potentially fossiliferous, but have not yielded fossils in the past or contain common and/or widespread invertebrate fossils of well documented and understood taphonomic, phylogenetic species and habitat ecology. Reports in the paleontological literature or field surveys by a qualified vertebrate paleontologist may allow determination that some areas or units have low potentials for yielding significant fossils prior to the start of construction. Generally, these units will be poorly represented by specimens in institutional collections and will not require protection or salvage operations. However, as excavation for construction gets underway it is possible that significant and unanticipated paleontological resources might be encountered and require a change of classification from Low to High Potential and, thus, require monitoring and mitigation if the resources are found to be significant.

III. UNDETERMINED POTENTIAL (SENSITIVITY)

Specific areas underlain by sedimentary rock units for which little information is available are considered to have undetermined fossiliferous potentials. Field surveys by a qualified vertebrate paleontologist to specifically determine the potentials of the rock units are required before programs of impact mitigation for such areas may be developed.

IV. NO POTENTIAL

Rock units of metamorphic or igneous origin are commonly classified as having no potential for containing significant paleontological resources.

The loss of significant paleontological resources that meet the criteria outlined above would be considered a significant impact under CEQA, and the CEQA lead agency is responsible for ensuring that paleontological resources are protected in compliance with CEQA and other applicable statutes.

Significance Thresholds

If a project may cause a substantial adverse change in the characteristics of a resource that convey its significance or justify its eligibility for inclusion in the CRHR or a local register, either through demolition, destruction, relocation, alteration, or other means, then the project is judged to have a significant effect on the environment (CEQA Guidelines, §15064.5[b]). The following thresholds are based on Appendix G of the CEQA Guidelines. Impacts would be significant if the project would:

1. Cause a substantial adverse change in the significance of a historical resource
2. Cause a substantial adverse change in the significance of an archaeological resource
3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature
4. Disturb any human remains, including those interred outside of formal cemeteries

5. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
   A. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code §5020.1(k)
   B. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe

b. Project Impacts

Impact N-4 **CONSTRUCTION OF THE PROJECT WOULD RESULT IN THE DEMOLITION OF TWO STRUCTURES ON THE PROJECT SITE THAT ARE HISTORIC RESOURCES, AND ADVERSELY AFFECT THE DOWNTOWN HISTORIC DISTRICT. THIS WOULD CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF HISTORICAL RESOURCES AS DEFINED IN CEQA GUIDELINES §15064.5. THIS IMPACT WOULD BE CLASS I, SIGNIFICANT AND UNAVOIDABLE.**

The CEQA guidelines define direct impacts as direct or primary effects caused by a project at the same place, and indirect impacts as affects caused by a project but occur at a different place. The project proposes a number of actions, each of which will result in impacts to historical resources. Table 6 summarizes each of the proposed project actions and the resulting type and level of impact that would result to historical resources.

Table 6 Impacts to Historical Resources

Project Action	Type of Impact	Level of Impact
Demolition of 633 and 633½ Palm Street[1]	Direct	Less than significant
Demolition of 610 Monterey Street	Direct	Significant
Demolition of 614 Monterey Street	Direct	Significant
New Construction	Indirect/Direct	Significant/Less than significant

[1] As discussed above, based on the 2011 Cultural Resources Study, these structures were found to not meet the definition of historical resources under CEQA.

Demolition of 633 and 633 ½ Palm Street

The project would result in the demolition of the buildings at 633 and 633 ½ Palm Street. Although demolition of these buildings would be a direct impact, as discussed above, neither is considered a historical resource as defined by CEQA. Both buildings were evaluated in 2011 and found to not meet the definition of historical resources under CEQA and they are located outside the boundaries of the Downtown Historic District. Thus, their demolition would not diminish the integrity of the Downtown Historic District and would not constitute a significant impact on historical resources.

Demolition of 610 Monterey Street

The project would result in the demolition of the structure at 610 Monterey Street. As a contributing resource to the Downtown Historic District, this property is a historical resource as defined by CEQA. Demolition of this property is potentially inconsistent with Policies 3.3.1 and 3.3.2

of the City's Conservation and Open Space Element of the General Plan, and would be considered a significant adverse impact under CEQA.

Demolition of 614 Monterey Street

The project would result in the demolition of the structure at 614 Monterey Street. As both a contributing resource to the Downtown Historic District and a property that was found individually eligible for local designation in 2011, this property is a historical resource as defined by CEQA. Demolition of this property is potentially inconsistent with Policies 3.3.1 and 3.3.2 of the City's Conservation and Open Space Element of the General Plan, and would be considered a significant adverse impact under CEQA.

New Construction

The project has the potential to result in direct and indirect impacts to historical resources, specifically the Downtown Historic District, the adjacent locally-designated Hays-Lattimer Adobe located at 638-642 Monterey Street, and the locally-designated Harmony Creamery at 991 Nipomo Street.

In consideration of these potential impacts this analysis follows the guidance of the City of San Luis Obispo's Historic Preservation Program Guidelines, which states "construction in historic districts and on properties that contain listed historic resources shall conform with the goals and policies of the General Plan, the Historic Preservation Ordinance, these Guidelines, the Community Design Guidelines, any applicable specific or area plan, and the Secretary of the Interior's Standards for the Treatment of Historic Properties (City of San Luis Obispo 2010:6). The City of San Luis Obispo's Historic Preservation Program Guidelines state "new structures in historic districts shall be designed to be architecturally compatible with the district's prevailing historic character as measured by their consistency with the scale, massing, rhythm, signature architectural elements, exterior materials, siting, and street yard setbacks of the districts historic structures" (City of San Luis Obispo 2010:7). Further guidance is provided in the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, which is recognized by CEQA as mitigating potential adverse impacts caused by a project to below the level of significance. According to the *Secretary of the Interior's Standards*, new construction in or near historic properties, including districts, should be differentiated but compatible; attention should be devoted to ensuring that the new construction is complementary to the historic property but does not create a false sense of history by imitating or replicating a historic building or property. The *Secretary of the Interior's Standards* include setting, in terms of the character of the surrounding environment, as a character-defining feature that weighs in the analysis of a resource's retention of historic integrity.

The proposed project would adversely affect the Downtown Historic District by inserting a new visual feature that is inconsistent with the height, scale, and massing of the resources that characterize the historic district. As described in the setting above, these resources within the district are primarily one to two stories in height and 50 to 75 feet in width. Although the commercial space and non-profit theater would be 41 to 43 feet high, the maximum height of the project would be 50 feet. The project would also have an approximately 200 x 200 square foot floor area. This is substantially taller and wider than the other adjacent historic resources, and would interrupt the rhythm and overall setting of the district. The parking structure and commercial space would be designed in a Spanish Colonial architectural style that is compatible with the surrounding historic properties; however, the theater would be Modernistic in style. The project would be visible from the contributing properties along Dana Street, adjacent Hays-Lattimer adobe, and Harmony

Creamery, and the visual impacts of the project may reach as far as the Dr. George B. Nichols House at 664 Monterey Street, the Carnegie Library at 696 Monterey Street, and the San Luis Obispo de Tolosa Mission, all Master List Properties.

Since the designation of the Downtown Historic District in 1987, Nipomo Street between Higuera and Palm streets has sustained several other changes to historic character. Three buildings were removed (one relocated outside of the district) for the creation of the existing parking area at Palm and Nipomo street in 1997. The new Children's Museum at the corner of Nipomo and Monterey streets is modern in appearance and inconsistent with the architecture of the surrounding properties. The new Soda Water Works building was also constructed with a modern appearance. Both of these properties are inside the Downtown Historic District boundaries but are no longer contributing resources.

The project would further result in direct impacts to the Downtown Historic District by removing two contributing structures and introducing new, nonconforming structures. This would physically and visually disconnect the contributing historic resources on Dana Street[5] from the remainder of the district to the east, resulting in a loss of integrity of the historic district. The proposed project would also interrupt the transition from commercial to residential that occurs in this area of the historic district, which is a physical characteristic of the district that helps conveys the reasons for its significance. As a result, the proposed project would result in a significant adverse impact to the Downtown Historic District.

As described above, the Hays-Lattimer adobe is located immediately adjacent to the east of the project site and is a historical resource for the purposes of CEQA. Project construction activities would generate groundborne vibration that has the potential to result in damage to the historic adobe building. The Federal Transit Administration (FTA) thresholds for damage to fragile historic buildings, state that vibration impacts would be significant if vibration exceeds 88 VdB. As discussed in Section 4.3, *Noise*, the project would not generate vibration levels higher than 87 VdB at a distance of 25 feet. The adobe structure is approximately 60 feet from where construction of the nearest structure would occur. Direct impacts to the Hays-Lattimer adobe from groundborne vibration would therefore be less than significant.

As noted above, the *Secretary of the Interior's Standards* include setting, in terms of the character of the surrounding environment, as a character-defining feature that weighs in the analysis of a resource's retention of historic integrity. The setting of the Hays-Lattimer and Harmony Creamery is consistent with the larger Downtown Historic District and is characterized by one to two-story buildings that are approximately 50 to 75 feet wide. Although the commercial building along Nipomo Street and the theater along Monterey Street would be lower (approximately 41 to 43 feet tall) than the parking structure, the proposed project as a whole is substantially larger in its scale, massing, and height and would alter the surrounding setting of both historical resources. Although this change would negatively affect their historic integrity, both would continue to convey the reasons for their significance. Indirect impacts to the Hays-Lattimer adobe and Harmony Creamery would therefore be less than significant.

Mitigation Measures

The following mitigation measure is required.

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[5] The Dana Street group is a small subsection of residential properties within the otherwise commercial Downtown Historic District, which is representative of the early residential settlement of downtown San Luis Obispo and contributes to the significance of the district.

CR-1 Historic Building Documentation Packages

Impacts to historical resources shall be minimized through the preparation of archival historic building documentation packages for both 610 and 614 Monterey Street. Prior to issuance of demolition permits, the City of San Luis Obispo shall ensure that documentation of both properties is completed in the form of a Historic American Building Survey (HABS)-Like documentation that shall comply with the Secretary of the Interior's Standards for Architectural and Engineering Documentation (NPS 1990). The documentation shall generally follow the HABS Level III requirements and include high-quality digital photographic recordation of the buildings and their overall setting, detailed historic narrative report, and compilation of historic research. The documentation shall be completed by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for History and/or Architectural History (NPS 1983). Individual archival documentation packages shall be completed both properties and offered as donated material to the San Luis Obispo Library and the History Center of San Luis Obispo County, where it would be available to local researchers.

PLAN REQUIREMENTS AND TIMING

The City shall complete archival documentation of the 610 and 614 Monterey Street properties to the issuance of project grading permits.

MONITORING

The Community Development Director shall confirm completion of and approve the archival documentation. The City shall confirm submittal of the documentation to the History Center of San Luis Obispo County and the San Luis Obispo County Library.

Significance After Mitigation

Mitigation Measure CR-1 would reduce impacts to historical resources to the greatest extent possible; however, this measure would not eliminate the permanent impacts to the identified historic resources, and no other feasible mitigation measures are available. Therefore, the project would result in a significant and unavoidable impact to historic resources.

Impact N-5 CONSTRUCTION OF THE PROJECT WOULD RESULT IN GROUND DISTURBANCE THAT COULD CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF AN ARCHAEOLOGICAL RESOURCE AS DEFINED IN CEQA GUIDELINES 15064. THIS IMPACT WOULD BE CLASS II, SIGNIFICANT BUT MITIGATABLE.

The project site is currently developed with an asphalt parking lot and residential structures. During archaeological testing conducted in 1996 and 1999, subsurface historical archaeological materials were identified in the 0.5-acre surface parking lot at the corner of Palm and Nipomo streets within the project site. During the survey conducted for the project in 2011, historic-period debris was observed in the small amount of exposed native soils along Monterey Street. Additionally, similar work in the project vicinity has shown that subsurface archaeological deposits exist throughout the city. Approximately 0.125 mile (660 feet) from the project site, trenches uncovered a mission-era midden containing a significant Native American deposit and it is unclear whether that deposit extends to the project site. Based on the results of work within the project site and the vicinity, it is likely that additional remains related to the mission and post-mission occupation of the area are present. Additional intact subsurface deposits may be present. Therefore, construction of the project could damage or destroy archeological resources. Impacts to such resources would be potentially significant and mitigation would be required to ensure that any discovered archaeological resources would be protected and curated if encountered during project construction activities.

Mitigation Measures

The following mitigation measures would reduce potential impacts to archaeological resources to a less than significant level.

CR-2(a) Retain a Qualified Principal Investigator

A qualified principal investigator, defined as an archaeologist who meets the Secretary of the Interior's Standards for professional archaeology (hereafter qualified archaeologist), shall be retained to carry out all mitigation measures related to archaeological resources.

CR-2(b) City of San Luis Obispo Consolidated Approach for Archaeological Investigations

Mitigation of archaeological resources within the project area shall follow the Consolidated Approach as outlined in the City of San Luis Obispo Archaeological Resource Preservation Program Guidelines. The Consolidated Approach shall include (1) the preparation of a Research Design and Mitigation Plan prepared by the qualified archaeologist and submitted for written approval to the City's Community Development Director (Director), which shall include but not be limited to the research design, laboratory and field methods, public interpretation, and location of curation; (2) monitoring of demolition and clearing of pavement within the project area; (3) fieldwork after the removal of pavement consisting of a Phase I inventory, Phase 2 Testing and Evaluation, and Phase 3 Data Recovery aimed at locating archaeological remains, evaluating their significance and integrity, and mitigating impacts through data recovery excavation; (4) the completion of special studies, such as faunal analysis, if appropriate, and the curation of recovered artifacts; and (5) the completion of a technical report documenting the results of the consolidated approach prepared in accordance with current professional standards and submitted to the Director.

CR-2(c) Archaeological Monitoring

An archaeological monitor shall be present for all project-related ground-disturbing construction activities. The monitor(s) shall be onsite on a full-time basis during earthmoving activities within native soils, including grading, trenching, vegetation removal, or other excavation activities. Under consultation between the qualified archaeologist and the City, monitoring may be reduced or eliminated based on observed conditions.

CR-2(d) Unanticipated Discovery of Archaeological Resources

In the event that cultural resources are encountered during the implementation of Mitigation Measures CR-2(b) or CR-2(c), all work shall be halted in the vicinity of the discovery until a qualified archaeologist can assess the significance of the resource. If the resources are found to be significant, they must be avoided or mitigated pursuant to the qualified archaeologist's direction and the testing plan outlined under Mitigation Measure CR-2(b). Mitigation may involve preservation in place or documentation and excavation of the resource. A report by the archaeologist evaluating the find and identifying mitigation actions taken shall be submitted to the City.

PLAN REQUIREMENTS AND TIMING

The City shall retain a qualified archaeologist prior to the issuance of demolition and grading permits. The qualified archaeologist shall prepare and submit the Research Design and Testing and Mitigation Plan prior to the issuance of demolition and grading permits. All fieldwork conducted under the consolidated approach must be completed prior to the issuance of grading permits. The requirement that ground disturbance be observed by an archaeological monitor and that construction work be stopped in the event of discovery of archaeological resources shall be included on construction plans prior to the issuance of grading permits.

MONITORING

The City shall review construction plans and periodically inspect project construction to ensure compliance with this measure.

Significance After Mitigation

Impacts to archaeological resources would be less than significant with incorporation of mitigation measures CR-2(a) through CR-2(d).

Impact N-6 CONSTRUCTION OF THE PROJECT WOULD RESULT IN GROUND DISTURBANCE THAT COULD INDIRECTLY OR DIRECTLY DESTROY A UNIQUE PALEONTOLOGICAL RESOURCE. THIS IMPACT WOULD BE CLASS II, SIGNIFICANT BUT MITIGABLE.

According to mapping by Dibblee and Minch (2004), the project site consists of younger Quaternary alluvium that dates to the Holocene. These sediments consist of gravel and sand deposited over the last 10,000 years by local rivers (Dibblee and Minch, 2004). Geotechnical studies have supported this mapping, and further detailed depths of 25-44 feet to bedrock, the Mesozoic Franciscan Melange, throughout the project site (Earth Systems Pacific 2011). Furthermore, Earth Systems Pacific (2011) documented some parts of the project site where artificial fill was present in the subsurface to depths of 3 and 5 feet. It should be noted that fill was only documented in two of the eight boreholes across the site, and was not present in the others (Earth Systems Pacific 2011). Using these data, as well as the paleontological literature review presented above, Rincon Consultants' paleontologists assigned SVP paleontological sensitivities to geologic units likely to be impacted by construction in the project site. It should be noted that while the Franciscan Melange has high sensitivity, it is deep enough (20 to 44 feet) that it should not be impacted by the anticipated depths of ground disturbance (14 feet).

Artificial Fill

As a product of manmade activities, artificial fill has no paleontological sensitivity.

Quaternary Alluvium

As discussed above, Pleistocene-aged alluvial sediments have preserved fossil resources throughout California, including San Luis Obispo County. While the Quaternary alluvium mapped in the project area is too young to preserve fossils in the upper layers, it increases with age in depth. Therefore, deeper levels may be of an appropriate age to preserve fossil resources. Quaternary alluvium is thus assigned a low-to-high paleontological sensitivity, increasing with depth. While the exact depth at which this transition occurs has not been established for the project area, 10 feet is a reasonable estimate.

Because project construction has the potential to disturb sensitive geologic units, impacts would be potentially significant.

Mitigation Measures

The following mitigation measures would reduce potential impacts to paleontological resources to a less than significant level.

CR-3(a) Retain a Qualified Project Paleontologist

A qualified project paleontologist, defined as a paleontologist who meets the standards of the SVP (2010), shall be retained to carry out all mitigation measures related to paleontological resources.

CR-3(b) Paleontological Worker Environmental Awareness Program (WEAP)

Prior to the start of construction, the project paleontologist or his or her designee shall conduct training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff. The WEAP shall be fulfilled at the time of a preconstruction meeting at which a qualified paleontologist shall attend.

CR-3(c) Paleontological Monitoring

Ground-disturbing construction activities (including grading, trenching, foundation work, and other excavations) in previously undisturbed sediments that exceed 10 feet in depth shall be monitored on a full-time basis during initial ground disturbance. Monitoring shall be conducted by a qualified paleontological monitor, who is defined as an individual who has experience with collection and salvage of paleontological resources and meets the minimum standards of the SVP (2010). The duration and timing of the monitoring will be determined by the project paleontologist and the location and extent of proposed ground disturbance. If the project paleontologist determines that full-time monitoring is no longer warranted, based on the specific geologic conditions at the surface or at depth, the project paleontologist may recommend that monitoring be reduced to periodic spot-checking or cease entirely. Monitoring is not necessary in artificial fill or for activities that do not reach 10 feet in depth.

CR-3(d) Fossil Discoveries

In the event of a fossil discovery by the paleontological monitor or construction personnel, all work in the immediate vicinity of the find shall cease. The project paleontologist shall evaluate the find before restarting construction activity in the area. If it is determined that the fossil(s) is (are) scientifically significant, the project paleontologist shall complete the following conditions to mitigate impacts to significant fossil resources:

1) **Salvage of Fossils.** The project paleontologist (or paleontological monitor) should recover significant fossils following standard field procedures for collecting paleontological resources, as described by the SVP (2010). Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case the paleontologist should have the authority to temporarily direct, divert, or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner.\

2) **Preparation and Curation of Recovered Fossils.** Once salvaged, significant fossils should be identified to the lowest possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection (such as the University of California Museum of Paleontology), along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the project paleontologist.

Significance After Mitigation

Mitigation Measures CR-3(a) through CR-3(d) would reduce the potential impacts to paleontological resources to a less than significant level.

Impact N-7 **NO TRIBAL CULTURAL RESOURCES WERE IDENTIFIED WITHIN THE PROJECT SITE, BUT AREA IS GENERALLY CONSIDERED SENSITIVE FOR CULTURAL RESOURCES. THIS IMPACT WOULD BE CLASS III, LESS THAN SIGNIFICANT.**

Native American consultation efforts completed by the City pursuant to the requirements AB 52 and SB 18. The efforts under SB 18 and AB 52 did not identify specific tribal cultural resources within the project area; however, it did identify the project site as sensitive, consistent with the results of the Cultural Resources Study. As a result of the general cultural resources sensitivity of the area, Patti Dunton of the Salinan Tribe of Monterey and San Luis Obispo Counties requested that fieldwork be conducted at the project area after the removal of pavement and that project-related ground disturbance be observed by a Salinan tribal monitor. As no tribal cultural resources were identified or known to exist in the project area, the project would result in a less than significant impact on tribal cultural resources.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

No mitigation measures are required. Impacts are less than significant.

Impact N-8 **GROUND-DISTURBING ACTIVITIES ASSOCIATED WITH CONSTRUCTION OF THE PROJECT HAS THE POTENTIAL TO DISTURB UNIDENTIFIED HUMAN REMAINS. THIS IMPACT WOULD BE CLASS II, SIGNIFICANT BUT MITIGABLE.**

Unanticipated discovery of human remains during project excavation would require compliance with Health and Safety Code §7050.5 and Cal. Public Res. Code Sections 5097.94 and 5097.98. Cal. Public Res. Code §5097.98 also addresses the disposition of Native American burials, protects such remains, and established the Native American Heritage Commission to resolve any related disputes. Compliance with Health and Safety Code §7050.5 and Cal. Public Res. Code §§ 5097.94 and 5097.98 would ensure that unanticipated discovery of human remains during project excavation, including those interred outside of formal cemeteries, would be addressed appropriately by the County Coroner and NAHC (if required).

Mitigation Measures

Compliance with existing regulations and mitigation measure CR-2(d) would ensure that potential impacts to human remains and burial grounds would be less than significant.

Significance After Mitigation

Impacts to human burial grounds would be less than significant with implementation of mitigation measure CR-2(d).

c. Cumulative Impacts

Planned buildout of the City of San Luis Obispo under the General Plan would cumulatively increase the potential for adverse effects on cultural and tribal cultural resources in the city. The project would incrementally contribute to this cumulative effect. Impacts to cultural and tribal cultural resources are generally site-specific. Accordingly, as required under applicable laws and regulations, potential impacts associated with cumulative developments would be addressed on a case-by-case basis.

The proposed project, as well as other cumulative projects in the city, would be required to comply with existing state and local regulations described in Section 4.2.1(b), *Regulatory Setting*, which address the protection of cultural and tribal cultural resources in the city. As described under Impacts CR-2, CR-3, and CR-5, with implementation of required mitigation, the project would reduce potential impacts to archaeological and/or paleontological resources to less than significant levels. In addition, as described in Impact CR-4, the project would result in a less than significant impact on tribal cultural resources. Therefore, the project would not contribute substantially to the cumulative loss of archaeological, paleontological, or tribal cultural resources in the city.

However, as described in Impact CR-1, the project would result in a significant and unavoidable impact associated with the removal of two historic structures that are part of the Downtown Historic District. The project would also result in a significant and unavoidable impact on the Downtown Historic District. Mitigation measure CR-1 would reduce the project’s impacts to historical resources to the greatest extent possible; however, this measure would not eliminate the permanent cumulative or individual impacts to the identified historic resources, and no other feasible mitigation measures are available. As such, the project would contribute to the cumulative loss of historic resources in the city. This would be a Class I, significant and unavoidable, cumulative impact to historical resources.

4.3 Noise

This section evaluates potential noise impacts from construction and operation of the project.

4.3.1 Setting

a. Environmental Setting

Overview of Sound Measurement

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Sound is technically described in terms of the loudness (amplitude) and frequency (pitch) of the sound. Noise is typically defined as unwanted sound that interferes with normal activities or otherwise diminishes the quality of the environment.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

Prolonged exposure to high levels of noise is known to have several adverse effects on people, including hearing loss, communication interference, sleep interference, and annoyance. The noise environment typically includes background noise generated from both near and distant noise sources as well as the sound from individual local sources. These can vary from an occasional aircraft or train passing by to continuous noise from sources such as traffic on a major road.

The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) is an adjustment to the actual sound pressure levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz). In addition to the instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound pressure level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period. Typically, Leq is summed over a one-hour period.

The sound pressure level is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Decibels are summed on a logarithmic basis. Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dB and a sound that is 10 dB less than the ambient sound level would result in a negligible increase (less than 0.5 dB) in total ambient sound levels. In terms of human response to noise, studies have indicated that a noise level increase of 3 dBA is barely perceptible to most people, a 5 dBA increase is readily noticeable, and a difference of 10 dBA would be perceived as a doubling of loudness. Quiet suburban areas typically have noise levels in the range of 40 to 50 dBA, while those along arterial streets are in the 50 to 60+ dBA range.

Normal conversational levels are in the 60 to 65 dBA range and ambient noise levels greater than that can interrupt conversations.

Noise levels from stationary or point sources (such as construction equipment and industrial machinery) typically attenuate (lessen) at a rate of 6 dB per doubling of distance over acoustically hard locations. Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dB per doubling of distance, while noise from heavily traveled roads typically attenuates at about 3 dB per doubling of distance. Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment* (2006) indicates that the manner in which newer buildings in California are constructed generally provides a reduction of exterior-to interior noise levels of about 25 dBA with closed windows. Standard construction materials and techniques used for residential developments in California (conventional wood frame construction consistent with current California energy conservation requirements) normally result in a minimum exterior-to-interior noise attenuation of 15 dBA with windows open and 20 dBA with windows closed.

The period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than that which occurs during the daytime. To evaluate community noise on a 24-hour basis, the day-night average sound level was developed (Ldn). Ldn is the average of all A-weighted levels for a 24-hour period with a 10 dB upward adjustment added to those noise levels occurring between 10:00 PM and 7:00 AM to account for the general increased sensitivity of people to nighttime noise levels. The Community Noise Equivalent Level (CNEL) is identical to the Ldn with one exception. The CNEL adds 5 dB to evening noise levels (7:00 PM to 10:00 PM). Thus, both the Ldn and CNEL noise measures represent a 24-hour average of A-weighted noise levels with Ldn providing a nighttime adjustment and CNEL providing both an evening and nighttime adjustment.

Groundborne Vibration

Vibration is sound radiated through the ground. Groundborne noise is the rumbling sound caused by the vibration of room surfaces. The ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB) (FTA 2006).

The typical background vibration velocity level in residential areas is approximately 50 VdB. Groundborne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (FTA 2006).

Most perceptible indoor vibration is caused by sources inside buildings, such as mechanical equipment operation, people moving, or slamming doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. The range of interest for groundborne vibration is from approximately 50 VdB, which is the typical background vibration velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings (FTA 2006). Construction activities can generate ground vibrations, which can pose a risk to nearby structures. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants (FTA 2006). Construction vibrations can be transient, continuous, or random. Single, isolated vibration events are responsible for transient construction vibrations, such as blasting or the use of wrecking balls. Continuous/frequent intermittent vibrations result from equipment or activities such as excavation equipment, static compaction equipment, tracked vehicles, vibratory pile drivers, and vibratory compaction equipment.

Existing Noise Environment

The project site is located east of U.S. 101 and bounded by Palm Street to the north, Nipomo Street to the west, Monterey Street to the south, and residential development to the east. The project site currently contains a public surface parking lot, five residential units (one single-family residence and one duplex on Palm Street, and two single-family residences on Monterey Street), and a detached garage. Surrounding uses include residential and commercial development to the east, west, and south, and the Mission College Preparatory School and athletic field to the north. The primary noise sources in the project area are from U.S. 101, light vehicle traffic along Palm Street, Nipomo Street, and Monterey Street, and occasional noise from the Mission College Preparatory school athletic field.

Rincon Consultants took three 15-minute noise level measurements at three locations around the project site to obtain existing ambient noise levels during the evening peak hours (4:00 PM to 6:00 PM). Figure 9 shows the locations of the noise measurements and Table 7 presents the results. As shown in the table, the noise measurements ranged from 56 dBA Leq to 64 dBA Leq.

Table 7 Noise Measurement Results

Station	Location[1]	Primary Noise Source[2]	Measured Sound Level (dBA) 15 Minute Leq[3]
1	Reis Family Mortuary (along Nipomo Street)	Traffic on Nipomo Street	64
2	Entrance to the Palm View Apartments (across from Mission Prep, north of the project site, along Palm Street)	Traffic on Palm Street	60
3	Hays-Lattimer Adobe residence (east of the project site, along Monterey Street)	Traffic on Monterey Street	56

All measurements were conducted for 15 minutes during the PM peak hours (4:00 PM to 6:00 PM) using an ANSI Type II sound level meter.

[1] Locations shown in Figure 9.

[2] Approximately 15 feet from roadway centerline

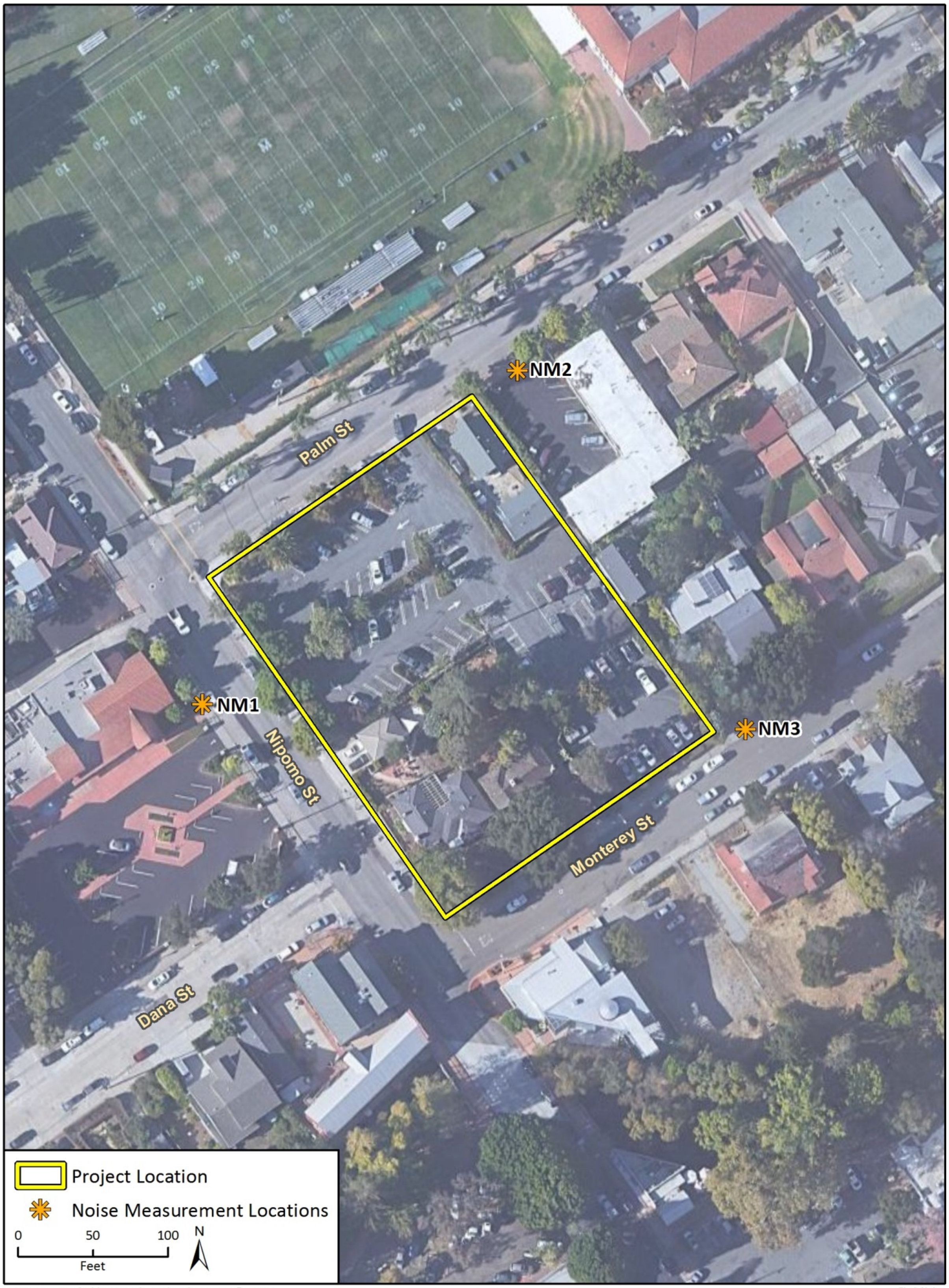
[3] Leq is the average sound level over the measurement period.

Source: Rincon Consultants 2017

Sensitive Noise Receptors

Sensitive noise receptors include locations where noise exposure could result in health-related risks to individuals, and places where quiet is an essential element of the intended purpose of that place. Noise-sensitive receptors closest to the project site include the following: single- and multi-family residential units adjacent to the northeast project boundary; the San Luis Obispo Children's Museum located across Monterey Street, approximately 50 feet from the southeast project boundary; the Reis Family Mortuary across Nipomo Street, approximately 50 feet from the western project boundary; residential suites on the second story of the mixed-use development on the south corner of the intersection of Dana Street and Nipomo Street, approximately 60 feet from the southern project boundary; single-family residences located across Nipomo Street, approximately 90 feet from the western project boundary; and the Mission College Preparatory school athletic field across Palm Street, approximately 75 feet from the northwest project boundary.

Figure 9 Noise Measurement Locations



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Surrounding Land Uses

Adjacent parcels to the northeast are zoned Medium-High Density Residential (R-3) and have existing residences developed onsite. Across Palm Street to the northwest is the Mission College Preparatory school athletic field, which is zoned Medium-High Density Residential (R-3). Across Nipomo Street to the west is the Reis Family Mortuary & Crematory, which is zoned Office with a Historic district overlay (O-H); residences zoned Medium-High Density Residential (R-3); and mixed commercial and residential suites zoned Downtown Commercial with a Historic District and Planned Development overlay (C-D-H-PD). Across Monterey Street to the south, the San Luis Obispo Children's Museum is zoned as a Public Facility with a Historic District overlay (PF-H), and residential units are zoned Downtown Commercial with a Historic district and Special Considerations overlay (C-D-S-H).

b. Regulatory Setting

City of San Luis Obispo General Plan Noise Element and Noise Guidebook (1996)

The City's Noise Element provides a policy framework for addressing noise. The following policies define the local regulatory setting related to noise as applicable to this project:

- **Policy 1.2 Land Use and Transportation Noise Sources.** According to the General Plan's Noise Element, Ldn or CNEL levels for the theater portion of the proposed project would be acceptable up to 60 dB and conditionally acceptable up to 70 dB. Conditionally acceptable development may be permitted if designed to meet noise exposure standards.
- **Policy 1.3 New Development Design and Transportation Noise Source.** New noise sensitive development shall be located and designed to meet the maximum outdoor and indoor noise exposure levels shown in [Table 8].

Table 8 Maximum Noise Exposure for Noise-Sensitive Uses Due To Transportation Noise Sources

	Outdoor Activity Areas[1]	Interior Spaces	
Land Use	Ldn[2] or CNEL in dB	Ldn[2] or CNEL in dB	Leq in dB[3]
Residences, hotels, motels, hospitals, nursing homes	60	45	–
Theaters, auditoriums, music halls	–	–	35
Churches, meeting halls, office building, mortuaries	60	–	45
Schools, libraries, museums	–	–	45
Neighborhood parks	65	–	–
Playgrounds	70	–	–

[1] If the location of outdoor activity areas is not shown, the outdoor noise standard shall apply at the property line of the receiving land use.

[2] Ldn (day-night average sound level) is the energy-averaged sound level measured over a 24-hour period, with a 10 dB penalty assigned to noise events occurring between 10:00 PM and 7:00 AM and a 5 dB penalty assigned to noise events occurring between 7:00 PM and 10 PM.

[3] As determined for a typical worst-case hour during periods of use.

Source: City of San Luis Obispo General Plan, Noise Element 1996.

City of San Luis Obispo Municipal Code, Title 9, Chapter 9.12 (Noise Control)

The City's Noise Control ordinance is found in Chapter 9.12 of the City's Municipal Code. Applicable sections of the existing noise ordinance are described below.

Section 9.12.050 of the Municipal Code stipulates that construction or demolition activities that create a noise disturbance across a residential or commercial property line are prohibited between the hours of 7:00 PM and 7:00 AM, Monday through Saturday, and any time on Sundays or holidays. The ordinance further states that, where technically and economically feasible, construction activities shall not exceed the standards identified in Table 9 and Table 10.

Table 9 Maximum Noise Levels for Nonscheduled, Intermittent, Short-Term Operation (Less than 10 Days) of Mobile Equipment

Zoning Category	Time Period	Noise Level (dBA)
Single-Family Residential	Daily 7:00 AM to 7:00 PM, except Sundays and legal holidays	75 dBA
Multi-Family Residential		80 dBA
Mixed Residential/Commercial		85 dBA
Single-Family Residential	7:00 PM to 7:00 AM, all day Sunday and legal holidays	50 dBA
Multi-Family Residential		55 dBA
Mixed Residential/Commercial		60 dBA

Source: City of San Luis Obispo Municipal Code

Table 10 Maximum Noise Levels for Repetitively Scheduled, Relatively Long-Term Operation (10 Days or More) of Stationary Equipment

Zoning Category	Time Period	Noise Level (dBA)
Single-Family Residential	Daily 7:00 AM to 7:00 PM, except Sundays and legal holidays	60 dBA
Multi-Family Residential		65 dBA
Mixed Residential/Commercial		70 dBA
Single-Family Residential	7:00 PM to 7:00 AM, all day Sunday and legal holidays	50 dBA
Multi-Family Residential		55 dBA
Mixed Residential/Commercial		60 dBA

Source: City of San Luis Obispo Municipal Code

Section 9.12.060 of the ordinance identifies exterior noise limits for noise generated by existing residential and nonresidential properties as summarized in Table 11. These noise level standards are not to be exceeded more than 30 minutes in any hour. In addition, the levels in Table 12 are not to be exceeded for the specified period. If the measured ambient level differs from that permissible in any of the first four noise limit categories of this section, the allowable noise exposure standard shall be adjusted in 5dB increments in each category as appropriate to encompass or reflect the ambient noise level. The noise levels in Table 11 do not apply to equipment used for construction activities, as those are addressed above in Table 9 and Table 10.

Table 11 Exterior Noise Limits (Not to be Exceeded More than 30 Minutes in Any Hour)

Zoning Designation	Time Period	Maximum Acceptable Noise Level (dBA)
Low- and Medium-Density Residential (R-1 and R-2); Conservation/Open Space (C/OS)	10:00 PM – 7:00 AM	50
	7:00 AM – 10:00 PM	55
Medium- and High-Density Residential (R-3 and R-4)	10:00 PM – 7:00 AM	50
	7:00 AM – 10:00 PM	55
Office and Public Facility (O and PF)	10:00 PM – 7:00 AM	55
	7:00 AM – 10:00 PM	60
Neighborhood, Retail, Community, Downtown and Tourist Commercial (C-N, C-R, C-C, C-D, C T)	10:00 PM – 7:00 AM	60
	7:00 AM – 10:00 PM	65

Source: City of San Luis Obispo Municipal Code Section 9.12.060

Table 12 Maximum Periods for Increased Noise Levels

Noise Standard for Existing Land Use	Maximum Time Period Allowed
+0 dBA	30 minutes/hour
+5 dBA	15 minutes/hour
+10 dBA	5 minutes/hour
+15 dBA	1 minute/hour
+20 dBA	Any time

Source: City of San Luis Obispo Municipal Code Section 9.12.060

4.3.2 Impact Analysis

a. Methodology and Significance Thresholds

Methodology

Construction Noise

Short-term construction-related noise were estimated using projected construction vehicle and equipment requirements, distance between sensitive receptors and construction activities, and daytime ambient noise levels. Project-generated construction source noise levels were determined based on methodologies, reference noise levels, and usage factors from the Federal Highway Administration (FHWA) *Construction Noise Handbook* (2013). Reference levels are the well-documented noise emissions for specific equipment or activity types, where their use is commonly assessed in the field of acoustics.

This analysis assumes construction activities would begin in 2019 and last approximately 12 months during the weekday hours of 7:00 AM to 7:00 PM. Construction activities were broken down into six construction phases: site preparation, demolition, grading, building construction, paving, and architectural coating. Construction-related noise was estimated for each of these phases using the

Federal Highway Administration’s Roadway Construction Noise Model (RCNM) Version 1.1. The model utilizes an “acoustical usage factor” to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation phrase. Construction noise was modeled using the ambient noise levels as shown in Table 7 which correspond to the locations of the sensitive receptors.

The analysis assumes that construction would occur at a distance of 25 feet from the residences located adjacent to the northeast project boundary and 50 feet from the Reis Family Mortuary and museum. However, these distances represent a worst-case scenario as construction is not stationary and would move throughout the project site.

Construction noise levels would diminish with distance from the construction site, at a rate of approximately 6 dBA per doubling of distance as equipment is generally stationary or confined to specific areas during construction. It should be noted that construction noise estimates do not account for the presence of intervening structures or topography that would reduce noise levels at receptor locations. Therefore, the noise levels presented herein represent a conservative estimate of actual construction noise and vibration levels.

Construction from the proposed project would generate vehicle trips needed to bring and haul equipment, trash, demolition materials, and cut/fill to and from the project site. The noise analysis for construction truck trips is based on the assumption that noise from trucks can reach up to 88 dBA at 50 feet from the source (DOT 2013).

VIBRATION LEVELS ASSOCIATED WITH CONSTRUCTION EQUIPMENT

Groundborne vibration levels associated with construction activities were estimated based on methods in the 2013 California Department of Transportation’s (Caltrans) *Transportation and Construction Vibration Guidance Manual*. Potential vibration levels were identified for onsite and offsite locations that are sensitive to vibration, including adjacent residences. Vibration is estimated based on the equipment used and the attenuated distance from the source.

OPERATIONAL AND TRAFFIC NOISE

Operational noise associated with the project includes noise generated from commercial operational activities, project-generated traffic, and parking structure noise (e.g., tire squeal, doors slamming, car alarms and horns, and engine start-ups), and other general activities associated. Noise generated from stationary equipment on the project site was estimated based on the typical dBA levels generated from urban uses, such as heating, ventilation, and air conditioning (HVAC) equipment, delivery trucks, parking lot noise, and other common uses.

To assess potential long-term (operation-related) noise impacts due to project-generated increases in traffic, modeling was conducted for study area roadways (Section 4.4, *Transportation*) using the U.S. Department of Housing and Urban Development Day/Night Noise Level Calculator (HUD DNL) and data from the Transportation Impact Study prepared for this project (Appendix D). Noise modeling data sheets are included in Appendix C.

Operational noise associated with the parking structure was estimated based on noise level data collected from previous parking structure studies and assumes that a typical peak hour would result in 15 percent of the vehicles entering or exiting the site (City of Davis 2017). Based on these methods and assumptions, a typical Sound Exposure Level (SEL) due to automobile arrivals/departures, including car doors slamming, tire “squealing,” and people conversing, is approximately 71 dBA at a distance of 50 feet. This SEL was then inputted as a constant into the equation below.

According to the Transportation Impact Study prepared for this project (Appendix D), 265 vehicles would enter or depart the parking structure during the peak hour (CCTC 2017). The parking structure noise levels were determined using the following formula:

Peak Hour Leq = 71 + 10log (N) – 35.6

In the formula, 71 is the mean SEL for an automobile operation; N is the number of parking lot operations in a peak hour, and 35.6 is a constant in the formula, calculated as 10 times the logarithm of the number of seconds in an hour. To calculate noise at the nearest sensitive receptor, the noise level produced from the equation was attenuated to the nearest sensitive receptor. Due to the circular, vehicle circulation routes in the parking structure, vehicles would not continuously traverse in drive lanes adjacent to offsite receptors. Therefore, noise from vehicles operating in the parking structure was evaluated at a distance from the center of the parking structure to a receptor, as a representative average distance for vehicle operation. The distance to the nearest offsite sensitive receptor from the center of the structure is approximately 100 feet. Therefore, the noise from operation of the structure was attenuated to a distance of 100 feet. The distances from the center of the structure to other nearby receptors are located at distances 150 feet or greater and were evaluated as well.

The amount of vehicles entering or exiting the structure during the nighttime (10:00 PM to 7:00 AM) would be lower than the vehicles accessing the structure during the day. Nighttime noise levels from the parking structure were estimated based on an estimate of hourly vehicle trips between 10:00 PM and 7:00 AM. Hourly nighttime vehicle trips entering the structure were based on the peak hour vehicle trips entering and exiting the parking structure (265 trips). The PM peak hour trips were multiplied by 10, to determine average daily trips for the day (a standard assumption that peak hour traffic levels are typically approximately 10 percent of ADT). Assuming peak hour is 10 percent of ADT, the average number of trips in and out of the structure is 2,650. Once ADT for the structure was determined for the average daily trips entering and exiting the parking structure, HUD DNL methodology was applied, which approximates that 15 percent of ADT occur during the nighttime. With a fraction of 15 percent of daily trips occurring at night, the project would generate 398 trips during the hours of 10:00 PM to 7:00 AM. The nighttime ADT were then divided into the number of hours that the structure would operate during the night, to determine an hourly rate of vehicle flow. During this nine-hour window of 398 trips, the average trips per hour would be 44 trips. The formula above was applied to the hourly rate of vehicles to generate noise levels during nighttime conditions.

Overall onsite noise levels were calculated by standard logarithmic decibel addition. Based on logarithmic addition, a doubling of sound energy equates to an approximately 3 dBA increase in noise (e.g., an increase from 65 dBA to 68 dBA represents a doubling of sound energy).

Significance Thresholds

The following criteria are based on Appendix G of the State CEQA Guidelines. Impacts would be significant if the project would result in any of the following:

1. 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
2. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels

3. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project
4. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project
5. 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, exposure of people residing or working in the project area to excessive noise levels
6. For a project near a private airstrip, would the project expose people residing or working the project area to excessive noise levels

The Initial Study determined that the project would not result in exposure of persons to excessive noise levels due public or private airport operations because the project site is not located within the San Luis Obispo County Regional Airport Land Use Plan or in the vicinity of a private airstrip. Therefore, Thresholds 5 and 6 are not discussed further in this section. Refer to Section 5.0, *Issues Addressed in the Initial Study*, for a discussion of these impacts.

Construction-related Noise Thresholds

Construction-related noise would be considered significant if noise from those activities would exceed the maximum noise levels for construction equipment, as stated in the City of San Luis Obispo Municipal Code (Section 9.12.050) and listed above in Table 9 and Table 10.

Construction-related Groundborne Vibration Thresholds

Caltrans' *Transportation-and Construction-Induced Vibration Manual* (Caltrans 2004) provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage. Table 13 indicates vibration levels at which humans would be affected by vibration levels.

Table 13 California Department of Transportation Vibration Annoyance Potential Criteria

Human Response Condition	Maximum Vibration Level (in/sec) for Transient Sources[1]	Maximum Vibration Level (in/sec) for Continuous/Frequent Intermittent Sources[2]
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.90	0.10
Severe	2.00	0.40

[1] Transient construction vibrations are generated by a single isolated vibration event, such as blasting or wrecking balls.

[2] Continuous/frequent intermittent vibrations result from equipment or activities such as excavation equipment, static compaction equipment, tracked vehicles, vibratory pile drivers, and vibratory compaction equipment.

Source: California Department of Transportation 2013

In addition, the FTA's Transit Noise and Vibration Impact Assessment (2006) was used to determine whether or not groundborne vibration resulting from project-related construction would cause damage to nearby structures. Damage criteria vary depending on the type of building adjacent to the vibration source. For example, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines state that a continuous vibration level of up to 102 velocity decibels (VdB) (an equivalent to 0.5 inches/second [in/sec] peak particle velocity [PPV]) (FTA 2006) would not result in any construction vibration damage. For older residential structures, the construction vibration damage criterion is 98 VdB (0.3 in/sec PPV). For non-engineered timber and masonry ("fragile") buildings, the construction vibration damage criterion is 88 VdB (0.1 in/sec PPV). For the purpose of this analysis, an impact would be significant if construction vibration from continuous/ frequent intermittent sources exceeds 88 VdB (0.1 in/sec PPV).

Operational Noise Thresholds

For traffic-related operational noise, impacts are considered significant if project-generated traffic exceeds the maximum noise exposure levels for sensitive receptors as identified in Table 8. The Transportation Impact Analysis, discussed in Section 4.4, *Transportation,* provided existing traffic volumes for the four roadway segments surrounding the project. In addition to existing conditions, traffic volumes on the segments were provided for Existing Plus Project, Cumulative, and Cumulative Plus Project conditions. The ADT on each roadway segment, were derived from the Transportation Impact Study located in Appendix D.

ADT was used to model the change in noise levels resulting from increased traffic on each of these four roadway segments. The analysis included the four conditions – Existing, Existing Plus Project, Cumulative (baseline), and Cumulative Plus Project. The US Department of Housing and Urban Development Day/Night Noise Level Calculator (HUD DNL) was used to analyze roadway noise impacts. Within the HUD DNL calculator, a distance of 25 feet was used for the distance from the sensitive receptor the roadway centerline. Based on the ADT generated by the project, the observed 2 dBA difference between the existing noise measurements and modeled traffic noise levels is within the acceptable margin-of-error of noise monitoring equipment and modeling programs (measured results are shown in Table 7, and modeled traffic noise is shown in the existing column of Table 17). To determine impacts from project added vehicle trips in the cumulative conditions, the cumulative baseline DNL was used as the established "existing" noise levels

On roadway segments where existing traffic noise levels exceed adopted thresholds, noise impacts are based on increases in ambient noise levels. Impacts to existing development are considered significant if project-generated traffic results in unacceptable noise levels. Recommendations contained in the May 2006 Transit Noise and Vibration Impact Assessment created by the FTA were used to determine whether or not increases in roadway noise would be significant. The allowable noise exposure increase changes with increasing noise exposure, such that lower ambient noise levels have a higher allowable noise exposure increase. Table 14 shows the significance thresholds for increases in traffic related noise levels caused either by the project alone or by cumulative development.

Table 14 Significance of Changes in Operational Roadway Noise Exposures

Existing Noise Exposure (dBA Ldn or Leq)	Allowable Noise Exposure Increase (dBA Ldn or Leq)
45-50	7
50-55	5
55-60	3
60-65	2
65-74	1
75+	0

Source: Federal Transit Administration 2006

Impacts would also be significant if noise from project operations is projected to exceed the maximum exterior noise limits of the surrounding land uses identified in Table 11 and Table 12. As shown in Table 11, the maximum acceptable exterior noise level for the adjacent low and medium-high density residential land uses between 7:00 AM – 10:00 PM is 55 dBA and between 10:00 PM – 7:00 AM is 50 dBA. As these residential limits are the lowest and most conservative acceptable exterior noise levels, the projects operational noise were evaluated against these thresholds, and then related to the other acceptable zoning thresholds (office and downtown commercial).

b. Project Impacts

Impact N-9 SHORT-TERM CONSTRUCTION ACTIVITY WOULD TEMPORARILY GENERATE NOISE THAT WOULD EXCEED CITY NOISE THRESHOLDS. MITIGATION IS AVAILABLE TO REDUCE TEMPORARY CONSTRUCTION NOISE, BUT WOULD NOT BE SUFFICIENT TO REDUCE IMPACTS TO LESS THAN THE APPLICABLE THRESHOLDS. IMPACTS WOULD BE CLASS I, SIGNIFICANT AND UNAVOIDABLE.

Project construction would require noise-generating equipment and vehicles that would temporarily increase noise levels in the project area. Noise-sensitive receptors located nearest to the project site are the single- and multi-family residences located adjacent to the northeastern project boundary, the San Luis Obispo Children’s Museum, and Reis Family Mortuary. Construction activities would occur approximately 25 feet from the adjacent residences to the east and 50 feet from the mortuary and museum. Project construction and associated noise impacts have been broken down into six construction phases assumed to occur over 12 months: site preparation, demolition, grading, building construction, paving, and architectural coating.

Table 15 shows modeled noise levels by project phase at distances of 25 feet, 50 feet, and 100 feet from the noise source.

Table 15 Construction Noise Levels by Phase

Construction Phase	Equipment	Estimated Noise at 25 feet (dBA Leq)	Estimated Noise at 50 feet (dBA Leq)	Estimated Noise at 100 feet (dBA Leq)
Site Preparation	Grader, Dozer, Tractor, Front End Loader, Backhoe	91	85	79
Demolition	Concrete Saw, Dozer, Tractor, Front End Loader, Backhoe	92	86	80
Grading	Concrete Mixer Truck, Paver, Scarifier, Front End Loader, Backhoe, Tractor, Auger Drill Rig[1]	93	87	81
Building Construction	Crane, Generator, Tractor, Front End Loader, Backhoe, Welder	90	84	78
Architectural Coating	Air Compressor	80	74	68
Paving	Mixer, Pavers, Rollers, Tractor, Front End Loader, Backhoe	90	84	78

[1] An Auger Drill Rig was used to assess noise impacts as it is the closest equipment type available in the RCNM to the drilled caissons that would be used for the parking structure foundations.

Source: See Appendix C for equipment noise impact data sheets and assumptions.

As shown in Table 15, the grading phase of project construction would create the highest construction noise levels because of the heavy equipment required. Construction noise levels associated with the use of heavy construction equipment would range from approximately 80 dBA Leq to 93 dBA Leq at 25 feet from the source, depending on the phase. Construction noise levels at 50 feet away from the source would range from 74 dBA Leq to 87 dBA Leq depending on the phase, and 100 feet would range from 68 dBA Leq to 81 dBA Leq depending on the phase. Based on the results in Table 15, the single-family residences would temporarily experience noise levels above the City's 60 dBA stationary equipment threshold for single-family residences. At a distance of 25 feet, the multi-family complex would temporarily experience noise levels above the City's 65 dBA stationary equipment threshold for multi-family residences. The mortuary and museum, at distances of 50 feet, would also temporary experience noise levels exceeding the City's 70 dBA stationary equipment threshold for commercial use.

The estimated noise levels during all construction phases would exceed the single family threshold of 60 dBA, the multi-family threshold of 65 dBA, and the commercial threshold of 70 dBA for relatively long-term construction activity (10 days or more) shown in Table 10. This would result in a potentially significant impact.

In addition, the project would generate construction-related traffic that would occur over the construction period and would vary depending on the stage of construction. Vehicles containing construction materials and equipment would access the site throughout all construction phases. The project would include the demolition or relocation of the four residential buildings and detached garage, which would generate hauling trips to and from the project site. The project would also involve approximately 6,400 cubic yards (CY) of cut and 700 CY of fill during project site grading and excavation, resulting in a need for approximately 5,700 CY of soil export, which would also generate hauling trips. The temporary noise generated by vehicles has the potential to disturb receptors nearby to the project, and along the routes to and from the project site. Noise from trucks can reach up to 88 dBA at 50 feet from the source (DOT 2013). If hauling trucks traveled through residential neighborhoods or by sensitive receptors, noise levels may exceed the 75 dBA threshold for intermittent noise shown in Table 9 and impacts would be potentially significant.

Mitigation Measures

The following mitigation measures are required.

N-1(a) Construction Vehicle Travel Route

Construction vehicles and haul trucks shall use roadways that avoid residential neighborhoods and sensitive receptors where possible. The applicant shall submit a proposed construction vehicle and hauling route for City review and approval prior to grading/building permit issuance. The approved construction vehicle and hauling route shall be used for all construction vehicles and hauling trips during the duration of construction.

N-1(b) Construction Activity Timing

Except for emergency repair of public service utilities or where an exception is issued by the Community Development Department, no operation of tools or equipment used in construction, drilling, repair, alteration, or demolition work shall occur daily between the hours of 7:00 PM and 7:00 AM, or anytime on Sundays, holidays, or after sunset, where that operation creates a noise disturbance that exceeds 75 dBA for single family residential, 80 dBA for multi-family residential, and 85 dBA for mixed residential/commercial land uses across a residential or commercial property line for a maximum of 10 days. For construction activities lasting more than 10 days, noise from construction equipment shall not exceed 60 dBA for single family residential, 65 dBA for multi-family residential, and 70 dBA for mixed residential/commercial land uses across a residential or commercial property line.

N-1(c) Construction Equipment Best Management Practices (BMPs)

For all construction activity at the project site, noise attenuation techniques shall be employed to reduce noise levels to extent feasible in accordance with the City of San Luis Obispo Municipal Code, Title 9, Chapter 9.12 (Noise Control). Such techniques shall include:

- Sound blankets on noise-generating equipment
- Stationary construction equipment that generates noise levels above 60 dBA at the project boundaries shall be shielded with barriers that meet a sound transmission class (a rating of how well noise barriers attenuate sound) of 25
- All diesel equipment shall be operated with closed engine doors and shall be equipped with factory-recommended mufflers
- For stationary equipment, the applicant shall designate equipment areas with appropriate acoustic shielding on building and grading plans. Equipment and shielding shall be installed prior to construction and remain in the designated location throughout construction activities
- Electrical power shall be used to power air compressors and similar power tools
- The movement of construction-related vehicles, with the exception of passenger vehicles, along roadways adjacent to sensitive receptors shall be limited to the hours between 7:00 AM and 7:00 PM, Monday through Saturday. No movement of heavy equipment shall occur on Sundays or official holidays (e.g., Thanksgiving, Labor Day)
- Temporary sound barriers shall be constructed between construction sites and affected uses

N-1(d) Neighboring Property Owner Notification and Construction Noise Complaints

The contractor shall inform residents and business operators at properties within 300 feet of the project site of proposed construction timelines and noise complaint procedures to minimize potential annoyance related to construction noise. Proof of mailing the notices shall be provided to the Community Development Department before the City issues a zoning clearance. Signs shall be in place before beginning of and throughout grading and construction activities. Noise-related complaints shall be directed to the City's Community Development Department.

PLAN REQUIREMENTS AND TIMING

Construction plans shall note construction hours, truck routes, and construction BMPs and shall be submitted to the City for approval prior to grading and building permit issuance for each project phase. BMPs shall be identified and described for submittal to the City for review and approval prior to building or grading permit issuance. BMPs shall be adhered to for the duration of the project. The applicant shall provide and post signs stating these restrictions at construction site entries. Signs shall be posted prior to commencement of construction and maintained throughout construction. Schedule and neighboring property owner notification mailing list shall be submitted 10 days prior to initiation of any earth movement. The Community Development Department shall confirm that construction noise reduction measures are incorporated in plans prior to approval of grading/building permit issuance.

All construction workers shall be briefed at a pre-construction meeting on construction hour limitations and how, why, and where BMP measures are to be implemented. A workday schedule will be adhered to for the duration of construction for all phases.

MONITORING

City staff shall ensure compliance throughout all construction phases. Building inspectors and permit compliance staff shall periodically inspect the site for compliance with activity schedules and respond to complaints.

Significance After Mitigation

Project construction would represent a temporary source of noise to sensitive receptors adjacent to the project site and along the route used by haul trucks. Mitigation Measures N-1(a) through N-1(d) require implementation of noise reduction devices and techniques during construction, and would reduce noise associated with on- and offsite construction activity to the maximum extent feasible. Noise from trucks can reach up to 88 dBA at 50 feet from the source. Although Mitigation Measure N-1(a) would reduce impacts from haul trucks by requiring the haul route to avoid residential areas and noise sensitive uses where possible, haul truck noise would continue to exceed the 75 dBA threshold for intermittent noise shown in Table 9. Therefore, noise impacts from haul trucks would be minimized, but not eliminated. As a result, temporary noise impacts associated with offsite construction activity would be significant and unavoidable.

As shown in Table 15, adjacent residences would be exposed to temporary noise levels of up to 93 dBA during grading activities, which would occur 25 feet from the nearest residence. The available mitigation for this, and other construction activities would not reduce the noise associated with these activities below the applicable City standards for relatively long term construction activity shown in Table 10. Therefore temporary noise impacts associated with onsite construction activity would be significant and unavoidable.

Impact N-10 SHORT TERM CONSTRUCTION ACTIVITIES WOULD GENERATE INTERMITTENT LEVELS OF GROUNDBORNE VIBRATION THAT WOULD BE PERCEPTIBLE, BUT WOULD NOT EXCEED APPLICABLE THRESHOLDS. THIS IMPACT WOULD BE CLASS III, LESS THAN SIGNIFICANT.

Construction activities on the project site would temporarily generate groundborne vibration. Table 16 shows the anticipated vibration levels from construction equipment based on distance from the closest sensitive receptors (adjacent residences northeast of the project site) for the types of construction equipment that would be used on the project site. As noted in the project description, pile drivers would not be used in project construction.

Table 16 Vibration Source Levels for Construction Equipment

Construction Equipment	Vibration Level at 25 feet (in/sec, VdB)[1]
Large Bulldozer	0.089, 87
Loaded Trucks	0.076, 86
Jackhammer	0.035,79
Small Bulldozer	0.003, 58
Caisson Drilling	0.089, 87

[1] Calculated using equation from FTA Transit Noise and Vibration Impact Assessment (2006): PPVequip = PPVref * (25/D)^1.5

Source: California Department of Transportation 2013.

As shown in Table 16, periodic vibration levels could reach up to 0.089 in/sec or 87 VdB at 25 feet from construction activity. As discussed in Impact N-1, the nearest residential use (the adjacent multi-family residential structure) is 25 feet from the project site boundary, however, a majority of construction activity would occur near the center of the site. A distance of 25 feet was applied conservatively to the Hays-Lattimer Adobe building as well; however, this is based on the distance from the project structure to the Hays-Lattimer Adobe property line. The distance from the nearest project structure to the adobe building is 60 feet. Based on California Department of Transportation vibration criteria in Table 13, this level of vibration would be strongly perceptible by nearby residents. However, vibration would be temporary and intermittent due to the nature of construction, and would only occur during daytime hours.

With regard to potential impacts to nearby fragile structures, the closest and most fragile structure is the historic Hays-Lattimer Adobe (for this analysis assumed 25 feet from construction activities). As shown in Table 16, project construction could result in vibration levels up to 87 VdB at 25 feet, which is below the 88 VdB threshold. Furthermore, as noted above, the distance from the proposed parking structure construction to the historic adobe would be closer to 60 feet. Therefore, this is a conservative estimate. Based on the threshold of 88 VdB for damage to fragile structures and conservative distance applied, project construction activities would not result in vibration levels that would cause structural damage to fragile historic structures or older residential structures. Impacts associated with vibration would therefore be less than significant.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

No mitigation measures are required. Impacts are less than significant.

Impact N-11 THE PROJECT WOULD GENERATE OPERATIONAL NOISE FROM PROJECT-GENERATED TRAFFIC AND NEW COMMERCIAL AND PARKING USES. NOISE FROM THE PROJECT WOULD NOT EXCEED ACCEPTABLE NOISE LEVELS AT EXISTING OFFSITE SENSITIVE RECEPTORS AND IMPACTS WOULD BE CLASS III, LESS THAN SIGNIFICANT.

Long-term, Onsite Operational Noise

The proposed project would introduce new commercial and parking uses on the project site. Existing sensitive uses near the project site and proposed new uses onsite may periodically be subject to noise associated with operation of the proposed project, including stationary equipment, such as heating, ventilation, and air conditioning (HVAC) systems, delivery trucks, parking structure noise, and other general activities associated with the proposed uses.

HVAC Equipment

Noise levels from commercial ventilation and air conditioning equipment can reach 100 dBA at a distance of three feet (USEPA 1971). These units usually have noise shielding cabinets, placed on the roof or mechanical equipment rooms and are not usually significant sources of noise impacts. Typically, the shielding and location of these units reduces noise levels to no greater than 55 dBA at 50 feet from the source. Based on the project plans, the proposed commercial uses would be located approximately 100 feet from the nearest residences located to the east and south of the project site. Based on an attenuation rate of 6 dB per doubling of distance, this would result in an external noise level at the nearest residential receptor (100 feet) of 49 dBA, which would not exceed City standards shown in Table 11 at nearby residences; therefore, noise exposure from HVAC systems would result in a less than significant impact.

Delivery Trucks

Onsite activities would include the use of delivery trucks and trash hauling. Delivery trucks and trash hauling trucks would access the site using driveways located on Palm Street and Nipomo Street. Proposed parking areas and loading zones would be located a minimum of 50 feet from the nearest residential receptor. The California Motor Vehicle Code establishes maximum sound levels for trucks operating at speeds less than 35 miles per hour (Section 23130). The maximum sound level established by the code is 86 dBA Leq at 50 feet. However, average noise levels for single idling trucks generally range from 66 to 71 dB Leq at a distance of 50 feet, and maximum noise levels associated with heavy truck passages range from 76 to 81 dB Lmax at a distance of 50 feet. Maximum noise levels generated by passages of medium duty delivery trucks generally range from 61 to 71 dB at a distance of 50 feet, depending on whether or not the driver is accelerating. Noise exposure from delivery trucks would potentially result in periodic community annoyance for nearby receivers. However, because delivery truck trips to the site would be an occasional source of noise, and would be similar in noise level and frequency to existing delivery truck trips associated with other commercial uses located adjacent to the project site, operational noise impacts would be less than significant.

Operational Noise from Parking Structure on Sensitive Receptors

The proposed project includes a parking structure with 445 parking spaces and has the potential to expose sensitive receptors to noise from its use. Noise associated with parking lot activities include onsite vehicular traffic, car door slamming, car alarms, vehicle engine start-up, tire squealing, and people conversing. The project proposes a small seating area on the rooftop of the parking structure, which would generate minimal noise in relation to the vehicle traffic generated by the parking structure and along the roadways.

The majority of the parking structure activities would occur within the structure and would be primarily enclosed. However, parking structures typically have openings and there is some reverberation from inside the structure. Using the formula described in the methodology, the predicted day time parking structure noise level is 59.6 dBA Leq at a distance of 50 feet. The noise level at 50 feet was then attenuated to 100 feet (distance to the nearest sensitive receptor). The predicted typical worst case Leq during daytime hours at the nearest residence would be 53.6 dBA Leq. As shown in Table 11, the maximum acceptable exterior noise level for the adjacent medium-high density residential land uses between 7:00 AM – 10:00 PM is 55 dBA Leq. The project would not result in operational noise that exceeds City thresholds during the daytime hours.

Using the formula described in the methodology, the predicted parking structure noise level at night is 51.4 dBA Leq at a distance of 50 feet. Using an attenuation of 100 feet to the nearest receptor, the typical worst case Leq during nighttime conditions would be 45.4 dBA Leq. As shown in Table 11, the maximum acceptable exterior noise level for the adjacent medium-high density residential land uses between 10:00 PM – 7:00 AM is 50 dBA Leq. The project would not result in operational noise that exceeds City thresholds during the nighttime hours.

Operational noise from the project would not exceed daytime or nighttime thresholds in the City of San Luis Obispo Municipal Code Section 9.12.060, and impacts would be less than significant.

Roadways and Vehicle Trips

Operation of the project would produce vehicle trips that would incrementally increase traffic noise on study area roadways, and would result in an increase in traffic noise at existing offsite land uses along affected roadways. Table 17 shows the modeled roadway noise levels along the project-studied roadway segments.

Table 17 Existing and Existing Plus Project Noise Levels on Studied Roadway Segments

Segment	Existing (dBA Ldn)	Existing Plus Project (dBA Ldn)	Project Increase (dBA Ldn)	Applicable Noise Increase[1] (dBA)
1. Palm Street – Nipomo to Broad	59.4	60.4	1.0	3
2. Nipomo Street – Palm to Monterey	62.8	63.5	0.7	2
3. Broad Street – Palm to Monterey	60.2	60.2	0.0	2
4. Monterey Street – Nipomo to Broad	56.7	56.7	0.0	3

[1] FTA Applicable noise increases for roadways based on the thresholds in Table 14 and discussed in the Methodology and Significance Thresholds.

See Appendix C for noise calculations.

Source: HUD DNL Calculator

Existing and Existing Plus Project Conditions

EXISTING

Per the modeled results from the HUD DNL calculator and shown in Table 17, the residences along Palm Street currently experience roadway noise levels of approximately 59.4 Ldn and Monterey Street at 56.7 Ldn. Nipomo Street currently has existing roadway noise levels of 62.4 Ldn, and Broad Street has existing roadway noise at 60.2 Ldn.

EXISTING PLUS PROJECT

The addition of project generated traffic would increase noise levels along the project's studied roadway segments. As shown in Table 17, residences along Palm Street would experience a roadway noise level increase of approximately 1.0 dBA, which would result in an ambient noise level of approximately 60.4 Ldn. Residences along Nipomo Street would experience an increase in roadway noise levels of 0.7 dBA, resulting in an ambient noise level of 63.5 Ldn. Both Broad Street and Monterey Street would not exhibit changes in ambient noise levels, based on the number of trips generated by the project, therefore, noise impacts along these roadways would be less than significant.

Based on the existing noise level of 62.8 Ldn on Nipomo Street, and thresholds shown in Table 14, impacts would be significant if an increase was larger than 2 dBA. The project would result in an increase of 0.7 dBA; therefore, impacts would be less than significant. Based on the existing noise level of 59.4 Ldn on Palm Street, and thresholds shown in Table 14, impacts would be significant if an increase was larger than 3 dBA. As the project would experience an increase of 1 dBA, impacts would be less than significant. Impacts associated with operational roadway noise would be less than significant.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

No mitigation measures are required. Impacts are less than significant.

c. Cumulative Impacts

Construction

Project construction is anticipated to begin in 2019. Construction of the proposed project could overlap with construction of other projects in the vicinity, including the Monterey Street Place across Monterey Street and The Vesper Hotel at the Creamery Project across Nipomo Street, and have the potential to impact sensitive receptors, including the Children's Museum and adjacent residences. As discussed under impact N-1, the project would result in significant and unavoidable construction noise impacts; therefore, any additional construction noise would result in a significant cumulative impact to sensitive receptors. The project's incremental contribution to this impact would be cumulatively considerable.

Mitigation Measures

Mitigation Measure N-4 would be required to reduce cumulative impacts associated with construction noise.

N-4 Coordination of Construction Timing

Prior to the issuance of grading permits, the City of San Luis Obispo shall review and coordinate the construction schedules of any other projects within 300 feet of the project to ensure that construction schedules do not overlap.

Significance After Mitigation

Implementation of mitigation measure N-4 would avoid additional cumulative construction noise impacts and reduce the cumulative impact to a less than significant level.

Operations

As discussed in Impact N-3, the proposed project would introduce new commercial and parking uses on the project site that would increase ambient noise levels. The roadway noise levels for both the Cumulative baseline, and Cumulative Plus Project Conditions are shown below in Table 18.

Table 18 Cumulative and Cumulative Plus Project Noise Levels on Roadway Segments

Segment	Cumulative (baseline; dBA Ldn)	Cumulative Plus Project (dBA Ldn)	Project Increase (dBA Ldn)	Applicable Noise Increase[1] (dBA)
1. Palm Street – Nipomo to Broad	60.0	60.8	0.8	2
2. Nipomo Street – Palm to Monterey	64.0	64.5	0.5	2
3. Broad Street – Palm to Monterey	60.9	60.9	0.0	2
4. Monterey Street – Nipomo to Broad	57.4	57.5	0.1	3

[1] FTA Applicable noise increases for roadways based on the thresholds in Table 14 and discussed in the Methodology and Significance Thresholds.

See Appendix C for all calculations

Source: HUD DNL Calculator

A shown in Table 18, Palm Street would experience a roadway noise level increase of 0.8 dBA under the Cumulative Plus Project condition. The threshold for allowable noise increase along this roadway is 2 dBA. The 0.8 dBA increase is below the 2 dBA threshold. This impact would be less than significant and the project's contribution would not be cumulatively considerable.

As shown in Table 18, Nipomo Street would experience a roadway noise level increase of 0.5 dBA under the Cumulative Plus Project condition. Based on the 2 dBA threshold, this impact would be less than significant and the project's contribution would not be cumulatively considerable.

Under the Cumulative Plus Project condition, there would be no increase in ambient noise levels from project generated traffic on Broad Street. Therefore, the project would not result in a cumulative impact on Broad Street.

As shown in Table 18, under the Cumulative Plus Project condition, Monterey Street would experience a roadway noise level increase of 0.1 dBA. The applicable noise increase along this roadway is 3 dBA. Since the project would contribute a 0.1 dBA increase, this is would be less than significant, and impacts would not be cumulatively considerable. Under the Cumulative Plus Project condition, increases in ambient noise would be less than significant and the project's contribution to cumulative noise impacts in the vicinity would be less than significant

4.4 Transportation

This section is based on the *Palm Nipomo Parking Structure Project Transportation Impact Study* (2017) prepared by Central Coast Transportation Consulting (CCTC), which evaluates the potential transportation impacts of the Palm Nipomo Parking Structure Project. The Transportation Impact Study is included as Appendix D to this EIR.

The scope of the transportation study was developed in consultation with City staff and conforms to the standards and policies for such analysis set forth in the City's adopted *Multimodal Transportation Impact Study Guidelines* (2015) and *General Plan Circulation Element* (2014). In particular, careful consideration was given to the transportation facilities that could be substantially affected by project-generated traffic. These facilities are reviewed and assessed in this EIR. The initial screening of facilities that could be substantially impacted by project-generated traffic took into account existing traffic volumes, traffic control systems, existing operational characteristics, and the magnitude of project-generated traffic and its likely distribution.

4.4.1 Setting

a. Environmental Setting

The project site is located east of U.S. 101 at the intersections of Palm and Nipomo streets and Nipomo and Monterey streets in downtown San Luis Obispo. The site is developed with a 77-space surface parking lot, one detached garage, and four residential structures containing five residences. The existing parking lot provides public parking in metered stalls owned and operated by the City of San Luis Obispo. Ingress and egress to the lot is available from a driveway on Palm Street. There are sixteen on-street metered parking spaces along the project frontage, with more metered parking available on surrounding streets.

The Transportation Impact Study identifies four study intersections and four roadway study segments for the transportation study area, shown in Figure 10. Table 19 lists these intersections and roadway segments, further described in the subsections below.

Table 19 Study Intersections and Segments

Study Intersections	Study Segments
1. Palm Street/Nipomo Street	1. Palm Street (Nipomo to Broad)
2. Palm Street/Project Driveway	2. Nipomo Street (Palm to Monterey)
3. Project Driveway/Nipomo Street	3. Broad Street (Palm to Monterey)
4. Monterey Street/Nipomo Street	4. Monterey (Nipomo to Broad)

Existing Roadway Network

Regional access to the project site is provided by U.S. 101, located west and north of the study area, and Highway 1, which coincides with and is designated Santa Rosa Street (north of U.S. Highway 101) near the project site. A well-defined grid of downtown streets provides local access to the site. The study area roadways are described below. According to the City's General Plan Circulation Element, all of the study area roadways are classified as Local Commercial streets.

Figure 10 Study Intersections and Road Segments

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Fig 3 TrafficStudy

Nipomo Street is a north-south local roadway with one travel lane in each direction and a speed limit of 25 miles per hour (mph) in the study area. Nipomo Street operates perpendicular to Higuera and Marsh Streets. The road mainly serves as a connection between the residential and commercial areas and the downtown.

Broad Street is a north-south local roadway with one travel lane in each direction and a speed limit of 25 mph in the study area. Broad Street operates parallel to Nipomo Street. The roadway serves the commercial and residential areas within the downtown.

Monterey Street is an east-west local roadway with one travel lane in each direction and a speed limit of 25 mph in the study area. Monterey Street serves the retail and commercial areas within the downtown core, providing access to two of the three downtown parking structures.

Palm Street is an east-west local roadway with one lane in each direction and a speed limit of 25 mph in the study area. Palm Street serves the retail and commercial areas within the downtown.

Existing Pedestrian and Bicycle Facilities

Pedestrian facilities generally included in the study area are sidewalks along roadways and crosswalks. All study segments have paved sidewalks on both sides of the street. A curb extension is located on the southeast corner of the Monterey Street/ Nipomo Street intersection. The intersection of Palm Street/Nipomo Street has one north-south marked crosswalk across Palm Street. The intersection of Monterey Street/Nipomo Street does not have any marked crosswalks. The intersection of Broad Street/Palm Street, with all-way stop sign control, has marked crosswalks on all legs of the intersection except the north leg. The intersection of Broad Street/Monterey Street has a north-south marked crosswalk across Monterey Street on the uncontrolled leg. An east-west marked crosswalk is also provided near the Mission Plaza Dogleg where Broad Street becomes Monterey Street.

Bicycle facilities in the study area consist of Class III bicycle routes along Nipomo and Broad Streets. Class III bicycle routes are for shared use with motor vehicles and have no separated bike right-of-way or lane striping.

Existing Transit Service

The San Luis Obispo Regional Transit Authority (RTA) and the City of San Luis Obispo Transit Division (SLO Transit) provide fixed route transit service to the study area. RTA Route 10 and SLO Transit Routes 1 and 2 serve the study area.

RTA Route 10 serves Nipomo Street near the project, providing service from San Luis Obispo to Santa Maria. Along Nipomo Street, southbound Route 10 stops at Higuera Street. The nearest northbound Route 10 stop is on Marsh Street at Broad Street. Weekday service has one-hour headways, Saturday service has near three-hour headways, and Sunday service has close to four-hour headways.

SLO Transit Route 1 passes through the study area as it travels southbound from the Downtown Transit Center to the Orcutt Road/Johnson Avenue area, with a stop on Nipomo Street at Higuera Street. Route 1 runs only on weekdays with hourly headways.

SLO Transit Route 2 provides service from downtown San Luis Obispo to Suburban Road, with a southbound stop on Nipomo Street at Higuera Street. The nearest northbound stop is on Marsh Street at Broad Street. Route 2 provides service with 40-minute headways, and one-hour headways on weekday evenings from Labor Day to mid-June.

Existing Multimodal Level of Service

Existing conditions establish baseline traffic conditions in the study area. In order to determine existing operational characteristics and levels of congestion, traffic counts were collected at each of these intersections in 2016 (see Appendix D).

Level of service (LOS) is a qualitative measure to describe how well an urban street serves the needs of each of its users (motorists, pedestrians, cyclists, and/or transit users) based on factors, such as speed, travel time, and delay. A scale of LOS A to F is used to indicate the level of service, with “A” as the best quality and “F” as the worst quality. LOS is determined following the methodologies presented in the Transportation Research Board’s 2010 *Highway Capacity Manual* (2010 HCM; Fifth Edition) Multimodal Level of Service criteria. Table 20 presents the LOS criteria by mode used for unsignalized (i.e., stop sign controlled) intersections and street segments as set forth in 2010 HCM.

Table 20 Level of Service Criteria

Unsignalized Intersections (Automobiles)[1]		Unsignalized Intersections (Pedestrians)[2]		Street Segments (Automobiles, Pedestrian, Bicycle, and Transit Modes)[3]	
Control Delay (Seconds/Vehicle)	LOS	Approach Delay	LOS	LOS Score	LOS
≤ 10	A	≤ 5	A	≤ 2.00	A
>10 – 15	B	>5 – 10	B	>2.00 – 2.75	B
>15 – 25	C	>10 – 20	C	>2.75 – 3.50	C
>25 – 35	D	>20 – 30	D	>3.50 – 4.25	D
>35 – 50	E	>30 – 45	E	>4.25– 5.00	E
>50	F	>45	F	>5.00	F

[1] Automobiles at side-street-stop-controlled intersections. Source: Exhibits 19-1 and 20-2 of the 2010 HMC.

[2] Pedestrian LOS at two-way stop controlled intersections. Source: Exhibits 19-2 of the 2010 HCM.

[3] Autos, pedestrian, bicycle, and transit LOS along street segments. Source: Exhibit 16-5 and 16-6 of the 2010 HCM, assuming 60 ft^2/p for pedestrian mode.

To calculate LOS, traffic counts for weekday PM peak hour (4:00 PM to 6:00 PM) conditions were collected at the study intersections in 2016 to establish baseline conditions. Intersection operations were evaluated for the highest one-hour volume counted during this period. Traffic count sheets are provided in Appendix A of the Transportation Impact Study (2017) located in Appendix D of this EIR. The Levels of Service were then computed at each of the study locations following the 2010 *Highway Capacity Manual* (2010 HCM) methodology and using the Synchro 9 software for intersections and the LOS+ software for segments. The Synchro and LOS+ output sheets showing the LOS calculations are provided in Appendix B and C of the Transportation Impact Study (2017) in Appendix D of this EIR.

The City’s General Plan Circulation Element (2014) establishes the following minimum multimodal LOS standards:

- **Vehicle**. LOS E or for an intersection or roadway segment in the downtown area
- **Pedestrian.** LOS C
- **Bicycle**. LOS D
- **Transit**. Baseline LOS or LOS D, whichever is lower

The following subsections describe the existing conditions of study intersections and roadway segments in terms of LOS for vehicles, pedestrians, bicycles, and transit.

Existing Vehicle Conditions

Figure 11 shows the existing weekday PM peak hour traffic volumes at the study intersections, as well as the existing intersection lane configurations. Table 21 presents the average daily traffic (ADT) volumes along street segments in the study area.

Table 21 Existing Average Daily Trips

Segment	ADT[1]
1. Palm Street	2,238
2. Nipomo Street	4,954
3. Broad Street	2,676
4. Monterey Street	1,197

[1] 2016 average daily trips

Source: CCTC 2017

Table 22 presents the existing vehicle LOS for the study intersections, which currently operate at an acceptable LOS B. Table 23 shows the existing LOS for the study segments, which all currently operate at an acceptable LOS B.

Table 22 Existing Intersection LOS for Vehicles (PM Peak Hour)

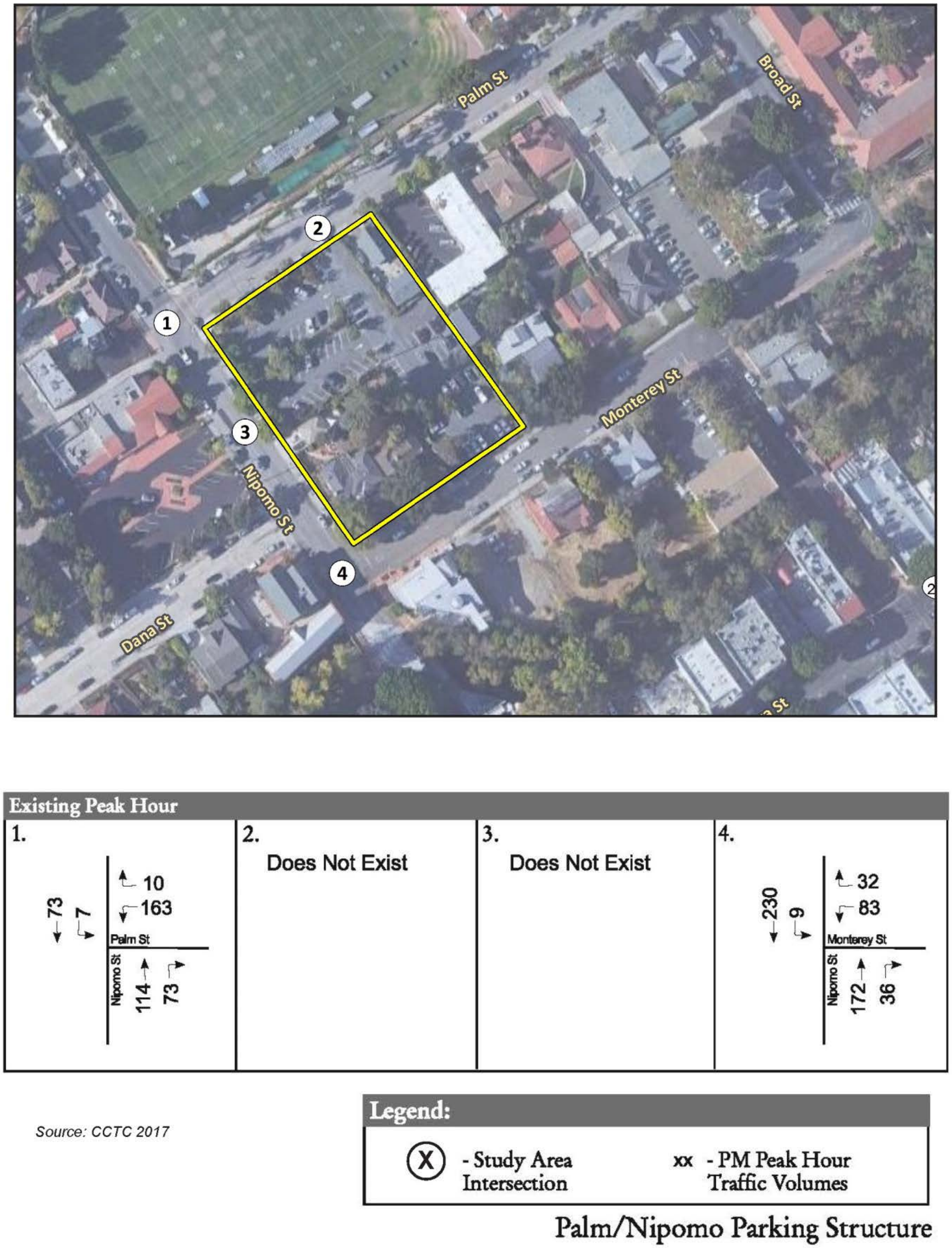
	Existing Conditions		
Intersection	V/C[1]	Delay[2] (sec/veh)	LOS
1. Palm Street/Nipomo Street	0.30	5.0 (12.3)	B
2. Palm Street/Project Driveway		N/A	
3. Project Driveway/Nipomo Street		N/A	
4. Monterey Street/Nipomo Street	0.24	2.8 (13.3)	B

[1] Volume to capacity (v/c) ratio reported for worst movement.

[2] HCM 2010 average control delay in seconds per vehicle (sec/veh). For side-street-stop controlled intersections the worst approach's delay is reported in parentheses next to the overall intersection delay.

N/A – V/C and delay do not occur at these intersections under existing conditions as they currently have not been built.

Figure 11 Existing Weekday PM Peak Hour Traffic Volumes



Source: CCTC 2017

Table 23 Existing Roadway Segment LOS for Vehicles (PM Peak Hour)

		Existing Conditions	
Segment	**Direction**	**V/C**	**LOS[1]**
1. Palm Street – Nipomo to Broad	EB	0.03	B
	WB	0.00	B
2. Nipomo Street – Palm to Monterey	NB	0.09	B
	SB	0.17	B
3. Broad Street – Palm to Monterey	NB	0.04	B
	SB	0.00	B
4. Monterey Street – Nipomo to Broad	EB	0.00	B
	WB	0.00	B

[1] HCM 2010 Automobile Traveler Perception Score and LOS

Existing Pedestrian Conditions

Table 24 shows the existing pedestrian LOS for the study intersections and Table 25 show the existing pedestrian LOS for the study segments. All intersections and segments currently operate at acceptable conditions (LOS C or better) during the weekday PM peak hour for pedestrians.

Table 24 Existing Intersection LOS for Pedestrians (PM Peak Hour)

		Existing Conditions	
Intersection	**Direction**	**Approach Delay[1]**	**LOS**
1. Palm Street/Nipomo Street	NB/SB	4.8	A
2. Palm Street/Project Driveway	All	N/A	
3. Project Driveway/Nipomo Street	All	N/A	
4. Monterey Street/Nipomo Street	NB/SB	13.7	C

[1] HCM 2010 Reports pedestrian LOS at two-way stop controlled intersection in delay (seconds)

Table 25 Existing Roadway Segment LOS for Pedestrians (PM Peak Hour)

		Existing Conditions	
Segment	**Direction**	**LOS Score**	**LOS[1]**
1. Palm Street – Nipomo to Broad	EB	1.09	A
	WB	1.58	A
2. Nipomo Street – Palm to Monterey	NB	1.57	A
	SB	1.60	A
3. Broad Street – Palm to Monterey	NB	1.09	A
	SB	1.11	A
4. Monterey Street – Nipomo to Broad	EB	1.02	A
	WB	1.19	A

[1] HCM 2010 pedestrian/bicycle score and LOS

Existing Bicycle Conditions

HCM 2010 does not establish LOS standards for bicycles at stop-controlled intersections. Therefore, bicycle intersection operations are not reported. Bicycle segment LOS is reliant on the presence of a Class II bicycle lane and the volume of vehicles on the roadway. All study segments lack bicycle lanes, therefore segments with more vehicle traffic experience worse service levels.

Table 26 shows the existing bicycle LOS for the study segments. Westbound bicycle traffic on Palm Street between Nipomo Street and Broad Street and bicycle traffic on Nipomo between Palm and Monterey in both directions currently operate acceptably at LOS D. The remaining segments currently operate at LOS C or better for bicycles during the weekday PM peak hour.

Table 26 Existing Roadway Segment LOS for Bicycles (PM Peak Hour)

		Existing Conditions	
Segment	**Direction**	**LOS Score**	**LOS[1]**
1. Palm Street – Nipomo to Broad	EB	2.88	C
	WB	3.56	D
2. Nipomo Street – Palm to Monterey	NB	3.78	D
	SB	3.93	D
3. Broad Street – Palm to Monterey	NB	2.80	C
	SB	2.92	C
4. Monterey Street – Nipomo to Broad	EB	2.18	B
	WB	3.30	C

[1] HCM 2010 pedestrian/bicycle score and LOS

Existing Transit Conditions

An acceptable transit LOS is predicated primarily on the presence of shelters and benches at bus stops, as well as the frequency and on-time performance of each route. Route 1 and Route 10 currently operate with a frequency of one bus per hour, while Route 2 operates at one bus every 40 minutes. All three transit routes provide an unsheltered stop with benches within one block of the project site as follows.

- A stop at the Nipomo Street/Higuera Street intersection is served by SLO Transit’s Route 1 and Route 2
- A stop at the Marsh Street/Broad Street intersection serves Routes 1, 2, and RTA Route 10

Table 27 presents the existing transit LOS for the study segments. As shown, both study segments served by transit stops operate acceptably.

Table 27 Existing Roadway Segment LOS for Public Transit (PM Peak Hour)

		Existing Conditions	
Segment	**Direction**	**LOS Score[1, 2]**	**LOS[1]**
1. Palm Street – Nipomo to Broad	EB	N/A	
	WB	1.67	A
2. Nipomo Street – Palm to Monterey	NB	N/A	
	SB	1.68	A
3. Broad Street – Palm to Monterey	NB	N/A	
	SB	N/A	
4. Monterey Street – Nipomo to Broad	EB	N/A	
	WB	N/A	

[1] HCM 2010 pedestrian/bicycle/transit score and LOS

[2] LOS is not established for segments without a directional transit route.

b. Regulatory Setting

Americans with Disabilities Act

Title III of the ADA (codified in Title 42 of the U.S. Code [USC]), prohibits discrimination on the basis of disability in places of public accommodation (i.e., businesses and non-profit agencies that serve the public) and commercial facilities (i.e., other businesses). This regulation includes Appendix A to Part 36, Standards for Accessible Design, which establishes minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility.

Senate Bill (SB) 743

To further the State’s commitment to the goals of SB 375, Assembly Bill (AB) 32, and AB 1358, SB 743 adds Chapter 2.7, Modernization of Transportation Analysis for Transit-Oriented Infill Projects, to Division 13 (Section 21099) of the Public Resources Code. Key provisions of SB 743 include reforming aesthetics and parking CEQA analysis for urban infill projects and replacing the measurement of automobile delay with vehicle miles traveled as a metric that can be used for measuring environmental impacts. Under SB 743, the focus of the environmental impacts of transportation shift from driver delay to reduction of greenhouse gas emissions, creation of multimodal networks, and promotion of a mix of land uses, and LOS standards become local policy thresholds as adopted among individual agencies. Currently official measures and significance thresholds are still being developed and have not yet been adopted under CEQA. Therefore automobile LOS is still used as a significance threshold for CEQA review. The traffic study prepared for the Palm/Nipomo Parking Structure project discusses both multimodal LOS and VMT.

City of San Luis Obispo General Plan, Circulation Element

The City’s adopted General Plan Circulation Element includes policies and programs pertaining to transportation in the City. Policies and programs applicable to this project include:

- **Goal 1.7.1 Encourage Better Transportation Habits.** Increase the use of alternative forms of transportation (as shown on Table 1) and depend less on the single-occupant use of vehicles.

- **Policy 2.1.4 Downtown Congestion.** Within the Downtown the City shall establish and promote programs aimed at reducing congestion in a way that supports the long-term economic viability of the downtown.
- **Policy 3.1.7 Transit Service Access.** New Development should be designed to facilitate access to transit service.
- **Program 3.2.7 New Development.** When evaluating transportation impacts, the City shall use a Multimodal Level of Service analysis.
- **Policy 4.1.4 New Development.** The City shall require that new development provide bikeways, secure bicycle storage, parking facilities and showers consistent with City plans and development standards. When evaluating transportation impacts, the City shall use a Multi-modal Level of Service (MMLOS) analysis.
- **Policy 4.1.12 Bike Parking.** The City shall facilities development of conveniently located bike parking so as not to impede pedestrian walkways.
- **Policy 5.1.3 New Development.** New development shall provide sidewalks and pedestrian paths consistent with City policies, plans, programs, and standards. When evaluating transportation impact, the City shall use a Multimodal Level of Service analysis
- **Policy 5.1.4 Pedestrian Access.** New or renovated commercial and government public buildings shall provide convenient pedestrian access from nearby sidewalks and pedestrian paths, separate from driveways and vehicle entrances.
- **Policy 5.1.5 Pedestrian Crossings.** To improve pedestrian crossing safety at heavily used intersections, the City shall institute the following:
    - Install crossing controls where warranted by the California Manual on Uniform Traffic Control Devices (MUTCD) that provide adequate time for pedestrians to cross the street. In the downtown, install traffic-calming features such as textured cross walks and bulb-outs, where appropriate.
- **Policy 6.1.2 Multimodal LOS Objectives, Service Standards, and Significance Criteria.** The City shall strive to achieve LOS objectives and shall maintain LOS minimums for all four modes of travel; Pedestrians, Bicyclists, Transit, & Vehicles per Table 2 and the Highway Capacity manual.
- **Policy 6.1.3 Multimodal Priorities.** In addition to maintaining minimum LOS, MMLOS should be prioritized in accordance with the established modal priorities, such that construction, expansion, or alteration for one mode should not degrade the service level of a higher priority mode.
- **Policy 6.1.4 Defining Significant Circulation Impact**. Any degradation of the LOS shall be minimized to the extent feasible in accordance with the modal priorities established. If the LOS degrades below thresholds established in Policy 6.1.2, it shall be determined a significant impact for purposes of environmental review under CEQA. For roadways already operating below the established MMLOS standards, any further degradation to the MMLOS score will be considered a significant impact under CEQA. Where a potential impact is identified, the City in accordance with the modal priorities established, can determine if the modal impact in question is adequately served through other means e.g., another parallel facility or like service. Based on this determination, a finding of no significant impact may be determined by the City.
- **Program 7.2.7 Traffic Access Management.** The City shall adopt an access management policy to control location, spacing, design and operation of driveways, median openings, crosswalks, interchanges and street connections to a particular roadway including navigation routes to direct traffic in a manner that preserves the safety and efficiency of the transportation system.

Navigation routing and other smart access technologies should be considered as part of the update to the Access and Parking Management plan.

- **7.3 Design Standards.** The City shall require that improvements to the City's roadway system are made consistent with the following descriptions and standards.
- **Program 13.2.4 Public Parking Structures.** The City shall only approve construction of additional public parking structures after considering the findings and results of a parking supply and demand study.

City of San Luis Obispo Municipal Code, Sections 12.38 and 17.16.060

City of San Luis Obispo Municipal Code, Sections 12.38 and 17.16.060 of the San Luis Obispo Zoning Code discuss vehicle and bicycle parking space requirements for new developments.

City of San Luis Obispo Access and Parking Management Plan (2011)

This plan establishes vehicle parking policies and programs that apply throughout San Luis Obispo. Specific Policies and Programs applicable to the project are described below:

- **Policy 1.1** The City should maximize the use of all parking structures and surface lots.
- **Policy 5.2** Building parking structures is the best way of providing more parking facilities while minimizing the use of valuable commercial land. City-owned land earmarked for parking structures may be used as temporary surface parking lots.
- **Policy 5.4** Parking structures and surface lots should be located along the periphery of the commercial core as a means of eliminating traffic congestion and enhancing pedestrian activities.

Bicycle Transportation Plan (2013)

This plan presents the goals, objectives, policies, and implementation actions of the planning, development, and maintenance of bicycle facilities and activities within the City of San Luis Obispo. Specific Policies and Programs applicable to the project are described below:

- **Policy 1.6** All developments/subdivisions shall be designed with bicycle use as an equal and viable option for transportation to, from, and within a development.
- **Policy 1.7** Developments shall adhere to all policies in this Plan, include all bikeways described in this Plan, and include approved bicycle parking as referenced in the Plan's bicycle parking policies.
- **Policy 1.8** Development shall provide bicycle facilities, in accordance with City plans and standards pursuant to State and local legal requirements.

City of San Luis Obispo Downtown Concept Plan

The Downtown Concept Plan is the community's vision for how downtown San Luis Obispo should be developed over the next 25 years. This vision is expressed through a series of design principles, project goals, an illustrative physical plan, mobility diagrams, and an action list of public projects.

- **Goal 4 Enhanced Mobility.** Enhance the downtown's walkability, making it safer and easier to get to and travel throughout for pedestrians, bicyclists, and transit riders.
- **Table 3.1 Block Descriptions.** A new parking structure on the corner of Palm and Nipomo Streets is envisioned to include office mixed use along Nipomo Street, the Theatre relocated

along Monterey Street, and public use on a portion of the rooftop. An expansion of the History Center is shown on the City-owned parking lot on Monterey Street, wrapping around the building to the property on Broad Street. If it is not all needed for the History Center, then it may be used for other community-serving use in the Cultural District.

4.4.2 Impact Analysis

a. Methodology and Significance Thresholds

Methodology

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. Each of these steps is described further below.

Trip Generation

Specific land uses generate travel demand, such as residences, commercial and retail uses, and parks and recreation. Absent the travel demand associated with land use, there would be no parking demand. The usage of the proposed parking structure would be driven by nearby existing and future land uses. The parking structure itself would generate few new trips, and would instead support existing and future land uses. This analysis conservatively assumes that the trips from the proposed parking structure are new trips, instead of trips shifted from other parking locations.

Trip generation rates were estimated using the average mid-week hourly entries and exits at the 919 Palm Street parking structure. The weekday PM peak hour rates were calculated by dividing hourly entries and exists by the total number of parking spaces available to the public. These derived rates were multiplied by the anticipated number of project parking spaces to estimate vehicle trip generation (CCTC 2017).

The new structure would replace the existing 77-space surface parking lot. Accordingly, the net new parking spaces are used to estimate trip generation. Table 28 summarizes the trip generation estimates for the proposed project. As shown in Table 28, the project would add 303 weekday PM peak hour trips, 134 in and 169 out, to adjacent streets.

Table 28 Weekday Vehicle Trip Generation (PM Peak Hour)

Land Uses	Units	In	Out	Total
Parking Structure[1]	368 spaces	118	147	265
Commercial Space[2]	5,000 sf	1	7	8
SLO Theatre[3]	Box Office/Staff	15	15	30
Total Trips		134	169	303

[1] Rates per space derived from counts at 919 Palm parking structure; average of Tuesday and Wednesday. Estimate reflects net new spaces (445 new-77 existing = 368 net new).

[2] ITE Trip Generation Manual, Land Use Code 710, General Office Building. Average rate used for peak hour trips.

[3] Estimate based on information provided by Little Theater staff.

Source: City of San Luis Obispo 2016; CCTC 2017, provided in Appendix D

TRIP DISTRIBUTION AND ASSIGNMENT

Trip distribution and assignment for the project trips were estimated based on the location of complementary land uses, existing traffic counts, and parking structure access via two driveways on Nipomo Street and Palm Street.

To calculate LOS, traffic counts for weekday PM peak hour (4:00 PM to 6:00 PM) conditions were collected at the study intersections in 2016 to establish baseline conditions. Intersection operations were evaluated for the highest one-hour volume counted during this period. Traffic count sheets are provided in Appendix A of the Transportation Impact Study (2017) located in Appendix D of this EIR. The Levels of Service were then computed at each of the study locations following the 2010 *Highway Capacity Manual* (2010 HCM) methodology and using the Synchro 9 software for intersections and the LOS+ software for segments. The Synchro and LOS+ output sheets showing the LOS calculations are provided in Appendix B and C of the Transportation Impact Study (2017) in Appendix D of this EIR.

Consistent with the City's Multimodal Transportation Impact Study Guidelines, a neighborhood traffic analysis that evaluates ADT on roadways classified as Local Residential is not included in this section because the study area roadways are classified as Local Commercial roadways.

ANALYSIS SCENARIOS

The study intersections and segments were evaluated under the following scenarios:

- **Existing (2016) Conditions.** These conditions reflect 2016 traffic counts and the existing transportation network as described in Section 4.4.1, Setting
- **Existing (2016) Plus Project Conditions**. These conditions add the project generated vehicle trips and traffic to the Existing Conditions volumes defined above
- **Cumulative Pre-Project Conditions**. These conditions represent future traffic conditions reflective of the buildout of the land uses in the area, not including the proposed project
- **Cumulative Plus Project Conditions**. These conditions represent future traffic conditions reflective of the buildout of land uses in the area, including the proposed project

The City of San Luis Obispo is in the process of updating the Mission Plaza Concept Plan, which may result in changes to the Broad Street "dog leg." The cumulative forecasts were developed assuming no changes to vehicle access near Mission Plaza. The modifications under consideration as part of the Mission Plaza Concept Plan would not substantially change the findings of this transportation analysis (CCTC 2017). No other roadway network changes affecting the study locations were assumed to be in place under cumulative conditions. Cumulative Pre-Project and Cumulative Plus Project conditions were developed using the City's Travel Demand Model, which includes planned network and land use changes expected upon buildout of the City's General Plan.

Thresholds of Significance

The following criteria are based on Appendix G of the State CEQA Guidelines. Impacts related to transportation from the proposed project would be significant if the project would do any of the following:

1. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation

system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit

2. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways
3. 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
4. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)
5. Result in inadequate emergency access
6. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities

The Initial Study found that the project would not result in changes to air traffic patterns (criteria 3), substantial hazards due to a design feature or incompatible use (criteria 4), or inadequate emergency access to the site (criteria 5). Therefore, thresholds 3, 4, and 5 are not discussed further in this section. Refer to Section 5.0, *Issues Addressed in the Initial Study*, for a discussion of these impacts.

City of San Luis Obispo Thresholds

The City of San Luis Obispo does not have a formally adopted Congestion Management Program (CMP). However, as discussed under the Regulatory Setting, the City's General Plan Circulation Element establishes minimum LOS standards for all modes of transportation. Based on these standards, significant impacts to transportation facilities are identified under the following circumstances:

Project traffic causes unsignalized intersection LOS degradation when the following occurs:

- For vehicles, an unsignalized operating at LOS A, B, C, D, or E to degrade to unacceptable traffic conditions of LOS F; and the volume-demand-to-capacity ratio (V/C) is increased by 0.01 or more and signal warrants are met
- For pedestrians, a segment operating at LOS A, B, or C to degrade to LOS D, E, or F

Project traffic causes segment LOS degradation when the following occurs:

- For vehicles, segments operating at LOS A, B, C, D, or E to degrade to LOS F and an increase of the V/C ratio by .01 or more
- For bicycles, a segment operating at LOS A, B, C, or D to degrade to LOS E or F
- For pedestrians, a segment operating at LOS A, B, or C to degrade to LOS D, E, or F

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.

In addition to maintaining minimum LOS, the City's Circulation Element has established priorities for various modes such that construction, expansion, or alteration of one mode should not degrade the LOS of a higher priority mode. In the downtown area, modes are prioritized as follows: 1) pedestrians, 2) bicycles, 3) transit, and 4) vehicle. Exceptions to multimodal priorities may apply when in conflict with safety or regulatory requirements or conflicts with area character, topography, street design, and existing density.

b. Project Impacts

Impact T-1 UNDER EXISTING PLUS PROJECT CONDITIONS, ALL INTERSECTIONS AND SEGMENTS WOULD OPERATE AT ACCEPTABLE LEVELS OF SERVICE FOR VEHICLES, PEDESTRIANS, BICYCLES, AND TRANSIT. THIS IMPACT WOULD BE CLASS III, LESS THAN SIGNIFICANT.

Implementation of the project would generate 303 net new vehicle trips during the weekday PM peak hour that would be dispersed from the two project driveways and onto adjacent streets. Figure 12 shows the weekday PM peak hour traffic volumes at the study intersections for the Existing and Existing Plus Project Conditions.

Table 29 and Table 30 summarize the automobile operating conditions at study intersections and segments under Existing and Existing Plus Project conditions. As shown in Table 29 and Table 30, all of the study intersections and roadway segments would operate at acceptable levels of service (LOS E or better) for vehicles with the addition of project traffic. Impacts to vehicle LOS on the study intersections and segments would be less than significant.

Table 29 Existing and Existing Plus Project Intersection LOS for Vehicles (PM Peak Hour)

	Existing			Existing Plus Project		
Intersection	V/C[1]	Delay[2] (sec/veh)	LOS	V/C[1]	Delay[2] (sec/veh)	LOS
1. Palm Street/Nipomo Street	0.30	5.0 (12.3)	B	0.32	5.0 (12.9)	B
2. Palm Street/Project Driveway		N/A		0.08	2.8 (9.2)	A
3. Project Driveway/Nipomo Street		N/A		0.21	2.3 (13.6)	B
4. Monterey Street/Nipomo Street	0.24	2.8 (13.3)	B	0.30	2.8 (16.2)	C

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

[2] HCM 2010 average control delay in seconds per vehicle. For side-street-stop controlled intersections the worst approach's delay is reported in parentheses next to the overall intersection delay.

N/A – V/C and Delay do not occur at these intersections under existing conditions as they currently have not been built.

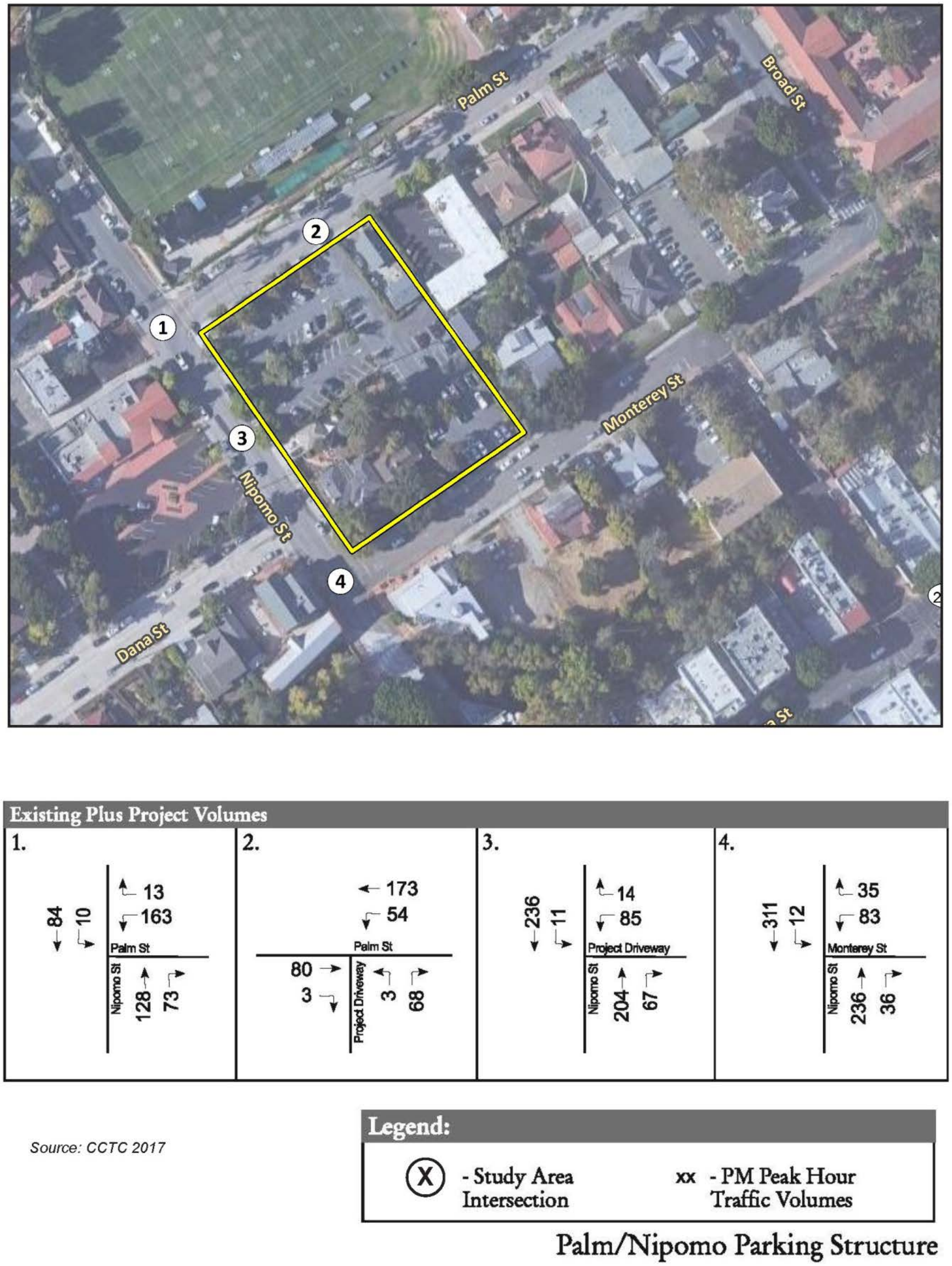
Note: Unacceptable operations shown in bold text.

Table 30 Existing and Existing Plus Project Segment LOS for Vehicles (PM Peak Hour)

		Existing		Existing Plus Project	
Segment	Direction	V/C	LOS[1]	V/C	LOS[1]
1. Palm Street – Nipomo to Broad	EB	0.03	B	0.03	B
	WB	0.00	B	0.00	B
2. Nipomo Street – Palm to Monterey	NB	0.09	B	0.12	B
	SB	0.17	B	0.18	B
3. Broad Street – Palm to Monterey	NB	0.04	B	0.04	B
	SB	0.00	B	0.00	B
4. Monterey Street – Nipomo to Broad	EB	0.00	B	0.00	B
	WB	0.00	B	0.00	B

[1] HCM 2010 Automobile Traveler Perception Score and LOS

Figure 12 Existing Plus Project Weekday PM Peak Hour Traffic Volumes



Source: CCTC 2017

Table 31 and Table 32 summarize the service levels for pedestrians at study intersections and segments under Existing and Existing Plus Project conditions. As shown in Table 31 and Table 32, all of the study intersections and segments would operate at acceptable levels of service (LOS C or better) for pedestrians with the addition of project traffic. Impacts to pedestrian LOS on the study intersections and segments would be less than significant.

Table 31 Existing and Existing Plus Project Intersection LOS for Pedestrians (PM Peak Hour)

		Existing		Existing Plus Project	
Intersection	**Direction**	**Approach Delay[1]**	**LOS**	**Approach Delay[1]**	**LOS**
1. Palm Street/Nipomo Street	NB/SB	4.8	A	5.7	B
2. Palm Street/Project Driveway	All	N/A		7.0	B
3. Project Driveway/Nipomo Street	All	N/A		15.8	C
4. Monterey Street/Nipomo Street	NB/SB	13.7	C	14.2	C

[1] HCM 2010 Reports pedestrian LOS at two-way stop controlled intersection in delay (seconds)

Table 32 Existing and Existing Plus Project Segment LOS for Pedestrians (PM Peak Hour)

		Existing		Existing Plus Project	
Segment	**Direction**	**LOS Score[1]**	**LOS[1]**	**LOS Score[1]**	**LOS[1]**
1. Palm Street – Nipomo to Broad	EB	1.09	A	1.10	A
	WB	1.58	A	1.59	A
2. Nipomo Street – Palm to Monterey	NB	1.57	A	1.73	A
	SB	1.60	A	1.62	A
3. Broad Street – Palm to Monterey	NB	1.09	A	1.09	A
	SB	1.11	A	1.11	A
4. Monterey Street – Nipomo to Broad	EB	1.02	A	1.03	A
	WB	1.19	A	1.20	A

[1] HCM 2010 pedestrian LOS score and LOS

Table 33 shows the service levels for bicycles on study segments under Existing and Existing Plus Project conditions. As shown in Table 33, under Existing Plus Project conditions, all study segments would operate at acceptable levels of service (LOS D or better) for bicycles with the addition of project generated traffic. Impacts to bicycle LOS on study segments would be less than significant.

Table 33 Existing and Existing Plus Project Segment LOS for Bicycles (PM Peak Hour)

		Existing		Existing Plus Project	
Segment	Direction	LOS Score[1]	LOS[1]	LOS Score[1]	LOS[1]
1. Palm Street – Nipomo to Broad	EB	2.88	C	2.92	C
	WB	3.56	D	3.57	D
2. Nipomo Street – Palm to Monterey	NB	3.78	D	3.92	D
	SB	3.93	D	3.95	D
3. Broad Street – Palm to Monterey	NB	2.80	C	2.80	C
	SB	2.92	C	2.92	C
4. Monterey Street – Nipomo to Broad	EB	2.18	B	2.26	B
	WB	3.30	C	3.33	C

[1] HCM 2010 bicycle LOS score and LOS

Table 34 shows the service levels for public transit on study segments under the Existing and Existing Plus Project conditions. As shown in Table 34, implementation of the project would not degrade public transit LOS to unacceptable conditions (below baseline LOS). All public transit would continue to operate at LOS A with implementation of the project. Impacts to transit LOS on study segments would be less than significant.

Table 34 Existing and Existing Plus Project Segment LOS for Transit (PM Peak Hour)

		Existing		Existing Plus Project	
Segment	Direction	LOS Score[1,2]	LOS[1]	LOS Score[1,2]	LOS[1]
1. Palm Street – Nipomo to Broad	EB	N/A		N/A	
	WB	1.67	A	1.67	A
2. Nipomo Street – Palm to Monterey	NB	N/A		N/A	
	SB	1.68	A	1.68	A
3. Broad Street – Palm to Monterey	NB	N/A		N/A	
	SB	N/A		N/A	
4. Monterey Street – Nipomo to Broad	EB	N/A		N/A	
	WB	N/A		N/A	

[1] HCM 2010 transit score and LOS

[2] LOS is not established for segments without a directional transit route.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

No mitigation measures are required. This impact would be less than significant.

Impact T-2 **THE PROJECT WOULD NOT ADD ROADWAY CAPACITY THAT WOULD INDUCE TRAVEL AND WOULD NOT GENERATE NEW TRAVEL DEMAND AS A LAND USE. IN ADDITION, THE CITY ACTIVELY MANAGES PARKING DEMAND AND ENCOURAGES NON-AUTO MODES OF TRAVEL. THEREFORE, THE PROJECT WOULD HAVE A NEGLIGIBLE IMPACT ON VEHICLE MILES TRAVELED (VMT). THIS IMPACT WOULD BE CLASS III, LESS THAN SIGNIFICANT.**

The City's 2014 Circulation Element includes a goal to reduce car use, and sets a mode split objective where 50 percent of City resident trips are made by motor vehicles (presumably single occupant), with the remainder made by transit, bicycles, walking, car pools, and other forms of transportation.

The proposed project has the potential to conflict with these goals if parking is provided at a subsidized rate by effectively encouraging driving over other modes. Increased parking supply correlates with reduced transit usage, and recent studies have documented a causal relationship where increased parking supply results in increased automobile mode share (CCTC 2017).

Conversely, research shows that where the parking supply is limited a substantial portion (30 percent by some estimates) of circulating traffic is searching for a parking spot (CCTC 2017). This increases VMT and congestion. Providing a single, consolidated parking location reduces the search time for parking, thereby reducing VMT. It also supports denser urban form and infill development where individual properties do not have to provide onsite parking, which supports travel by walking, biking, and transit.

The proposed project does not add roadway capacity that would induce travel and does not generate new travel demand as a land use. Therefore it would have a negligible impact on VMT under the following circumstances:

- The City continues to pursue policies, programs, and investments encouraging non-auto modes of travel.
- The City continues to manage parking to minimize cruising for parking and manage parking demand. This includes policies allowing payment of in-lieu parking fees to increase density and provide centralized parking for new development.

The City of San Luis Obispo currently does, and would continue to follow the aforementioned circumstances. Therefore, the project would have a negligible impact on VMT and impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

No mitigation measures are required. Impacts would be less than significant.

Impact T-3 **IMPLEMENTATION OF THE PROJECT WOULD RESULT IN PEDESTRIAN ACCESS IMPACTS DUE TO THE DIFFICULTY OF CROSSING NIPOMO STREET AT AN UNCONTROLLED LOCATION. THIS IMPACT WOULD BE CLASS II, SIGNIFICANT BUT MITIGABLE.**

Implementation of the project would generate pedestrian traffic and increase the number of people walking to and from the project site. The project includes a new pedestrian crosswalk and bump out to improve pedestrian access to and from the site along Monterey Street. However, existing crosswalks either do not exist or would not adequately serve the added pedestrian demand associated with the project along Nipomo Street and detailed frontage designs are not available at this time. This impact to pedestrian access would be potentially significant.

Mitigation Measures

The following mitigation measures would be required to serve the added pedestrian demand associated with the project along Nipomo Street.

T-3 Pedestrian Access

Subject to approval of the Public Works Director, the City shall incorporate improvements to the intersections of Dana Street/Nipomo Street and Monterey Street/Nipomo Street to enhance pedestrian safety and accessibility. The improvements shall be consistent with the City's Circulation Element and Downtown Physical Concept Plan (2017) and shall balance the needs of each mode of use. At a minimum the project should consider:

- High visibility crosswalk, or other intersection enhancements, with directional curb ramps across Nipomo Street from the northwest corner of Dana Street/Nipomo Street to the southwest corner of the parking structure.
- High visibility crosswalk, or other intersection enhancements, with directional curb ramps from the southeast corner of Monterey Street/Nipomo Street across Nipomo Street.
- Standard crosswalks, or other intersection enhancements, with directional curb ramps across Monterey Street and Dana Street where they intersect with Nipomo Street.
- Reduce the curb radii on the southwest corner of Dana Street/Nipomo Street and the northeast corner of Monterey Street/Nipomo Street.

PLAN REQUIREMENTS AND TIMING

Final project design plans shall include improvements at identified locations.

MONITORING

City Public Works Director shall confirm inclusion of intersection improvements, and approve final design plans prior to issuance of grading permits.

Significance After Mitigation

Implementation of Mitigation Measure T-3 would ensure adequate pedestrian access to and from the project site at locations along Nipomo Street. This mitigation would bring potential impacts related to pedestrian access along Nipomo Street to a less than significant level.

c. Cumulative Impacts

As discussed in Section 4.4.2(a), *Methodology and Significance Thresholds*, cumulative forecasts were developed assuming no changes to vehicle access near Mission Plaza. The modifications under consideration as a part of the Mission Plaza Plan would not substantially change the findings in this section. No other roadway network changes affecting the study locations were assumed to be in place under Cumulative Conditions. Cumulative and Cumulative Plus Project traffic volume forecasts were developed using the City's Travel Demand Model, which includes land use changes expected upon buildout of the City's General Plan.

Under Cumulative plus Project conditions, all study intersections and segments would operate at acceptable service levels of for vehicles, and all study segments would operate at acceptable levels of service for bicycles and transit. Figure 13 shows the traffic volumes for the Cumulative Pre-Project and Cumulative Plus Project conditions. Table 35 and Table 36 show the automobile operating conditions at study intersections and segments under Cumulative Pre-Project and Cumulative Plus Project conditions. As shown in Table 35 and Table 36, all of the study intersections and roadway segments would operate at acceptable levels of service (LOS E or better) for vehicles. Impacts to vehicle LOS on the study intersections and segments would be less than significant.

Table 35 Cumulative and Cumulative Plus Project Intersection LOS for Vehicles (PM Peak Hour)

	Cumulative			Cumulative Plus Project		
Intersection	V/C[1]	Delay[2] (sec/veh)	LOS	V/C[1]	Delay[2] (sec/veh)	LOS
1. Palm Street/Nipomo Street	0.37	4.8 (14.8)	B	0.40	4.9 (15.6)	C
2. Palm Street/Project Driveway		N/A		0.09	2.5 (9.4)	A
3. Project Driveway/Nipomo Street		N/A		0.25	2.2 (15.9)	C
4. Monterey Street/Nipomo Street	0.35	3.7 (16.0)	C	0.45	4.0 (20.7)	C

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

[2] HCM 2010 average control delay in seconds per vehicle. For side-street-stop controlled intersections the worst approach's delay is reported in parentheses next to the overall intersection delay.

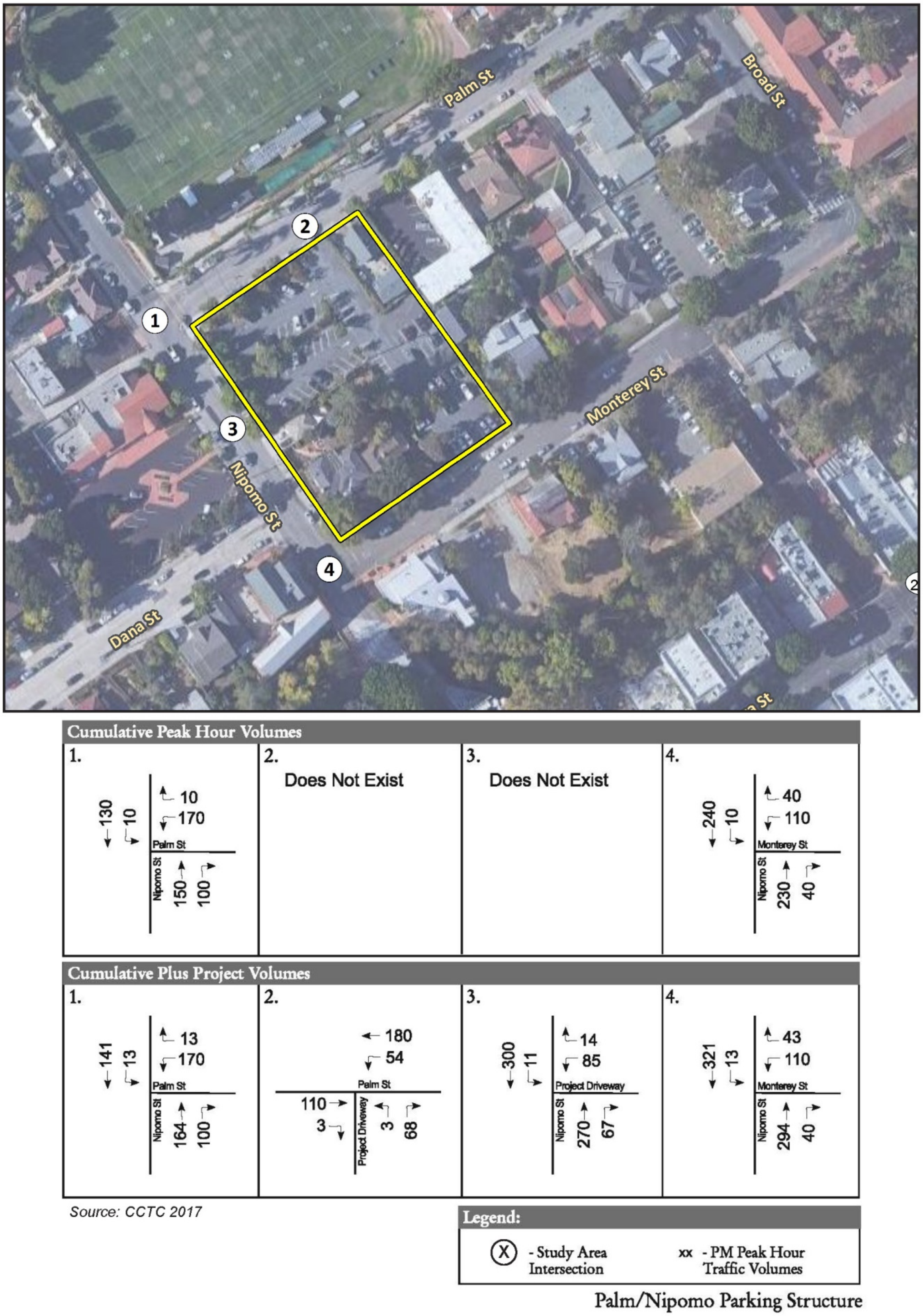
N/A – V/C and Delay do not occur at these intersections under existing conditions as they currently have not been built.

Table 36 Cumulative and Cumulative Plus Project Segment LOS for Vehicles (PM Peak Hour)

		Cumulative		Cumulative Plus Project	
Segment	Direction	V/C Delay	LOS[1]	V/C Delay	LOS[1]
1. Palm Street – Nipomo to Broad	EB	0.04	B	0.05	B
	WB	0.00	B	0.00	B
2. Nipomo Street – Palm to Monterey	NB	0.12	B	0.15	B
	SB	0.22	B	0.23	B
3. Broad Street – Palm to Monterey	NB	0.05	B	0.05	B
	SB	0.00	B	0.00	B
4. Monterey Street – Nipomo to Broad	EB	0.00	B	0.00	B
	WB	0.00	B	0.00	B

[1] HCM 2010 pedestrian/bicycle score and LOS

Figure 13 Cumulative and Cumulative Plus Project Traffic Volumes



Source: CCTC 2017

Table 37 shows the service levels for bicycles on study segments under Cumulative Pre-Project and Cumulative Plus Project conditions. As shown in Table 37, under Cumulative Plus Project conditions, all study segments would operate at acceptable levels of service (LOS D or better) for bicycles. Impacts to bicycle LOS on study segments would be less than significant.

Table 37 Cumulative and Cumulative Plus Project Segment LOS for Bicycles (PM Peak Hour)

		Cumulative		Cumulative Plus Project	
Segment	**Direction**	**LOS Score[1]**	**LOS[1]**	**LOS Score[1]**	**LOS[1]**
1. Palm Street – Nipomo to Broad	EB	3.22	C	3.25	C
	WB	3.58	D	3.59	D
2. Nipomo Street – Palm to Monterey	NB	3.92	D	4.03	D
	SB	4.05	D	4.07	D
3. Broad Street – Palm to Monterey	NB	3.61	D	3.61	D
	SB	3.08	C	3.08	C
4. Monterey Street – Nipomo to Broad	EB	2.28	B	2.33	B
	WB	3.60	D	3.63	D

[1] HCM 2010 bicycle LOS score and LOS

Table 38 shows the service levels for transit on study segments under the Cumulative Pre-Project and Cumulative Plus Project conditions. As shown in Table 38, implementation of the project would not degrade public transit LOS to unacceptable conditions (below baseline LOS). All public transit would continue to operate at LOS A. Impacts to transit LOS on study segments would be less than significant.

Table 38 Cumulative and Cumulative Plus Project Segment LOS for Transit (PM Peak Hour)

		Cumulative		Cumulative Plus Project	
Segment	**Direction**	**LOS Score[1]**	**LOS[1]**	**LOS Score[1]**	**LOS[1]**
1. Palm Street – Nipomo to Broad	EB	N/A[2]		N/A	
	WB	1.68	A	1.68	A
2. Nipomo Street – Palm to Monterey	NB	N/A		N/A	
	SB	1.70	A	1.70	A
3. Broad Street – Palm to Monterey	NB	N/A		N/A	
	SB	N/A		N/A	
4. Monterey Street – Nipomo to Broad	EB	N/A		N/A	
	WB	N/A		N/A	

[1] HCM 2010 transit score and LOS

N/A for segments without a directional transit route; LOS is not established for segments without a directional transit route.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

No mitigation measures are required. Impacts would be less than significant.

Impact T-4 UNDER CUMULATIVE PLUS PROJECT CONDITIONS, ONE STUDY INTERSECTION (THE PROJECT DRIVEWAY AT NIPOMO STREET) WOULD OPERATE AT AN UNACCEPTABLE LEVEL OF SERVICE FOR PEDESTRIANS DURING THE EVENING PEAK HOUR. THIS IMPACT WOULD BE CLASS II, SIGNIFICANT BUT MITIGABLE.

Table 39 and Table 40 show the pedestrian LOS at study intersections and segments respectively under Cumulative Pre-Project and Cumulative Plus Project conditions. As shown in Table 39 and Table 40, all intersections and segments, with the exception of the intersection of the project driveway at Nipomo Street, would operate at an acceptable pedestrians LOS (LOS C or better) under the Cumulative Plus Project condition during the PM peak hour. As shown in Table 39, the Project Driveway/Nipomo Street intersection would operate at LOS D during the weekday PM peak hour for the Cumulative Plus Project condition. This would be a potentially significant impact.

Table 39 Cumulative and Cumulative Plus Project Intersection LOS for Pedestrians (PM Peak Hour)

		Cumulative		Cumulative Plus Project	
Intersection	Direction	Approach Delay[1]	LOS	Approach Delay[1]	LOS
1. Palm Street/Nipomo Street	NB/SB	8.1	B	9.1	B
2. Palm Street/Project Driveway	All	N/A		8.5	B
3. Project Driveway/Nipomo Street	All	N/A		**24.7**	**D**
4. Monterey Street/Nipomo Street	NB/SB	12.2	C	19.5	C

[1] HCM 2010 Reports pedestrian LOS at two-way stop controlled intersection in delay (seconds)

Table 40 Cumulative and Cumulative Plus Project Roadway Segment LOS for Pedestrians (PM Peak Hour)

		Cumulative		Cumulative Plus Project	
Segment	Direction	LOS Score[1]	LOS[1]	LOS Score[1]	LOS
1. Palm Street – Nipomo to Broad	EB	1.18	A	1.19	A
	WB	1.60	A	1.60	A
2. Nipomo Street – Palm to Monterey	NB	1.72	A	1.88	A
	SB	1.74	A	1.77	A
3. Broad Street – Palm to Monterey	NB	1.34	A	1.34	A
	SB	1.16	A	1.16	A
4. Monterey Street – Nipomo to Broad	EB	1.04	A	1.05	A
	WB	1.30	A	1.31	A

[1] HCM 2010 pedestrian score and LOS

Mitigation Measures

Mitigation measures T-3(a) and T-3(c) require the installation of crosswalks at key locations along Nipomo Street. Implementation of mitigation measures T-3(a) and T-3(c) would be required to reduce impacts to pedestrian LOS under the Cumulative Plus Project condition.

Significance After Mitigation

Implementation of mitigation measures T-3(a) and T-3(c) would result in acceptable pedestrian LOS at the intersection of the project driveway and Nipomo Street under the Cumulative Plus Project condition. With these mitigation measures, the impact to pedestrian LOS would be less than significant.

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5 Issues Addressed in the Initial Study

This section summarizes the potential environmental effects of the project that were determined to be less than significant or significant but mitigable, as described in the Initial Study for the project (refer to Appendix A). The items listed below are contained in the City's environmental checklist form and the environmental checklist form included in Appendix G of the *CEQA Guidelines*. Any items not addressed in this section have been addressed in Section 4.0, *Environmental Impact Analysis*, of this EIR. Section 4.0 also includes an expanded discussion of the settings under each environmental issue area discussed therein.

The Initial Study determined that the project, with implementation of specified mitigation measures, would not result in adverse impacts related to Air Quality, Biological Resources, Geology and Soils, Hazards and Hazardous Materials, and Construction Traffic. Mitigation measures for the issue areas are discussed below and provided in the Executive Summary.

A summary of the analysis of issue areas for which no significant adverse impacts were identified is provided in this section. Please refer to the Initial Study (Appendix A) for the complete issue area analysis.

5.1 Impacts Less than Significant with Mitigation

5.1.1 Air Quality

Would the project:

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation?
- 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)?
- Expose sensitive receptors to substantial pollutant concentrations?

While the estimated construction emissions associated with the project and would be below the San Luis Obispo Air Pollution Control District (SLOAPCD) thresholds and would not introduce new hazardous air pollutants to the area, in accordance with the standards of the SLOPACD CEQA Handbook, standard mitigation measures are required because sensitive receptors (Mission College Preparatory Academy, existing residential units, and San Luis Obispo Children's Museum) are located within 1,000 feet of the project site and because the South Coast Air Basin is in non-attainment for PM_{10}. Accordingly, Mitigation Measures AQ-1 and AQ-2(a) through AQ-2(c) would be required to reduce fugitive dust, ozone precursors, and diesel particulate matter emissions from the project. Construction impacts were deemed be potentially significant unless mitigation was incorporated.

Mitigation Measures

The following mitigation measures are required to reduce project construction emissions to a less than significant level:

AQ -1 Fugitive Dust Control Measures

Construction projects shall implement the following dust control measures so as to reduce PM_{10} emissions in accordance with SLOAPCD requirements.

- Reduce the amount of the disturbed area where possible
- Water trucks or sprinkler systems shall be used during construction in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency shall be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water shall be used whenever possible
- All dirt stock pile areas shall be sprayed daily as needed
- Permanent dust control measures identified in the approved project revegetation and landscape plans shall be implemented as soon as possible following completion of any soil disturbing activities
- Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established
- All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the SLOAPCD
- All roadways, driveways, sidewalks, etc. to be paved shall be completed as soon as possible after grading unless seeding or soil binders are used
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or shall maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with California Vehicle Code Section 23114
- Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water shall be used where feasible
- All of these fugitive dust mitigation measures shall be shown on grading and building plans
- 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, reduce visible emissions below 20 percent opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SLOAPCD Compliance Division prior to the start of any grading, earthwork or demolition

AQ-2(a) Standard Control Measures for Construction Equipment

The following standard air quality mitigation measures shall be implemented during construction activities at the project site:

- Maintain all construction equipment in proper tune according to manufacturer's specifications
- Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for sue off-road)
- 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 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 do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g. captive or NO_X exempt area fleets) may be eligible by proving alternative compliance
- 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
- Diesel idling within 1,000 feet of sensitive receptors is not permitted
- Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors
- Electrify equipment when feasible
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible
- Use alternatively fueled construction equipment onsite where feasible, such as compressed natural gas, liquefied natural gas, propane or biodiesel

AQ-2(b) Best Available Control Technology for Construction Equipment.

The following best available control technology for diesel-fueled construction equipment shall be implemented during construction activities at the project site, where feasible:

- Further reducing emissions by expanding use of Tier 3 and Tier 4 off-road and 2010 on-road compliant engines where feasible
- Repowering equipment with the cleanest engines available
- Installing California Verified Diesel Emission Control Strategies, such as level 2 diesel particulate filters with strategies listed at: www.arb.ca.gov/diesel/verdev/vt/cvt.htm

AQ-2(c) Architectural Coating

To reduce ROG and NO_X levels during the architectural coating phase, low or no VOC-emission paint shall be used with levels of 50 g/L or less.

5.1.2 Biological Resources

Would the project:

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The project site is currently developed with a surface parking lot, one detached garage, and five residences, and is surrounded by urban land uses. The site does not provide suitable habitat for wildlife and the surrounding urban uses would act as barriers to wildlife movement. It is not located in any wildlife corridors or potential wildlife corridors identified within the City's General Plan

Conservation and Open Space Element (City of San Luis Obispo 2006). However, trees on the site may support nesting birds protected under the Migratory Bird Treaty Act. The removal of trees and general construction activity may affect protected nesting birds. Therefore, Mitigation Measure BIO-1 would be required for the project to protect nesting birds. Impacts to migratory bird species would be potentially significant unless mitigation incorporated.

Mitigation Measure

The following mitigation measure, and compliance with Migratory Bird Treaty Act and California Department of Fish and Wildlife requirements, would be required for the project to reduce impacts to nesting birds to a less than significant level.

BIO-1 Nesting Bird Protection

To avoid disturbance of nesting and special-status birds, activities related to the project, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (typically February through August in the project region). If construction must begin within the breeding season, then a pre-construction nesting bird survey shall be conducted no more than 3 days prior to initiation of ground disturbance and vegetation removal activities. The nesting bird pre-construction survey shall be conducted within the Project Boundary, including a 300-foot buffer (500-foot for raptors), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in the area. If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary. All construction personnel shall be notified as to the existence of the buffer zone and to avoid entering the buffer zone during the nesting season. No ground-disturbing activities shall occur within this buffer until the avian biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist.

5.1.3 Geology and Soils

Would the project:

- Be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?
- Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code, creating substantial risks to life or property?

Based on the Geotechnical Report (Appendix B to the Initial Study), soils on the project site are moderate to highly expansive and the existing fill located onsite would not be a suitable foundation for the parking structure. The report also determined that soils onsite have the potential for total and differential settlement. Therefore, Mitigation Measure GEO-1(a) would be required to reduce impacts associated with the project to a less than significant level.

Mitigation Measure

The following mitigation measure would reduce impacts associated with the project to a less than significant level.

GEO-1 Minimization of Expansive Soil Hazards

Once the final maximum loads of the project have been determined, a design-level geotechnical report shall be prepared that identifies the most appropriate geotechnical improvements to onsite soils, the foundation, and parking structure to minimize expansive soil hazards. Recommendations could include, but are not limited to the following:

- Use of imported non-expansive materials combined with pre-moistening of the soils to provide protection for slabs and flatwork
- A layer of non-expansive material 18 to 24 inches thick
- Post-tensioned slabs-on-grade
- Shoring methods, such as shotcrete-faced soil nail walls, tangent drilled caissons, whaler-braced retaining walls, and steel I-beam and lagging walls
- Overexcavation and recompaction
- Utilization of a deep foundation system, such as caissons, driven piles, or rammed aggregate piers

A certified soils engineer shall be retained for monitoring during construction of the project. The certified soils engineer shall also provide any necessary soil testing during construction, to ensure compliance with the design-level geotechnical report, and to provide site-specific guidance as subsurface materials are encountered.

5.1.4. Hazards and Hazardous Materials

Would the project:

- Be located on a site included on a list of hazardous material 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?

According to the Earth Systems Pacific assessment, archived documents at the City of San Luis Obispo Fire Department indicate that the previous use of the site as a welding/automobile repair shop contained several areas of oil-stained soil, a dry well, and a hydraulic lift. It is unknown whether or not soil sampling was conducted at the time of removal of these features and there is a potential that these or other undocumented buried features would be encountered during excavation. Furthermore, soil samples taken (in 2005) at three and four feet indicate the presence of total petroleum hydrocarbons in quantities that exceed City of San Luis Obispo Fire Department action levels. The presence of nickel and chromium were also detected, although the concentrations were below actionable levels. Because the project would require excavation and removal of existing fill based on the geotechnical analysis, construction activities could result in potential health impacts to workers exposed to onsite soils. Mitigation Measure HAZ-1 would be required to reduce impacts associated with the project to a less than significant level.

Mitigation Measure

The following mitigation measure would reduce impacts associated with the project to a less than significant level.

HAZ-1 Hazardous Materials Soil Sampling and Remediation.

Prior to issuance of grading permits, additional soil samples testing for total petroleum hydrocarbons shall be performed. A work plan shall be completed to address the sampling protocols to be followed, as well as the number of samples to be taken and the chemical analysis required. Upon City of San Luis Obispo approval, the work plan shall be implemented and the results of the soil sampling shall be forwarded to the City of San Luis Obispo. The City shall review the data to determine if any additional investigation or remedial activities are deemed necessary. No work shall resume in that area until the lead local regulatory agency has provided written authorization that the area does not warrant any additional action.

If concentrations of contaminants warrant remediation, contaminated materials shall be remediated either prior to or concurrent with construction. Remediation shall generally include a management plan which establishes design and implementation of remediation. Cleanup may include excavation, disposal, bio-remediation, or any other treatment of conditions subject to regulatory action. All necessary reports, regulations, and permits shall be followed to achieve cleanup of the site. The contaminated materials shall be remediated under the supervision of an environmental consultant licensed to oversee such remediation and under the direction of the lead oversight agency. The remediation program shall also be approved by the San Luis Obispo Fire Department. All proper waste handling and disposal procedures shall be followed. Upon completion of the remediation, the environmental consultant shall prepare a report summarizing the project, the remediation approach implemented, and the analytical results after completion of the remediation, including all waste disposal or treatment manifests.

5.1.5 Transportation

Would the project:

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

The construction period of the project would result in short-term construction traffic, construction parking, and modifications to existing pedestrian, bicycle, and transit circulation during the construction period. The traffic associated with the construction of the project could be a potentially significant impact. The preparation of a construction management plan, as described in Mitigation Measure T-1 would reduce construction impacts to less-than-significant levels. Impacts associated with the project and would be less than significant with mitigation incorporated.

Mitigation Measure

The following mitigation measure would reduce impacts associated with the construction traffic to a less than significant level.

T-1 Construction Management Plan

Prior to the issuance of each building permit, the construction contractor shall meet with the Public Works department to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project. The construction contractor will develop a construction management plan for review and approval by the Public Works department. The plan should include at least the following items and requirements:

- A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic and pedestrian hours, detour signs if required, lane closure procedures, sidewalk closure procedures, signs, cones for drivers, and designated construction access routes.
- Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur.
- Location of construction staging areas for materials, equipment, and vehicles (must be located on the project site).
- Identification of haul routes for movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety; and provision for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project applicant.
- Temporary construction fences to contain debris and material and to secure the site.
- Provisions for removal of trash generated by project construction activity.
- A process for responding to and tracking complaints pertaining to construction activity.
- Provisions for monitoring surface streets used for truck routes so that any damage and debris attributable to the trucks can be identified and corrected.
- It is anticipated that this Construction Traffic Management Plan would be developed in the context of a larger Construction Management Plan, which would address other issues such as hours of construction onsite, limitations on noise and dust emissions, and other applicable items.

5.2 Issues with Less than Significant Impact or No Impact

5.2.1 Aesthetics

Would the project:

- Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings in a state scenic highway?

The nearest highway is U.S. 101, designated as an Eligible State Scenic Highway by the California Department of Transportation. Due to the heights of the parking structure and theater, the project may be visible from U.S. 101, but this segment has not been designated as a state scenic highway and thus, the project would not damage scenic resources in a state scenic highway.

5.2.2 Agriculture

Would the project:

- Convert Prime Farmland, Unique Farmland, 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?
- Conflict with existing zoning for agricultural use, or a Williamson Act contract?
- 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))?

- Result in the loss of forest land or conversion of forest land to non-forest use?
- Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

The project site is currently developed with a surface parking lot and residential structures. The site does not contain any agricultural resources, land identified for potential agricultural production, lands designated as or zoned for agricultural use, lands under a Williamson Act contract, or timberland, and no impact would occur.

5.2.3 Air Quality

Would the project:

- Conflict with or obstruct implementation of the applicable air quality plan?

The project is not a subdivision or large residential project, and would not be considered a large commercial or industrial development according to the screening criteria set forth in the SLOAPCD CEQA Air Quality Handbook (2012). Therefore, the project does not have the potential to be inconsistent with the Clean Air Plan or Smart/Strategic Growth Principles.

- Create objectionable odors affecting a substantial number of people?

The SLOAPCD CEQA Handbook (2012) identifies typical land uses that have the potential to result in increases in odorous emissions. None of the project’s proposed uses, including a parking structure, commercial space, or theater are listed as uses that typically create objectionable odors. The project would not create objectionable odors affecting a substantial number of people and no impact related to objectionable odors affecting a substantial number of people would result.

5.2.4 Biological Resources

Would the project:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?
- 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 Wildlife or U.S. Fish and Wildlife Service?
- 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?
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site is currently developed with a surface parking lot, one detached garage, and five residences, and is surrounded by urban land uses. The site does not provide suitable habitat for wildlife or sensitive plant or animal species (City of San Luis Obispo 2006; California Natural Diversity Database 2016). The site does not contain any federally protected wetlands, riparian habitat, or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. In addition, the project site does not occur within an area covered by an adopted Habitat Conservation Plan, Natural

Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan (California Department of Fish and Game 2016). No impact would result.

Would the project:

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

A large oak tree, which has the potential to be recognized as a “significant tree” by the City Council Tree Committee, is located on the southeastern edge of the project site. However, the project design includes the preservation of the large oak tree, as well as existing trees on the southern corner where Nipomo Street and Monterey Street converge. New street trees would be provided in accordance with the City of San Luis Obispo’s street tree list (e.g., Brisbane Box, Carrotwood, Ficus, Queen Palms) along Palm, Nipomo, and Monterey Streets, ranging from 8 to 12 feet in height. After five years, the trees would be expected to achieve heights in the range of 16 to 30 feet tall. This impact would be less than significant.

5.2.5 Geology and Soils

Would the project:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on 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?
- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Although no faults have been mapped across the project site, seismic events caused by active and potentially active faults in the region could result in seismic ground shaking onsite. The City, along with all of Southern California and the Central Coast, is in Seismic Zone 4 and subject to seismic ground shaking from faults in the region. Compliance with existing building standards would ensure impacts associated with the project remain less than significant.

Would the project:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?
- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Based on the Geotechnical Report prepared for the project site, the potential for liquefaction onsite is very low to none, and the potential for landslides or slope instability onsite is very low (Earth Systems Pacific 2011; Appendix B to the Initial Study). According to the City’s General Plan Safety Element (2012), the project site is not located in an area that would be subject to high or moderate potential for landslides. Impacts related to liquefaction, landslides, and slope instability would be less than significant.

Would the project:

- Result in substantial soil erosion or the loss of topsoil?

The soils on the project site are classified as Los Osos-Diablo complex soils, with 5-9 percent slopes. This soil type is considered well drained and has a low to moderate susceptibility to erosion (Natural Resources Conservation Service 2012). Elevations onsite range from 190 and 206 feet above mean sea level, and slopes are generally toward the northwest. The project would require a National Pollution Discharge Elimination System (NPDES) General Permit for construction activities. Compliance with the NPDES permit would ensure that construction-related erosion impacts associated with the project would be less than significant. Given the gently sloping topography of the site, the drainage characteristics of onsite soils, and presence of impervious surfaces, the project would not result in substantial soil erosion or loss of topsoil. Impacts would be less than significant.

Would the project:

- 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?

The project would not require a septic system or any alternative wastewater disposal system, and no impact would occur.

5.2.6 Greenhouse Gas Emissions

Would the project:

- Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?

Project construction activities, energy use, daily operational activities, and mobile sources (vehicle trips associated with the new theater and commercial uses) would result in new GHG emissions. The parking structure itself does not generate new travel demand as a land use and therefore would have a negligible impact on mobile source emissions. The project is estimated to produce approximately 774 metric tons of CO_2e per year. The project's annualized GHG emissions would not exceed the SLOAPCD's GHG emissions threshold of 1,150 MT CO_2e. This impact would be less than significant.

Would the project:

- Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The project would not result in new significant impacts related to greenhouse gas emissions. As the applicable GHG thresholds have been developed by SLOAPCD, and the project would not exceed the adopted GHG thresholds, the project would not conflict with applicable policies to reduce GHG emissions. In addition, the project would not conflict with City of San Luis Obispo General Plan or Climate Action Plan policies adopted for the purpose of reducing GHG emissions. This impact would be less than significant.

5.2.7 Hazards and Hazardous Materials

Would the project:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

- 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?
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The project does not include uses that would require the routine transport, use, disposal, handling, or emission of any hazardous materials that would create a significant hazard to the public or to the environment, including nearby sensitive receptors. Compliance with existing regulations would ensure impacts related to hazardous materials exposure associated with the project would be less than significant.

Would the project:

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
- For a project near a private airstrip, would it result in a safety hazard for people residing or working in the project area?

The project site is not located within an airport land use plan area or in two miles of a public use airport or airstrip. There are no private airstrips near the project site that would result in a safety hazard for people residing or working in the project area. No impact would result.

Would the project:

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Construction of the project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. The project would be required to comply with San Luis Obispo Fire Department specifications and Chapter 5 of the California Fire Code and this impact would be less than significant.

Would the project:

- 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?

The project site is surrounded by urban development and no wildlands are near the project site. According to the Safety Element of the City's General Plan, the project site is not located in an area considered at risk for wildland fires and no impact would occur.

5.2.8 Hydrology and Water Quality

Would the project:

- Violate any water quality standards or waste discharge requirements?
- Otherwise substantially degrade water quality?

The proposed project would disturb more than one acre of land area and would therefore be subject to a NPDES General Permit for Storm Water Discharges Associated with Construction Activities. Coverage under the General Permit must also be obtained prior to construction and the preferred project is subject to these requirements. Under the conditions of the permit, the City, as the project applicant, would be required to eliminate or reduce non-storm water discharges to waters of the nation, develop and implement a Storm Water Pollution Prevention Plan (SWPPP) for the project construction activities, and perform inspections of the storm water pollution prevention measures and control practices to ensure conformance with the site SWPPP. The state permit also specifies that construction activities must meet all applicable provisions of Sections 30 and 402 of the Clean Water Act. Conformance with Section 402 of the Clean Water Act would ensure that the project does not violate any water quality standards or waste discharge requirements.

In addition, the project would be required to comply with the City's and Regional Water Quality Control Board's Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region. To demonstrate compliance, a Stormwater Control Plan is required to be submitted for the project. Based on compliance with existing regulations, the project would not violate any water quality standards or waste discharge requirements, or substantially degrade surface or groundwater quality, and potential impacts would be less than significant.

Would the project:

- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering or the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

The City's water supply is primarily obtained through reservoirs, with only four percent of the total supply obtained by groundwater. The water demand associated with the proposed project would not be enough to substantially deplete groundwater supply, nor would it interfere with groundwater recharge. In addition, the project would not interfere with groundwater onsite, due to the depth of groundwater (Earth Systems Pacific 2011). This impact would be less than significant.

Would the project:

- Substantially alter the existing drainage pattern of the site or area, including by altering the course of a stream or river, in a manner that would result in substantial erosion or siltation on or offsite?
- Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite?
- Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

The majority of the project site is currently covered with impervious surfaces, due to the existing surface parking lot and residential structures. The project would not result in an increase in impervious surfaces, and thereby create substantial new sources of stormwater runoff. However, the project includes a catch basin with filter on the upper deck catch of the parking structure and drainage improvements that would maintain or reduce existing surface runoff rates from the site and existing stormwater infrastructure would be utilized. Impacts would be less than significant.

Would the project:

- Place housing in a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map?
- Place in a 100-year flood hazard area structures that would impede or redirect flood flows?

The FEMA flood hazard maps shows that a small portion of the project site is located in the mapped AE zone (1 percent annual chance flood hazard) and an additional portion of the site being located in the shallow (x shaded) flood zone. However, based on additional research of the flood profiles for San Luis and Stenner Creek at the project site, as well as the site topography and project design grades, the project would be located outside the flood zones. Therefore, the project would not place structures of any type in a 100-year flood hazard area. No impact would occur.

Would the project:

- Expose people or structures to a significant risk of loss, injury, or death involving flooding including that occurs as a result of the failure of a levee or dam?
- Result in inundation by seiche, tsunami, or mudflow?

The project site is not located in a dam inundation area or Tsunami Inundation Zone, as designated by San Luis Obispo County. The potential for a tsunami, seiche, or mudflow to affect the site is nil (Earth Systems Pacific 2011). No impact would result.

5.2.9 Land Use and Planning

Would the project:

- Physically divide an established community?

The project would be located on a developed 1.38-acre property within an urban setting and would not divide an established community. No impact would result.

Would the project:

- 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?

Upon approval of the General Plan amendment, Zone Change, and Use Permit the project would be consistent with the land use and zoning designations. The project would also require Architectural Review. The project would be consistent with both Land Use and Circulation Element Policies. Circulation Element Policy 13.2.4 requires completion of a comprehensive parking study prior to development of parking structure projects. Such a study was completed for the proposed structure by an Ad Hoc Parking Review Committee in March 2009; the study determined that a downtown structure will be required to meet the City’s downtown parking needs within the next 5 to 10 years. As such, the project would not conflict with applicable land use plans, policies or regulations. This impact would be less than significant.

Would the project:

- Conflict with an applicable habitat conservation plan or natural community conservation plan?

No habitat conservation or natural community conservation plans apply to the project site and no impact would result.

5.2.10 Mineral Resources

Would the project:

- 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?
- 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?

The project would not result in the loss of a known mineral resource. The extraction of mineral resources is not permitted in the City limits. The project would have no impact on mineral resources.

5.2.11 Noise

Would the project:

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

The project site is not located within the San Luis Obispo County Regional Airport Land Use Plan or near a private airstrip, and no impact would result.

5.2.12 Population and Housing

Would the project:

- 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)?

The project does not involve the development of residential or major commercial uses that would directly induce substantial population growth. Furthermore, the project does not include the extension of roads or other infrastructure, such that it would indirectly induce population growth. This impact would be less than significant.

Would the project:

- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The project would require the demolition of five residences and therefore displace approximately 11 persons. While five units and approximately 11 individuals would be displaced, this does not represent a substantial number of people resulting in the need for replacement housing elsewhere. In addition, there are other planned and pending housing projects within the City that would compensate for the loss of housing on the project site. Impacts related to the displacement of housing or people associated with the project would be less than significant.

5.2.13 Public Services

Would the project:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 fire protection?
- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 police protection?
- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 schools, Parks (a.4) or other public facilities (a.5)?

The project would not substantially alter the number of housing units or population in the city or result in the need for new fire or police protection facilities to serve the site. The project does not include residential uses and would not increase the population of San Luis Obispo such that it would necessitate the construction of new schools, parks, or other public facilities. There would be no physical impacts from the project related to the construction of new fire or police protection facilities, schools, parks, or other public facilities and impacts would be less than significant.

5.2.14 Recreation

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?
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The project would not result in substantial new population growth that would result in physical deterioration of existing recreational facilities or require the construction of new recreational facilities; related impacts would be less than significant.

5.2.15 Transportation

Would the project:

- 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?

The project site is not located in the San Luis Obispo County Regional Airport Plan Area and would not result in an increase of air traffic levels or a change to air traffic patterns. No impact would result.

Would the project:

- Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

Vehicle access into and out of the parking structure would be provided via driveways on Palm Street and Nipomo Street, with one lane for ingress and one lane for egress at each driveway. This configuration is adequate for a structure of this size. All estimated approaches and departures are estimated to have a maximum queue of less than 50 feet with the addition of the project. None of the 95th percentile queues are long enough to block adjacent intersections. Furthermore, the parking structure exits are designed to ensure that exiting vehicles have adequate sight distance. Bicycle access to the site would be provided by a 10-foot wide entrance to accommodate both pedestrians and cyclists. This width is adequate to allow cyclists a clear path of travel into the bicycle parking area. Impacts would be less than significant.

Would the project:

- Result in inadequate emergency access?

Access to the project site would be from Palm Street, with secondary access along Nipomo Street. Proposed access points would be sized to accommodate emergency vehicles per City of San Luis Obispo Fire Department standards and would therefore provide adequate emergency access.

5.2.16 Utilities and Service Systems

Would the project:

- 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?
- 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?

The project would result in an incremental increase in demand on City infrastructure, including water, wastewater, and storm water facilities. The project would be served by City sewer and water service, which both have adequate capacity to serve the use (City of San Luis Obispo 2014). Therefore the project would not 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.

Would the project:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The majority of the project site is currently covered with impervious surfaces, due to the existing surface parking lot and residential structures. The project would not result in an increase in impervious surfaces, and thereby create substantial new sources of stormwater runoff. However, the project includes a catch basin with filter on the upper deck catch of the parking structure and drainage improvements that would maintain or reduce existing surface runoff rates from the site and existing stormwater infrastructure would be utilized. Impacts would be less than significant.

Would the project:

- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Based on the incremental increase in water demand, and adequate capacity, impacts would be less than significant.

Would the project:

- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
- Comply with federal, state, and local statutes and regulations related to solid waste?

Solid waste would be generated during construction and demolition of the existing parking lot and residential structures. Construction waste would be temporary in nature, and in accordance with AB 341, would be required to divert 50 percent of construction waste from landfills, which would minimize potential impacts to the Cold Canyon Landfill. The amount of waste generated from operation of the project would be minimal. San Luis Garbage Company and Cold Canyon Landfill have adequate capacity to serve the project. Impacts would be less than significant.

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6 Other CEQA Required Discussions

This section discusses other issues for which CEQA requires analysis in addition to the specific issue areas discussed in Section 4.0, *Environmental Impact Analysis*. These additional issues include (1) the potential to induce growth; (2) significant unavoidable effects of the project; (3) significant and irreversible impacts on the environment-including energy usage/efficiency.

6.1 Growth Inducing Effects

Section 15126.2(d) of the *State CEQA Guidelines* requires that EIRs discuss the potential for projects to induce population or economic growth, either directly or indirectly. CEQA also requires a discussion of ways in which a project may remove obstacles to growth. Generally speaking, a project may be considered growth inducing if it results in one or more of the five conditions identified below:

A. Induces population growth
B. Induces economic expansion
C. Establishes a precedent setting action (e.g., an innovation, a radical change in zoning or general plan designation)
D. Results in development or encroachment in an isolated or adjacent area of open space (i.e., being distinct from “infill” development)
E. Removes an impediment to growth (e.g., the establishment of an essential public service or the provision of new access to an area)

Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. The proposed project’s growth-inducing potential is therefore considered significant if it could result in unavoidable significant effects in one or more environmental issue areas.

6.1.1 Population Growth

As discussed in Section 2.0, *Project Description*, the proposed project consists of the removal of an existing 77-space surface parking lot and five residential structures. The project would construct an above-ground five-level parking structure, a non-profit theater, and commercial space. The existing onsite residences house approximately 11 individuals who would be displaced as part of the project. Although displaced, it is not anticipated that these residents would be leaving the City of San Luis Obispo. No housing or habitable structures proposed as part of the project, therefore the project would not impact population growth. There would be no significant impact to population or housing.

6.1.2 Economic Growth

The proposed project includes development of a parking structure, non-profit theatre, and 5,000 square feet of commercial space. The proposed project would incrementally contribute to economic growth by providing a small amount of commercial space for business within the city. However, this would be a small amount and the project does not include residential uses such that it would not result in an increase in population that could increase demand for goods and services. In addition, the project would provide parking that would support downtown businesses, but not enough to create physical impacts. This impact would be less than significant.

6.1.3 Precedent Setting Action

The proposed project would change the character of the site from residential housing and at grade parking lot, to a five story parking structure, commercial space, and a theatre. The project, as proposed, would require a General Plan Amendment to amend the General Plan Land Use Map from Office and Medium-High Density Residential to Public. The project would require a zone change and amend Zoning Map from Office with Historic Overlay (O-H) and Medium-High Density Residential to Public Facility with a Historic Overlay (PF-H). In addition the project would require a Planning Commission Use Permit to allow to allow the multi-level parking structure and non-profit theater, and to request variances for the floor to area ratio to exceed 1.0, exceed the height limits for the elevator parapet wall, and to exceed the 60 percent maximum lot coverage. Lastly the project would require Architectural Review. The project is consistent the Access and Parking Management Plan and Downtown Concept Plan for the City, which both call for a parking structure in on the proposed project site and would serve existing and reasonably foreseeable land uses. The project would be at the discretion of the City Council who may consider it on its own merits in terms of how the new proposal fulfills the City General Plan goals and objectives. The project would not represent a precedent-setting action, and with the required approvals, impacts would be less than significant.

6.1.4 Development of Isolated or Adjacent Area of Open Space

Development of open space is considered growth-inducing when it occurs outside urban boundaries or in isolated locations instead of infill areas. The project site is located in a developed urban area and would be considered urban infill development. Therefore, the project would not directly or indirectly result in the development of an isolated or adjacent area of open space area. No impact would result.

6.1.5 Removal of an Impediment to Growth

The project would not result in the removal of an impediment for growth, as adequate access and services are already available for the project site and surrounding areas, which are all within the City of San Luis Obispo. No additional utility infrastructure or facilities beyond those necessary to accommodate the proposed project would be required or are proposed. The project site is contiguous to urban land uses designated for urban development, and the site is entirely surrounded by land within the limits of the City. The proposed project would not result in the removal of an impediment to growth.

6.2 Energy Use and Conservation

Public Resources Code Section 21100(b)(2) and Appendix F of the State *CEQA Guidelines* requires an EIR to discuss the potential for a project to result in impacts related to energy consumption and/or conservation. A project may have the potential to cause such impacts if it would result in inefficient, wasteful, or unnecessary consumption of energy, including electricity, natural gas, or transportation fuel supplies and/or resources.

The project's anticipated energy demand (including fuel consumption), energy conserving features, and required mitigation measures that have an effect on energy conservation are evaluated in this section to determine whether the project would result in unnecessary or wasteful energy consumption. The discussion of the project's anticipated energy demand includes natural gas, electricity, and fuel consumption during construction and operation of the project.

6.2.1 Existing Conditions

a. State and Regional Energy Consumption

State

California is one of the lowest per capita energy users in the United States, ranked 49th in the nation, due to its energy efficiency programs and mild climate (U.S. Energy Information Administration [EIA] 2014). California used 295,405 gigawatt-hours (GWh) of electricity in 2015 (California Energy Commission [CEC] 2017) and 2,309,759 million cubic feet of natural gas in 2014 of which 401,172 million cubic feet were consumed by residential users (EIA 2015). In addition, Californians presently consume nearly 18 billion gallons of motor vehicle fuels per year (CEC 2014). The single largest end-use sector for energy consumption in California is transportation (38.7 percent), followed by industry (24.4 percent), commercial (18.6 percent), and residential (18.3 percent) (EIA 2014).

The majority of California's electricity is generated in-state with approximately 44 percent imported from the Northwest and Southwest in 2015 (CEC 2015). In addition, approximately 26 percent of California's electricity supply comes from renewable energy sources, such as wind (24,100 GWh), solar photovoltaic (PV) (15,100 GWh), geothermal (12,900 GWh), and biomass (8,600 GWh) (CEC 2016a). Senate Bill (SB) 350, adopted in October 2015, requires that renewables supply 50 percent of retail electricity by 2030. Self-generation using rooftop solar PV and increased appliance energy efficiency has resulted in a decline in state energy total system power in 2015, a trend that is expected to continue (CEC 2016a).

California's existing natural gas supply portfolio is regionally diverse and includes supplies from California sources (onshore and offshore), Southwestern U.S. supply sources (the Permian, Anadarko, and San Juan basins), the Rocky Mountains, and Canada (California Gas and Electric Utilities 2016). California natural gas demand, including volumes not served by utility systems, is expected to decrease at a rate of 1.4 percent per year from 2016 to 2035. Residential gas demand is expected to decrease at an annual average rate of 0.5 percent due to aggressive energy efficiency programs (California Gas and Electric Utilities 2016).

To reduce statewide vehicle emissions, California requires that all motorists use California Reformulated Gasoline, which is sourced almost exclusively from in-state refineries. Gasoline is the most used transportation fuel in California with 15.1 billions of gallons sold in 2015 and is used by light-duty cars, pickup trucks, and sport utility vehicles (CEC 2016b). Diesel is the second most used fuel in California with 4.2 billion gallons sold in 2015 and is used primarily by heavy duty-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and construction and heavy duty military vehicles (CEC 2016c). Both gasoline and diesel are primarily petroleum-based and their consumption releases greenhouse gases, including CO_2 and NO_X. The transportation sector is the single largest source of greenhouse gas (GHG) emissions in California, accounting for 37 percent of all inventoried emissions in 2013 (ARB 2015).

The California Energy Code provides energy conservation standards for all new and renovated commercial and residential buildings constructed in California. The Code applies to the building envelope, space-conditioning systems, and water-heating and lighting systems of buildings and appliances. It provides guidance on construction techniques to maximize energy conservation and minimum efficiency standards for a variety of building elements, including appliances, heating and cooling equipment, and insulation for doors, pipes, walls, and ceilings. CALGreen sets targets for: energy efficiency, water consumption, dual plumbing systems for potable and recyclable water, diversion of construction waste from landfills, and use of environmentally sensitive materials in construction and design.

Regional

Electricity service for the project would be provided by Pacific Gas & Electric (PG&E), which provides natural gas and electric service to approximately 16 million people throughout a 70,000-square mile service area in northern and central California (PG&E 2017). electricity to about 14 million people in Southern California. In 2015, SCE provided 27,581 millions of kWh (GWh) to its residential users (CEC 2016d). SCE’s power mix consists of approximately 25 percent renewable energy sources (wind, geothermal, solar, small hydroelectric, and biomass) (SCE 2015). Gas service would be provided by the Southern California Gas Company (SoCalGas), which serves 21.6 million consumers throughout Southern California. In 2015, SoCalGas provided 2,038 million therms to its residential users (CEC 2016e).

According to the San Luis Obispo Council of Governments (SLOCOG) and the California Department of Transportation (Caltrans), there were a total of approximately 530,000 vehicle miles traveled (VMT) in the City of San Luis Obispo, and approximately 7,862,000 VMT in the County in 2013 (Caltrans 2015). These annual VMT contribute to the consumption of gasoline and diesel fuel in the region. San Luis Obispo County also provides a variety of public transit services, including bus and paratransit service and vanpools.

b. Regulatory Setting

State

California Energy Commission

The California Energy Commission (CEC) was created in 1974 to serve as the state's primary energy policy and planning agency. The CEC is tasked with reducing energy costs and environmental impacts of energy use - such as greenhouse gas emissions - while ensuring a safe, resilient, and reliable supply of energy.

State of California Integrated Energy Policy (SB 1389)

In 2002, the Legislature passed Senate Bill 1389, which required the CEC to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels, for the California Energy Policy Report. The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for Zero Emission Vehicles and their infrastructure needs, and encouragement of urban designs that reduce vehicles miles traveled and accommodate pedestrian and bicycle access.

California Global Warming Solutions Act of 2006 (Assembly Bill 32)

Assembly Bill 32 (Health and Safety Code Sections 38500–38599; AB 32), also known as the California Global Warming Solutions Act of 2006, commits the state to achieving year 2000 GHG emission levels by 2010 and year 1990 levels by 2020. To achieve these goals, AB 32 tasked the California Public Utilities Commission and CEC with providing information, analysis, and recommendations to the California Air Resources Board regarding ways to reduce GHG emissions in the electricity and natural gas utility sectors.

California Energy Code (Title 24, Part 6, Building Energy Efficiency Standards)

California Code of Regulations Title 24, Part 6 comprises the California Energy Code, which was adopted to ensure that building construction, system design, and installation achieve energy efficiency.

California Green Building Standards Code (Title 24, Part II, CALGreen)

The California Building Standards Commission adopted the California Green Buildings Standards Code (CALGreen in Part 11 of the Title 24 Building Standards Code) for all new construction statewide on July 17, 2008. Originally a volunteer measure, the code became mandatory in 2010 and the most recent update (2016) went into effect on January 1, 2017. CALGreen sets targets for energy efficiency, water consumption, dual plumbing systems for potable and recyclable water, diversion of construction waste from landfills, and use of environmentally sensitive materials in construction and design, including eco-friendly flooring, carpeting, paint, coatings, thermal insulation, and acoustical wall and ceiling panels. The 2016 CALGreen Code includes mandatory measures for non-residential development related to site development; water use; weather resistance and moisture management; construction waste reduction, disposal, and recycling; building maintenance and operation; pollutant control; indoor air quality; environmental comfort; and outdoor air quality.

Clean Energy and Pollution Reduction Act (SB 350)

The Clean Energy and Pollution Reduction Act (SB 350) was passed by California Governor Brown on October 7, 2015, and establishes new clean energy, clean air, and greenhouse gas reduction goals for the year 2030 and beyond. SB 350 establishes a greenhouse gas reduction target of 40 percent below 1990 levels for the State of California, further enhancing the ability for the state to meet the goal of reducing greenhouse gas emissions by 80 percent below 1990 levels by the year 2050.

Renewable Portfolio Standard

Established in 2002 under SB 1078, the state’s Renewables Portfolio Standard (RPS) was amended under SB 107 to require accelerated energy reduction goals by requiring that by the year 2010, 20 percent of electricity sales in the state be served by renewable energy resources. In years following its adoption, Executive Order S-14-08 was signed, requiring electricity retail sellers to provide 33 percent of their service loads with renewable energy by the year 2020. In 2011, SB X1-2 was signed, aligning the RPS target with the 33 percent requirement by the year 2020. This new RPS applied to all state electricity retailers, including publically owned utilities, investor-owned utilities, electrical service providers, and community choice aggregators. All entities included under the RPS were required to adopted the RPS 20 percent by year 2020 reduction goal by the end of 2013, adopt a reduction goal of 25 percent by the end of 2016, and meet the 33 percent reduction goal by the end of 2020. In addition, the Air Resources Board, under Executive Order S-21-09, was required to adopt regulations consistent with these 33 percent renewable energy targets.

Local

City of San Luis Obispo General Plan

The City's General Plan contains policies which encourage energy efficiency and sustainable practices to reduce the use of energy resources. The following goals and policies are contained in the various elements of the City's General Plan are applicable to the project.

LAND USE ELEMENT

- **Policy 9.7 Sustainable Design**. The City shall promote, and where appropriate, require sustainable building practices that consume less energy, water and other resources, facilitate natural ventilation, use daylight effectively, and are healthy, safe, comfortable, and durable. Projects shall include, unless deemed infeasible by the City, the following sustainable design features.
  A. Energy Efficient Structure. Utilize building standards and materials that achieve or surpass best practices for energy efficiency.
  B. Energy-Efficient Appliances. Utilize appliances, including air conditioning and heating systems that achieve high energy efficiency. Incorporation of alternative energy systems (e.g. passive and/or active solar, heat pumps) is encouraged.
  C. Naturalized Ventilation. Optimized potential for cooling through natural ventilation.
  D. Plumbing. Utilize plumbing fixtures that conserve or reuse water such as low flow faucets or grey water systems and implement a builder incentive program that will encourage new homes to be built with onsite water/heat recycling systems to help achieve the goal of net zero water and energy use.
  E. Efficient Landscaping. Include landscaping that reduces water use through use of drought-tolerant/native plant species, high-efficiency irrigation (drip irrigation), and reduction or elimination of the use of turf. Collection and use of site runoff and rainwater harvesting in landscape irrigation is encouraged.
  F. Solar Orientation. Optimize solar orientation of structures to the extent possible.
  G. Privacy and Solar Access. New buildings outside of the downtown will respect the privacy and solar access of neighboring buildings and outdoor areas, particularly where multistory buildings or additions may overlook backyards of adjacent dwellings.
  H. Solar Ready. The City shall encourage new development to be build "solar ready" so that owners may easily install solar infrastructure, as appropriate.
  I. Solar Canopies. The City shall encourage the inclusion of solar canopies that include solar panels (such as structures over parking lots) on new construction, as appropriate.

CONSERVATION AND OPEN SPACE ELEMENT

- **Policy 4.3.6 Energy Efficiency and Green Building in new developments.** The City shall encourage energy-efficient “green buildings” as certified by the U.S. Green Buildings Council’s LEED (Leadership in Energy and Environmental Design) Program or equivalent certification, as further described in Chapter 5.5.7.

6.2.2 Analysis of Project Impacts and Determination of Significance

The project would involve the use of energy during construction and operation. Energy use during the construction phase would be in the form of fuel consumption (e.g., gasoline and diesel fuel) to operate heavy equipment, light-duty vehicles, machinery, and generators for lighting. In addition, temporary grid power may be provided to any temporary construction trailers or electric construction equipment. Long-term operation of the proposed project would require permanent grid connections for electricity and natural gas service to power internal and exterior building lighting, and heating and cooling systems. In addition, the increase in vehicle trips associated with the project would increase fuel consumption within the city.

Electricity and Natural Gas

Table 41 shows the project’s estimated electricity and natural gas demand compared to statewide demand. Electricity and natural gas consumption were estimated using CalEEMod, as described in the Initial Study Air Quality and Greenhouse Gas Emissions sections (Appendix A). Based on the modeling, the project would utilize approximately 292 megawatt hours per year of electricity and approximately 0.0069 billion cubic feet of natural gas per year during operation. As shown in Table 41, the project’s electricity consumption would represent approximately 0.0001 percent of statewide annual demand, and project natural gas consumption would represent approximately 0.0003 percent of statewide annual demand.

Gasoline and Diesel Fuel

A large portion of the project’s energy use would result from fuel consumption associated with project-related vehicle trips. Table 42 shows the project’s estimated annual operational fuel consumption due to vehicle travel. Fuel consumption was estimated using the default fleet vehicle mix and the total annual mitigated annual VMT from the CalEEMod trip generation estimates, and average fuel efficiencies for each vehicle category. Please note that the parking structure itself does not generate new travel demand as a land use and therefore was assumed to have a negligible impact on VMT. Based on these assumptions, the project would result in the consumption of approximately 35,097 gallons of vehicle fuel per year during operation, which represents approximately 0.00002 percent of annual statewide fuel consumption. In addition, construction activities would also result in short-term fuel consumption from worker trips and materials hauling trips.

Table 41 Project Energy Use Relative to Statewide Energy Use

Form of Energy	Units	Annual Project-Related Energy Use	Annual Statewide Energy Use	Project Percent of Statewide Energy Use
Electricity	Megawatt hours	292[1]	295,405,000[2]	0.0001%
Natural Gas	Billions of cubic feet	0.0069[1]	2,313[3]	0.0003%

[1] CalEEMod output (provided in Appendix A of Initial Study, which is located in Appendix A to this EIR)

[2] California Energy Commission 2017a

[3] California Energy Commission 2017b

Table 42 Project Operational Vehicle Fuel Consumption

Vehicle Type	Percent of Vehicle Trips[1]	Annual Vehicle Miles Traveled[2]	Average Fuel Efficiency (miles/gallon)[3]	Total Annual Fuel Consumption (gallons)
Passenger Cars	56%	348,015	23.3	14,936
Light/Medium Trucks	34%	211,295	17.1	12,356
Heavy Trucks/Other	9%	55,931	7.3	7,662
Motorcycles	1%	6,215	43.4	143
Total	100%	621,456	--	35,097
State Motor Vehicle Fuels				18,019,000,0004
Project Percent of Statewide Energy Use				0.00002%

[1] Percent of vehicle trips found in Table 4.4 "Fleet Mix" in CalEEMod outputs (see Appendix A of Initial Study, which is included as Appendix A to this EIR)

[2] Mitigated annual VMT found in Table 4.2 "Trip Summary Information" in CalEEMod outputs (see Appendix A). Annual VMT per vehicle type = Mitigated annual VMT * Percent of vehicle trips per vehicle type.

[3] Sources: US DOT, Bureau of Transportation Statistics. 2013. National Transportation Statistics 2013, Tables 4-12 and 4-13. Washington DC. Vehicle classes provided in CalEEMod do not correspond exactly to vehicle classes in USDOT fuel consumption data, except for motorcycles. Therefore, it was assumed that passenger cars correspond to the light-duty, short-base vehicle class, light/medium trucks correspond to the light-duty long-base vehicle class, and heavy trucks/ other correspond to the single unit, 2-axle 6-tire or more class.

[4] California Energy Commission 2014

Appendix F Requirements and Energy Conservation Standards

Appendix F of the CEQA Guidelines requires inclusion in an EIR of relevant information that addresses "potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy"(Public Resources Code Section 21100[b][3]). Although the CEQA Guidelines do not include formal thresholds for evaluating the significance of potential energy-related impacts, the following discussion addresses direct energy impacts of the project as framed in Appendix F of the CEQA Guidelines by evaluating whether the project would result in the wasteful or inefficient consumption of energy or the potential need for new energy-related infrastructure, the construction or operation of which would have significant impacts.

1. Would the project result in the wasteful and inefficient use of non-renewable resources during construction and operation of the project?

Project operation would result in the annual consumption of approximately 292 megawatt hours per year of electricity, 0.0069 billion cubic feet of natural gas per year, and 35,097 gallons of vehicle fuel each year. The project would be subject to energy conservation requirements in the California Energy Code (Title 24, Part 6, of the California Code of Regulations, California's Energy Efficiency Standards for Residential and Nonresidential Buildings) and CALGreen (Title 24, Part 11 of the California Code of Regulations), as embodied in enforceable conditions of approval. Adherence to Title 24 requirements would ensure that the project would not result in wasteful and inefficient use of non-renewable resources due to building operation.

The project would be required to comply with applicable Title 24 building standards and would incorporate required EIR mitigation that would reduce operational energy use. Therefore, the project would not result in wasteful and inefficient use of non-renewable resources during construction and operation.

2. Would the project result in the need for new systems or substantial alterations to electrical, natural gas, or communication systems infrastructure, the construction or operation of which would have significant impacts?

Construction of new energy infrastructure or substantial alteration of existing energy infrastructure to expand capacity can result in potentially significant environmental impacts. To determine whether this project would require substantial alteration to existing infrastructure or construction of new infrastructure, the project's operational energy demands were estimated and compared to Statewide demand.

Based on the comparisons of project electricity, natural gas, and fuel demand to statewide demand for these resources shown in Table 41 and Table 42, the project's energy demand would result in a nominal increase in statewide energy demand. Furthermore, California's use of non-renewable electricity and natural gas are expected to continue to decline as a proportion of overall energy demand due to stringent energy efficiency measures and a mandated increase in renewable energy use that would serve to offset any increase in non-renewable energy use resulting from the project. Therefore, the project would not result in the need for construction of new major facilities or substantial alteration of existing facilities to meet the project's energy demands.

Cumulative Impacts

The project, in combination with buildout under the General Plan, would contribute incrementally to adverse effects associated with energy resource demand and conservation. Future development would have the cumulative effect of increasing local and regional energy demands, resulting in potential considerable impacts to energy conservation.

However, like the project, discretionary actions requiring agency approval are required to comply with local, regional, state, and federal policies designed to reduce wasteful energy consumption, and improve overall energy conservation and sustainability. For instance, all local projects involving the development of new buildings must be designed to conform to CALGreen and the 2016 California Energy Code. Further, cumulative development would be operated and maintained by private utility companies, such as PG&E and SoCal Gas, which plan for anticipated growth. Electric and natural gas services are provided based on demand from consumers and expanded as needed to meet demand, consistent with applicable local, state, and federal regulations. Therefore, it is not anticipated that the project, in combination with other cumulative development would result in a significant cumulative effect, and the project's contribution would not be cumulatively considerable. Cumulative impacts would therefore be less than significant.

Conclusion

Energy consumption associated with construction and operation of the project would not be expected to be wasteful or inefficient, and the project is not expected to result in the need for construction of new major facilities or substantial alteration of existing facilities to meet the project's energy demands. Therefore, the project's impact on energy resources and conservation would be less than significant.

6.3 Significant Unavoidable Effects

State CEQA Guidelines §15126(b) requires that an EIR identify those significant impacts that cannot be reduced to a less than significant level with the application of mitigation measures. The implications and reasons why the project is being proposed, notwithstanding, must be described.

As discussed in Sections 4.1, *Aesthetics*, 4.2, *Cultural Resources,* and 4.3, *Noise*, implementation of the project would result in significant and unavoidable impacts to aesthetics (visual character and cumulative visual character), cultural resources (historic resources and cumulative historic resources) and noise (construction noise).

6.4 Significant Irreversible Environmental Effects

State CEQA Guidelines §15126.2(c) requires a discussion of any significant irreversible environmental changes which would be caused by the proposed project should it be implemented. Such significant irreversible environmental changes may include the following:

- Use of non-renewable resources (including energy resources) during the initial and continued phases of the project which would be irreversible because a large commitment of such resources makes removal or non-use unlikely
- Primary impacts and, particularly secondary impacts (such as highway improvement which provides access to a previously inaccessible area) which generally commit future generations to similar uses
- Irreversible damage which may result from environmental accidents associated with the project

The project site is currently developed with an existing City-owned parking lot, five residences, and a detached garage. The preferred project would replace the existing parking lot and buildings with a parking structure, commercial space, and theater. As such, construction of the project would require a small amount of building materials and energy, some of which are non-renewable resources. Section 6.2, *Energy Use and Conservation*, discusses ongoing energy requirements for the project.

The project does not include residential units, and would not therefore increase the population of San Luis Obispo. The development of the non-profit theatre commercial space accommodated under the proposed project would require an irreversible commitment of law enforcement, fire protection, water supply, wastewater treatment, and solid waste disposal services. These services were all dismissed as less than significant in the project's Initial Study. The proposed project would contribute to construction waste to local landfills although, as discussed in the Section 5.0, *Issues Addressed in the Initial Study* under Utilities, impacts related to construction waste and operational solid waste would be less than significant. In addition, the vehicle trips associated with the proposed project would incrementally contribute local traffic as discussed in Section 4.4, *Transportation,* but impacts were determined to be less than significant or less than significant with mitigation. No increases in environmental accidents are anticipated as a result of proposed project.

7 Alternatives

As required by CEQA Guidelines §15126.6, this EIR examines a range of reasonable alternatives to the proposed project that would attain most of the basic project objectives, but would avoid or substantially lessen the significant adverse impacts.

As discussed in Section 2.0, *Project Description*, the objectives for the proposed project include the following:

- Provide a minimum of 400 parking spaces
- Accommodate cultural and/or residential uses on Monterey Street in front of the structure
- Include a public use plaza area at the corner of Nipomo and Monterey Streets
- Provide a direct pedestrian connection from the structure to Monterey Street
- Preserve the large oak tree onsite
- Consider contextual sensitivity of surrounding properties (i.e., Hays-Lattimer adobe)

The following alternatives are evaluated in this EIR:

- Alternative 1: No Project/No Development
- Alternative 2: Project Plus Live/Work Units
- Alternative 3: Parking Structure, Commercial, plus Residential
- Alternative 4: Historic Resource Preservation

The alternatives analysis focuses on a comparison of impacts for the four issues areas of focus in this EIR (aesthetics, cultural resources, noise, and transportation), because the Initial Study determined that project impacts for other environmental issue areas would not be significant. A more detailed description of the alternatives is included in the impact analysis for each alternative.

7.1 Alternatives Considered but Eliminated from Further Discussion

The following alternatives were considered, but then eliminated from further discussion for the reasons given below.

Section 15126.6 of the State CEQA Guidelines states that: “An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible.

The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.”

Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

The California Supreme Court, in *Citizens of Goleta Valley v. Board of Supervisors* (1990), indicated that a discussion of alternative sites is needed if the project "may be feasibly accomplished in a successful manner considering the economic, environmental, social, and technological factors involved" at another site. The City of San Luis Obispo considered other City-owned surface parking lots as alternatives, but eliminated other sites from further discussion because none of the other sites were large enough to accommodate a parking structure that would provide a minimum of 400 spaces. In addition, the City also considered a reduced height parking structure with four levels instead of five; however, at four levels, the parking structure would only provide 326 parking spaces and would not be able to meet the most basic of project objectives, which includes providing a minimum of 400 parking spaces.

7.2 Alternative 1: No Project/No Development

7.2.1 Alternative Description

This alternative assumes the project is not approved, that none of the proposed entitlements are implemented, and that no further development would occur on the project site.

7.2.2 Impact Analysis

Under this alternative, the proposed project's significant and unavoidable impacts related to visual character, historic resources, and construction noise would not occur because development of the project would not move forward. The No Project/No Development Alternative would not result in potentially significant but mitigatable impacts to construction air pollutant emissions, archaeological or paleontological resources, aesthetics (light and glare), pedestrian access, hazardous materials exposure, expansive soils, or construction traffic and no mitigation measures would be required. However, this alternative would fail to meet the project objectives.

7.3 Alternative 2: Project Plus Live/Work Units

7.3.1 Alternative Description

This alternative assumes the build out of the proposed project (parking structure, theater, and commercial space), except the 5,000 square feet of commercial space would be reduced to 2,500 square feet of commercial space and four residential units would be included on the second level. This alternative discusses the impact of the four residential apartments on the second story of the commercial area as opposed to the 2,500 square feet of commercial space. As with the proposed project, vehicle access would continue to be provided from Palm Street and Nipomo streets via the parking structure. For the purpose of this analysis, it is assumed that this alternative would follow the same site plan/floor plan as the proposed project.

7.3.2 Impact Analysis

Aesthetics

Buildout under Alternative 2 would be similar to the proposed project, except the second story of the commercial building would be changed to four residential apartments. The visual character of the site would remain almost entirely unchanged compared to the proposed project as a similar configuration to the proposed project would result in similar impacts from surrounding public viewpoints. The size and scale of buildings would be the same as the proposed project; therefore the impact to visual character would remain significant and unavoidable.

Light and glare impacts would also be similar to the proposed project due to the similar use of the project site and size and density of development. The lighting from the residences would be similar to the commercial use. Impacts would remain potentially significant and require the mitigation measures discussed in Section 4.1, *Aesthetics.*

Cultural Resources

Implementation of Alternative 2 would result in identical impacts to cultural resources. Construction of this alternative would require ground-disturbing activity that has the potential to impact paleontological and archaeological resources, as well as tribal cultural resources. These impacts would remain significant but mitigable. Mitigation measures required in Section 4.2, *Cultural Resources*, would be required to reduce impacts to a less than significant level. Similar to the proposed project, Alternative 2 would require the demolition of the residences at 610 and 614 Monterey Street to construct the theater, which would result in significant and unavoidable impacts to the historical resources.

Noise

Noise and vibration impacts due to construction of this alternative would be identical to the proposed project because the project structures would be the same size and the duration of construction would not vary. Temporary noise levels from construction would similarly exceed local thresholds for nearby residences, and result in significant and unavoidable impacts. Mitigation measures discussed in Section 4.3, *Noise*, would be required to reduce noise to the extent feasible, but would not bring impacts to a less than significant level. Therefore, this impact would remain significant and unavoidable. Vibration impacts to nearby receptors and the historic Hays-Lattimer adobe building would remain less than significant.

Alternative 2 would generate operation noise similar to the proposed project due to the similar uses and similar operational components. The addition of residences on the site would locate sensitive receptors directly adjacent to the parking structure. Therefore this alternative would require additional mitigation to reduce interior noise levels below established thresholds. Impacts to new noise sensitive receptors would be potentially significant, but mitigable and therefore greater than the proposed project.

Transportation

Impacts resulting from construction traffic and operational traffic would be similar with this Alternative compared to the proposed project. The change from 2,500 square feet of commercial space to 2,500 square feet of residential space would have a negligible change on the vehicle trips and impacts discussed in Section 4.4, *Transportation.* This alternative would have a similar amount of average daily trips, which results in similar impacts to intersections and roadways segments in the area. Vehicles, pedestrians, and bicyclists would experience similar changes in levels of service as to the conditions discussed in Section 4.4, *Transportation*. Mitigation measures T-3(a) through T-3(d) would be required to reduce impacts to pedestrian LOS and access. Transportation-related impacts from Alternative 2 would be similar to the proposed project, and would be significant but mitigable.

Impacts Addressed in the Initial Study

Impacts under Alternative 2 would be similar to the proposed project, except for the addition of residences on the site. The addition of habitable residences would incrementally increase the population within the City, and generate incrementally increased demand on recreational facilities, and public services such as libraries, schools, and parks. The introduction of residences on the site would change and slightly increase the amount of water demanded, as well as the amount of wastewater generated onsite. This alternative would incrementally contribute to the city’s wastewater treatment plant, but the capacity of the wastewater collection system and Water Resource Recovery Facility would adequately serve the four residences. Implementation of Alternative 2 would not result in any new impacts requiring mitigation or increased severity compared to those addressed in the Initial Study.

7.4 Alternative 3: Parking Structure, Commercial and Residential

7.4.1 Alternative Description

This alternative would include the five-level parking structure and 5,000 square feet of commercial space, consistent with the proposed project; however this alternative would include 22 two-bedroom apartments in place of the theater and plaza along Monterey Street. This alternative would include removal of the existing surface parking lot and all existing residential structures. As with the proposed project, vehicle parking/site access would continue to be provided from Palm Street and Nipomo Street via the parking structure. For the purpose of this analysis, it is assumed that the site plan would adhere to the basic layout and footprint of development as is contemplated in the proposed project for the parking structure and commercial space, with the direct replacement/addition of apartments in place of the theater.

7.4.2 Impact Analysis

Aesthetics and Visual Resources

Buildout under Alternative 3 would be similar to the proposed project, except the theater portion of the project would be omitted and replaced with 22 two-bedroom residential units. The residential apartments would have similar massing, height and scale as the theater, and would contribute to similar impacts to visual character as the proposed project. The impact to visual character would remain significant and unavoidable, similar to the proposed project.

Light and glare impacts would be similar when compared to the proposed project due to the similar use of the project site and size and density of development. The lighting emanating from the residences would be similar to the theater use. Impacts would remain potentially significant and require the mitigation measures discussed in Section 4.1, *Aesthetics.*

Cultural Resources

Implementation of Alternative 3 would result in identical impacts to cultural resources as the proposed project. Construction of this alternative would include ground-disturbing activity that has the potential to impact paleontological and archaeological resources, as well as tribal cultural resources. These impacts would remain potentially significant but mitigable. Mitigation measures identified in Section 4.2, *Cultural Resources*, would be required to reduce impacts to a less than significant level. Similar to the proposed project, Alternative 3 would require the demolition of the residences at 610 and 614 Monterey Street to construct the 22 two-bedroom apartments, which would result in significant and unavoidable impacts to historical resources.

Noise

Noise impacts due to project construction would be similar under this Alternative due to the similar development and type of construction equipment required. Temporary noise levels from construction would exceed local thresholds for nearby residences, and result in significant and unavoidable impacts. Mitigation measures discussed in Section 4.3, *Noise*, would be required to reduce noise to the extent feasible, but would not bring impacts to a less than significant level. In addition, vibration impacts would be similar to the proposed project. Vibration impacts to nearby receptors and the historic Hays-Lattimer adobe building would remain less than significant.

The operational noise impacts associated with Alternative 3 would be similar to the proposed project. However, the addition of residences would be directly adjacent to the operational noise emanating from the structure. This would generate slightly increased impacts compared to the proposed project. The amount of vehicle trips and average daily trips that would change from operation of the theater to the 22 new residences would be minimal and would not cause operational noise levels to exceed City thresholds. Average daily trips from Alternative 3 would be similar to the proposed projects, and would not generate roadway noise levels that exceed thresholds. Operational noise impacts would remain less than significant.

Transportation

Impacts resulting from construction traffic and operational traffic would be similar with this Alternative compared to the proposed project. The introduction of 22 two bedroom residences instead of the theater would have similar impacts discussed in Section 4.4, *Transportation.* This Alternative would have a similar amount of average daily trips, which results in similar impacts to intersections and roadways segments in the area. Mitigation measures T-3(a) through T-3(d) would be required to reduce impacts to pedestrian LOS and access. Impacts associated with Alternative 3 would be similar to the proposed project, and would be significant but mitigable.

Impacts Addressed in the Initial Study

Impacts under Alternative 3 would be similar to the proposed project, except for the addition of residences on the site. The addition of habitable residences would incrementally increase the population within the City, and incrementally increase demand on recreational facilities, and public services such as libraries, schools, and parks. The introduction of residences on the site would change and slightly increase the amount of water demanded, as well as the amount of wastewater generated onsite. However, this would not result in the need to new or expanded facilities as the project could be adequately served by existing supplies and facilities. Implementation of Alternative 3 would not result in any impacts requiring mitigation or increased severity compared to those addressed in the Initial Study. Under this Alternative, all impacts discussed in the Initial Study would remain less than significant or have no impact.

7.5 Alternative 4: Historic Resource Preservation

7.5.1 Alternative Description

This alternative would involve the construction of the five-level parking structure and 5,000 square feet of commercial space, consistent with the proposed project; however, this alternative would not include construction of the theater or plaza fronting Monterey Street. This alternative assumes the historic residences along Monterey Street (610 and 614) would remain intact and at their existing location; however, much of the backyards at these properties would be developed with the parking and commercial uses. For the purpose of this analysis, it is assumed that the site plan would adhere to the basic layout of development as is contemplated in the proposed project for the parking structure and commercial space and omit the theater.

7.5.2 Impact Analysis

Aesthetics and Visual Resources

Buildout under Alternative 4 would be similar to the proposed project, except the theater portion of the project would be omitted. The parking structure would remain onsite, and provide views of Cerro San Luis from the rooftop seating area. The parking structure and commercial apartments would have similar massing, height and scale as the proposed project, and would contribute to similar visual impacts as the proposed project. Under Alternative 4, no development would occur where the 610 and 614 Monterey Street residences are located; however, the detached garage would still be demolished and much of the residence’s rear yards would be developed for the parking structure. The parking structure and commercial space would result in a five story structure directly behind these private residences, resulting in massing and scale that is incompatible with these one story homes. The height and scale of the parking structure relative to the historic structures would still result in a significant and unavoidable impact to visual character.

Light and glare impacts would be similar when compared to the proposed project due to the addition of the parking structure and commercial space. Similar to the proposed project, impacts associated with light and glare would remain potentially significant requiring the mitigation measures discussed in Section 4.1, *Aesthetics.* Similar to the proposed project, mitigation would reduce impacts associated with light and glare to a less than significant level.

Cultural Resources

Construction of this alternative would require ground-disturbing activity that has the potential to impact paleontological and archaeological resources, as well as tribal cultural resources. These impacts would remain significant but mitigable. Mitigation measures required in Section 4.2, *Cultural Resources*, would be required to reduce impacts to a less than significant level.

Alternative 4 would maintain the residences at 610 and 614 Monterey Street, which are considered historical resources for the purposes of CEQA and contribute to the City of San Luis Obispo's Downtown Historic District. Since these residences would remain, implementation of Alternative 4 would result in less than significant impacts to historical resources, and thereby eliminate the significant impact. Alternative 4 would result in lessened cultural resource impacts compared to the proposed project.

Noise

Noise impacts due to construction would be slightly increased under Alternative 4, as although similar development and type of construction equipment is required, the residences that would remain would be directly adjacent and contribute as sensitive receptors. Similar to the proposed project, temporary noise levels from construction would exceed local thresholds for nearby residences, and result in significant and unavoidable impacts. Mitigation measures discussed in Section 4.3, *Noise*, would be required to reduce noise to the extent feasible, but would not bring impacts to a less than significant level. As such, this significant and unavoidable impact would remain. In addition, vibration impacts would be similar to the proposed project as identical equipment would be required. Vibration impacts to nearby receptors and the historic adobe building would remain less than significant.

The operational noise impacts associated with Alternative 4 would be incrementally less than the proposed project due to the removal of the theater component. The removal of the theater would incrementally reduce the number of vehicle trips and average daily trips and the associated noise. Similar to the proposed project, operational noise would be less than significant and not require mitigation.

Transportation

Impacts resulting from operational traffic would be slightly less with this alternative compared to the proposed project, as trips generated by the theater would no longer occur. Although the project would reduce fewer trips, associated with the theater, it would still generate pedestrian trips going to and from the parking structure, and result in similar impacts to pedestrian LOS and access. The impact to pedestrian LOS and access would require mitigation measures T-3(a) through T-3(d). With mitigation, impacts would be reduced to a less than significant level, similar to the proposed project.

Impacts Addressed in the Initial Study

Impacts under Alternative 4 would be similar to the proposed project, except for the omission of theater on the site. The omission of the theater would change and incrementally decrease the amount of water demanded, as well as the amount of wastewater generated onsite. This impact would remain less than significant. Implementation of Alternative 4 would not result in any additional impacts requiring mitigation or increased severity compared to those addressed in the Initial Study.

7.6 Environmentally Superior Alternative

Section 15126.6(e)(2) of the *State CEQA Guidelines* requires that an analysis of project alternatives identify an environmentally superior alternative among the alternatives evaluated in the EIR. In general, the environmentally superior alternative as defined by CEQA should minimize adverse impacts to the project site and its surrounding environment.

This section evaluates the impact conclusions for the proposed Palm Nipomo Parking Structure Project and the four alternatives under consideration. It then identifies the environmentally superior alternative for each issue area. In accordance with the State CEQA Guidelines, if the No Project Alternative is identified as the Environmentally Superior Alternative, an alternative among the remaining scenarios that is environmentally superior must also be identified.

Table 43 summarizes the environmental advantages and disadvantages associated with the proposed project and the analyzed alternatives. CEQA Guidelines section 15126.6 states that if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative from among the other alternatives.

Table 43 Alternatives and Impact Comparisons

Issue	Alternative 1 No Project/ Existing Zoning	Alternative 2 Project Plus Live/Work Units	Alternative 3 Parking Structure, Commercial, and Residential	Alternative 4 Historic Resource Preservation
Aesthetics	+	=	=	+/=
Cultural Resources	+	=	=	+
Noise	+	-	-/=	+/=
Traffic	+	=	=	+
Issues Addressed in the Initial Study	+	=	-/=	=

+ Superior to the proposed project (reduced magnitude of impact)
- Inferior to the proposed project (increased magnitude of impact)
= Similar magnitude of impact to the proposed project
+/- Aspects both better and worse than the proposed project

Alternative 4: Historic Resource Preservation would be the environmentally superior alternative, as it would reduce impacts associated with cultural (historic) resources. Alternative 4 would meet most of the project objectives by providing a minimum of 400 parking spaces, providing a direct pedestrian connection from the structure to Monterey Street, preserving the large oak tree onsite, and considering the contextual sensitivity of surrounding properties (i.e., Hays-Lattimer adobe). However, it would not meet the objective of providing the cultural (theater) use. Alternative 4 would eliminate direct and indirect significant impacts to historical resources because the two contributing structures to the Downtown Historic District and the linkage between properties in the district they provide would remain in place. However, aesthetic (visual character) and construction noise impacts would remain significant and unavoidable.

Alternative 1: No Project/No Development could also be considered environmentally superior to the proposed project because the site would remain as is and it would not result in any significant environmental impacts; however, it would not meet the project objectives.

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8.2 List of Preparers

This EIR was prepared by the City of San Luis Obispo, with the assistance of Rincon Consultants, Inc. Consultant staff involved in the preparation of the EIR are listed below.

RINCON CONSULTANTS, INC.

Richard Daulton, Principal
Shauna Callery, Senior Environmental Planner
Chris Bersbach, Senior Environmental Planner
Nikolas Kilpelainen, Associate Environmental Planner
Amanda Ross, Associate Environmental Planner
Christopher Duran, Archaeologist and Principal Investigator
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Steven Treffers, Senior Architectural Historian
David Daitch, Senior Paleontologist
Alyssa Bell, Senior Paleontologist
Hannah Haas, Archaeologist
April Durham, Technical Editor

Appendix A

Notice of Preparation and Initial Study

Notice of Preparation

To: EIR & Notice of Preparation Mailing List

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report

Lead Agency:	**Consulting Firm: (if applicable)**
Agency Name: City of San Luis Obispo	EIR to be prepared by:
Department Name: Public Works	Firm Name: Rincon Consultants, Inc.
Street Address: 919 Palm Street	Street Address: 1530 Monterey Street, Suite D
City/State/Zip: San Luis Obispo, CA 93401	City/State/Zip: San Luis Obispo, CA 93401
Contact: Tim Bochum, 805-781-7203	Contact: Richard Daulton

The City of San Luis Obispo will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information, which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for this project.

The project description, location, and the potential environmental effects are summarized in the attachment. A copy of the Initial Study is not attached, but is available upon request from the Lead Agency (see above contact). Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but ***not later than 30 days*** after receipt of this notice.

Please send your response to the attention of Tim Bochum, Deputy Director, Transportation, in the City of San Luis Obispo Public Works Department at the address shown above. We will need the name of a contact person in your agency.

Project Title: Palm Nipomo Parking Structure Project

Project Location: The site is a 1.4-acre property, located south of Palm Street, east of Nipomo Street, and north of Monterey Street in the City of San Luis Obispo. The property includes Assessor's Parcel Numbers (APN) 002-412-001, 002-412-002, 002-412-003, 002-412-004, 002-412-011, and 002-412-012.

Project Description:
The project involves the construction of an above-ground, five-story parking structure, 5,000 square feet of commercial space, and a non-profit theater. The parking structure would provide 400 to 445 parking spaces. The theater would entail a three-story structure with a gross floor area of 23,841 square feet and up to 255 theater seats. The project would include a General Plan amendment from Office and Medium-High Density Residential to Public and a Zone Change from Office with a Historic Overlay (O-H) and Medium-High Density Residential (R-3) to Public Facility with a Historic Overlay (PF-H). The PF-H zone allows for development of a multi-level parking structure and non-profit theater, and deviations to otherwise applicable setback requirements and building height limits with Planning Commission approval. Commercial uses would be allowed as accessory uses of the parking and theater facilities. The project would also require a variance for the floor to area ratio to exceed 1.0 and maximum coverage to exceed 60 percent.

Date: May 1, 2017

Signature:

Title: Principal Planner

Reference: California Administrative Code, Title 14 (CEQA Guidelines)
Sections 15082(a), 15103, 15375 (Revised October 1989)

NOTICE OF PREPARATION ATTACHMENT
PALM NIPOMO PARKING STRUCTURE PROJECT

The City of San Luis Obispo, as Lead Agency under the California Environmental Quality Act (CEQA), is requesting comments on the environmental impact report (EIR) scope of work for the proposed project, described below and in the Notice of Preparation, and commonly referred to as the Palm Nipomo Parking Structure Project. The Initial Study is currently posted on the City's website through the following file path:

Initial Study: http://www.slocity.org/government/department-directory/community-development/documents-online/environmental-review-documents/-folder-1903

Project Location and Setting

The site is a 1.4-acre property, located south of Palm Street, east of Nipomo Street, and north of Monterey Street in the City of San Luis Obispo. The property includes Assessor's Parcel Numbers (APN) 002-412-001, 002-412-002, 002-412-003, 002-412-004, 002-412-011, and 002-412-012.

The site is currently occupied by a City-owned surface parking lot, one detached garage, and five residential units (three single-family residences and one secondary unit adjacent to Palm Street that has two apartments). The project site is located within the City's Downtown Historic District.

Project Description

The project involves the removal of an existing 77 space surface parking lot and five existing residential structures and construction of an above-ground, five-story parking structure, non-profit theater, and commercial space. The parking structure would provide 400 to 445 parking spaces. Main vehicular access to the structure would be provided from Palm Street, with secondary access on Nipomo Street. Vehicle access would not be provided from Monterey Street. The project would also include 5,000 square feet of commercial space fronting Nipomo Street. The San Luis Obispo Little Theatre would also be relocated to the site, fronting Monterey Street adjacent to the parking structure. The Little Theatre would entail a three-story structure with a gross floor area of 23,841 square feet and up to 255 theater seats. The project would include a General Plan amendment from Office and Medium-High Density Residential to Public and a Zone Change from Office with a Historic Overlay (O-H) and Medium-High Density Residential (R-3) to Public Facility with a Historic Overlay (PF-H). The PF-H zone allows for development of a multi-level parking structure and non-profit theater, and deviations to otherwise applicable setback requirements and building height limits with Planning Commission approval. Commercial uses would be allowed as accessory uses of the parking and theater facilities. The project would also require a variance for the floor to area ratio to exceed 1.0 and maximum coverage to exceed 60 percent.

Discretionary Permits

The following approvals would be required for the project:

1. General Plan Amendment
2. Zone Change
3. Planning Commission Use Permit
4. Maximum Coverage Variance
5. Floor to Area Ratio Variance
6. Architectural Review

Probable Environmental Effects/Issues Scoped for EIR

Issue areas that may be determined to be potentially significant include:

- Aesthetics
- Cultural Resources
- Noise
- Transportation and Traffic

Issues Determined Not to be Significant under CEQA Thresholds of Significance include:

- Air Quality (with prescribed mitigation)
- Agriculture and Forest Resources
- Biological Resources (with prescribed mitigation)
- Geology and Soils (with prescribed mitigation)
- Greenhouse Gas Emissions
- Hydrology/Water Quality
- Hazards and Hazardous Materials (with prescribed mitigation)
- Land Use/Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Utilities/Service Systems

Development of a Reasonable Range of Alternatives

Factors determining alternative project configurations include considerations of project objectives, site suitability, economic viability, availability of infrastructure, General Plan consistency, and a proponent's control over alternative sites. The EIR will discuss the rationale for selection of alternatives that are feasible and therefore, merit in-depth consideration, and which are infeasible (e.g., failed to meet Project objectives or did not avoid significant environmental effects) and therefore rejected. Project alternatives include the following:

- Alternative 1: Same as the preferred project described above, except the 5,000 square feet of commercial space would be reduced to 2,500 square feet of commercial space and four residential units would be included
- Alternative 2: Same as the preferred project described above, except the Little Theatre would be replaced with 22 two-bedroom residential units
- No Project Alternative

These alternatives are general in nature since further environmental issue area analyses would be necessary before more specific project alternatives can be identified. The need for project redesign or unit reduction would be determined during the course of environmental review.

Public Scoping Meeting

A public scoping meeting has been scheduled to allow for any interested persons to supply input on issues to be discussed in the EIR:

Date: Wednesday, May 10, 2017
Time: 6:00 p.m.
Place: 990 Palm Street (City Council Chambers)

The meeting is an opportunity for City and consultant staffs to gather information from the public regarding the potential environmental impacts of the project that need to be evaluated in the EIR. It is not intended to be a hearing on the merits of the project. Therefore, members of the public should keep their comments focused on potential significant changes to the environment that may occur as a direct result of project development.

From: kirk reis [mailto:k.reis1958@gmail.com]
Sent: Wednesday, May 17, 2017 11:00 PM
To: Davidson, Doug <ddavidson@slocity.org>
Subject: Nipomo Street Parking Structure

My wife and I own Reis Family Mortuary which is directly across from the proposed structure facing Nipomo Street.

Our property starts at Dana Street and runs past Palm towards Brizolara. Palm Street actually runs into the driveway of our Residence.

We were not able to attend the meeting on May 10th, and have a concern that may or may not have been addressed at the meeting.

About 10 years ago I wrote a letter to city's to bring attention to the need for a 3 way stop sign at the intersection of Nipomo and Palm Streets. Several weeks later I received a letter back stating that a study was done and after reviewing all of the information staff concluded there was no danger to the public, that a stop sign was not needed and I was welcome to call and discuss any further concerns, which I did.

During our conversation, I explained that it was my opinion, that the study seemed to ignore the fact that there are no slow school signs, no crosswalks crossing Nipomo Street on either side of palm, that there is a handicap/rehab home, an elementary school, a middle school , a high school, a children's museum and a school bus stop which are effected by constant wheel chair and pedestrian vehicle traffic, especially on Farmers Market night or during special events downtown and in the Mission Plaza .

I explained to him that the window where my desk sits faces the intersection of Palm and Nipomo, and about several times every hour, I witness someone pulling out from the stop sign or stepping off the curb at Palm Street and nearly getting hit by oncoming traffic. The cars pulling out from Palm Street and pedestrians stepping off the curb have a limited view of oncoming traffic, which causes them to have to creep out into the oncoming traffic on Nipomo Street to see.

During funerals at our mortuary we have to position personnel in the street to stop or slow traffic down to avoid collisions because the traffic is traveling at a speed that is dangerous to those exiting our parking lot either by car or on foot.

One can only imagine how much worse that will be when the traffic increases once the parking structure is completed

I hope that a stop sign at that intersection is seriously being considered before someone gets seriously hurt or killed.

Thank you,

Sincerely,

Kirk & Wendy Reis

STATE OF CALIFORNIA Edmund G. Brown Jr., Governor
NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710

June 1, 2017

Tim Bochum
City of San Luis Obispo
919 Palm Street
San Luis Obispo, CA 93401

RE: SCH# 2017051011; Palm Nipomo Parking Structure Project, City of San Luis Obispo; San Luis Obispo County, California

Dear Mr. Bochum:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for Draft Environmental Impact Report for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd. (a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a **separate category of cultural resources**, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment (Pub. Resources Code § 21084.2). Please reference California Natural Resources Agency (2016) "Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form," http://resources.ca.gov/ceqa/docs/ab52/Clean-final-AB-52-App-G-text-Submitted.pdf. Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends **lead agencies consult with all California Native American tribes** that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
    a. A brief description of the project.
    b. The lead agency contact information.
    c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).
    d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
    a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
    a. Alternatives to the project.
    b. Recommended mitigation measures.
    c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
    a. Type of environmental review necessary.
    b. Significance of the tribal cultural resources.
    c. Significance of the project's impacts on tribal cultural resources.
    d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
    a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
    b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
    - a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
    - b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
    - a. Avoidance and preservation of the resources in place, including, but not limited to:
        - i. Planning and construction to avoid the resources and protect the cultural and natural context.
        - ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
    - b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
        - i. Protecting the cultural character and integrity of the resource.
        - ii. Protecting the traditional use of the resource.
        - iii. Protecting the confidentiality of the resource.
    - c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
    - d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
    - e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
    - f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    - a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
    - b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    - c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

    This process should be documented in the Cultural Resources section of your environmental document.

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires **local governments** to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have been already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.

    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
    a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
    b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
    a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
    b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
    c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

cc: State Clearinghouse

Palm-Nipomo Parking Structure Project

Initial Study

prepared by
City of San Luis Obispo
Public Works Department
919 Palm Street
San Luis Obispo, California 93401

prepared with the assistance of
Rincon Consultants
1530 Monterey Street, Suite D
San Luis Obispo, California 93401

rincon
Rincon Consultants, Inc.
Environmental Scientists Planners Engineers
www.rinconconsultants.com

May 2017

Table of Contents

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Figures

Appendices *(included on CD affixed to back cover)*

Initial Study

1 Project Title

Palm Nipomo Parking Structure

2 Lead Agency Name and Address

City of San Luis Obispo
919 Palm Street
San Luis Obispo, CA 93401

3 Contact Person and Phone Number

Tim Bochum, Deputy Director, Transportation
(805) 781-7203

4 Project Location

The project site is a 1.4-acre property, located south of Palm Street, east of Nipomo Street, and north of Monterey Street. The property includes Assessor's Parcel Numbers (APN) 002-412-001, 002-412-002, 002-412-003, 002-412-004, 002-412-011, and 002-412-012. Figure 1 shows the regional location of the project, and Figure 2 shows the project site within the local context.

5 Project Sponsor's Name and Address

City of San Luis Obispo
Public Works Department
919 Palm Street
San Luis Obispo, CA 93401

6 Existing Setting

The project site is located south of Palm Street, east of Nipomo Street, and north of Monterey Street. The site is currently occupied by a City-owned surface parking lot, one detached garage, and five residential units (three single-family residences and one secondary unit adjacent to Palm Street that has two apartments). The project site is located within the City's Downtown Historic District.

7 General Plan Designation

Office: APNs 002-412-001, 002-412-002, 002-412-004, 002-412-011, and 002-412-012
Medium-High Density Residential: APN 002-412-003

Figure 1 Regional Location

Imagery provided by ESRI and its licensors © 2016.

Fig 1 Regional Location

Figure 2 Project LocatioN

Imagery provided by Google and its licensors © 2016.

8 Zoning

Office with Historic Overlay (O-H): APNs 002-412-001, 002-412-002, 002-412-004, 002-412-011, and 002-412-012

Medium-High Density Residential (R-3): APN 002-412-003

9 Description of Project

The project would involve the construction of an above-ground five-level parking structure, non-profit theater, and commercial space. The parking structure would provide 400 to 445 parking spaces. Main vehicular access to the structure would be provided from Palm Street, with secondary access on Nipomo Street. There would be one lane for ingress and one lane for egress at each driveway. Vehicle access would not be provided from Monterey Street; however, a direct pedestrian connection would be provided from the structure to Monterey Street. Pedestrian access would also be provided to public sidewalks from each corner of the structure. The project would also include 5,000 square feet of commercial space on two levels fronting Nipomo Street. The parking structure's maximum height, excluding elevator towers, would be approximately 50 feet.

In addition, the San Luis Obispo Little Theatre would be relocated to the site, fronting Monterey Street adjacent to the parking structure. The Little Theatre would entail a three-story structure with a gross floor area of 23,841 square feet. The basement level would house a rehearsal area, workshop, and storage. The main level would be comprised of a main theater with 155 seats and a smaller theater with 100 reconfigurable seats, for a total of 255 seats. The third floor would include offices and a conference room. The project would include an entry plaza fronting Monterey Street, and improved landscaping near the sidewalks along Palm Street, Nipomo Street, and Monterey Street. The maximum height of the theater structure would be 43 feet. Figure 3 shows the proposed site plan.

The project would involve the removal of the existing 77 space surface parking lot and demolition or relocation of the existing five residential structures and detached garage. The project would involve a General Plan amendment to amend the General Plan Land Use Map from Office and Medium-High Density Residential to Public and a Zone Change to amend the Zoning Map from Office with a Historic Overlay (O-H) and Medium-High Density Residential (R-3) to Public Facility with a Historic Overlay (PF-H). It would also require the approval of a Use Permit by the Planning Commission to allow the multi-level parking structure and non-profit theater, as well as deviation to otherwise applicable setback requirements and building height limits. Office, retail, and residential uses would be allowed as accessory uses of the parking and theater facilities. In addition, the project would require variances for the floor to area ratio to exceed 1.0 and maximum coverage to exceed 60 percent.

Project alternatives include the following:

- **Alternative 1:** Same as the preferred project described above, except the 5,000 square feet of commercial space would be reduced to 2,500 square feet of commercial space and four residential units would be included
- **Alternative 2:** Same as the preferred project described above, except the Little Theatre would be replaced with 22 two-bedroom residential units

10 Required Approvals

The following approvals would be required for the project:

- **Planning Commission Use Permit** approval required for multi-level parking structure, non-profit theater, commercial space, and deviations to otherwise applicable setback requirement
- **General Plan Amendment** to Public Facility
- **Zone Change** to PF-H
- **Maximum Coverage Variance** to exceed 60 percent
- **Floor to Area Ratio Variance** to exceed 1.0
- **Architectural Review** by the Cultural Heritage Committee and the Architectural Review Commission of the proposed structures and site plan

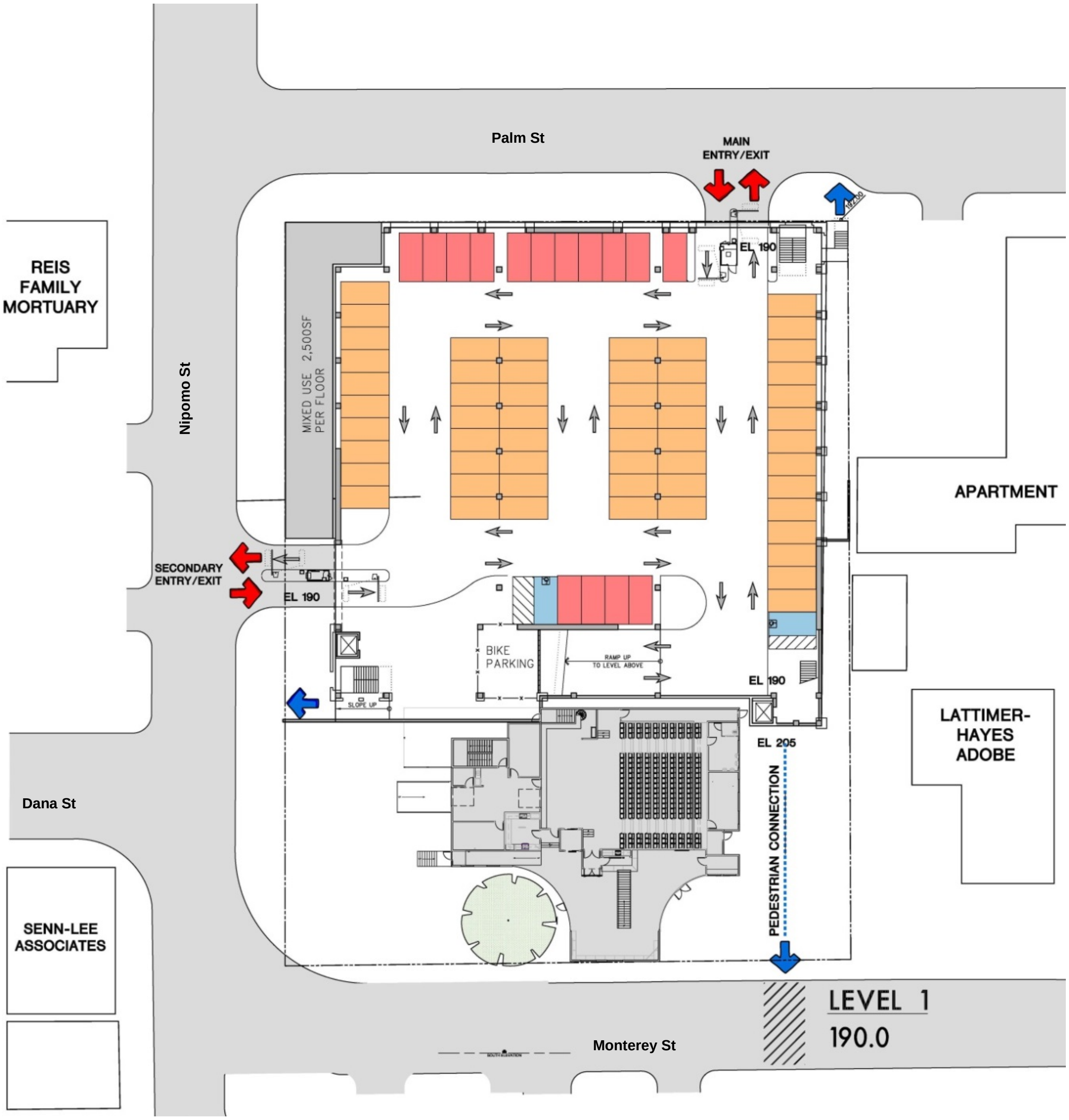
11 Surrounding Land Uses and Setting

The area surrounding the site is urbanized, consisting of various land uses. Adjacent parcels to the northeast are zoned Medium-High Density Residential (R-3) and have existing residences developed on-site. Across Palm Street to the northwest is the Mission College Preparatory school athletic field, which is zoned Medium-High Density Residential (R-3). Across Nipomo Street to the west is the Reis Family Mortuary & Crematory, which is zoned Office with a Historic district overlay (O-H); residences zoned Medium-High Density Residential (R-3); and mixed commercial and residential suites zoned Downtown Commercial with a Historic District and Planned Development overlay (C-D-H-PD). Across Monterey Street to the south is the San Luis Obispo Children's Museum, which is zoned Public Facility with a Historic District overlay (PF-H), and residential units zoned Downtown Commercial with a Historic district and Special Considerations overlay (C-D-S-H).

12 Other Public Agencies Whose Approval is Required

Regional Water Quality Control Board – *National Pollutant Discharge Elimination System Permit*

Figure 3 Site Plan



Source: Watry Design, Inc. 2017

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is “Potentially Significant” or “Potentially Significant Unless Mitigation Incorporated” as indicated by the checklist on the following pages.

- ■ Aesthetics
- ■ Biological Resources
- □ Greenhouse Gas Emissions
- □ Land Use/ Planning
- □ Population / Housing
- ■ Transportation / Traffic
- □ Agriculture and Forest Resources
- ■ Cultural Resources
- ■ Hazards and Hazardous Materials
- □ Mineral Resources
- □ Public Services
- □ Utilities / Service Systems
- ■ Air Quality
- ■ Geology and Soils
- □ Hydrology / Water Quality
- ■ Noise
- □ Recreation
- ■ Mandatory Findings of Significance

Determination

Based on this initial evaluation:

- □ I find that the preferred project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- □ I find that although the preferred project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ■ I find that the preferred project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- □ I find that the preferred project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact 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. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- □ I find that although the preferred project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the preferred project, nothing further is required.

Signature

May 1, 2017
Date

Tyler Corey
Printed Name

Principal Planner
Title

The following table summarizes the environmental issue areas and work scope items that will be addressed in the Environmental Impact Report for the project.

Table 1 Issues for Further Analysis in Environmental Impact Report

Issue Area	Potentially Significant Impact	EIR Work Scope Item
Aesthetics	Degradation of the existing visual character or quality of the site and its surroundings	The project would increase the size and scale of development on the site, which is located in the historic district. The EIR shall evaluate the potential visual impacts of the project on the existing visual character and quality of the site and its surroundings. Recommendations shall be developed to reduce identified visual impacts. General design guidelines shall be identified to assist the City in terms of design features and elements of the project to assure visual compatibility with the surrounding area.
	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area	The EIR shall evaluate the new sources of light and glare from car headlights and area lighting. General design guidelines shall be identified to assist the City in terms of design and lighting features and elements of the project to assure that lighting and glare associated with the preferred project would be compatible with adjacent and surrounding uses.
Cultural Resources	Cause a substantial adverse change in the significance of a historical, archaeological, or tribal cultural resource	The EIR shall evaluate potential impacts to historic structures and cultural resources, as well as impacts to the historic district. The EIR will analyze impacts to these resources in further detail and recommend mitigation measures.
Noise	Exposure of persons to or generation of noise levels in excess of standards; substantial permanent increases in ambient noise levels above levels existing without the project	The project would be surrounded by noise sensitive uses, and the impact of project operations on ambient noise levels at sensitive receptors shall be evaluated in the EIR. Sound level measurements shall be taken on the project site and the level of significance shall be determined using the City's noise level thresholds. In addition, the project would generate traffic that would contribute to noise levels in the project area that could exceed City thresholds. The EIR shall quantify the increase in vehicle noise levels resulting from project-generated traffic at sensitive receptors along Palm Street, Nipomo Street and Monterey Street and determine the level of significance based on the City's noise level thresholds. The EIR shall identify any mitigation necessary to reduce significant noise impacts to less than significant levels.
	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels; result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project	The EIR shall quantify the level of construction noise based on anticipated construction equipment. The level of construction noise generated by the project shall be compared to the City's applicable noise level thresholds to determine the level of significance. The EIR shall identify any mitigation necessary to reduce significant temporary construction noise impacts to the extent feasible.
Transportation/ Traffic	Conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant	A traffic analysis shall be prepared for the EIR. The traffic analysis shall contain an evaluation of project impacts on study area roadway segments and intersections under both existing + project and cumulative + project conditions, as well as impacts related to overall vehicle miles traveled generated by the project. Impacts, including any potential secondary impacts from required circulation system

Issue Area	Potentially Significant Impact	EIR Work Scope Item
	components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit; conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways; conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities	improvements, will be described and mitigation measures shall be identified as necessary.

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Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Substantial adverse effect on a scenic vista	☐	☐	■	☐
b. Substantial damage to scenic resources, including but not limited to trees, rock outcroppings, and historic buildings along a state scenic highway	☐	☐	■	☐
c. Substantially degrade the existing visual character or quality of the site and its surroundings	■	☐	☐	☐
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area	■	☐	☐	☐

Setting

San Luis Obispo is located on predominantly undulating topography, with low hillsides rising from drainages and creeks. The overall landform of the City and its surroundings is generally defined by the convergence of the Chorro and the Los Osos Valleys. A series of low, visually distinct mountain peaks, such as Bishop Peak and Cerro San Luis, separate the two valleys and provide a scenic focal point for much of the City. The Cuesta Ridge and Santa Lucia Mountains border the Chorro Valley to the north and east, while the Irish Hills border the Los Osos Valley to the southwest. The Santa Lucia Mountains and Irish Hills are the visual limits of this region and are considered the scenic backdrop for much of the City. The visual boundaries to the south and southeast are distant and are defined by low hills rising up from valleys. Development in the region occurs predominantly at the lesser elevations and on the low hills.

The project site is located in the northwestern portion of the downtown planning area. The visual environment surrounding the site is urbanized, consisting of various land uses. These uses include, residential units, commercial and mixed-use development, the Mission College Preparatory school athletic field, and the San Luis Obispo Children's Museum. The project site and adjacent parcels to the east, west, and south are located within the City's Historic Overlay. The site currently contains urban development including a surface parking lot, one detached garage, and five residential units (three single-family residences and one secondary unit adjacent to Palm Street that has two apartments). The site is not located within a City General Plan designated scenic vista or along a designated scenic highway; however the site is located near U.S. Highway 101, which is eligible for scenic highway designation.

Discussion

a. Would the project have a substantial adverse effect on a scenic vista?

The site is not located in a City General Plan designated scenic vista. Neither the preferred project nor Alternatives 1 or 2 would have a substantial adverse effect on a scenic vista. Impacts would be **less than significant**.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings in a state scenic highway?

The nearest highway is U.S. Highway 101, designated as an Eligible State Scenic Highway by the California Department of Transportation. Due to the height of the parking structure and theater, the project may be visible from Highway 101; however, this segment has not been designated as a state scenic highway; thus, neither the preferred project nor Alternatives 1 or 2 would damage scenic views. Therefore, impacts would be **less than significant**.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

The project site is located in the City's Downtown Planning area, adjacent to the Downtown Core (City of San Luis Obispo 2014). It is also located in a Historical Overlay district. The site currently contains urban development including a City-owned surface parking lot, one detached garage, and five residential units (three single-family residences and one secondary unit adjacent to Palm Street that has two apartments). The preferred project and alternatives would involve the removal of the existing parking lot, detached garage, and residential structures, and the construction of a five-story parking structure, commercial space, and theater or residential units. Therefore, while the project and project alternatives would be visually compatible with the existing urban environment of the site and the surrounding area, they would increase the size and scale of development and change the uses on the project site. The project would require a General Plan amendment/Zone Change to Public/Public Facility with a Historic Overlay (PF-H). It would also require the approval of a Use Permit by the Planning Commission to allow the multi-level parking structure and non-profit theater, as well as deviation to otherwise applicable setback requirements and building height limits. Office, retail, and residential uses would be allowed as accessory uses of the parking and theater facilities. In addition, the project would require variances for the floor to area ratio to exceed 1.0 and maximum coverage to exceed 60 percent. The increase in size and scale of development on the project site and the sensitivity of the project site within the Downtown Historic District could result in potential impacts to the visual character of the site. The change to the site's visual character is a **potentially significant impact** and will be analyzed further in the EIR.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The preferred project and Alternatives 1 and 2 would introduce new lighting from car headlights and for parking and pedestrian ways and lighting for the commercial space, theater, and/or residential units. Such lighting could create new sources of light or glare. While the project site is located in an urban area where substantial nighttime lighting currently exists, the increased height of the proposed structure and the proximity to residential uses could result in light spillover and additional glare that could result in significant environmental effects. Therefore, the change to the site's lighting is a **potentially significant impact** and will be analyzed further in the EIR**.**

2 Agriculture and Forest 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. This includes the Forest and Range Assessment Project and the Forest Legacy Assessment Project, along with the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use	☐	☐	☐	■
b. Conflict with existing zoning for agricultural use or a Williamson Act contract	☐	☐	☐	■
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))	☐	☐	☐	■
d. Result in the loss of forest land or conversion of forest land to non-forest use	☐	☐	☐	■
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	☐	☐	☐	■

Setting

The San Luis Obispo Area Plan (County of San Luis Obispo 2014) designates the Agriculture land use category as areas that have existing or potential agricultural production capability. A large portion of the greater San Luis Obispo area is designated for agriculture, which almost entirely surrounds the urbanized area within City limits. Because the project site is located within City limits, the San Luis Obispo Area Plan does not provide designations for the project site. The project site is not located on an existing or potential agricultural production area as provided for in the City's zoning code (San Luis Obispo Land Use Element 2014).

Discussion

a. *Would the project convert Prime Farmland, Unique Farmland, 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?*

b. *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

c. *Would the project 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))?*

d. *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

e. *Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?*

The project site is currently developed with a surface parking lot and residential structures. The project site does not contain any agricultural resources, land identified for potential agricultural production, lands designated as or zoned for agricultural use, or lands under a Williamson Act contract. Furthermore, no timberland land exists on the project site. Therefore, **no impact** to agricultural resources or forest land would occur as a result of the preferred project or Alternatives 1 or 2.

3 Air Quality

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Conflict with or obstruct implementation of the applicable air quality plan	☐	☐	☐	■
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation	☐	■	☐	☐
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)	☐	■	☐	☐
d. Expose sensitive receptors to substantial pollutant concentrations	☐	■	☐	☐
e. Create objectionable odors affecting a substantial number of people	☐	☐	☐	■

Setting

The City of San Luis Obispo falls within the jurisdiction of the San Luis Obispo County Air Pollution Control District (SLOAPCD) and is located within the South Central Coast Air Basin. SLOAPCD monitors air pollutant levels to assure that air quality standards are met, and if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the air basin is classified as being in "attainment" or as "non-attainment." SLOAPCD is in non-attainment for the 24-hour state standard for particulate matter (PM_{10}) and the eight hour state standard for ozone (O_3) (SLOAPCD 2015).

The major sources of PM_{10} in the SCCAB are agricultural operations, vehicle dust, grading, and dust produced by high winds. Additional sources of particulate pollution include diesel exhaust; mineral extraction and production; combustion products from industry and motor vehicles; smoke from open burning; paved and unpaved roads; condensation of gaseous pollutants into liquid or solid particles; and wind-blown dust from soils disturbed by demolition and construction, agricultural operations, off-road vehicle recreation, and other activities. Ozone is a secondary pollutant that is not produced directly by a source, but rather is formed by a reaction between nitrogen oxides (NO_x) and reactive organic gases (ROGs) in the presence of sunlight. Reductions in ozone concentrations are dependent on reducing the amount of these precursors. In the SCCAB, the major sources of ROGs are motor vehicles, organic solvents, the petroleum industry, and pesticides. The major sources of NOx are motor vehicles, public utility power generation, and fuel combustion by various industrial sources (SLOAPCD 2015).

Construction Emissions Thresholds

The SLOAPCD has developed specific daily and quarterly numeric thresholds that apply to projects within the SCCAB. Daily thresholds are for projects that would be completed in less than one quarter (90 days). The SLOAPCD's quarterly construction thresholds are applicable to the project because construction would last for more than one quarter. Thresholds are based on guidance in the SLOAPCD's CEQA Air Quality Handbook (2012). These include:

ROG and NO_X Emissions

- **Quarterly – Tier 1:** For construction projects lasting more than one quarter, exceedance of the 2.5 tons per quarter threshold requires Standard Mitigation Measures and Best Available Control Technology (BACT) for construction equipment. If implementation of the Standard Mitigation and BACT measures cannot bring the project below the threshold, off-site mitigation may be necessary; and
- **Quarterly – Tier 2:** For construction projects lasting more than one quarter, exceedance of the 6.3 tons per quarter threshold requires Standard Mitigation Measures, BACT, implementation of a Construction Activity Management Plan (CAMP), and off-site mitigation.

Diesel Particulate Matter (DPM) Emissions

- **Quarterly – Tier 1:** For construction projects lasting more than one quarter, exceedance of the 0.13 tons per quarter threshold requires Standard Mitigation Measures, BACT for construction equipment; and
- **Quarterly – Tier 2:** For construction projects lasting more than one quarter, exceedance of the 0.32 ton per quarter threshold requires Standard Mitigation Measures, BACT, implementation of a CAMP, and off-site mitigation.

Fugitive Particulate Matter (PM10), Dust Emissions

- **Quarterly:** Exceedance of the 2.5 tons per quarter threshold requires Fugitive PM10 Mitigation Measures and may require the implementation of a CAMP.

Operational Emissions Thresholds

SLOAPCD's long-term operational emission thresholds are summarized in Table 2.

Table 2 SLOAPCD Operational Emissions Significance Thresholds

Pollutant	Daily Threshold (lbs/day)	Annual Threshold (tons/year)
ROG + NO_X (combined)[1]	25	25
Diesel Particulate Matter (DPM)[1]	1.25	–
Fugitive Particulate Matter (PM_{10}), Dust	25	25
CO	550	–

Source: SLOAPCD 2012

[1] SLOAPCD specifies that CalEEMod winter emission outputs be compared to operational thresholds for these pollutants.

Discussion

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

According to the SLOAPCD CEQA Air Quality Handbook (2012), project-level environmental reviews that may require consistency analysis with the Clean Air Plan and Smart/Strategic Growth Principles adopted by lead agencies include: subdivisions, large residential developments and large commercial/industrial developments. Neither the preferred project nor Alternatives 1 or 2 is a subdivision or large residential project, and would not be considered a large commercial or industrial development according to the screening criteria set forth in the SLOAPCD CEQA Air Quality Handbook. Therefore, neither the preferred project nor Alternatives 1 or 2 has the potential to be inconsistent with the Clean Air Plan or Smart/Strategic Growth Principles.

In addition, the project is considered infill development located within an existing urban area, which are land use strategies supported by the SLOAPCD Clean Air Plan (2001) policies, including:

- Cities and unincorporated communities should be developed at higher densities that reduce trips and travel distances and encourage the use of alternative forms of transportation
- Urban growth should occur within the urban reserve lines of cities and unincorporated communities (Clean Air Plan L-1 Planning Compact Communities)

The preferred project and Alternatives 1 and 2 would have **no impact** with respect to a conflict with or obstruction to implementation of the applicable air quality plan.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c. Would the project 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)?

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

As of September 2011, SLOAPCD recommends the use of the most recent version of California Emissions Estimator Model (CalEEMod) (version 2016.3.1) to calculate construction and operational emissions of a project. The CalEEMod results for the preferred project and Alternatives 1 and 2 can be found in Appendix A. The emissions model for the preferred project was based on build out of the proposed 445 parking space structure, 255 seat theater, and 5,000 square feet of commercial space. Alternative 1 was based on build out of the proposed 445 parking space structure, 255 seat theater, 2,500 square feet of commercial space, and four residential units. Alternative 2 was based on build out of the 445 parking space structure, 5,000 square feet of commercial space, and 22 two bedroom residential units. Trip rates for the commercial space, parking structure, and Little Theatre were obtained from the Traffic Study prepared by Central Coast Transportation Consulting (2017). Default trip rates for the residential units were obtained from CalEEMod. The emissions model for the preferred project and Alternatives 1 and 2 assumes a maximum area of disturbance of 1.4 acres (the total size of the project site). In addition, it assumes a net 5,700 cubic yards of soil would be exported from the site.

Construction Impacts

Construction activities would generate fugitive dust particles, ozone precursors, and diesel exhaust that could result in an increase in criteria pollutants and could also contribute to the existing San Luis Obispo County nonattainment status for ozone and PM_{10}. Sensitive receptors near the project site include adjacent residences to the south and east, the Mission College Preparatory School athletic field to the north, residences across Nipomo Street to the west, and residences and the San Luis Obispo Children's Museum to the south. Table 3 summarizes the estimated project emissions generated from construction activities. Maximum quarterly emissions are shown in Table 3 (see Appendix A for complete CalEEMod results), and compared to the applicable SLOAPCD construction emissions thresholds Table 3 also shows estimated construction emissions associated with Alternatives 1 and 2 to the project.

Table 3 Palm Nipomo Parking Structure Quarterly Construction Emissions

	ROG and NO_X (combined)[1]	Fugitive PM_{10} (dust)	DPM[2]
Preferred Project Construction Emissions	0.94 tons/quarter	0.03 tons/quarter	0.07 tons/quarter
Alternative 1 Construction Emissions	0.94 tons/quarter	0.03 tons/quarter	0.07 tons/quarter
Alternative 2 Construction Emissions	0.94 tons/quarter	0.03 tons/quarter	0.07 tons/quarter
SLOAPCD Significance Threshold	2.5 tons/quarter (Tier 1)	2.5 tons/quarter (Tier 1)	0.13 tons/quarter (Tier 1)
Threshold Exceeded?	No	No	No

[1] The combined ROG and NO_X emissions were derived from the rolling maximum quarterly emissions for "ROG + NO_X" from CalEEMod.

[2] The DPM estimations were derived from the "PM_{10} Exhaust" and "$PM_{2.5}$ exhaust" output from CalEEMod as recommended by SLOAPCD. This estimation represents a worst case scenario because it includes other PM_{10} exhaust other than DPM. See Appendix A for CalEEMod software program output.

Quarterly emissions for Fugitive PM_{10} and DPM were calculated by dividing maximum annual construction emissions from CalEEMod by 4, since construction activities would extend for a duration exceeding 90 days, as recommended by SLOAPCD.

As shown in Table 3, the preferred project would not exceed SLOAPCD quarterly construction emissions for ROG and NO_X, PM_{10}, or DPM. Alternatives 1 and 2 would result in similar construction emissions to the preferred project, and would not exceed applicable SLOAPCD quarterly construction emissions thresholds.

In accordance with the standards of the SLOPACD CEQA Handbook, standard mitigation measures are required because sensitive receptors (Mission College Preparatory Academy, existing residential units and San Luis Obispo Children's Museum) are located within 1,000 feet of the project site and because the SCCAB is in non-attainment for PM_{10}. Accordingly, Mitigation Measures AQ-1 and AQ-2 would be required to reduce fugitive dust, ozone precursors, and diesel particulate matter emissions from the preferred project and Alternatives 1 and 2. Construction impacts would be **potentially significant unless mitigation is incorporated**.

Operational Impacts

The project and alternatives would result in an increase in vehicle trips that would generate new criteria pollutant emissions. In addition, operation of the project and alternatives would result in ongoing emissions associated with natural gas use and area sources, such as landscaping, consumption of consumer products, and off gassing from architectural coatings.

Table 4 shows the daily and annual operational emissions associated with the preferred project and Alternatives 1 and 2 (see Appendix A for complete CalEEMod results and assumptions), compared to the applicable SLOAPCD operational emissions thresholds. Operational emissions from the preferred project and Alternatives 1 and 2 would not exceed the applicable SLOAPCD operational emissions thresholds.

Table 4 Palm Nipomo Parking Structure Operational Emissions Comparison

	ROG and NO_X (combined)	Fugitive PM_{10} (dust)	DPM[1]	CO
Preferred Project Daily Emissions	6.2 lbs/day	2.0 lbs/day	0.1 lbs/day	11.1 lbs/day
Alternative 1 Daily Emissions	6.2 lbs/day	1.9 lbs/day	0.1 lbs/day	11.1 lbs/day
Alternative 2 Daily Emissions	3.4 lbs/day	1.2 lbs/day	0.1 lbs/day	7.2 lbs/day
SLOAPCD Daily Threshold	25 lbs/day	25 lbs/day	1.25 lbs/day	550 lbs/day
Threshold Exceeded?	No	No	No	No
Preferred Project Annual Emissions	0.8 tons/year	0.2 tons/year	0.1 tons/year	1.3 tons/year
Alternative 1 Annual Emissions	0.8 tons/year	0.2 tons/year	0.1 tons/year	1.4 tons/year
Alternative 2 Annual Emissions	0.6 tons/year	0.2 tons/year	0.1 tons/year	1.6 tons/year
SLOAPCD Annual Threshold	25 tons/year	25 tons/year	n/a	n/a
Threshold Exceeded?	No	No	n/a	n/a

[1] The DPM estimations were derived from the "PM_{10} Exhaust" and "$PM_{2.5}$ exhaust" output from CalEEMod as recommended by SLOAPCD. This estimation represents a worst case scenario because it includes other PM_{10} exhaust other than DPM. CalEEMod – use winter operational emission data to compare to operational thresholds.

As shown in Table 4, area source and operational emissions associated with the preferred project and Alternative 1 and 2 would not exceed SLOAPCD thresholds for ROG, NO_X, CO, $PM_{10,}$ or DPM. Therefore, neither the preferred project nor the alternatives exceed applicable SLOAPCD operational air quality standards or contribute to an existing air quality violation. Operational emissions associated with the preferred project and Alternatives 1 and 2 would be **less than significant**.

Sensitive Receptors

While the estimated construction emissions associated with the preferred project and Alternatives 1 and 2 would be below the SLOAPCD thresholds and would not introduce new hazardous air pollutants to the area, in accordance with the standards of the SLOPACD CEQA Handbook, standard mitigation measures are required because sensitive receptors (Mission College Preparatory Academy, existing residential units and San Luis Obispo Children's Museum) are located within 1,000 feet of the project site and because the South Central Coast Air Basin is in nonattainment for PM_{10}. Accordingly, Mitigation Measures AQ-1 and AQ-2 would be required for the preferred project and Alternatives 1 and 2 to reduce fugitive dust, ozone precursors, and diesel particulate matter emissions. Therefore, impacts to sensitive receptors in the project vicinity would be **potentially significant unless mitigation is incorporated.**

Mitigation Measures

The following mitigation measures are required to reduce construction emissions associated with the preferred project or Alternative 1 or 2 and to reduce impacts to sensitive receptors.

AQ -1 **Fugitive Dust Control Measures**. Construction projects shall implement the following dust control measures so as to reduce PM_{10} emissions in accordance with SLOAPCD requirements.

- Reduce the amount of the disturbed area where possible;
- Water trucks or sprinkler systems shall be used during construction in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency shall be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water shall be used whenever possible;

- All dirt stock pile areas shall be sprayed daily as needed;
- Permanent dust control measures identified in the approved project revegetation and landscape plans shall be implemented as soon as possible following completion of any soil disturbing activities;
- Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;
- All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the SLOAPCD;
- All roadways, driveways, sidewalks, etc. to be paved shall be completed as soon as possible after grading unless seeding or soil binders are used;
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or shall maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with California Vehicle Code Section 23114;
- Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site;
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water shall be used where feasible;
- All of these fugitive dust mitigation measures shall be shown on grading and building plans; and
- 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, reduce visible emissions below 20 percent opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SLOAPCD Compliance Division prior to the start of any grading, earthwork or demolition.

AQ-2(a) Standard Control Measures for Construction Equipment. The following standard air quality mitigation measures shall be implemented during construction activities at the project site:

- Maintain all construction equipment in proper tune according to manufacturer’s specifications;
- Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for sue off-road);
- 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 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 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;
- 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;
- Diesel idling within 1,000 feet of sensitive receptors is not permitted;
- Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
- Electrify equipment when feasible;
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and
- Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas, liquefied natural gas, propane or biodiesel.

AQ-2(b) **Best Available Control Technology (BACT) for Construction Equipment**. The following BACT for diesel-fueled construction equipment shall be implemented during construction activities at the project site, where feasible:

- Further reducing emissions by expanding use of Tier 3 and Tier 4 off-road and 2010 on-road compliant engines where feasible;
- Repowering equipment with the cleanest engines available; and
- Installing California Verified Diesel Emission Control Strategies, such as level 2 diesel particulate filters. These strategies are listed at: www.arb.ca.gov/diesel/verdev/vt/cvt.htm

AQ-2(c) **Architectural Coating.** To reduce ROG and NO_X levels during the architectural coating phase, low or no VOC-emission paint shall be used with levels of 50 g/L or less.

e. Would the project create objectionable odors affecting a substantial number of people?

The SLOAPCD CEQA Handbook (2012) identifies typical land uses that have the potential to result in increases in odorous emissions and provides recommendations for siting new sensitive land uses in close proximity to these uses. None of the uses proposed under the preferred project or alternatives, including a parking garage, commercial, theater, or residential uses, are listed as uses project that typically create objectionable odors. Therefore, neither the preferred project nor the alternatives would create objectionable odors affecting a substantial number of people. **No impact** related to objectionable odors from the project or Alternatives 1 or 2 would result.

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4 Biological Resources

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
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 Wildlife or U.S. Fish and Wildlife Service	☐	☐	☐	■
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 Wildlife or U.S. Fish and Wildlife Service	☐	☐	☐	■
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	☐	☐	☐	■
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites	☐	■	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance	☐	☐	■	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

Setting

This region of San Luis Obispo County falls within the Outer South Coast Ranges geographic subdivision of California. The Outer South Coast Ranges subdivision contains an array of vegetation community types that range from southern oak forest, blue-oak/foothill-pine woodland and chaparral to grasslands and agricultural/urbanized areas. The Outer South Coast Ranges subdivision is part of the larger South Coast

Ranges geographic sub-region, which is a component of the even larger Central Western California physiographic area. The section of the state that is designated as CW occurs within the cismontane side of California, which is more generally referred to as the California Floristic Province (CA-FP – Hickman 1993).

The federal Migratory Bird Treaty Act (16 United States Code Section 703-711) protects all migratory birds, their nests and eggs against take, possession, or destruction. The MBTA was enacted in 1918 and is enforced by the U.S. Fish and Wildlife Service. Abiding by the MBTA requires that active nests be avoided.

Discussion

a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?*

The project site is currently developed with a surface parking lot, one detached garage, and five residences, and is surrounded by urban land uses. The site does not provide suitable habitat for wildlife or sensitive plant or animal species (City of San Luis Obispo 2006; California Natural Diversity Database 2016). Thus, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service, the preferred project and Alternatives 1 and 2 would have **no impact**.

b. *Would the project 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 Wildlife or U.S. Fish and Wildlife Service?*

The project site is currently developed with a surface parking lot, one detached garage, and five residences, and is surrounded by urban land uses. The site does not contain 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 Wildlife or U.S. Fish and Wildlife Service. There would be **no impact** to any riparian habitat or other sensitive natural community from the preferred project or Alternatives 1 or 2.

c. *Would the project 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?*

The project site is currently developed with a surface parking lot, one detached garage, and five residences, and is surrounded by urban land uses. The site does not contain federally protected wetlands as defined by Section 404 of the Clean Water Act and therefore would not have a substantial adverse effect on such resources. There would be **no impact** to federally protected wetlands.

d. *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

The project site is currently developed with a surface parking lot, one detached garage, and five residences, and is surrounded by urban land uses. The site does not provide suitable habitat for wildlife and the surrounding urban uses would act as barriers to wildlife movement. It is not located in any wildlife corridors or potential wildlife corridors identified within the City's General Plan Conservation and Open Space Element (City of San Luis Obispo 2006). However, trees on the site may support nesting birds protected under the Migratory Bird Treaty Act. The removal of trees and general construction activity may affect protected nesting birds. Therefore, Mitigation Measure BIO-1 is required for the preferred project and Alternatives 1 and 2 to protect nesting birds. Impacts to migratory bird species would be **potentially significant unless mitigation incorporated**.

Mitigation Measure

The following mitigation measure, and compliance with Migratory Bird Treaty Act and California Department of Fish and Wildlife requirements, would be required for the preferred project or Alternative 1 or 2 to reduce impacts to nesting birds to a less than significant level.

BIO-1 **Nesting Bird Protection.** To avoid disturbance of nesting and special-status birds, activities related to the project, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (typically February through August in the project region). If construction must begin within the breeding season, then a pre-construction nesting bird survey shall be conducted no more than 3 days prior to initiation of ground disturbance and vegetation removal activities. The nesting bird pre-construction survey shall be conducted within the Project Boundary, including a 300-foot buffer (500-foot for raptors), on foot, and within inaccessible areas (i.e., private lands) afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in the area. If nests are found, an avoidance buffer (which is dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary. All construction personnel shall be notified as to the existence of the buffer zone and to avoid entering the buffer zone during the nesting season. No ground disturbing activities shall occur within this buffer until the avian biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Conservation and Open Space Element has a policy that pertains to significant trees. Section 7.5.1 states that significant trees that are making substantial contributions to the natural habitat or urban landscape based on their species, size or rarity, shall be protected. The project site currently includes a large oak tree. This tree has the potential to be recognized as a “significant tree” by the City Council Tree Committee because it may potentially be recognized as a native tree and/or because of its size, historical significance, etc. as determined by the City Council’s Tree Committee. Current project design includes the preservation of the identified oak tree on the southeastern edge of the site as well as existing trees on the southern corner where Nipomo Street and Monterey Street converge. If any existing trees on the site were to be identified as a ‘significant tree,’ and the project were to determine the tree would need to be destroyed, removal of the tree would be subject to criteria and mitigation requirements set forth in the City’s Conservation and Open Space Element, Section 8.6.3. With existing city ordinances and preservation of the large oak tree on site, the conflicts with local policies or ordinances would be **less than significant** for the preferred project and Alternatives 1 and 2.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site does not occur within an area covered by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state Habitat Conservation Plan (California Department of Fish and Game 2016). The project site does not occur within the designated Greenbelt Zone for the City. **No impact** would occur.

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5 Cultural Resources

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5	■	☐	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5	■	☐	☐	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature				
d. Disturb any human remains, including those interred outside of dedicated cemeteries	■	☐	☐	☐
e. Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074	■	☐	☐	☐

Applied Earthworks prepared a Cultural Resources Study in 2011. The 2011 investigation included a records search, archival and historical research, field survey of the property, predictive modeling of archaeological resources, evaluation of any potentially significant historic structures on the property, and assessment of potential impacts to the surrounding Downtown Historic District. This section is based on the information and findings of this report.

Setting

According to the City's Historic Preservation Program Guidelines (2010), archaeological evidence demonstrates that Native American groups (including Chumash) have inhabited the Central Coast since as early as 10,000 B.C. The City of San Luis Obispo is located within the area historically occupied by the Obispeño Chumash, the northernmost of the Chumash people of California. The earliest evidence of human occupation in the region comes from archaeological sites along the coast.

The area of San Luis Obispo became colonialized by the Spanish Incursion initially in 1542, with the first official settlement on Chumash Territory occurring in 1772, when the Mission San Luis Obispo de Tolosa was established. Late in the 19th Century, San Luis Obispo became a stop on the Southern Pacific Railroad, closing the gap between Los Angeles and San Francisco. The railroad brought industry to the region and accelerated the growth of the community. Cultural and historic resources from each period still shape the setting of San Luis Obispo today.

The project site is located within the Historic Overlay in the downtown region of San Luis Obispo. It is also recognized as a Cultural Facilities Area (Land Use Element 2014).

Discussion

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

The project site is currently developed with a paved parking lot, five residences, and a detached garage. The Cultural Resource Survey determined that residences at 633 and 633 ½ are not located within the Downtown Historic Preservation District nor are the structures considered historic or eligible to be designated as historic. However, the Cultural Resources Inventory determined that the two residences, located at 610 and 614 Monterey Street, are contributors to the Downtown Historic District and provide essential continuity along a historic streetscape. The current project design includes the removal or demolition of these two historically contributing residences. In addition, the detached garage on the 610 Monterey Street property would be demolished as part of the preferred project and alternatives, which is a contributing element to the historic district. Impacts to these historic resources are **potentially significant**, and will be further analyzed in an EIR.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?

c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

d. Would the project disturb any human remains, including those interred outside of formal cemeteries?

According to the 2011 Cultural Resources Inventory Report, subsurface archaeological deposits exist throughout the city, including areas adjacent to the project site. Archaeological features in the general area, and overall site integrity is anticipated to be good. Three archeological sites have been identified previously within or immediately adjacent to the current project area. In addition, archaeological investigations for a project approximately 1/8 mile east of the project site found significant Native American deposits present along a long stretch of Palm Street on the side opposite the mission; it is unclear whether that deposit extends into the current project area. The project site is currently developed with a surface parking lot and residential structures. According to the 2011 Cultural Resources Inventory Report, however, because only six structures and the surface lot have ever existed on the project site, it is quite likely that any subsurface cultural remains are intact. Therefore, ground disturbing construction activities have the potential to encounter or disturb undiscovered archaeological resources or human remains. If encountered, such resources could be damaged or destroyed. Adherence to Section 7050.5(b) of the California Health and Safety Code would protect any previously unidentified buried human remains. In addition, the procedures outlined in CEQA Section 15064.5 (d) and (e) would need to be followed if the remains are determined to be Native American. Impacts to such resources from implementation of the project would be **potentially significant**, and will be analyzed in the EIR.

e. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?

The project site is located within an established urban area and is currently developed. Tribal cultural resources can include sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe. Though no known tribal cultural resources have been identified on the project site as described by Public Resources Code Section 21074.a(1), the project may cause substantial adverse change to historic residences along Monterey Street pursuant to Section 21084.1, thus impacts to a tribal cultural resource are **potentially significant**, and will be further analyzed in the EIR.

6 Geology and Soils

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Expose people or structures to potentially substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	■	☐
1. Rupture of a known earthquake fault, as delineated on 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	☐	☐	■	☐
2. Strong seismic ground shaking	☐	☐	■	☐
3. Seismic-related ground failure, including liquefaction	☐	☐	■	☐
4. Landslides	☐	☐	■	☐
b. Result in substantial soil erosion or the loss of topsoil	☐	☐	■	☐
c. Be located on a geologic unit or soil that is made unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse	☐	■	☐	☐
d. Be located on expansive soil, as defined in Table 1-B of the *Uniform Building Code*, creating substantial risks to life or property	☐	■	☐	☐
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	☐	☐	☐	■

A Geotechnical, Geologic, and Hazardous Materials Assessment (Geotechnical Report) was prepared for the project site by Earth Systems Pacific in 2011 (Appendix B). The purpose of this study was to assess the major geotechnical issues that could potentially affect the project by providing information regarding general site characteristics and identification of geotechnical characteristics that could represent a conflict to development.

Setting

San Luis Obispo is located within the Coast Range Geomorphic Province, which extends along the coastline from central California to Oregon. This region is characterized by extensive folding, faulting, and fracturing of variable intensity. In general, the folds and faults of this province comprise the pronounced northwest trending ridge-valley system of the central and northern coast of California. There are no known fault lines on the site or in the immediate vicinity.

The Los Osos, Hosgri, and San Andreas faults are considered to be the most significant regionally active faults that could affect the project site during its anticipated lifespan. The closest active fault to the site is the Los Osos Fault which lies approximately 2.5 miles southwest. At this distance, there is only a very low potential for ground rupture to occur on site due to nearby active faults (Earth Systems Pacific 2011). The City is in Seismic Zone 4, a seismically active region of California and strong ground shaking should be expected during the life of proposed structures. Structures must be designed in compliance with seismic design criteria established in the Uniform Building Code and City Codes.

The site is relatively flat with no significant slopes on or immediately adjacent to the site. The site is not subject to geological hazards including landslides and slope instability (Earth Systems Pacific 2011). Based on the Geotechnical Report, the site is generally suitable for development. The soils consist of alluvial sediments overlying bedrock, with a potential for expansion. The soils are comprised of laterally discontinuous zones of sandy clay, clay, and clayey gravel extending to depths of 25 to 40 feet below the surface. The consistency of the clay soils is medium to very hard. The alluvium is underlain by weak to moderately strong shale bedrock of the Franciscan Formation. The subsurface clayey soils contain interbedded layers of sand.

Discussion

a.1. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on 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?

a.2. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Although no faults have been mapped across the project site, seismic events caused by active and potentially active faults in the region could result in seismic ground shaking on-site. The City, along with all of Southern California and the Central Coast, is within Seismic Zone 4 and subject to seismic ground shaking from faults in the region. A seismic hazard cannot be completely avoided in these regions. However, effects can be minimized by implementing requirements specified in the California Building Code (incorporates the Uniform Building Code) and the California Division of Mines and Geology Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117 (revised 2008), which includes design and construction requirements related to fire safety, life safety, and structural safety. Compliance with existing building standards would ensure impacts associated with the preferred project and Alternatives 1 and 2 remain **less than significant**.

a.3. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

The Geotechnical Report prepared for the project site determined that the potential for liquefaction on-site is very low to none, due to the density of the clay and granular soils, as well as the discontinuous nature of the potentially liquefiable layers (Earth Systems Pacific 2011). Therefore, impacts associated with the preferred project and Alternatives 1 and 2 would be **less than significant.**

a.4. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

According to the City's General Plan Safety Element (2012), the project site is not located in an area that would be subject to high or moderate potential for landslides. Furthermore, the Geotechnical Report found the potential for landslides or slope instability on-site to be very low (Earth Systems Pacific 2011). Therefore, impacts associated with the preferred project and Alternatives 1 and 2 would be **less than significant**.

b. Would the project result in substantial soil erosion or the loss of topsoil?

The soils on the project site are classified as Los Osos-Diablo complex soils, with 5-9 percent slopes. This soil type is considered well drained and has a low to moderate susceptibility to erosion (Natural Resources Conservation Service 2012). The project site gently slopes toward the northwest and subsurface water was encountered at depths ranging from 23 to 34 feet (Earth Systems Pacific 2011). Both temporary construction impacts and long-term operational impacts are discussed below.

Construction Impacts

The project would require a National Pollution Discharge Elimination System General Permit for Storm Water Discharges associated with construction activities because the project would involve clearing, grading, and disturbances to the ground, such as stockpiling, or excavation that results in soil disturbances of one or more acres of total land area. Under the conditions of the permit, the City would be required to eliminate or reduce non-storm water discharges to waters of the nation, develop and implement a Storm Water Pollution Prevention Plan (SWPPP) for project construction activities, and perform inspections of the storm water pollution prevention measures and control practices to ensure conformance with the SWPPP. Compliance with the National Pollution Discharge Elimination System permit would ensure that construction-related erosion impacts associated with the preferred project and Alternatives 1 and 2 would be **less than significant**.

Operational Impacts

The soil type on-site (Los Osos-Diablo complex soils) is considered well drained (Natural Resources Conservation Service 2012). Because the majority of the existing project site is currently covered in impervious surfaces, the preferred project and Alternatives 1 and 2 would mimic current drainage patterns. The runoff generated by the proposed parking structure would be collected by a storm drain system and would not result in new on-site erosion issues. No off-site water currently drains onto the site, and there are no existing storm drain facilities on-site. Given the gently sloping topography, the drainage characteristics of on-site soils, and presence of impervious surfaces, neither the preferred project nor the alternatives would result in substantial soil erosion or loss of topsoil. Impacts associated with the preferred project and Alternatives 1 and 2 would be **less than significant.**

c. Would the project be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

d. Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code, creating substantial risks to life or property?

According to the Geotechnical Report, expansion index testing on a composite of two soil samples yielded a value of 87. A value of 87 indicates that soils anticipated at proposed excavation depths are moderate to highly expansive. Expansive soils tend to swell with seasonal increases in soil moisture and shrink during the dry season, as soil moisture decreases. The Geotechnical Report determined that the existing fill located on-site would not be a suitable foundation for the proposed development. In addition, the Geotechnical Report also determined that soils on-site have the potential for total and differential settlement. Therefore, Mitigation Measure GEO-1(a) would be required to reduce impacts associated with the preferred project or Alternative 1 or 2 to a less than significant level. These impacts are therefore **potentially significant unless mitigation incorporated**.

Mitigation Measures

The following mitigation measure would reduce impacts associated with the preferred project and Alternatives 1 and 2 to a less than significant level.

GEO-1 **Minimization of Expansive Soil Hazards.** Once the final maximum loads of the project have been determined, a design-level geotechnical report shall be prepared that identifies the most appropriate geotechnical improvements to on-site soils, the foundation, and parking structure to minimize expansive soil hazards. Recommendations could include, but are not limited to the following:

- Use of imported non-expansive materials combined with pre-moistening of the soils to provide protection for slabs and flatwork
- A layer of non-expansive material 18 to 24 inches thick
- Post-tensioned slabs-on-grade
- Shoring methods, such as shotcrete-faced soil nail walls, tangent drilled caissons, whaler-braced retaining walls, and steel I-beam and lagging walls
- Overexcavation and recompaction
- Utilization of a deep foundation system, such as caissons, driven piles, or rammed aggregate piers

A certified soils engineer shall be retained for monitoring during construction of the project. The certified soils engineer shall also provide any necessary soil testing during construction, to ensure compliance with the design-level geotechnical report, and to provide site specific guidance as subsurface materials are encountered.

e. Would the project 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?

Neither the preferred project nor Alternatives 1 or 2 would require a septic system or any alternative wastewater disposal system. Therefore, **no impacts** would occur.

7 Greenhouse Gas Emissions

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment	☐	☐	■	☐
b. Conflict with any applicable plan, policy, or regulation adopted to reduce the emissions of greenhouse gases	☐	☐	■	☐

Setting

Climate change is the observed increase in the average temperature of the earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. Climate change is the result of numerous, cumulative sources of greenhouse gases (GHG) that contribute to the "greenhouse effect," a natural occurrence that helps regulate the temperature of the planet. The majority of radiation from the sun hits the earth's surface and warms it. The surface in turn radiates heat back towards the atmosphere, known as infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions. This process is essential to support life on Earth because it warms the planet by approximately 60° Fahrenheit. Emissions from human activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural greenhouse effect by increasing the gases in the atmosphere that trap heat and contribute to an average increase in Earth's temperature.

GHGs occur naturally and from human activities. Human activities that produce GHGs include fossil fuel burning (coal, oil, and natural gas for heating and electricity, gasoline and diesel for transportation); methane generated by landfill wastes and raising livestock; deforestation activities; and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6). Since 1750, estimated concentrations of CO_2, CH_4, and N_2O in the atmosphere have increased over by 36 percent, 148 percent, and 18 percent respectively, primarily due to human activity. Emissions of GHGs affect the atmosphere directly by changing its chemical composition. Changes to the land surface indirectly affect the atmosphere by changing the way in the Earth absorbs gases from the atmosphere. Potential impacts in California of global warming may include loss of snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (California Energy Commission 2009).

CEQA Guidelines provide regulatory direction for the analysis and mitigation of GHG emissions appearing in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

The 1,150 metric tons of CO_2e per year (MT CO_2e/yr) threshold is based on emission target set out by the San Luis Obispo County Air Pollution Control Board. Emissions from projects that exceed the 1,150 MT CO_2e/yr. Bright-Line Threshold could still be found less than cumulatively significant if the project as a whole would result in a GHG efficiency of 4.9 MT CO_2e per service population per year. If projects as proposed exceed both thresholds, they would be required to implement mitigation measures to bring them below the 1,150 MT CO_2e/yr. Bright-Line Threshold or within the 4.9 MT CO_2e per Service Population Efficiency Threshold. A project's GHG emissions could also be found less than significant if they comply with a qualified GHG reduction strategy.

Methodology

Calculations of CO_2, CH_4, and N_2O emissions are provided to identify the magnitude of potential project effects. The analysis focuses on CO_2, CH_4, and N_2O because these make up 98.9 percent of all GHG emissions by volume (IPCC 2007) and are the GHG emissions that the project would emit in the largest quantities. Fluorinated gases, such as HFCs, PFCs, CFCs, and SF_6, which are primarily associated with industrial processes, were also considered for the analysis. However, because the project is a residential/commercial development, the quantity of fluorinated gases would not be significant. Emissions of all GHGs are converted into their equivalent global warming potential in terms of CO_2 (CO_2e). Calculations are based on the methodologies discussed in the California Air Pollution Control Officers Association (CAPCOA) CEQA and Climate Change white paper (2008) and included the use of the California Climate Action Registry General Reporting Protocol (2009). GHG emissions associated with the project were calculated using the most recent version of CalEEMod (version 2016.3.1) (Appendix A).

Construction Emissions

Although construction activity is addressed in this analysis, CAPCOA does not discuss whether any of the suggested threshold approaches adequately address impacts from temporary construction activity. As stated in the CEQA and Climate Change white paper, "more study is needed to make this assessment or to develop separate thresholds for construction activity" (CAPCOA 2008). Nevertheless, air districts such as the SLOAPCD (2012) have recommended amortizing construction-related emissions over the life of the project; SLOAPCD suggests the life of a project is typically 50 years for residential projects and 25 years for commercial projects. The project includes commercial uses; therefore, to provide a conservative estimate of construction emissions, emissions were amortized over the shorter project lifetime estimate of 25 years.

Construction of the project would generate temporary GHG emissions primarily as a result of operation of construction equipment on-site, as well as from vehicles transporting construction workers to and from the project site. Site preparation and grading typically generate the greatest amount of emissions due to the use of grading equipment and soil hauling. This analysis assumes 5,700 cubic yards of soil would be exported from the site. CalEEMod provides an estimate of emissions associated with the construction period, based on parameters such as the duration of construction activity, area of disturbance, and anticipated construction.

Operational Emissions

CalEEMod provides operational emissions of CO_2, N_2O, and CH_4. Emissions from energy use include emissions from electricity and natural gas use. The emissions factors for natural gas combustion are based on the U.S. EPA's AP-42 (Compilation of Air Pollutant Emissions Factors) and California Climate Action Registry. Electricity emissions are calculated by multiplying the energy use by the carbon intensity of the utility district per kilowatt hour (CalEEMod User Guide 2016). The default electricity consumption values in CalEEMod include the California Energy Commission-sponsored California Commercial End Use Survey and Residential Appliance Saturation Survey studies.

Emissions associated with area sources, including consumer products, landscape maintenance, and architectural coating were calculated in CalEEMod and utilize standard emission rates from ARB, U.S. EPA, and emission factor values provided by the local air district (CalEEMod User Guide 2016).

Emissions from waste generation were also calculated in CalEEMod and are based on the IPCC's methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (CalEEMod User Guide 2016). Waste disposal rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by the California Department of Resources Recycling and Recovery (CalRecycle).

Emissions from water and wastewater usage calculated in CalEEMod were based on the default electricity intensity from the California Energy Commission's *2006 Refining Estimates of Water-Related Energy Use in California* using the average values for northern and southern California.

For mobile sources, CO_2 and CH_4 emissions from vehicle trips to and from the project site were quantified using CalEEMod. Because CalEEMod does not calculate N_2O emissions from mobile sources, N_2O emissions were quantified using the California Climate Action Registry General Reporting Protocol (January 2009) direct emissions factors for mobile combustion (Appendix A provides calculations). Rates for N_2O emissions were based on the vehicle fleet mix output generated by CalEEMod and the emission factors found in the California Climate Action Registry General Reporting Protocol.

Discussion

a. *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*

Construction activities, energy use, daily operational activities, and mobile sources (traffic) would result in new GHG emissions from the preferred project and Alternatives 1 and 2. CalEEMod was used to calculate emissions resulting from the preferred project (and alternatives) construction and long-term operation. Project-related construction emissions are confined to a relatively short period of time in relation to the overall life of the project. Therefore, construction-related GHG emissions were amortized over a 25-year period to determine the annual construction-related GHG emissions over the life of the project. Table 5 shows construction emissions for the preferred project and Alternatives 1 and 2, which are the same. As shown in Table 5, the construction would result in an annualized average of approximately 16 MT CO_2e/yr. Table 6 shows the preferred project's total annual GHG emissions, including operational emissions and annualized construction emissions. In addition, Table 6 shows the estimated GHG emissions associated with Alternatives 1 and 2.

Table 5 Estimated Construction Greenhouse Gas Emissions

Year	Preferred Project and Alternatives 1 and 2 Construction Emissions (MT CO_2e/yr)
Total	399
Total Amortized over 25 Years	16

See Appendix A for CalEEMod worksheets

Table 6 Combined Annual Emissions of Greenhouse Gases

Emission Source	**Annual Emissions (MT CO_2e/yr)**
Construction	16
Operational	
Area	<1
Energy	474
Solid Waste	2
Water	10
Mobile	
CO_2 and CH_4	258
N_2O[1]	14
Preferred Project Total GHG Emissions	774
Alternative 1 Total GHG Emissions	765
Alternative 2 Total GHG Emissions	666
GHG Emissions Threshold	1,150
Exceeds Threshold?	NO

[1] N_2O output is not calculated by CalEEMod. See NO_x from Mobile Worksheet in Appendix A

See Appendix A for CalEEMod worksheets.

As shown in Table 6, the project is estimated to produce approximately 774 metric tons of CO_2e per year. The project's annualized GHG emissions would not exceed the SLOAPCD's GHG emissions threshold of 1,150 MT CO_2e. Therefore, the projects impacts would be less than significant. As shown in Table 6, Alternatives 1 and 2 would result in similar GHG emissions to the project, and similarly would not exceed the SLOAPCD's GHG emissions threshold. Impacts would be **less than significant.**

b. *Would the project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

City of San Luis Obispo Climate Action Plan

In 2012, the City of San Luis Obispo adopted its Climate Action Plan for reducing greenhouse gas emissions. The plan identifies strategies to guide the development and implementation of GHG reduction measures in the City of San Luis Obispo and quantifies the emissions reductions that result from these strategies. In addition to addressing strategies to reduce GHG emissions, the Climate Action Plan includes adaptation measures to improve the City's ability to address the potential impacts that climate change may have on the City and its residents. The Climate Action Plan enables the City to maintain local control of implementing state direction (AB 32 – the California Global Warming Solutions Act) to reduce GHG emissions to 1990 levels by 2020. GHG reduction strategies align with existing General Plan policies and Climate Action Plan.

Senate Bill 32

On September 8, 2016, the governor signed Senate Bill 32 (SB 32) into law, which requires the State to reduce GHGs to 40 percent below 1990 levels by 2030. SB 32 is an extension of AB 32. SB 32 extends AB 32, directing ARB to ensure that GHGs are reduced to 40 percent below the 1990 level by 2030. The other provisions of AB 32 remain unchanged. The project would be in operation before the SB 32 horizon. The California Air Resources Board is currently working to update the Scoping Plan to provide a framework for achieving the 2030 target. The updated Scoping Plan is expected to be completed and adopted by the California Air Resources Board in 2016 (California Air Resources Board 2015).

As part of the analysis in checklist question a, the project would not result in new significant impacts related to greenhouse gas emissions. As the applicable GHG thresholds have been developed by SLOAPCD, and the project would not exceed the adopted GHG thresholds, the preferred project and Alternatives 1 and 2 would not conflict with applicable policies to reduce GHG emissions. Therefore, this impact would be **less than significant.**

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8 Hazards and Hazardous Materials

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials	☐	☐	■	☐
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	☐	☐	■	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school	☐	☐	■	☐
d. Be located on a site that is included on a list of hazardous material 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?	☐	■	☐	☐
e. For a project located in 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	☐	☐	☐	■
f. For a project near a private airstrip, would it result in a safety hazard for people residing or working in the project area	☐	☐	☐	■
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan	☐	☐	■	☐
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	☐	☐	■	☐

A hazardous materials assessment for the project site was prepared in April 2011 by Earth Systems Pacific (Appendix B). Additionally, a constraints-level Environmental Assessment report was conducted in 2005. The information contained in the 2005 study was incorporated by reference into the hazardous materials assessment conducted in April 2011.

Setting

Under Title 22 of the California Code of Regulations (CCR), the term “hazardous substance” refers to both hazardous materials and hazardous wastes. Both of these are classified according to four properties: toxicity, ignitability, corrosiveness, and reactivity (CCR Title 22, Chapter 11, Article 3). A hazardous material is defined as a substance or combination of substances that may cause or significantly contribute to an increase in serious, irreversible, or incapacitating illness, or may pose a substantial presence or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed. Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been discarded, discharged, spilled, or contaminated or are being stored until they can be disposed of properly (CCR Title 22, Chapter 11, Article 2, Section 66261.10). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific CCR Title 22 criteria.

Factors that can influence the health effects when human beings are exposed to hazardous materials include the dose the person is exposed to, the frequency of exposure, the duration of exposure, the exposure pathway (route by which a chemical enters a person’s body), and the individual’s unique biological susceptibility.

Federal

Many agencies regulate hazardous substances. These include federal agencies such as the U.S. EPA, the Occupational Safety and Health Administration (OSHA), the Department of Transportation, and the National Institute of Health. The following are federal laws and guidelines governing hazardous substances:

- Federal Water Pollution Control Act
- Clean Air Act
- Occupational Safety and Health Act
- Federal Insecticide, Fungicide, and Rodenticide Act
- Comprehensive Environmental Response Compensation and Liability Act
- Guidelines for Carcinogens and Biohazards
- Superfund Amendments and Reauthorization Act Title III
- Resource Conservation and Recovery Act
- Safe Drinking Water Act
- Toxic Substances Control Act

At the federal level, the principal agency regulating the generation, transportation and disposal of hazardous substances is the U.S. EPA, under the authority of the Resource Conservation and Recovery Act (RCRA). The U.S. EPA regulates hazardous substance sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). Applicable federal regulations are contained primarily in Titles 29, 40, and 49 of the Code of Federal Regulations (CFR).

State

The California Environmental Protection Agency (CalEPA) and the Governor’s Office of Emergency Services establish rules governing the use of hazardous substances. The State Water Resources Control Board has primary responsibility to protect water quality and supply.

Applicable State laws include the following:

- Porter Cologne Water Quality Act
- Public Safety/Fire Regulations/Building Codes
- Hazardous Substance Control Law
- Hazardous Substances Information and Training Act
- Hazardous Substances Release Response Plans and Inventory Act
- Air Toxics Hot Spots and Emissions Inventory Law
- Underground Storage of Hazardous Substances Act

Within CalEPA, the Department of Toxic Substances Control, formerly the Department of Health Services, has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the state agency, for the generation, transportation and disposal of hazardous substances under the authority of the Hazardous Waste Control Law. State regulations applicable to hazardous substances are indexed in Title 26 of the California Code of Regulations (CCR).

Discussion

a. *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

b. *Would the project 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?*

The preferred project includes a parking structure, small commercial space, and theater. Alternative 1 includes a parking structure, small commercial space, four residential units, and theater, while Alternative 2 includes a parking structure, small commercial space, and 22 residential units. Operational activities associated with the preferred project and alternatives would not require the routine storage or transport of hazardous substances. Similarly, neither the preferred project nor alternatives would include any activities that would create a hazard to the public through upset or accident conditions involving the release of hazardous materials. However, the preferred project and either of the alternatives would involve the removal or demolition of five residential units and a detached garage that were constructed between 1927 and 1957. Due to their age, these existing structures may contain asbestos and lead. Demolition and transport of materials from these structures could result in health hazard impacts to workers if the structures are not remediated prior to construction activities.

Asbestos, a naturally occurring fibrous material, was used as a fireproofing and insulating agent in building construction before being banned by the U.S. EPA in the 1970s. Because it was widely used prior to discovery of its negative health effects, asbestos can be found in a variety of building materials and components including sprayed-on acoustic ceiling materials, thermal insulation, wall and ceiling texture, floor tiles, and pipe insulation. The California Occupational Safety and Health Administration (Cal/OSHA) considers asbestos-containing building materials to be hazardous when a sample contains more than 0.1 percent asbestos by weight; Cal/OSHA requires it to be handled by a licensed, qualified contractor.

Lead can be found in paint, water pipes, plumbing solder, and in soils around buildings and structures with lead-based paint. In 1978, the federal government required the reduction of lead in house paint to less than 0.06 percent (600 parts per million [ppm]). However, some paints manufactured after 1978 for industrial uses or marine uses legally contain more than 0.06 percent lead. Exposure to lead can result in bioaccumulation of lead in the blood, soft tissues, and bones. Children are particularly susceptible to potential lead-related health problems because lead is easily absorbed into developing systems and organs.

Prior to any building demolition, CCR Title 8 Section 5208 requires that a state-certified risk assessor conduct a risk assessment and/or paint inspection of all structures constructed prior to 1978 for the presence of asbestos. If such hazards are determined to exist on site, the risk assessor would prepare a site-specific hazard control plan detailing asbestos-containing building material removal methods and specific instructions for providing protective clothing and gear for abatement personnel. If necessary, the project sponsor would be required to retain a state-certified asbestos-containing building material removal contractor (independent of the risk assessor) to conduct the appropriate abatement measures as required by the plan. Wastes from abatement and demolition activities would be disposed of at a landfill(s) licensed to accept such waste. Once all abatement measures have been implemented, the risk assessor would conduct a clearance examination and provide written documentation to the City that testing and abatement have been completed in accordance with all federal, state, and local laws and regulations.

Several regulations and guidelines pertain to abatement of and protection from exposure to lead-based paint. These include Construction Safety Order 1532.1 from Title 8 of the CCR and lead-based paint exposure guidelines provided by the US Department of Housing and Urban Development. In California, lead-based paint abatement must be performed and monitored by contractors with appropriate certification from the California Department of Health Services. Compliance with existing regulations would ensure impacts related to hazardous materials exposure associated with the preferred project and Alternatives 1 and 2 would be **less than significant**.

c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?*

The project site is located within 0.25 mile of a sensitive use, the existing Mission College Preparatory (Mission Prep) School. However, as discussed under Impacts a and b, neither the preferred project nor Alternatives 1 or 2 includes uses that would result in the routine transport, use, disposal, handling, or emission of any hazardous materials that would create a significant hazard to the public or to the environment, including at the existing school. Therefore, impacts would be **less than significant**.

d. *Would the project be located on a site included on a list of hazardous material 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?*

Based on the results of a government database records search, the project site is not included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. The Cortese database identified one site located within one-eighth mile from the project site at 748 Pismo Street. This site is listed as a leaking underground storage tank (LUST) site where cleanup has been completed. Due to the closed status of hazardous materials case at this site, it would not affect the project site. In addition, the RWQCB identified one historical LUST site located within one-eighth mile of the project site at 641 Higuera Street. Due to the closed status of hazardous materials case at this site, it would not affect the project site.

However, according to the hazardous materials assessment in the Geotechnical Report, archived documents at the City of San Luis Obispo Fire Department indicate that the previous use of the site as a welding/automobile repair shop contained several areas of oil-stained soil, a dry well, and a hydraulic lift (Earth Systems Pacific 2011). It is unknown whether or not soil sampling was conducted at the time of removal of these features and there is a potential that these or other undocumented buried features would be encountered during excavation. Furthermore, soil samples taken (in 2005) at three and four feet indicate the presence of total petroleum hydrocarbons in quantities that exceed City of San Luis Obispo Fire Department action levels. The presence of nickel and chromium were also detected, although the concentrations were below actionable levels. Because the preferred project, Alternative 1, and Alternative 2 would require excavation and removal of existing fill based on the geotechnical analysis, construction activities could result in potential health impacts to workers exposed to on-site soils. Therefore, Mitigation Measure HAZ-1 would be required to reduce impacts associated with the preferred project, Alternative 1, or Alternative 2 to a less than significant level.

Mitigation Measure

The following mitigation measure would reduce impacts associated with the preferred project and Alternatives 1 and 2 to a less than significant level.

HAZ-1 **Hazardous Materials Soil Sampling and Remediation.** Prior to issuance of grading permits, additional soil samples testing for total petroleum hydrocarbons shall be performed. A work plan shall be completed to address the sampling protocols to be followed, as well as the number of samples to be taken and the chemical analysis required. Upon City of San Luis Obispo approval, the work plan shall be implemented and the results of the soil sampling shall be forwarded to the City of San Luis Obispo. The City should review the data to determine if any additional investigation or remedial activities are deemed necessary. No work shall resume in that area until the lead local regulatory agency has provided written authorization that the area does not warrant any additional action.

If concentrations of contaminants warrant remediation, contaminated materials shall be remediated either prior to or concurrent with construction. Remediation shall generally include a management plan which establishes design and implementation of remediation. Cleanup may include excavation, disposal, bio-remediation, or any other treatment of conditions subject to regulatory action. All necessary reports, regulations and permits shall be followed to achieve cleanup of the site. The contaminated materials shall be remediated under the supervision of an environmental consultant licensed to oversee such remediation and under the direction of the lead oversight agency. The remediation program shall also be approved by the San Luis Obispo Fire Department. All proper waste handling and disposal procedures shall be followed. Upon completion of the remediation, the environmental consultant shall prepare a report summarizing the project, the remediation approach implemented, and the analytical results after completion of the remediation, including all waste disposal or treatment manifests.

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?*

f. *For a project near a private airstrip, would it result in a safety hazard for people residing or working in the project area?*

The project site is not located within an airport land use plan area or in two miles of a public use airport or airstrip. There are no private airstrips in the vicinity of the project site that would result in a safety hazard for people residing or working in the project area. **No impact** would result.

g. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The project would involve the removal of the existing parking lot, detached garage, and residential structures and the construction of a parking structure, commercial space, and theater (and residential units under Alternatives 1 and 2). Construction of neither the preferred project nor Alternative 1 or 2 would impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. The preferred project and Alternatives 1 and 2 would be required to comply with San Luis Obispo Fire Department specifications and Chapter 5 of the California Fire Code. Impacts would be **less than significant**.

h. Would the project 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?

The project site is surrounded by urban development and no wildlands are in the vicinity of the project site. According to the Safety Element of the City's General Plan, the project site is not located in an area considered at risk for wildland fires. Therefore, **no impacts** would occur.

9 Hydrology and Water Quality

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Violate any water quality standards or waste discharge requirements	☐	☐	■	☐
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 or the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)	☐	☐	■	☐
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 that would result in substantial erosion or siltation on- or off-site?	☐	☐	■	☐
d. Substantially alter the existing drainage pattern of the site or area, including the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite	☐	☐	■	☐
e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff	☐	☐	■	☐
f. Otherwise substantially degrade water quality	☐	☐	■	☐
g. Place housing in a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map	☐	☐	■	☐
h. Place structures in a 100-year flood hazard area that would impede or redirect flood flows	☐	☐	■	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including that occurring as a result of the failure of a levee or dam	☐	☐	☐	■
j. Result in inundation by seiche, tsunami, or mudflow	☐	☐	☐	■

Setting

Drainage Patterns

The project site is located within the San Luis Obispo Creek Watershed, which drains an area of approximately 84 square miles, including the City of San Luis Obispo and its surrounding hills, mountains, and valleys. According to the San Luis Obispo Waterway Management Plan (WMP), average seasonal precipitation in the City of San Luis Obispo is approximately 21 inches. Because the City is part of a coastal watershed, it is subject to wide ranges in precipitation from droughts to heavy storms.

Flooding

Flooding within the San Luis Obispo Creek system is generally caused by intense Pacific storm systems that occur during the months of December, January, February, and March. The great topographic variability of the watershed causes these systems to drop large amounts of precipitation, especially along the higher ridgelines. The Irish Hills, cresting at about 1,650 feet in elevation, can experience twice the rainfall observed in the lower portions of the watershed. San Luis Obispo Creek can respond very quickly to short, high intensity rainfall bursts. Floods in San Luis Obispo Creek tend to be of high magnitude and relatively short duration.

Water Quality

According to the Regional Water Quality Control Board (RWQCB, San Luis Obispo Creek is on the 2010 Clean Water Act Section 303(d) list of impaired waters for pathogens. Urban stormwater runoff and agricultural runoff are identified as the primary sources of pathogens to the creek. To address pathogen levels the Central Coast Water Board adopted a total maximum daily load (TMDL) for pathogens in the San Luis Obispo Creek, which went into effect July 2005. In 2010, two San Luis Obispo Creek tributaries, Stenner Creek and Prefumo Creek, were added to the TMDL as impaired waters for pathogens. The TMDL implementation schedule calls for achieving pathogen levels in San Luis Obispo Creek and its tributaries by 2015. A Water Quality report created in 2013 stated that TMDL targets for pathogens in San Luis Obispo Creek are not being met in the urban boundary and downstream of urban boundary. The City of San Luis Obispo is tasked to evaluate implementation of additional stormwater management practices to reduce and/or eliminate bacteria discharge associated with the tunnelized portion of San Luis Obispo Creek, which runs under the city’s business district (Central Coast Regional Water Quality Control Board, Report Card 2013). The project site is roughly 200 feet from the San Luis Obispo Creek.

Groundwater quality in the San Luis Obispo Groundwater Basin has been reduced in part due to the degradation of surface waters in San Luis Obispo Creek. Groundwater in the unconfined aquifers within the basin contains high levels of nitrates, iron, manganese, and organic compounds.

Discussion

a. Would the project violate any water quality standards or waste discharge requirements?

f. Would the project otherwise substantially degrade water quality?

The protection of water quality is under the jurisdiction of the RWQCB, and the preferred project would be required to comply with all state and federal requirements pertaining to the preservation of water quality. As previously discussed, a National Pollution Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction Activities is required when a site involves clearing, grading, disturbances to the ground, such as stockpiling, or excavation that results in soil disturbances of one or more acres of total land area. Coverage under the General Permit must also be obtained prior to construction and the preferred project is subject to these requirements.

Under the conditions of the permit, the City, as the project applicant, would be required to eliminate or reduce non-storm water discharges to waters of the nation, develop and implement a Storm Water Pollution Prevention Plan (SWPPP) for the project construction activities, and perform inspections of the storm water pollution prevention measures and control practices to ensure conformance with the site SWPPP. The state permit prohibits the discharge of materials other than storm water discharges, and prohibits all discharges that contain a hazardous substance in excess of reportable quantities established at 40 CFR 117.3 or 40 CFR 302.4. The state permit also specifies that construction activities must meet all applicable provisions of Sections 30 and 402 of the Clean Water Act. Conformance with Section 402 of the Clean Water Act would ensure that the preferred project does not violate any water quality standards or waste discharge requirements.

In addition, the preferred project and Alternatives 1 and 2 would be required to comply with the City's and RWQCB's Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region. To demonstrate compliance, a Stormwater Control Plan is required to be submitted for the project. Based on compliance with existing regulations, neither the preferred project nor Alternatives 1 or 2 would violate any water quality standards or waste discharge requirements, or substantially degrade surface or groundwater quality, and potential impacts would be **less than significant**.

b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering or the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

The project site is currently developed with an existing City-owned parking lot, five residences, and a detached garage. The preferred project would replace the existing parking lot and buildings with a parking structure, a small commercial space, and theater. Alternative 1 includes a parking structure, small commercial space, four residential units, and theater, while Alternative 2 includes a parking structure, small commercial space, and 22 residential units. Because the current use of the site is developed, the preferred project would not result in additional impervious surface area. The preferred project would also mimic existing on-site drainage patterns. Therefore, the net change in impervious surfaces would not increase and existing drainage patterns would remain the same, the preferred project would not interfere with groundwater recharge.

In addition, the preferred project and alternatives would not interfere with groundwater on-site, due to the depth of groundwater (Earth Systems Pacific 2011), and only two percent of the City's water supply comes from groundwater sources. Therefore, neither the preferred project nor Alternatives 1 or 2 would substantially deplete groundwater supply, and impacts would be **less than significant**.

c. Would the project substantially alter the existing drainage pattern of the site or area, including by altering the course of a stream or river, in a manner that would result in substantial erosion or siltation on or offsite?

d. Would the project substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite?

e. Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

The majority of the project site is covered with impervious surfaces, due to the existing City-owned parking lot, five residences, and detached garage. In addition, the preferred project and Alternatives 1 and 2 would utilize existing drainage infrastructure. As previously mentioned, no net change in impervious surfaces would occur and the existing drainage patterns would remain the same. In addition, neither the preferred project nor alternatives would result in substantial new sources of stormwater runoff. Stormwater runoff rates would be similar to existing conditions and existing stormwater infrastructure would be utilized. Impacts to the existing drainage patterns and drain infrastructure associated with the preferred project and Alternatives 1 and 2 would be **less than significant**.

g. Would the project place housing in a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map?

h. Would the project place in a 100-year flood hazard area structures that would impede or redirect flood flows?

The western edge of the project site is within a 100-year flood zone, as designated on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map ID 06079C1068F. According to the map, however, the flood elevation is 188 feet, which is two feet below finish floor for the lowest level of the proposed structure (RRM Design 2017). Therefore, neither the preferred project nor Alternatives 1 and 2 would place housing in a 100-year flood hazard or impede or redirect flood flows. **No impact** associated with the preferred project and Alternatives 1 and 2 would occur.

i. Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding including that occurs as a result of the failure of a levee or dam?

j. Would the project result in inundation by seiche, tsunami, or mudflow?

The project site is located 10 miles from the Pacific Ocean with elevations ranging between 190 and 203 feet above sea level. The project site is not located in a dam inundation area or Tsunami Inundation Zone, as designated by San Luis Obispo County. The potential for a tsunami to affect the site is nil (Earth Systems Pacific 2011). The closest open body of water to the site is Laguna Lake, located approximately 1.63 miles west and separated by Cerro San Luis and associated topography. Given the distance from Laguna Lake and the terrain that exists between the site and the lake, no seiche impact would occur. **No impact** associated with the preferred project and Alternatives 1 and 2 would occur with respect to flooding as a result of levee or dam failure, or inundation by seiche, tsunami, or mudflow.

10 Land Use and Planning

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts?				
a. Physically divide an established community	☐	☐	☐	■
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	☐	☐	■	☐
c. Conflict with an applicable habitat conservation plan or natural community conservation plan	☐	☐	☐	■

Setting

The City has approximately 46,117 residents (California Department of Finance 2016), and covers roughly 13 square miles. Primary land uses include residential development at a low to moderate density, professional services, government facilities, and general retail. The core of the City constitutes a compact urban form, including a downtown area and distinct surrounding neighborhoods. The City is surrounded by a green belt, which defines a separation of urban uses within the City and rural uses outside of the City.

Regulatory Setting

The project site is located within the jurisdiction of the City of San Luis Obispo. The following regulatory framework includes policies identified in the City's General Plan *Land Use Element, Circulation Element,* and *Conceptual Physical Plan for the City's Center* that apply to the project.

San Luis Obispo City General Plan Land Use Element (2014). The following *Land Use Element* policies would apply to the preferred project:

> **4.10 Parking.** The city shall ensure there is a diversity of parking opportunities in the Downtown. Any major increments in parking supply should take the form of structures, located at the edges of the commercial core, so people will walk rather than drive between points within the core. Retail uses outside the core, and professional office developments, may have on-site parking for customers and clients.

San Luis Obispo City General Plan Circulation Element (2014). The following Circulation Element policies would apply to the preferred project:

> **13.2.4 Public Parking Structures.** The city shall only approve construction of additional parking structures after considering the findings and results of a parking supply and demand study.

The Conceptual Plan for the City's Center (Downtown Plan 2016). This plan calls for the project area to be developed with cultural facility uses fronting Monterey Street, retail uses fronting Nipomo Street, and a parking structure use fronting Palm Street. The plan also recommends that vehicle congestion in the downtown be minimized by locating parking facilities at the core's periphery along key streets that enter the City.

Discussion

a. *Would the project physically divide an established community?*

The project or alternatives would be located on a developed parcel within an urban setting and would not divide an established community. **No impact** associated with the preferred project or alternatives would occur.

b. *Would the project 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?*

The Land Use, Circulation, and Housing Elements of the City's General Plan, along with the Zoning Ordinance, are the primary land use planning guidance documents for the development pattern of the City. The site's existing General Plan land use designations are Office and Medium-High Density Residential. Its zoning designation is Office with a Historic Overlay (O-H) and Medium-High Density Residential (R-3). The project would involve a General Plan amendment to amend the General Plan Land Use Map from Office and Medium-High Density Residential to Public and a Zone Change to amend the Zoning Map from Office with a Historic Overlay (O-H) and Medium-High Density Residential (R-3) to Public Facility with a Historic Overlay (PF-H). It would also require the approval of a Use Permit by the Planning Commission to allow the multi-level parking structure and non-profit theater, as well as deviation to otherwise applicable setback requirements and building height limits. Office, retail, and residential uses would be allowed as accessory uses of the parking and theater facilities. In addition, the project would require variances for the floor to area ratio to exceed 1.0 and maximum coverage to exceed 60 percent. Upon approval of the General Plan amendment/Zone Change, Use Permit, and variances, General Plan amendment, and Zone Change, the impacts of which are discussed throughout this document, the project would be consistent with the land use and zoning designations.

The preferred project would be consistent with both Land Use and Circulation Element Policies. Circulation Element Policy 13.2.4 requires completion of a comprehensive parking study prior to development of parking structure projects. Such a study was completed for the proposed structure by an Ad Hoc Parking Review Committee in March 2009; the study determined that a downtown structure will be required to meet the City's downtown parking needs within the next 5 to 10 years. As such, the preferred project and alternatives would be consistent with the City's general plan. Impacts associated with the preferred project and Alternatives 1 and 2 would be **less than significant**.

c. *Would the project conflict with an applicable habitat conservation plan or natural community conservation plan?*

No habitat conservation or natural community conservation plans that apply to the project site. **No impact** associated with the preferred project and Alternatives 1 and 2 would occur.

11 Mineral Resources

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project have any of the following impacts:				
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?	☐	☐	☐	■
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?	☐	☐	☐	■

Setting

According to the City’s Conservation and Open Space Element, quarries and mines in the San Luis Obispo area previously produced basaltic stone, “red rock,” and cinnabar. However, mining is no longer permitted within the City, pursuant to Section 17.08.070 of the Zoning Regulations.

Discussion

a. Would the project 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?

b. Would the project 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?

The project site is currently developed with an existing City-owned parking lot, four five residential structures, and a detached garage. The preferred project would replace the existing parking lot and buildings with a parking structure, a small commercial space, and theater. Alternative 1 includes a parking structure, small commercial space, four residential units, and theater, while Alternative 2 includes a parking structure, small commercial space, and 22 residential units. As such, neither the preferred project nor Alternatives 1 or 2 would result in the loss of a known mineral resource. Moreover, extraction of mineral resources is not permitted within the City limits. There would be **no impact** to mineral resources or due to the preferred project or Alternatives 1 or 2.

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12 Noise

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in any of the following impacts?				
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	■	☐	☐	☐
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels	■	☐	☐	☐
c. A substantial permanent increase in ambient noise levels above those existing prior to implementation of the project	☐	☐	■	☐
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above those existing prior to implementation of the project	■	☐	☐	☐
e. For a project located in 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	☐	☐	☐	■
f. For a project near a private airstrip, would it expose people residing or working in the project area to excessive noise	☐	☐	☐	■

Setting

Sensitive receptors near the project site include adjacent residences to the south and east, the Mission College Preparatory School athletic field to the north, residences across Nipomo Street to the west, and residences and the San Luis Obispo Children’s Museum to the south.

Regulatory Setting

STATE OF CALIFORNIA

The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, freeway noise affecting classrooms, sound transmission control, occupational noise control, and airport noise. The state has also developed land use compatibility guidelines for community noise environments.

The State Office of Noise Control in “Guidelines for the Preparation and Content of Noise Elements of the General Plan,” (November 1988) provided guidance for the acceptability of projects within specific CNEL contours. It diagrammatically identifies “normally acceptable,” “conditionally acceptable,” “normally unacceptable,” and “clearly unacceptable” noise levels for various land use types. For the residential uses, CNEL of up to 60 dBA for low-density residential (65 dBA for multi-family) is normally acceptable. A noise exposure of up to 70 dBA is considered normally acceptable for schools, churches, and libraries.

CITY OF SAN LUIS OBISPO

The noise criteria for the City and the State of California for current and projected conditions state that the noise intrusive to interior habitable space of residential units from exterior sources should not exceed 45 decibels (dBA) CNEL. Outdoor living areas are restricted to 60 dB CNEL. Table 7 lists the maximum noise exposure for noise-sensitive uses due to transportation noise sources.

The Noise Element and Noise Guidebook (1996) of the City of San Luis Obispo General Plan uses modified land use compatibility standards recommended by the California Department of Health Services. The City’s maximum noise exposure standards for noise-sensitive land uses (specific to transportation noise sources) are shown in Table 7.

Table 7 Maximum Noise Exposure for Noise-Sensitive Uses Due to Transportation Noise Sources

	Outdoor Activity Areas[1]	Indoor Spaces		
Land Use	L_{dn} or CNEL, in dBA	L_{dn} or CNEL, in dBA	L_{eq} in DB[2]	L_{max} in dB[3]
Residences, hotels, motels, hospitals, nursing homes	60	45	–	60
Theaters, auditoriums, music halls	–	–	35	60
Churches, meeting halls, office buildings, mortuaries	60	–	45	–
Schools, libraries, museums	–	–	45	60
Neighborhood parks	65	–	–	–
Playgrounds	70	–	–	–

[1] If the location of the outdoor activity areas is not shown, the outdoor noise standard shall apply at the property line of the receiving land use.

[2] As determined for a typical worst-case hour during periods of use.

[3] Lmax indoor standard applies only to railroad noise at locations south of Orcutt Road.

Source: City of San Luis Obispo General Plan Noise Element, 1996

The City requires that noise generated by new stationary sources be mitigated so as not to exceed the exposure standards shown in Table 8 for noise-sensitive uses, as measured at the property line of the receiver. Table 8 for noise-sensitive uses, as measured at the property line of the receiver.

Table 8 Maximum Noise Exposure for Noise-Sensitive Land Use Areas Due to Stationary Noise Sources

	Daytime (7:00 AM to 10:00 PM)	Nighttime (10:00 PM to 7:00 AM)
Hourly Leq in dB[1, 2]	50	45
Maximum level in dB[1, 2]	70	65
Maximum impulsive noise in dB[1, 3]	65	60

[1] As determined at the property line of the receiver. When determining effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property-line noise mitigation measures.

[2] Sound level measurements shall be made with slow meter response.

[3] Sound level measurements shall be made with fast meter response.

Source: City of San Luis Obispo General Plan Noise Element, 1996.

The City's Noise Element lists mitigation strategies in a descending order of preference. If preferred strategies are not implemented, it is the responsibility of the project applicant to demonstrate through a detailed noise study that the preferred approaches are either not effective or not practical, before considering other design criteria described in the General Plan. The City considers the following mitigation measures appropriate where existing sound levels significantly impact noise-sensitive land uses, or where cumulative increases in sound levels resulting from new development significantly impact existing noise-sensitive land uses:

1. Rerouting traffic onto streets that can maintain desired levels of service, consistent with the Circulation Element, and which do not adjoin noise-sensitive land uses.
2. Rerouting trucks onto streets that do not adjoin noise-sensitive land uses.
3. Constructing noise barriers.
4. Reducing traffic speeds through street or intersection design methods.
5. Retrofitting buildings with noise-reducing features.
6. Establishing financial programs, such as low-cost loans to owners of a noise-impacted property, or developer fees to fund noise-mitigation or trip-reduction programs.

The following Noise Element policies are applicable to the project and the local noise environment:

Policy 1.4. New Transportation Noise Sources. Noise created by new transportation noise sources, including road, railroad, and airport expansion projects, shall be mitigated to not exceed the levels specified in Table 4.10-3 for outdoor activity areas and indoor spaces of noise-sensitive land uses which were established before the new transportation noise source.

Policy 1.6. New Development and Stationary Noise Sources. New development of noise-sensitive land uses may be permitted only where location or design allow the development to meet the standards of Table 4.10-4, for existing stationary noise sources.

Title 9, Chapter 9.12 (Noise Control) of the City's Municipal Code specifies noise standards for various categories of land use. These limits, shown in Table 9, would apply to long-term operation of the site, and are not applicable during construction. As shown in Table 10, these noise level standards are not to be exceeded more than 30 minutes in any one hour and noise levels are prohibited from exceeding the noise level standard plus 20 dBA for any period of time.

Table 9 Exterior Noise Limits (Levels Not To Be Exceeded More Than Thirty Minutes in Any Hour)

Zoning Category	Time Period	Noise Level (dBA)
R-1 and R-2 C/OS Low Density Residential	7:00 a.m. – 10:00 p.m.	55
	10:00 p.m. – 7:00 a.m.	50
R-3 and R-4 High Density Residential	7:00 a.m. – 10:00 p.m.	55
	10:00 p.m. – 7:00 a.m.	50
Office and Public Facility (O and PF)	7:00 a.m. – 10:00 p.m.	60
	10:00 p.m. – 7:00 a.m.	55
Neighborhood, Retail, Community, Downtown and Tourist Commercial (C-N, C-R, C-C, C-D, C T)	7:00 a.m. – 10:00 p.m.	65
	10:00 p.m. – 7:00 a.m.	60

Source: City of San Luis Obispo Municipal Code.

Table 10 Maximum Time Periods for Increased Noise Levels

Noise Standard for Existing Land Use	Maximum Time Period Allowed
+0 dBA	30 minutes/hour
+5 dBA	15 minutes/hour
+10 dBA	5 minutes/hour
+15 dBA	1 minute/hour
+20 dBA	Any time

Source: City of San Luis Obispo Municipal Code Section 9.12.060

Table 11 and Table 12 show the City’s maximum allowable noise levels for short-term operation of mobile equipment and long-term operation of stationary equipment at residential properties. Where technically and economically feasible, the City requires that construction activities that use mobile or stationary equipment which may result in noise at residential properties be conducted so that maximum sound levels from mobile equipment at affected properties would not exceed 85 dBA for mixed residential/commercial land uses (Municipal Code 9.12.050). Except for emergency repair of public service utilities, or where an exception is issued by the City Community Development Department, the City prohibits operation of tools or equipment used in construction, drilling, repair, alteration, or demolition work daily between the hours of 7:00 PM and 7:00 AM, or any time on Sundays or holidays, such that the sound creates a noise disturbance across a residential or commercial property line.

Table 11 Maximum Noise Levels for Nonscheduled, Intermittent, Short-term Operation (Less than Ten Days) of Mobile Equipment

	Single-Family Residential	Multi-Family Residential	Mixed Residential/ Commercial
Daily, except Sundays and legal holidays 7:00 a.m. to 7:00 p.m.	75 dBA	80 dBA	85 dBA
Daily, 7:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	60 dBA	65 dBA	70 dBA

Source: City of San Luis Obispo Municipal Code.

Table 12 Maximum Noise Levels for Repetitively Scheduled and Relatively Long-Term Operation (Periods of Ten Days or More) of Stationary Equipment

	Single-Family Residential	Multi-Family Residential	Mixed Residential/ Commercial
Daily, except Sundays and legal holidays 7:00 a.m. to 7:00 p.m.	60 dBA	65 dBA	70 dBA
Daily, 7:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	50 dBA	55 dBA	60 dBA

Source: City of San Luis Obispo Municipal Code.

Discussion

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?*

c. *A substantial permanent increase in ambient noise levels above levels existing without the project?*

The project would introduce new commercial and parking uses on the project site. Existing sensitive uses near the project site and proposed new uses on-site may periodically be subject to noise associated with operation of the project, including stationary equipment, such as heating, ventilation, and air conditioning HVAC systems, trash hauling, parking structure noise, and other general activities associated with commercial and parking activities. However, these on-site sources of operational noise would be similar to those associated with existing nearby commercial uses. Delivery truck and trash hauling trips to the site would be an occasional source of noise, and would be similar in noise level and frequency to existing truck trips associated with other commercial uses located adjacent to the project site. Typical noise sources associated with parking structures include tire squeal, doors slamming, car alarms and horns, and engine start-ups. As a result, impacts would be **potentially significant**, and this issue will be analyzed in the project EIR.

b. *Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

Project construction would potentially expose nearby sensitive receptors to a temporary increase in groundborne vibration levels. Groundborne vibration can expose nearby structures to vibration damage or excessive vibration noise. The ground motion caused by vibration is measured as particle velocity in inches per second (in/sec) peak particle velocity (PPV) and is referenced as vibration decibels (VdB). The City of San Luis Obispo considers construction-related vibration significant if construction-related activities create a vibration which is above the vibration perception threshold. The vibration perception threshold is defined in the City of San Luis Obispo Municipal Code (Section 9.12.050) as “The minimum ground or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration by such direct means as, but not limited to, sensation by touch or visual observation of moving objects. The perception threshold shall be presumed to be a motion velocity of 0.01 in/sec over the range of 1 to 100 Hz.”

In addition, the Federal Transit Administration’s (FTA’s) Transit Noise and Vibration Impact Assessment (2006) guidance is used to determine whether or not groundborne vibration resulting from project-related construction could cause damage to nearby structures. Damage criteria vary depending on the type of building adjacent to the vibration source. For example, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines state that a continuous vibration level of up to 102 velocity decibels (VdB) (an equivalent to 0.5 in/sec PPV) (FTA May 2006) would not result in any construction vibration damage. For older residential structures, the construction vibration damage criterion is 98 VdB (0.3 in/sec PPV). For non-engineered timber and masonry ("fragile") buildings, the construction vibration damage criterion is 88 VdB (0.1 in/sec PPV).

The FTA guidelines indicate that for fragile structures, such as those located immediately adjacent to the project site, a vibration level in excess of 88 VdB may result in damage. Construction of the proposed parking structure may require the use of driven piles or other construction techniques that would result in vibration levels up to 98 VdB at 50 feet from the source. Therefore, due to the project's proximity to fragile, historic structures and older residential structures that are sensitive to high levels of groundborne vibration, project construction may result in vibration levels that could cause structural damage to fragile historic structures or older residential structures. As a result, impacts associated with vibration would be **potentially significant**, and this issue will be analyzed in the project EIR.

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

The project would generate temporary noise in the project vicinity during the construction period. The main sources of noise during construction activities would be the heavy machinery used in grading and clearing the site. Average noise levels associated with the use of heavy equipment at construction sites can range from about 76 to 95 dBA at 25 feet from the source, depending upon the types of equipment in operation at any given time and phase of construction (FTA 2006).

In addition, the project would generate construction-related traffic that would occur over the construction period and would vary depending on the stage of construction. Vehicles containing construction materials and equipment would access the site throughout all construction phases. However, construction vehicles would be routed to avoid residential streets. The project would also include the demolition or relocation of the five existing homes and detached garage, which would generate hauling trips to and from the project site. The temporary noise generated by vehicles has the potential to disturb receptors nearby to the project, and along the routes to and from the project site. However, as previously noted, truck trips would be routed to avoid residential streets.

Noise-sensitive uses near the project site include residences to the east, residences immediately adjacent to the project site and across Monterey Street to the south, residential uses across Nipomo Street to the west, and Mission Prep School to the north of Palm Street. These land uses may experience a temporary noise annoyance during construction. Based on current site plans for the project, construction activities may occur within 25 feet or less of the residences to the east of the project site.

The City's noise standard for short-term construction activities (fewer than ten days) at residential uses is 75 dBA, and the standard for relatively long-term construction activity (10 days or more) at residential uses is 60 dBA. As a result, existing sensitive receptors could be exposed to construction noise that exceeds the City's applicable standards. Therefore, temporary noise during project construction is a **potentially significant** impact, and will be analyzed in the project EIR.

e. For a project located in 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?

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?

The project site is not located within the San Luis Obispo County Regional Airport Land Use Plan or in the vicinity of a private airstrip. Therefore, **no impact** associated with the preferred project and Alternatives 1 and 2 would result.

13 Population and Housing

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in any of the following impacts?				
a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)	☐	☐	■	☐
b. Displace substantial amounts of existing housing, necessitating the construction of replacement housing elsewhere	☐	☐	■	☐
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere	☐	☐	■	☐

a. Would the project 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)?

The preferred project does not involve development of residential uses and; therefore, would not induce population growth. However, Alternatives 1 and 2 would include residential units. Alternative 1 would include four units, while Alternative 2 would include 22 residential units. Assuming approximately 2.2 persons per household, Alternatives 1 and 2 would generate a population of 9 and 49 persons, respectively. This number of persons would not represent substantial population growth. In addition, this growth would occur within City limits where it would be served by existing urban services. Moreover, the residential component of Alternatives 1 or 2 would contribute to the housing stock of the City. Impacts associated with the preferred project and Alternatives 1 and 2 would **be less than significant**.

b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The preferred project would require the demolition of five residences and therefore displace approximately 11 persons. There are an estimated 20,951 housing units and 46,117 people within the City (Department of Finance 2016). While five units and approximately 11 individuals would be displaced, this does not represent a substantial number of people resulting in the need for replacement housing elsewhere. In addition, there are other planned and pending housing projects within the City that would compensate for the loss of housing on the project site. Alternative 1 would include four units, while Alternative 2 would include 22 residential units, which would offset the loss of the existing housing units. Impacts related to the displacement of housing or people associated with the preferred project and Alternatives 1 and 2 would be **less than significant**.

14 Public Services

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in any of the following impacts?				
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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:				
1. Fire protection	☐	☐	■	☐
2. Police protection	☐	☐	■	☐
3. Schools	☐	☐	■	☐
4. Parks	☐	☐	■	☐
5. Other public facilities	☐	☐	■	☐

Setting

Fire protection services are provided by the San Luis Obispo City Fire Department (SLOFD). The Fire Administration Department is staffed by four professionals, and the Emergency Response Department which is staffed by 42 firefighters. Services provided by SLOFD include fire response, emergency medical response, hazardous materials response, public assistance, and non-emergency services such as fire and life safety inspections, building inspections, fire code investigations, and public education (SLOFD 2016).

The San Luis Obispo Police Department (SLOPD) provides police protection for the city. The Department has 86.5 employees including 60 sworn police officers. The department is divided into two Bureaus; Operations and Administrative Services. The Operations Bureau includes the Patrol Services Division, the Traffic Safety Unit, Situation Oriented Response Team, and Neighborhood Services. The Administrative Services Bureau includes the Administrative Services Division, Investigative Division, Communications Division, and Records Unit (SLOPD 2016).

The San Luis Coastal Unified School District is the agency primarily responsible for providing school services to the City of San Luis Obispo. The District operates 10 elementary schools, two middle schools, three high schools, and an adult school.

Discussion

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 fire protection?

Fire protection services for the project would be provided by City Fire Station One, located at 2160 Santa Barbara Avenue, approximately one mile southeast of the project site. The project includes the removal of the existing parking lot, five residential units, and detached garage. Implementation of the preferred project would increase the intensity of use of the site and would marginally increase the demand for fire protection services over existing conditions. The project would be similar to the land uses on surrounding properties, and the site is already served by the City for fire protection. The preferred project does not include residential uses and would not increase the population of San Luis Obispo. Alternative 1 would include up to four residential units, and Alternative 2 would include up to 22 residential units. Neither the preferred project nor the project alternatives would result in substantial new population growth that would require the construction of new fire protection facilities. Therefore, neither the preferred project nor Alternatives 1 or 2 would substantially alter the number of housing units or population in the city or result in the need for new fire protection facilities to serve the site. There would be no physical impacts from the preferred project, Alternative 1, or Alternative 2 related to the construction of new fire protection facilities and impacts related to fire protection would be **less than significant**.

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 police protection?

The project site is within the existing service area of the City of San Luis Obispo Police Department. The project includes the removal of the existing parking lot, five residential units, and detached garage. Implementation of the preferred project would increase the intensity of use of the site and would marginally increase the demand for police protection services over existing conditions. The project would be similar to the land uses on surrounding properties, and the site is already served by the City for police protection. The preferred project does not include residential uses and would not increase the population of San Luis Obispo. Alternative 1 would include up to four residential units, and Alternative 2 would include up to 22 residential units. Neither the preferred project nor the project alternatives would result in substantial new population growth that would require the construction of new police protection facilities. Therefore, neither the preferred project nor Alternatives 1 or 2 would substantially alter the number of housing units or population in the city or result in the need for new police protection facilities to serve the site. There would be no physical impacts related to the construction of new police protection facilities and impacts related to police protection would be **less than significant**.

a.3. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 schools?*

a.4. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 parks?*

a.5. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 other public facilities?*

The project site is located in the existing service area of the City's schools, parks, and other public facilities. The project includes the removal of the existing parking lot, five residential units, and detached garage. Under the preferred project, the site would be redeveloped with a parking structure, 5,000 square feet of commercial space, and a relocated Little Theatre. The preferred project does not include residential uses and would not increase the population of San Luis Obispo such that it would necessitate the construction of new schools, parks, or other public facilities. However, Alternatives 1 and 2 would include residential units. Alternative 1 would include four units, while Alternative 2 would include 22 residential units. Assuming approximately 2.2 persons per household, Alternatives 1 and 2 would generate a population of 9 and 49 persons, respectively. These alternatives would not substantially alter the number of housing units or population in the city and would not directly result in the need for new park, school, or other government facilities to serve the project; however, the developer would be required to pay a school impact fee as required by Senate Bill 50 (Government Code Section 65970) and a parkland in-lieu fee per the Quimby Act to offset potential impacts on school and park facilities, respectively. Impacts associated with the preferred project and Alternatives 1 and 2 would **be less than significant**.

15 Recreation

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in any of the following impacts?				
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	☐	☐	■	☐
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	☐	☐	■	☐

Setting

The City of San Luis Obispo Parks and Recreation Department is responsible for managing and maintaining the City's eight mini parks, ten neighborhood parks, and eight community parks. Some of the City's parks are joint-use sites. A wide variety of recreational activities can be conducted at these facilities, including baseball, softball, football, tennis, jogging, swimming, skateboarding, and other passive recreational sports (City of San Luis Obispo 2012).

Discussion

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?

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?

As discussed under Public Services Impact a.4, the preferred project does not include residential uses and would not increase the population of San Luis Obispo. Therefore, the preferred project would not result in substantial new population growth that would result in physical deterioration of existing recreational facilities or require the construction of new recreational facilities. Alternative 1 would include up to four residential units, and Alternative 2 would include up to 22 residential units, which would generate a population of 9 and 49 persons, respectively; however, the developer would be required to pay a park land in-lieu fee to offset potential impacts on park facilities. Impacts to parks and recreational facilities associated with the preferred project and Alternatives 1 and 2 would **be less than significant**.

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16 Transportation

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in any of the following impacts?				
a. Conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit?	■	☐	☐	☐
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	■	☐	☐	☐
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?	☐	☐	☐	■
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	☐	■	☐	☐
e. Result in inadequate emergency access?	☐	☐	☐	■
f. Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?	■	☐	☐	☐

Setting

The city is accessed primarily by roadways including Highway 101, State Route 1, and State Route 227. Routes of regional significance providing access include Los Osos Valley Road, Foothill Road, Broad Street, O’Connor Way, Prefumo Canyon Road, South Higuera Street and Orcutt Road. The local roadway system is characterized by a regular street grid in the downtown area and neighborhood street patterns in other parts of the city. According to the Land Use and Circulation Element (LUCE) Update Program EIR (2014), the roadways bounding the project site are classified as local roadways. These facilities are two-lane streets that provide local access and service. The desired maximum average daily trips for local roadways is 1,500 for local streets that primarily serve residential development and 5,000, for local streets that primarily serve non-residential development.

SLO Transit is the City's fixed-route bus program, which serves the public within the city limits, surrounding county areas and the Cal Poly campus. The program operates seven routes throughout the city on weekdays, five routes after-hours on weekdays during the school year, six routes on Saturdays and four routes on Sundays. In addition to the fixed route system, SLO Transit operates the Downtown Trolley, a shuttle service geared towards visitors that operates Thursdays through Saturdays between the downtown commercial area and hotels located along Monterey Street. The San Luis Obispo Regional Transit Authority (RTA) is a joint powers authority operating fixed-route bus service in San Luis Obispo County.

Additionally, the incorporated City of San Luis Obispo currently contains:

- 7.2 miles of Class I Bicycle Paths
- 29.7 miles of roadway with Class II Bicycle Lanes
- 24.0 miles of Class III Bicycle Routes

The City maintains sidewalks on almost all City roadways, as well as pedestrian crosswalks throughout the downtown area. Sidewalks are located immediately adjacent to the project boundary along Palm, Nipomo and Monterey Streets.

City Level of Service Standards

The City's Circulation Element (2014) establishes the following multimodal minimum level of service (LOS) standards:

- **Bicycle** – LOS D (however, bicycle LOS objectives only apply to routes identified in the City's adopted Bicycle Transportation Plan; as such, this standard is not applicable to this project)
- **Pedestrian** – LOS C
- **Transit** – Baseline LOS or LOS D, whichever is lower (only applies to routes identified in the City's Short Range Transit Plan; as such, this standard is not applicable to this project)
- **Vehicle** – LOS E or for an intersection or roadway segment in the downtown area

In addition, Table 4 of the Circulation Element identifies maximum average daily trip (ADT) standards for its various roadway classifications. The desired maximum ADT for local roadways is 1,500 for local streets that primarily serve residential development and 5,000 for local streets that primarily serve non-residential development.

The Circulation Element (2014) also establishes priorities of each mode, such that construction, expansion, or alteration for one mode does not degrade the service level of a higher priority mode. In the downtown area, modes are prioritized as follows: 1) pedestrians, 2) bicycles, 3) transit, and 4) vehicle. Exceptions to multimodal priorities may apply when in conflict with safety or regulatory requirements or conflicts with area character, topography, street design, and existing density.

In accordance to the criteria specified in the San Luis Obispo Circulation Element and LUCE Program EIR, a project has a significant impact on the above modes of transportation when it causes an exceedance to one of these LOS standards. For modes already operating below the established LOS standards, any further degradation to the LOS score would also be considered a significant impact under CEQA. Impacts are considered significant if the project degrades a higher priority mode.

Discussion

a. *Would the project conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit?*

b. *Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

f. *Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?*

The project site is currently developed with an existing City-owned parking lot with 77 parking spaces, five residential structures, and a detached garage. The preferred project would replace the existing parking lot and buildings with an above-ground, five-level parking structure with up to 445 spaces, theater, and 5,000 square feet of commercial space. Alternative 1 would include the parking structure, theater, 2,500 square feet of commercial space, and four residential units. Alternative 2 would include the parking structure, 5,000 square feet of commercial space, and 22 two bedroom residential units.

Table 13 shows the estimated weekday PM peak hour vehicle trips that would be generated by the preferred project. This increase in trips could potentially degrade multi-modal LOS. Impacts are **potentially significant** and will be further studied in an EIR.

Table 13 Estimated Project Vehicle Trip Generation (Weekday PM Peak Hour)

Land Use	In	Out	Weekday Peak PM Hour
Parking Structure[1]	118	147	265
Commercial Space [2]	1	7	8
SLO Little Theatre[3]	15	15	30
Total	134	169	303

[1] Rates derived from counts at 919 Palm parking structure; average of Tuesday and Wednesday. Estimate reflects 368 net new spaces (445 new minus 77 existing)

[2] ITE Trip Generation Manual, Land Use Code 710, General Office Building. Average rate used for Peak Hour trips.

[3] Estimated based on information provided by Little Theatre staff.

Source: Central Coast Transportation Consulting (2017)

c. *Would the project 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?*

The project site is not located in the San Luis Obispo County Regional Airport Plan Area and would not result in an increase of air traffic levels or a change to air traffic patterns. Therefore, there would be **no impact.**

d. *Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?*

Vehicle Site Access and On-Site Circulation

Access to the project site would be from Palm Street, with secondary access along Nipomo Street, as shown on Figure 3. There would be one lane for ingress and one lane for egress at each driveway. The service rate of vehicles entering and leaving a parking facility is a function of the entrance approach, driver familiarity, internal circulation, volume of traffic on adjacent streets, and number of pedestrian conflicts.

The type of parking control affects the number of vehicles that can be served in a given hour at a parking garage entry. Typical entrance and exit parking control service rates range from 100 to 400 vehicles per hour, per lane. The project traffic analysis used with an entry service rate of 134 vehicles per hour per lane (see Table 13). The City of San Luis Obispo uses different exit control devices in its parking structures for which the service rates can vary. However, on-site queuing at exit gates is less critical since queuing occurs within the parking structure. The current project site plan shows an entrance that can store up to two vehicles, which means each service gate can serve up to 110 vehicles per hour per lane before queuing onto the street in most conditions. Given two service gates and a peak-hour inbound volume of 134 vehicles, the entrance capacity would be adequate. All estimated approaches and departures are estimated to have a maximum queue of less than 50 feet. With low volumes on Nipomo Street and Dana Street, the number of potential conflicts with vehicles entering and exiting the proposed parking structure is expected to be infrequent. Vehicle site access would be adequate and impacts would be **less than significant**.

Vehicle-Pedestrian Conflicts

Long curb extensions along the project frontage would prevent architectural elements immediately adjacent to the driveways from hindering the ability of drivers exiting the parking structure to see pedestrians walking along the sidewalk adjacent to the parking structure, or vice-versa.

The community outreach identified concerns related to speeding and vehicle-pedestrian conflicts at the existing offset intersection of Nipomo Street between Dana Street and Monterey Street. The project is not proposing to modify this intersection; therefore, the project is not expected to create a new operational condition at this intersection. The City of San Luis Obispo has an adopted Operating Policy for Pedestrian Crosswalks (January 2000) that establishes guidelines on where pedestrian crosswalks, pedestrian traffic control warning devices and other miscellaneous pedestrian control devices are installed on City streets. Compliance with the San Luis Obispo Municipal Code would ensure that impacts related to vehicle-pedestrian conflicts would be **less than significant**.

Pedestrian and Bicycle Access

The preferred project is expected to generate some pedestrian and bicycle demand by patrons and employees using the parking structure, as well as employees at and visitors to the Little Theatre and commercial space. Alternatives 1 and 2 would also generate some pedestrian and bicycle demand by residents. Most of the pedestrian destinations would be the existing and planned land uses towards the downtown core along the north and south sides of Palm Street and east side of Nipomo Street. Pedestrian access would be provided at each staircase in three of the four corners of the parking structure, which would provide direct access to the parking structure and adjacent and nearby land uses. Per City requirements, the project will maintain the existing sidewalks on the north and west sides of the project frontage. Thus, the existing and proposed pedestrian facilities can reasonably accommodate the increased demand and the newly constructed pedestrian facilities will not conflict with planned facilities; therefore, impacts to pedestrian facilities are anticipated to be **less than significant**.

Bicycle parking would be provided on the southern side of the parking structure near the project driveway at Nipomo Street in accordance with the bicycle parking space requirements in the San Luis Obispo Municipal Code (§17.16.060).The existing bicycle facilities can reasonably accommodate the increased demand, and implementation of the preferred project and Alternatives 1 and 2 will not conflict with any planned facility; therefore, **less than significant** bicycle impacts are anticipated.

The project site plan does not identify any modifications or enhancements to existing transit facilities. It does not conflict with the existing transit system or planned transit system. Based on the project impact criteria listed above, the preferred project and Alternatives 1 and 2 will have a **less than significant** impact on transit facilities.

Project Construction

This construction period of the preferred project would result in short-term construction traffic, construction parking, and modifications to existing pedestrian, bicycle, and transit circulation during the construction period. The traffic associated with the construction of the project could be a potentially significant impact. The preparation of a construction management plan, as described in Mitigation Measure T-1 would reduce construction impacts to less-than-significant levels. Impacts associated with the preferred project and Alternatives 1 and 2 would be **less than significant with mitigation**.

T-1 **Construction Management Plan**. Prior to the issuance of each building permit, the construction contractor shall meet with the Public Works department to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project. The construction contractor will develop a construction management plan for review and approval by the Public Works department. The plan should include at least the following items and requirements:

- A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic and pedestrian hours, detour signs if required, lane closure procedures, sidewalk closure procedures, signs, cones for drivers, and designated construction access routes.
- Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur.
- Location of construction staging areas for materials, equipment, and vehicles (must be located on the project site).
- Identification of haul routes for movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety; and provision for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project applicant.
- Temporary construction fences to contain debris and material and to secure the site.
- Provisions for removal of trash generated by project construction activity.
- A process for responding to and tracking complaints pertaining to construction activity.
- Provisions for monitoring surface streets used for truck routes so that any damage and debris attributable to the trucks can be identified and corrected.
- It is anticipated that this Construction Traffic Management Plan would be developed in the context of a larger Construction Management Plan, which would address other issues such as hours of construction on site, limitations on noise and dust emissions, and other applicable items.

e. Would the project result in inadequate emergency access?

Access to the project site would be from Palm Street, with secondary access along Nipomo Street. Proposed internal roadways and access points would be sized to accommodate emergency vehicles per City of San Luis Obispo Fire Department standards and would therefore provide adequate emergency access. **No impact** would result.

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17 Utilities and Service Systems

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in any of the following impacts?				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board	☐	☐	■	☐
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	☐	☐	■	☐
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects	☐	☐	■	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed	☐	☐	■	☐
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	☐	☐	■	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs	☐	☐	■	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste	☐	☐	■	☐

Setting

Wastewater

The City's wastewater collection system and Water Resource Recovery Facility (WRRF) is managed by the Utilities Department. The wastewater collection system consists of approximately 136 miles of gravity sewer lines, three miles of force main, and nine sewer lift stations. Wastewater is conveyed to the WRRF, located on Prado Road near U.S. Highway 101. The WRRF removes larger material, treats the waste stream to reduce the amount of nutrients and bacteria, separates sludge, and discharges treated effluent into San Luis Obispo Creek near Los Osos Valley Road and is distributed as recycled water for irrigation.

The sludge is separated from the wastewater, dried in open ponds at the WRRF, and hauled away for disposal.

The WRRF treats about 4.5 million gallons per day (mgd) during dry weather conditions. The current treatment capacity of the WRRF during dry weather conditions is 5.1 mgd. Therefore, the WRRF currently has excess capacity of 0.6 mgd. Average dry weather treatment flows have been stable over the past several years due to a balance between increased population and improved water conservation. In 2015, average flows to the WRRF were approximately 3.5 mgd.

Water

The City Utilities Department provides water service throughout the City. The City obtains water from five sources: Salinas Reservoir (Santa Margarita Lake), Whale Rock Reservoir, Nacimiento Reservoir, recycled water from the City's Water Resource Recovery Facility, and a limited amount of groundwater. The water is treated at the City water treatment plant prior to distribution. Total annual water use in the City was 5,541 acre feet in 2012. The 2014 Land Use and Circulation Element Update estimated that water demand will increase to 7,815 acre feet per year upon build-out. The estimated water supply is 9,980 acre feet, including the City's primary water supply (7,815 acre feet), reliability reserve (1,214 acre feet), and secondary water supply (951 acre feet). Based on the City's Urban Water Management Plan and 2014 Land Use and Circulation Element Final EIR, the City does not anticipate a need for supplemental water supplies through the year 2035 and build-out of the LUCE. The City's 2015 Urban Water Management Plan incorporates mandated water conservation targets in response to the severe drought conditions. The City's 2015 interim target gallons per capita per day (GPCD) was 120, and the actual 2015 GPCD was 92; as noted in the Draft Plan, the City met and surpassed 2015 interim water use reduction targets.

Stormwater

The City's stormwater drainage system is a separate system that collects surface runoff and conveys it to community retention basins, such as parks, local lakes, and creeks. San Luis Obispo Creek is the main tributary in the City, discharging into the Pacific Ocean at Avila Bay. The City's stormwater drainage system currently consists of 59 miles of storm sewer with 2,148 drainage inlets and 490 storm drain manholes (City of San Luis Obispo 2010).

Solid Waste

The regional waste collection facility is Cold Canyon Landfill, located approximately six miles south of the City on Highway 227. The San Luis Garbage Company is the sole provider of solid-waste collection services in the City. The San Luis Obispo County Integrated Waste Management Authority estimates that the daily per capita solid waste disposal rate from all sources in the State of California is approximately 4 to 5 pounds. Cold Canyon Landfill is currently (2012) permitted to receive up to 1,620 tons of solid waste per day, with an estimated remaining capacity of 1,830,000 cubic yards (16.8 percent remaining capacity).

Discussion

a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

b. Would the project 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?

e. Would the project 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?

The project site is currently developed with an existing City-owned parking lot, five residential structures, and a detached garage. The preferred project would replace the existing parking lot and buildings with a parking structure, a small commercial space, and theater. Alternative 1 includes a parking structure, small commercial space, four residential units, and theater, while Alternative 2 includes a parking structure, small commercial space, and 22 residential units. The preferred project and alternatives would result in an incremental increase in demand on City infrastructure, including water, wastewater, and storm water facilities. Development of the site would be served by City sewer and water service, which both have adequate capacity to serve the use (LUCE EIR 2014). Currently, storm water facilities exist in the vicinity of the project site, and it is not anticipated the proposed project will result in the need for new facilities or expansion of existing facilities, which could have significant environmental effects. Further, water and wastewater impact fees would be required and are set at a level intended to offset the potential impacts of new development. Impact fees are collected at the time building permits are issued. Impacts from the preferred project and Alternatives 1 and 2 would be **less than significant**.

d. *Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

The project site is currently developed with an existing City-owned parking lot, five residential structures, and a detached garage. The preferred project would replace the existing parking lot and buildings with a parking structure, a small commercial space, and theater. Alternative 1 includes a parking structure, small commercial space, four residential units, and theater, while Alternative 2 includes a parking structure, small commercial space, and 22 residential units. Therefore, Alternative 1 would result in no net increase in residential units and Alternative 2 would result in a net increase of 17 residential units. Assuming approximately 2.2 persons per household, Alternatives 2 would generate a net population approximately 37 persons. Based on a per capita water use of 119 gallons per day, Alternative 2 would have a water demand of approximately 1.4 acre feet per year. Based on this incremental increase in water demand, and adequate capacity, impacts would be **less than significant.**

c. *Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

The majority of the project site is covered with impervious surfaces, including an existing City-owned parking lot, five residences, and a detached garage. The net change in impervious surfaces between existing uses and the proposed parking structure would be minimal, and the existing drainage patterns would remain the same. Therefore, the preferred project would utilize the existing drainage infrastructure and no new or expanded facilities would be required. Impacts to storm water drainage facilities associated with the preferred project and alternatives would be **less than significant**.

f. *Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

g. *Would the project comply with federal, state, and local statutes and regulations related to solid waste?*

Solid waste would be generated during construction and demolition of the existing parking lot and residential structures. Construction waste would be temporary in nature, and in accordance with AB 341, would be required to divert 50 percent of construction waste from landfills, which would minimize potential impacts to the Cold Canyon Landfill. The amount of waste generated from operation of the project or Alternative 1 and 2 would be minimal. San Luis Garbage Company and Cold Canyon Landfill have adequate capacity to serve the preferred project and Alternatives 1 and 2. Impacts would be **less than significant**.

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18 Mandatory Findings of Significance

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, 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?	■	☐	☐	☐
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, the effects of other current projects, and the effects of probable future projects)?	■	☐	☐	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	■	☐	☐	☐

a. Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, 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?

Based upon the analysis throughout this Initial Study, the preferred project and Alternatives 1 and 2 would not have the potential to substantially reduce the habitat of a fish or wildlife species or cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, or reduce or restrict the range of a rare or endangered plant or animal. However, the project site does contain resources that may be historically or culturally significant. The impacts on these resources will be evaluated in the EIR. These effects towards cultural resources are **potentially significant.**

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, the effects of other current projects, and the effects of probable future projects)?

With the exception of transportation and noise, which will be evaluated in the EIR, the impacts of the preferred project and Alternatives 1 and 2 are individually limited and not considered "cumulatively considerable." Although incremental changes in certain issue areas can be expected as a result of the preferred project and Alternatives 1 and 2, all environmental impacts that could occur as a result of the preferred project would be reduced to a less than significant level through compliance with existing regulations discussed in this Initial Study and/or implementation of the mitigation measures recommended in this Initial Study for the following resource areas:, air quality (AQ-1 and 2), biological resources (BIO-1), geology and soils (GEO-1), and hazards and hazardous materials (HAZ-1). The cumulative effects of the preferred project and Alternatives 1 and 2 on noise and traffic are **potentially significant** and will be evaluated in the EIR.

c. *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

The preferred project and Alternatives 1 and 2 may result in potential adverse impacts to human beings. Mitigation measures are proposed to reduce impacts related to air quality, geology and soils, and hazards and hazardous materials. However, impacts to aesthetics, noise, and transportation are **potentially significant**. These impacts will be analyzed further in the EIR.

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List of Preparers

Rincon Consultants, Inc. prepared this Initial Study under contract to the City of San Luis Obispo. Persons involved in data gathering analysis, project management, and quality control include the following.

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Appendix A

CalEEMod Air and Greenhouse Gas Emissions Estimates

Palm & Nipomo Project - Preferred

San Luis Obispo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.00	1000sqft	0.00	5,000.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Movie Theater (No Matinee)	255.00	Seat	0.00	23,841.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2020
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 - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage would not generate new trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	BuildingSpaceSquareFeet	5,737.50	23,841.00
tblLandUse	LandUseSquareFeet	5,737.50	23,841.00
tblLandUse	LotAcreage	0.11	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.13	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00
tblVehicleTrips	WD_TR	1.76	1.20

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					
2018	25.1548	25.0787	19.1948	0.0369	5.8787	1.4421	6.8315	2.9747	1.3483	3.8513	0.0000	3,547.9421	3,547.9421	0.6195	0.0000	3,560.2412
2019	25.1124	1.9136	2.5096	4.5200e-003	0.1681	0.1299	0.2979	0.0446	0.1298	0.1744	0.0000	435.9364	435.9364	0.0296	0.0000	436.6756
Maximum	**25.1548**	**25.0787**	**19.1948**	**0.0369**	**5.8787**	**1.4421**	**6.8315**	**2.9747**	**1.3483**	**3.8513**	**0.0000**	**3,547.9421**	**3,547.9421**	**0.6195**	**0.0000**	**3,560.2412**

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					
2018	25.1548	25.0787	19.1948	0.0369	5.8787	1.4421	6.8315	2.9747	1.3483	3.8513	0.0000	3,547.9421	3,547.9421	0.6195	0.0000	3,560.2412
2019	25.1124	1.9136	2.5096	4.5200e-003	0.1681	0.1299	0.2979	0.0446	0.1298	0.1744	0.0000	435.9364	435.9364	0.0296	0.0000	436.6756
Maximum	**25.1548**	**25.0787**	**19.1948**	**0.0369**	**5.8787**	**1.4421**	**6.8315**	**2.9747**	**1.3483**	**3.8513**	**0.0000**	**3,547.9421**	**3,547.9421**	**0.6195**	**0.0000**	**3,560.2412**

	ROG	**NOx**	**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**

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	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Energy	0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618
Mobile	1.1279	3.9760	10.8361	0.0232	1.9862	0.0305	2.0167	0.5309	0.0288	0.5596		2,337.9318	2,337.9318	0.1175		2,340.8686
Total	**2.0395**	**4.1684**	**11.0696**	**0.0244**	**1.9862**	**0.0454**	**2.0315**	**0.5309**	**0.0436**	**0.5744**		**2,568.0811**	**2,568.0811**	**0.1223**	**4.2200e-003**	**2,572.3950**

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	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Energy	0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618
Mobile	1.1279	3.9760	10.8361	0.0232	1.9862	0.0305	2.0167	0.5309	0.0288	0.5596		2,337.9318	2,337.9318	0.1175		2,340.8686
Total	**2.0395**	**4.1684**	**11.0696**	**0.0244**	**1.9862**	**0.0454**	**2.0315**	**0.5309**	**0.0436**	**0.5744**		**2,568.0811**	**2,568.0811**	**0.1223**	**4.2200e-003**	**2,572.3950**

	ROG	NOx	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	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 43,262; Non-Residential Outdoor: 14,421; Striped Parking Area: 10,680 (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	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	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	130	0.42
Paving	Paving Equipment	1	8.00	132	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	35.00	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	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	86.00	34.00	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	17.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429		2,391.1659	2,391.1659	0.6058		2,406.3105
Total	**2.4838**	**24.3641**	**15.1107**	**0.0241**	**0.3912**	**1.4365**	**1.8277**	**0.0592**	**1.3429**	**1.4021**		**2,391.1659**	**2,391.1659**	**0.6058**		**2,406.3105**

3.2 Demolition - 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	0.0210	0.6463	0.1531	1.3900e-003	0.0305	4.8100e-003	0.0353	8.3600e-003	4.6000e-003	0.0130		149.8063	149.8063	8.6500e-003		150.0225
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	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	**0.0983**	**0.7146**	**0.7375**	**2.6100e-003**	**0.1590**	**5.6900e-003**	**0.1647**	**0.0425**	**5.4100e-003**	**0.0479**		**271.5242**	**271.5242**	**0.0137**		**271.8667**

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					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105
Total	**2.4838**	**24.3641**	**15.1107**	**0.0241**	**0.3912**	**1.4365**	**1.8277**	**0.0592**	**1.3429**	**1.4021**	**0.0000**	**2,391.1659**	**2,391.1659**	**0.6058**		**2,406.3105**

3.2 Demolition - 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	0.0210	0.6463	0.1531	1.3900e-003	0.0305	4.8100e-003	0.0353	8.3600e-003	4.6000e-003	0.0130		149.8063	149.8063	8.6500e-003		150.0225
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	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	**0.0983**	**0.7146**	**0.7375**	**2.6100e-003**	**0.1590**	**5.6900e-003**	**0.1647**	**0.0425**	**5.4100e-003**	**0.0479**		**271.5242**	**271.5242**	**0.0137**		**271.8667**

3.3 Site Preparation - 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					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761		1,735.3630	1,735.3630	0.5402		1,748.8690
Total	**1.8061**	**20.7472**	**8.0808**	**0.0172**	**5.7996**	**0.9523**	**6.7518**	**2.9537**	**0.8761**	**3.8298**		**1,735.3630**	**1,735.3630**	**0.5402**		**1,748.8690**

3.3 Site Preparation - 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	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	**0.0476**	**0.0420**	**0.3596**	**7.5000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**74.9033**	**74.9033**	**3.1100e-003**		**74.9810**

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					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690
Total	**1.8061**	**20.7472**	**8.0808**	**0.0172**	**5.7996**	**0.9523**	**6.7518**	**2.9537**	**0.8761**	**3.8298**	**0.0000**	**1,735.3630**	**1,735.3630**	**0.5402**		**1,748.8690**

3.3 Site Preparation - 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	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	**0.0476**	**0.0420**	**0.3596**	**7.5000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**74.9033**	**74.9033**	**3.1100e-003**		**74.9810**

3.4 Grading - 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					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311		1,421.2605	1,421.2605	0.4425		1,432.3219
Total	**1.4972**	**17.0666**	**6.7630**	**0.0141**	**4.9143**	**0.7947**	**5.7090**	**2.5256**	**0.7311**	**3.2568**		**1,421.2605**	**1,421.2605**	**0.4425**		**1,432.3219**

3.4 Grading - 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	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	**0.0476**	**0.0420**	**0.3596**	**7.5000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**74.9033**	**74.9033**	**3.1100e-003**		**74.9810**

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					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219
Total	**1.4972**	**17.0666**	**6.7630**	**0.0141**	**4.9143**	**0.7947**	**5.7090**	**2.5256**	**0.7311**	**3.2568**	**0.0000**	**1,421.2605**	**1,421.2605**	**0.4425**		**1,432.3219**

3.4 Grading - 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	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	**0.0476**	**0.0420**	**0.3596**	**7.5000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**74.9033**	**74.9033**	**3.1100e-003**		**74.9810**

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	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**		**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

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	0.1881	4.0247	1.4528	6.7100e-003	0.1578	0.0384	0.1962	0.0454	0.0367	0.0822		711.8927	711.8927	0.0497		713.1355
Worker	0.5112	0.4518	3.8655	8.1000e-003	0.8502	5.8100e-003	0.8560	0.2255	5.3700e-003	0.2309		805.2106	805.2106	0.0334		806.0462
Total	**0.6993**	**4.4764**	**5.3182**	**0.0148**	**1.0080**	**0.0442**	**1.0522**	**0.2709**	**0.0421**	**0.3130**		**1,517.1033**	**1,517.1033**	**0.0831**		**1,519.1816**

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	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**	**0.0000**	**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

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	0.1881	4.0247	1.4528	6.7100e-003	0.1578	0.0384	0.1962	0.0454	0.0367	0.0822		711.8927	711.8927	0.0497		713.1355
Worker	0.5112	0.4518	3.8655	8.1000e-003	0.8502	5.8100e-003	0.8560	0.2255	5.3700e-003	0.2309		805.2106	805.2106	0.0334		806.0462
Total	**0.6993**	**4.4764**	**5.3182**	**0.0148**	**1.0080**	**0.0442**	**1.0522**	**0.2709**	**0.0421**	**0.3130**		**1,517.1033**	**1,517.1033**	**0.0831**		**1,519.1816**

3.6 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	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0182**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**		**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

3.6 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	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	**0.0773**	**0.0683**	**0.5843**	**1.2200e-003**	**0.1285**	**8.8000e-004**	**0.1294**	**0.0341**	**8.1000e-004**	**0.0349**		**121.7179**	**121.7179**	**5.0500e-003**		**121.8442**

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	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0182**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**	**0.0000**	**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

3.6 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	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	**0.0773**	**0.0683**	**0.5843**	**1.2200e-003**	**0.1285**	**8.8000e-004**	**0.1294**	**0.0341**	**8.1000e-004**	**0.0349**		**121.7179**	**121.7179**	**5.0500e-003**		**121.8442**

3.7 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	24.7552					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		282.1171
Total	**25.0538**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.7 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	0.1010	0.0893	0.7641	1.6000e-003	0.1681	1.1500e-003	0.1692	0.0446	1.0600e-003	0.0456		159.1695	159.1695	6.6100e-003		159.3347
Total	**0.1010**	**0.0893**	**0.7641**	**1.6000e-003**	**0.1681**	**1.1500e-003**	**0.1692**	**0.0446**	**1.0600e-003**	**0.0456**		**159.1695**	**159.1695**	**6.6100e-003**		**159.3347**

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	24.7552					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	0.0000	281.4485	281.4485	0.0267		282.1171
Total	**25.0538**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.7 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	0.1010	0.0893	0.7641	1.6000e-003	0.1681	1.1500e-003	0.1692	0.0446	1.0600e-003	0.0456		159.1695	159.1695	6.6100e-003		159.3347
Total	**0.1010**	**0.0893**	**0.7641**	**1.6000e-003**	**0.1681**	**1.1500e-003**	**0.1692**	**0.0446**	**1.0600e-003**	**0.0456**		**159.1695**	**159.1695**	**6.6100e-003**		**159.3347**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.7552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**25.0216**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

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	0.0909	0.0782	0.6682	1.5500e-003	0.1681	1.1100e-003	0.1692	0.0446	1.0300e-003	0.0456		154.4883	154.4883	5.8000e-003		154.6333
Total	**0.0909**	**0.0782**	**0.6682**	**1.5500e-003**	**0.1681**	**1.1100e-003**	**0.1692**	**0.0446**	**1.0300e-003**	**0.0456**		**154.4883**	**154.4883**	**5.8000e-003**		**154.6333**

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	24.7552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**25.0216**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

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	0.0909	0.0782	0.6682	1.5500e-003	0.1681	1.1100e-003	0.1692	0.0446	1.0300e-003	0.0456		154.4883	154.4883	5.8000e-003		154.6333
Total	**0.0909**	**0.0782**	**0.6682**	**1.5500e-003**	**0.1681**	**1.1100e-003**	**0.1692**	**0.0446**	**1.0300e-003**	**0.0456**		**154.4883**	**154.4883**	**5.8000e-003**		**154.6333**

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	1.1279	3.9760	10.8361	0.0232	1.9862	0.0305	2.0167	0.5309	0.0288	0.5596		2,337.9318	2,337.9318	0.1175		2,340.8686
Unmitigated	1.1279	3.9760	10.8361	0.0232	1.9862	0.0305	2.0167	0.5309	0.0288	0.5596		2,337.9318	2,337.9318	0.1175		2,340.8686

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	80.00	12.30	5.25	135,697	135,697
Movie Theater (No Matinee)	306.00	571.20	471.75	485,758	485,758
Total	386.00	583.50	477.00	621,456	621,456

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
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
Movie Theater (No Matinee)	13.00	5.00	5.00	1.80	79.20	19.00	66	17	17

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Movie Theater (No Matinee)	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

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	0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618
NaturalGas Unmitigated	0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618

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					
Enclosed Parking with Elevator	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
General Office Building	225.342	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5109	26.5109	5.1000e-004	4.9000e-004	26.6684
Movie Theater (No Matinee)	1729.62	0.0187	0.1696	0.1424	1.0200e-003		0.0129	0.0129		0.0129	0.0129		203.4842	203.4842	3.9000e-003	3.7300e-003	204.6934
Total		**0.0211**	**0.1917**	**0.1610**	**1.1500e-003**		**0.0146**	**0.0146**		**0.0146**	**0.0146**		**229.9951**	**229.9951**	**4.4100e-003**	**4.2200e-003**	**231.3618**

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					
Enclosed Parking with Elevator	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
General Office Building	0.225342	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5109	26.5109	5.1000e-004	4.9000e-004	26.6684
Movie Theater (No Matinee)	1.72962	0.0187	0.1696	0.1424	1.0200e-003		0.0129	0.0129		0.0129	0.0129		203.4842	203.4842	3.9000e-003	3.7300e-003	204.6934
Total		**0.0211**	**0.1917**	**0.1610**	**1.1500e-003**		**0.0146**	**0.0146**		**0.0146**	**0.0146**		**229.9951**	**229.9951**	**4.4100e-003**	**4.2200e-003**	**231.3618**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Unmitigated	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646

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	0.2035					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6803					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.8100e-003	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Total	**0.8905**	**6.7000e-004**	**0.0724**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1543**	**0.1543**	**4.1000e-004**		**0.1646**

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	0.2035					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6803					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.8100e-003	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Total	**0.8905**	**6.7000e-004**	**0.0724**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1543**	**0.1543**	**4.1000e-004**		**0.1646**

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 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Palm & Nipomo Project - Preferred

San Luis Obispo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.00	1000sqft	0.00	5,000.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Movie Theater (No Matinee)	255.00	Seat	0.00	23,841.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2020
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 - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage (0) would not generate trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	BuildingSpaceSquareFeet	5,737.50	23,841.00
tblLandUse	LandUseSquareFeet	5,737.50	23,841.00
tblLandUse	LotAcreage	0.11	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.13	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00
tblVehicleTrips	WD_TR	1.76	1.20

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					
2018	25.1427	25.0651	19.1007	0.0375	5.8787	1.4421	6.8315	2.9747	1.3482	3.8513	0.0000	3,608.2292	3,608.2292	0.6193	0.0000	3,620.4674
2019	25.1014	1.9042	2.5245	4.6000e-003	0.1681	0.1299	0.2979	0.0446	0.1298	0.1744	0.0000	443.5173	443.5173	0.0297	0.0000	444.2604
Maximum	**25.1427**	**25.0651**	**19.1007**	**0.0375**	**5.8787**	**1.4421**	**6.8315**	**2.9747**	**1.3482**	**3.8513**	**0.0000**	**3,608.2292**	**3,608.2292**	**0.6193**	**0.0000**	**3,620.4674**

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					
2018	25.1427	25.0651	19.1007	0.0375	5.8787	1.4421	6.8315	2.9747	1.3482	3.8513	0.0000	3,608.2292	3,608.2292	0.6193	0.0000	3,620.4674
2019	25.1014	1.9042	2.5245	4.6000e-003	0.1681	0.1299	0.2979	0.0446	0.1298	0.1744	0.0000	443.5173	443.5173	0.0297	0.0000	444.2604
Maximum	**25.1427**	**25.0651**	**19.1007**	**0.0375**	**5.8787**	**1.4421**	**6.8315**	**2.9747**	**1.3482**	**3.8513**	**0.0000**	**3,608.2292**	**3,608.2292**	**0.6193**	**0.0000**	**3,620.4674**

	ROG	**NOx**	**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**

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	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Energy	0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618
Mobile	1.1611	3.8511	10.1898	0.0242	1.9862	0.0301	2.0163	0.5309	0.0283	0.5592		2,436.3790	2,436.3790	0.1137		2,439.2205
Total	**2.0727**	**4.0434**	**10.4232**	**0.0253**	**1.9862**	**0.0449**	**2.0311**	**0.5309**	**0.0432**	**0.5740**		**2,666.5283**	**2,666.5283**	**0.1185**	**4.2200e-003**	**2,670.7469**

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	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Energy	0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618
Mobile	1.1611	3.8511	10.1898	0.0242	1.9862	0.0301	2.0163	0.5309	0.0283	0.5592		2,436.3790	2,436.3790	0.1137		2,439.2205
Total	**2.0727**	**4.0434**	**10.4232**	**0.0253**	**1.9862**	**0.0449**	**2.0311**	**0.5309**	**0.0432**	**0.5740**		**2,666.5283**	**2,666.5283**	**0.1185**	**4.2200e-003**	**2,670.7469**

	ROG	NOx	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	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 43,262; Non-Residential Outdoor: 14,421; Striped Parking Area: 10,680 (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	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	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	130	0.42
Paving	Paving Equipment	1	8.00	132	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	35.00	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	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	86.00	34.00	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	17.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429		2,391.165 9	2,391.165 9	0.6058		2,406.310 5
Total	**2.4838**	**24.3641**	**15.1107**	**0.0241**	**0.3912**	**1.4365**	**1.8277**	**0.0592**	**1.3429**	**1.4021**		**2,391.165 9**	**2,391.165 9**	**0.6058**		**2,406.310 5**

3.2 Demolition - 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	0.0205	0.6409	0.1438	1.4100e-003	0.0305	4.7200e-003	0.0352	8.3600e-003	4.5200e-003	0.0129		151.8744	151.8744	8.3600e-003		152.0834
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	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	**0.0885**	**0.7011**	**0.7374**	**2.6900e-003**	**0.1590**	**5.6000e-003**	**0.1646**	**0.0425**	**5.3300e-003**	**0.0478**		**279.5544**	**279.5544**	**0.0135**		**279.8926**

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					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105
Total	**2.4838**	**24.3641**	**15.1107**	**0.0241**	**0.3912**	**1.4365**	**1.8277**	**0.0592**	**1.3429**	**1.4021**	**0.0000**	**2,391.1659**	**2,391.1659**	**0.6058**		**2,406.3105**

3.2 Demolition - 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	0.0205	0.6409	0.1438	1.4100e-003	0.0305	4.7200e-003	0.0352	8.3600e-003	4.5200e-003	0.0129		151.8744	151.8744	8.3600e-003		152.0834
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	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	**0.0885**	**0.7011**	**0.7374**	**2.6900e-003**	**0.1590**	**5.6000e-003**	**0.1646**	**0.0425**	**5.3300e-003**	**0.0478**		**279.5544**	**279.5544**	**0.0135**		**279.8926**

3.3 Site Preparation - 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					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761		1,735.3630	1,735.3630	0.5402		1,748.8690
Total	**1.8061**	**20.7472**	**8.0808**	**0.0172**	**5.7996**	**0.9523**	**6.7518**	**2.9537**	**0.8761**	**3.8298**		**1,735.3630**	**1,735.3630**	**0.5402**		**1,748.8690**

3.3 Site Preparation - 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	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	**0.0419**	**0.0370**	**0.3653**	**7.9000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**78.5723**	**78.5723**	**3.1800e-003**		**78.6518**

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					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690
Total	**1.8061**	**20.7472**	**8.0808**	**0.0172**	**5.7996**	**0.9523**	**6.7518**	**2.9537**	**0.8761**	**3.8298**	**0.0000**	**1,735.3630**	**1,735.3630**	**0.5402**		**1,748.8690**

3.3 Site Preparation - 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	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	**0.0419**	**0.0370**	**0.3653**	**7.9000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**78.5723**	**78.5723**	**3.1800e-003**		**78.6518**

3.4 Grading - 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					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311		1,421.2605	1,421.2605	0.4425		1,432.3219
Total	**1.4972**	**17.0666**	**6.7630**	**0.0141**	**4.9143**	**0.7947**	**5.7090**	**2.5256**	**0.7311**	**3.2568**		**1,421.2605**	**1,421.2605**	**0.4425**		**1,432.3219**

3.4 Grading - 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	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	**0.0419**	**0.0370**	**0.3653**	**7.9000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**78.5723**	**78.5723**	**3.1800e-003**		**78.6518**

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					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219
Total	**1.4972**	**17.0666**	**6.7630**	**0.0141**	**4.9143**	**0.7947**	**5.7090**	**2.5256**	**0.7311**	**3.2568**	**0.0000**	**1,421.2605**	**1,421.2605**	**0.4425**		**1,432.3219**

3.4 Grading - 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	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	**0.0419**	**0.0370**	**0.3653**	**7.9000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**78.5723**	**78.5723**	**3.1800e-003**		**78.6518**

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	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**		**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

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	0.1788	4.0347	1.2972	6.9100e-003	0.1578	0.0374	0.1952	0.0454	0.0358	0.0813		732.7384	732.7384	0.0465		733.9009
Worker	0.4500	0.3981	3.9269	8.5000e-003	0.8502	5.8100e-003	0.8560	0.2255	5.3700e-003	0.2309		844.6519	844.6519	0.0342		845.5069
Total	**0.6288**	**4.4329**	**5.2241**	**0.0154**	**1.0080**	**0.0433**	**1.0512**	**0.2709**	**0.0412**	**0.3121**		**1,577.3903**	**1,577.3903**	**0.0807**		**1,579.4078**

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	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**	**0.0000**	**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

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	0.1788	4.0347	1.2972	6.9100e-003	0.1578	0.0374	0.1952	0.0454	0.0358	0.0813		732.7384	732.7384	0.0465		733.9009
Worker	0.4500	0.3981	3.9269	8.5000e-003	0.8502	5.8100e-003	0.8560	0.2255	5.3700e-003	0.2309		844.6519	844.6519	0.0342		845.5069
Total	**0.6288**	**4.4329**	**5.2241**	**0.0154**	**1.0080**	**0.0433**	**1.0512**	**0.2709**	**0.0412**	**0.3121**		**1,577.3903**	**1,577.3903**	**0.0807**		**1,579.4078**

3.6 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	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0182**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**		**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

3.6 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	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	**0.0680**	**0.0602**	**0.5936**	**1.2800e-003**	**0.1285**	**8.8000e-004**	**0.1294**	**0.0341**	**8.1000e-004**	**0.0349**		**127.6799**	**127.6799**	**5.1700e-003**		**127.8092**

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	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0182**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**	**0.0000**	**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

3.6 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	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	**0.0680**	**0.0602**	**0.5936**	**1.2800e-003**	**0.1285**	**8.8000e-004**	**0.1294**	**0.0341**	**8.1000e-004**	**0.0349**		**127.6799**	**127.6799**	**5.1700e-003**		**127.8092**

3.7 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	24.7552					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		282.1171
Total	**25.0538**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.7 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	0.0889	0.0787	0.7763	1.6800e-003	0.1681	1.1500e-003	0.1692	0.0446	1.0600e-003	0.0456		166.9661	166.9661	6.7600e-003		167.1351
Total	**0.0889**	**0.0787**	**0.7763**	**1.6800e-003**	**0.1681**	**1.1500e-003**	**0.1692**	**0.0446**	**1.0600e-003**	**0.0456**		**166.9661**	**166.9661**	**6.7600e-003**		**167.1351**

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	24.7552					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	0.0000	281.4485	281.4485	0.0267		282.1171
Total	**25.0538**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.7 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	0.0889	0.0787	0.7763	1.6800e-003	0.1681	1.1500e-003	0.1692	0.0446	1.0600e-003	0.0456		166.9661	166.9661	6.7600e-003		167.1351
Total	**0.0889**	**0.0787**	**0.7763**	**1.6800e-003**	**0.1681**	**1.1500e-003**	**0.1692**	**0.0446**	**1.0600e-003**	**0.0456**		**166.9661**	**166.9661**	**6.7600e-003**		**167.1351**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.7552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**25.0216**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

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	0.0799	0.0689	0.6832	1.6300e-003	0.1681	1.1100e-003	0.1692	0.0446	1.0300e-003	0.0456		162.0692	162.0692	5.9500e-003		162.2181
Total	**0.0799**	**0.0689**	**0.6832**	**1.6300e-003**	**0.1681**	**1.1100e-003**	**0.1692**	**0.0446**	**1.0300e-003**	**0.0456**		**162.0692**	**162.0692**	**5.9500e-003**		**162.2181**

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	24.7552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**25.0216**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

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	0.0799	0.0689	0.6832	1.6300e-003	0.1681	1.1100e-003	0.1692	0.0446	1.0300e-003	0.0456		162.0692	162.0692	5.9500e-003		162.2181
Total	**0.0799**	**0.0689**	**0.6832**	**1.6300e-003**	**0.1681**	**1.1100e-003**	**0.1692**	**0.0446**	**1.0300e-003**	**0.0456**		**162.0692**	**162.0692**	**5.9500e-003**		**162.2181**

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	1.1611	3.8511	10.1898	0.0242	1.9862	0.0301	2.0163	0.5309	0.0283	0.5592		2,436.3790	2,436.3790	0.1137		2,439.2205
Unmitigated	1.1611	3.8511	10.1898	0.0242	1.9862	0.0301	2.0163	0.5309	0.0283	0.5592		2,436.3790	2,436.3790	0.1137		2,439.2205

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	80.00	12.30	5.25	135,697	135,697
Movie Theater (No Matinee)	306.00	571.20	471.75	485,758	485,758
Total	386.00	583.50	477.00	621,456	621,456

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
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
Movie Theater (No Matinee)	13.00	5.00	5.00	1.80	79.20	19.00	66	17	17

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Movie Theater (No Matinee)	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

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	0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618
NaturalGas Unmitigated	0.0211	0.1917	0.1610	1.1500e-003		0.0146	0.0146		0.0146	0.0146		229.9951	229.9951	4.4100e-003	4.2200e-003	231.3618

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		
Enclosed Parking with Elevator	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
General Office Building	225.342	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5109	26.5109	5.1000e-004	4.9000e-004	26.6684
Movie Theater (No Matinee)	1729.62	0.0187	0.1696	0.1424	1.0200e-003		0.0129	0.0129		0.0129	0.0129		203.4842	203.4842	3.9000e-003	3.7300e-003	204.6934
Total		**0.0211**	**0.1917**	**0.1610**	**1.1500e-003**		**0.0146**	**0.0146**		**0.0146**	**0.0146**		**229.9951**	**229.9951**	**4.4100e-003**	**4.2200e-003**	**231.3618**

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		
Enclosed Parking with Elevator	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
General Office Building	0.225342	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5109	26.5109	5.1000e-004	4.9000e-004	26.6684
Movie Theater (No Matinee)	1.72962	0.0187	0.1696	0.1424	1.0200e-003		0.0129	0.0129		0.0129	0.0129		203.4842	203.4842	3.9000e-003	3.7300e-003	204.6934
Total		**0.0211**	**0.1917**	**0.1610**	**1.1500e-003**		**0.0146**	**0.0146**		**0.0146**	**0.0146**		**229.9951**	**229.9951**	**4.4100e-003**	**4.2200e-003**	**231.3618**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Unmitigated	0.8905	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646

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	0.2035					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6803					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.8100e-003	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Total	**0.8905**	**6.7000e-004**	**0.0724**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1543**	**0.1543**	**4.1000e-004**		**0.1646**

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	0.2035					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6803					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.8100e-003	6.7000e-004	0.0724	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.1000e-004		0.1646
Total	**0.8905**	**6.7000e-004**	**0.0724**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1543**	**0.1543**	**4.1000e-004**		**0.1646**

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 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Palm & Nipomo Project - Preferred

San Luis Obispo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.00	1000sqft	0.00	5,000.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Movie Theater (No Matinee)	255.00	Seat	0.00	23,841.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2020
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 - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage (0) would not generate trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	BuildingSpaceSquareFeet	5,737.50	23,841.00
tblLandUse	LandUseSquareFeet	5,737.50	23,841.00
tblLandUse	LotAcreage	0.11	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.13	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00
tblVehicleTrips	WD_TR	1.76	1.20

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					
2018	0.6236	2.5755	2.1654	4.1400e-003	0.1219	0.1318	0.2537	0.0362	0.1265	0.1627	0.0000	362.9610	362.9610	0.0536	0.0000	364.3011
2019	0.1130	8.6000e-003	0.0113	2.0000e-005	7.4000e-004	5.8000e-004	1.3200e-003	2.0000e-004	5.8000e-004	7.8000e-004	0.0000	1.7848	1.7848	1.2000e-004	0.0000	1.7878
Maximum	**0.6236**	**2.5755**	**2.1654**	**4.1400e-003**	**0.1219**	**0.1318**	**0.2537**	**0.0362**	**0.1265**	**0.1627**	**0.0000**	**362.9610**	**362.9610**	**0.0536**	**0.0000**	**364.3011**

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					
2018	0.6236	2.5755	2.1654	4.1400e-003	0.1219	0.1318	0.2537	0.0362	0.1265	0.1627	0.0000	362.9607	362.9607	0.0536	0.0000	364.3009
2019	0.1130	8.6000e-003	0.0113	2.0000e-005	7.4000e-004	5.8000e-004	1.3200e-003	2.0000e-004	5.8000e-004	7.8000e-004	0.0000	1.7848	1.7848	1.2000e-004	0.0000	1.7878
Maximum	**0.6236**	**2.5755**	**2.1654**	**4.1400e-003**	**0.1219**	**0.1318**	**0.2537**	**0.0362**	**0.1265**	**0.1627**	**0.0000**	**362.9607**	**362.9607**	**0.0536**	**0.0000**	**364.3009**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-5-2018**	**4-4-2018**	0.8214	0.8214
2	**4-5-2018**	**7-4-2018**	0.8151	0.8151
3	**7-5-2018**	**10-4-2018**	0.8243	0.8243
4	**10-5-2018**	**1-4-2019**	0.7853	0.7853
5	**1-5-2019**	**4-4-2019**	0.0676	0.0676
		Highest	0.8243	0.8243

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	0.1624	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0231	0.0231	6.0000e-005	0.0000	0.0246
Energy	3.8500e-003	0.0350	0.0294	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	471.9905	471.9905	0.0204	4.7600e-003	473.9170
Mobile	0.1315	0.4786	1.2636	2.8200e-003	0.2336	3.6500e-003	0.2372	0.0626	3.4300e-003	0.0660	0.0000	258.0053	258.0053	0.0126	0.0000	258.3198
Waste						0.0000	0.0000		0.0000	0.0000	0.9439	0.0000	0.9439	0.0558	0.0000	2.3385
Water						0.0000	0.0000		0.0000	0.0000	1.0130	5.7303	6.7432	0.1043	2.5100e-003	10.0987
Total	**0.2978**	**0.5137**	**1.3049**	**3.0300e-003**	**0.2336**	**6.3500e-003**	**0.2399**	**0.0626**	**6.1300e-003**	**0.0687**	**1.9569**	**735.7492**	**737.7061**	**0.1931**	**7.2700e-003**	**744.6986**

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	0.1624	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0231	0.0231	6.0000e-005	0.0000	0.0246
Energy	3.8500e-003	0.0350	0.0294	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	471.9905	471.9905	0.0204	4.7600e-003	473.9170
Mobile	0.1315	0.4786	1.2636	2.8200e-003	0.2336	3.6500e-003	0.2372	0.0626	3.4300e-003	0.0660	0.0000	258.0053	258.0053	0.0126	0.0000	258.3198
Waste						0.0000	0.0000		0.0000	0.0000	0.9439	0.0000	0.9439	0.0558	0.0000	2.3385
Water						0.0000	0.0000		0.0000	0.0000	1.0130	5.7303	6.7432	0.1043	2.5100e-003	10.0987
Total	**0.2978**	**0.5137**	**1.3049**	**3.0300e-003**	**0.2336**	**6.3500e-003**	**0.2399**	**0.0626**	**6.1300e-003**	**0.0687**	**1.9569**	**735.7492**	**737.7061**	**0.1931**	**7.2700e-003**	**744.6986**

	ROG	**NOx**	**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	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 43,262; Non-Residential Outdoor: 14,421; Striped Parking Area: 10,680 (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	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	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	130	0.42
Paving	Paving Equipment	1	8.00	132	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	35.00	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	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	86.00	34.00	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	17.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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					
Fugitive Dust					3.9100e-003	0.0000	3.9100e-003	5.9000e-004	0.0000	5.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2436	0.1511	2.4000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297
Total	**0.0248**	**0.2436**	**0.1511**	**2.4000e-004**	**3.9100e-003**	**0.0144**	**0.0183**	**5.9000e-004**	**0.0134**	**0.0140**	**0.0000**	**21.6923**	**21.6923**	**5.5000e-003**	**0.0000**	**21.8297**

3.2 Demolition - 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	2.1000e-004	6.5400e-003	1.4800e-003	1.0000e-005	3.0000e-004	5.0000e-005	3.5000e-004	8.0000e-005	5.0000e-005	1.3000e-004	0.0000	1.3699	1.3699	8.0000e-005	0.0000	1.3718
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	7.0000e-004	6.7000e-004	5.8000e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1132	1.1132	5.0000e-005	0.0000	1.1143
Total	**9.1000e-004**	**7.2100e-003**	**7.2800e-003**	**2.0000e-005**	**1.5500e-003**	**6.0000e-005**	**1.6100e-003**	**4.1000e-004**	**6.0000e-005**	**4.7000e-004**	**0.0000**	**2.4831**	**2.4831**	**1.3000e-004**	**0.0000**	**2.4862**

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					3.9100e-003	0.0000	3.9100e-003	5.9000e-004	0.0000	5.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2436	0.1511	2.4000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297
Total	**0.0248**	**0.2436**	**0.1511**	**2.4000e-004**	**3.9100e-003**	**0.0144**	**0.0183**	**5.9000e-004**	**0.0134**	**0.0140**	**0.0000**	**21.6923**	**21.6923**	**5.5000e-003**	**0.0000**	**21.8297**

3.2 Demolition - 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	2.1000e-004	6.5400e-003	1.4800e-003	1.0000e-005	3.0000e-004	5.0000e-005	3.5000e-004	8.0000e-005	5.0000e-005	1.3000e-004	0.0000	1.3699	1.3699	8.0000e-005	0.0000	1.3718
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	7.0000e-004	6.7000e-004	5.8000e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1132	1.1132	5.0000e-005	0.0000	1.1143
Total	**9.1000e-004**	**7.2100e-003**	**7.2800e-003**	**2.0000e-005**	**1.5500e-003**	**6.0000e-005**	**1.6100e-003**	**4.1000e-004**	**6.0000e-005**	**4.7000e-004**	**0.0000**	**2.4831**	**2.4831**	**1.3000e-004**	**0.0000**	**2.4862**

3.3 Site Preparation - 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					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0208	8.0800e-003	2.0000e-005		9.5000e-004	9.5000e-004		8.8000e-004	8.8000e-004	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866
Total	**1.8100e-003**	**0.0208**	**8.0800e-003**	**2.0000e-005**	**5.8000e-003**	**9.5000e-004**	**6.7500e-003**	**2.9500e-003**	**8.8000e-004**	**3.8300e-003**	**0.0000**	**1.5743**	**1.5743**	**4.9000e-004**	**0.0000**	**1.5866**

3.3 Site Preparation - 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	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686
Total	**4.0000e-005**	**4.0000e-005**	**3.6000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0685**	**0.0685**	**0.0000**	**0.0000**	**0.0686**

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					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0208	8.0800e-003	2.0000e-005		9.5000e-004	9.5000e-004		8.8000e-004	8.8000e-004	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866
Total	**1.8100e-003**	**0.0208**	**8.0800e-003**	**2.0000e-005**	**5.8000e-003**	**9.5000e-004**	**6.7500e-003**	**2.9500e-003**	**8.8000e-004**	**3.8300e-003**	**0.0000**	**1.5743**	**1.5743**	**4.9000e-004**	**0.0000**	**1.5866**

3.3 Site Preparation - 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	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686
Total	**4.0000e-005**	**4.0000e-005**	**3.6000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0685**	**0.0685**	**0.0000**	**0.0000**	**0.0686**

3.4 Grading - 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					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0341	0.0135	3.0000e-005		1.5900e-003	1.5900e-003		1.4600e-003	1.4600e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988
Total	**2.9900e-003**	**0.0341**	**0.0135**	**3.0000e-005**	**9.8300e-003**	**1.5900e-003**	**0.0114**	**5.0500e-003**	**1.4600e-003**	**6.5100e-003**	**0.0000**	**2.5787**	**2.5787**	**8.0000e-004**	**0.0000**	**2.5988**

3.4 Grading - 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	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372
Total	**9.0000e-005**	**8.0000e-005**	**7.1000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1370**	**0.1370**	**1.0000e-005**	**0.0000**	**0.1372**

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					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0341	0.0135	3.0000e-005		1.5900e-003	1.5900e-003		1.4600e-003	1.4600e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988
Total	**2.9900e-003**	**0.0341**	**0.0135**	**3.0000e-005**	**9.8300e-003**	**1.5900e-003**	**0.0114**	**5.0500e-003**	**1.4600e-003**	**6.5100e-003**	**0.0000**	**2.5787**	**2.5787**	**8.0000e-004**	**0.0000**	**2.5988**

3.4 Grading - 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	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372
Total	**9.0000e-005**	**8.0000e-005**	**7.1000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1370**	**0.1370**	**1.0000e-005**	**0.0000**	**0.1372**

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	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2346	184.2346	0.0371	0.0000	185.1618
Total	**0.2592**	**1.7428**	**1.3877**	**2.2000e-003**		**0.1058**	**0.1058**		**0.1022**	**0.1022**	**0.0000**	**184.2346**	**184.2346**	**0.0371**	**0.0000**	**185.1618**

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	0.0183	0.4079	0.1379	6.8000e-004	0.0154	3.7800e-003	0.0192	4.4600e-003	3.6200e-003	8.0800e-003	0.0000	65.6775	65.6775	4.3600e-003	0.0000	65.7865
Worker	0.0460	0.0443	0.3835	8.2000e-004	0.0828	5.8000e-004	0.0834	0.0220	5.4000e-004	0.0225	0.0000	73.6416	73.6416	3.0300e-003	0.0000	73.7174
Total	**0.0643**	**0.4523**	**0.5214**	**1.5000e-003**	**0.0982**	**4.3600e-003**	**0.1026**	**0.0265**	**4.1600e-003**	**0.0306**	**0.0000**	**139.3192**	**139.3192**	**7.3900e-003**	**0.0000**	**139.5039**

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	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2344	184.2344	0.0371	0.0000	185.1616
Total	**0.2592**	**1.7428**	**1.3877**	**2.2000e-003**		**0.1058**	**0.1058**		**0.1022**	**0.1022**	**0.0000**	**184.2344**	**184.2344**	**0.0371**	**0.0000**	**185.1616**

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	0.0183	0.4079	0.1379	6.8000e-004	0.0154	3.7800e-003	0.0192	4.4600e-003	3.6200e-003	8.0800e-003	0.0000	65.6775	65.6775	4.3600e-003	0.0000	65.7865
Worker	0.0460	0.0443	0.3835	8.2000e-004	0.0828	5.8000e-004	0.0834	0.0220	5.4000e-004	0.0225	0.0000	73.6416	73.6416	3.0300e-003	0.0000	73.7174
Total	**0.0643**	**0.4523**	**0.5214**	**1.5000e-003**	**0.0982**	**4.3600e-003**	**0.1026**	**0.0265**	**4.1600e-003**	**0.0306**	**0.0000**	**139.3192**	**139.3192**	**7.3900e-003**	**0.0000**	**139.5039**

3.6 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	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.0900e-003**	**0.0523**	**0.0450**	**7.0000e-005**		**3.0500e-003**	**3.0500e-003**		**2.8100e-003**	**2.8100e-003**	**0.0000**	**6.1073**	**6.1073**	**1.8700e-003**	**0.0000**	**6.1540**

3.6 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	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572
Total	**3.5000e-004**	**3.4000e-004**	**2.9000e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5566**	**0.5566**	**2.0000e-005**	**0.0000**	**0.5572**

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	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.0900e-003**	**0.0523**	**0.0450**	**7.0000e-005**		**3.0500e-003**	**3.0500e-003**		**2.8100e-003**	**2.8100e-003**	**0.0000**	**6.1073**	**6.1073**	**1.8700e-003**	**0.0000**	**6.1540**

3.6 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	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572
Total	**3.5000e-004**	**3.4000e-004**	**2.9000e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5566**	**0.5566**	**2.0000e-005**	**0.0000**	**0.5572**

3.7 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	0.2599					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1400e-003	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873
Total	**0.2631**	**0.0211**	**0.0195**	**3.0000e-005**		**1.5800e-003**	**1.5800e-003**		**1.5800e-003**	**1.5800e-003**	**0.0000**	**2.6809**	**2.6809**	**2.5000e-004**	**0.0000**	**2.6873**

3.7 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	9.6000e-004	9.2000e-004	7.9600e-003	2.0000e-005	1.7200e-003	1.0000e-005	1.7300e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.5285	1.5285	6.0000e-005	0.0000	1.5301
Total	**9.6000e-004**	**9.2000e-004**	**7.9600e-003**	**2.0000e-005**	**1.7200e-003**	**1.0000e-005**	**1.7300e-003**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.5285**	**1.5285**	**6.0000e-005**	**0.0000**	**1.5301**

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	0.2599					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1400e-003	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873
Total	**0.2631**	**0.0211**	**0.0195**	**3.0000e-005**		**1.5800e-003**	**1.5800e-003**		**1.5800e-003**	**1.5800e-003**	**0.0000**	**2.6809**	**2.6809**	**2.5000e-004**	**0.0000**	**2.6873**

3.7 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	9.6000e-004	9.2000e-004	7.9600e-003	2.0000e-005	1.7200e-003	1.0000e-005	1.7300e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.5285	1.5285	6.0000e-005	0.0000	1.5301
Total	**9.6000e-004**	**9.2000e-004**	**7.9600e-003**	**2.0000e-005**	**1.7200e-003**	**1.0000e-005**	**1.7300e-003**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.5285**	**1.5285**	**6.0000e-005**	**0.0000**	**1.5301**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1114					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514
Total	**0.1126**	**8.2600e-003**	**8.2900e-003**	**1.0000e-005**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**	**0.0000**	**1.1490**	**1.1490**	**1.0000e-004**	**0.0000**	**1.1514**

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	3.5000e-004	2.9900e-003	1.0000e-005	7.4000e-004	1.0000e-005	7.4000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6358	0.6358	2.0000e-005	0.0000	0.6364
Total	**3.7000e-004**	**3.5000e-004**	**2.9900e-003**	**1.0000e-005**	**7.4000e-004**	**1.0000e-005**	**7.4000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6358**	**0.6358**	**2.0000e-005**	**0.0000**	**0.6364**

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	0.1114					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514
Total	**0.1126**	**8.2600e-003**	**8.2900e-003**	**1.0000e-005**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**	**0.0000**	**1.1490**	**1.1490**	**1.0000e-004**	**0.0000**	**1.1514**

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	3.5000e-004	2.9900e-003	1.0000e-005	7.4000e-004	1.0000e-005	7.4000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6358	0.6358	2.0000e-005	0.0000	0.6364
Total	**3.7000e-004**	**3.5000e-004**	**2.9900e-003**	**1.0000e-005**	**7.4000e-004**	**1.0000e-005**	**7.4000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6358**	**0.6358**	**2.0000e-005**	**0.0000**	**0.6364**

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	0.1315	0.4786	1.2636	2.8200e-003	0.2336	3.6500e-003	0.2372	0.0626	3.4300e-003	0.0660	0.0000	258.0053	258.0053	0.0126	0.0000	258.3198
Unmitigated	0.1315	0.4786	1.2636	2.8200e-003	0.2336	3.6500e-003	0.2372	0.0626	3.4300e-003	0.0660	0.0000	258.0053	258.0053	0.0126	0.0000	258.3198

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	80.00	12.30	5.25	135,697	135,697
Movie Theater (No Matinee)	306.00	571.20	471.75	485,758	485,758
Total	386.00	583.50	477.00	621,456	621,456

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
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
Movie Theater (No Matinee)	13.00	5.00	5.00	1.80	79.20	19.00	66	17	17

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Movie Theater (No Matinee)	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

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	433.9123	433.9123	0.0196	4.0600e-003	435.6125
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	433.9123	433.9123	0.0196	4.0600e-003	435.6125
NaturalGas Mitigated	3.8500e-003	0.0350	0.0294	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	38.0783	38.0783	7.3000e-004	7.0000e-004	38.3045
NaturalGas Unmitigated	3.8500e-003	0.0350	0.0294	2.1000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	38.0783	38.0783	7.3000e-004	7.0000e-004	38.3045

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					
Enclosed Parking with Elevator	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
General Office Building	82250	4.4000e-004	4.0300e-003	3.3900e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3892	4.3892	8.0000e-005	8.0000e-005	4.4153
Movie Theater (No Matinee)	631310	3.4000e-003	0.0310	0.0260	1.9000e-004		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003	0.0000	33.6891	33.6891	6.5000e-004	6.2000e-004	33.8893
Total		**3.8400e-003**	**0.0350**	**0.0294**	**2.1000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**38.0783**	**38.0783**	**7.3000e-004**	**7.0000e-004**	**38.3046**

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					
Enclosed Parking with Elevator	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
General Office Building	82250	4.4000e-004	4.0300e-003	3.3900e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3892	4.3892	8.0000e-005	8.0000e-005	4.4153
Movie Theater (No Matinee)	631310	3.4000e-003	0.0310	0.0260	1.9000e-004		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003	0.0000	33.6891	33.6891	6.5000e-004	6.2000e-004	33.8893
Total		**3.8400e-003**	**0.0350**	**0.0294**	**2.1000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**38.0783**	**38.0783**	**7.3000e-004**	**7.0000e-004**	**38.3046**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.19972e +006	349.0123	0.0158	3.2700e-003	350.3798
General Office Building	91100	26.5020	1.2000e-003	2.5000e-004	26.6059
Movie Theater (No Matinee)	200741	58.3979	2.6400e-003	5.5000e-004	58.6267
Total		**433.9123**	**0.0196**	**4.0700e-003**	**435.6125**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.19972e +006	349.0123	0.0158	3.2700e-003	350.3798
General Office Building	91100	26.5020	1.2000e-003	2.5000e-004	26.6059
Movie Theater (No Matinee)	200741	58.3979	2.6400e-003	5.5000e-004	58.6267
Total		**433.9123**	**0.0196**	**4.0700e-003**	**435.6125**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1624	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0231	0.0231	6.0000e-005	0.0000	0.0246
Unmitigated	0.1624	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0231	0.0231	6.0000e-005	0.0000	0.0246

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	0.0371					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1241					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1200e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0231	0.0231	6.0000e-005	0.0000	0.0246
Total	**0.1624**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0231**	**0.0231**	**6.0000e-005**	**0.0000**	**0.0246**

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	0.0371					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1241					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1200e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0231	0.0231	6.0000e-005	0.0000	0.0246
Total	**0.1624**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0231**	**0.0231**	**6.0000e-005**	**0.0000**	**0.0246**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.7432	0.1043	2.5100e-003	10.0987
Unmitigated	6.7432	0.1043	2.5100e-003	10.0987

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.888669 / 0.544668	2.2354	0.0291	7.0000e-004	3.1707
Movie Theater (No Matinee)	2.30419 / 0.147076	4.5078	0.0753	1.8100e-003	6.9280
Total		**6.7432**	**0.1043**	**2.5100e-003**	**10.0987**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.888669 / 0.544668	2.2354	0.0291	7.0000e-004	3.1707
Movie Theater (No Matinee)	2.30419 / 0.147076	4.5078	0.0753	1.8100e-003	6.9280
Total		**6.7432**	**0.1043**	**2.5100e-003**	**10.0987**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.9439	0.0558	0.0000	2.3385
Unmitigated	0.9439	0.0558	0.0000	2.3385

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Total		**0.9439**	**0.0558**	**0.0000**	**2.3385**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Total		**0.9439**	**0.0558**	**0.0000**	**2.3385**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Greenhouse Gas Emission Worksheet
N20 Mobile Emissions

Nipomo Palm - Preferred Project

From CalEEMod:

Annual VMT: 621,456

Vehicle Type	Percent Type	CH4 Emission Factor (g/mile)*	CH4 Emission (g/mile)**	N2O Emission Factor (g/mile)*	N2O Emission (g/mile)**
Light Auto	56.0%	0.04	0.0224	0.04	0.0224
Light Truck < 3750 lbs	3.1%	0.05	0.00155	0.06	0.00186
Light Truck 3751-5750 lbs	20.0%	0.05	0.01	0.06	0.012
Med Truck 5751-8500 lbs	13.0%	0.12	0.0156	0.2	0.026
Lite-Heavy Truck 8501-10,000 lbs	3.1%	0.12	0.00372	0.2	0.0062
Lite-Heavy Truck 10,001-14,000 lbs	0.7%	0.09	0.00063	0.125	0.000875
Med-Heavy Truck 14,001-33,000 lbs	1.3%	0.06	0.00078	0.05	0.00065
Heavy-Heavy Truck 33,001-60,000 lbs	1.9%	0.06	0.00114	0.05	0.00095
Other Bus	0.2%	0.06	0.00012	0.05	0.0001
Urban Bus	0.1%	0.06	0.00006	0.05	0.00005
Motorcycle	0.5%	0.09	0.00045	0.01	0.00005
School Bus	0.0%	0.06	0	0.05	0
Motor Home	0.1%	0.09	0.00009	0.125	0.000125
Total	**100.0%**		**0.05654**		**0.07126**

Total Emissions (metric tons) =
Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

CH4	21	GWP
N2O	310	GWP
1 ton (short, US) =	0.90718474	metric ton

Annual Mobile Emissions:

	Total Emissions		Total CO2e units	
N20 Emissions:	0.0443	metric tons N2O	**13.73**	metric tons CO2e
		Project Total:	***13.73***	***metric tons CO2e***

References

* from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile).
in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
Assume Model year 2000-present, gasoline fueled.

** Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.

Palm & Nipomo Project - Alternative 1

San Luis Obispo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.50	1000sqft	0.00	2,500.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Movie Theater (No Matinee)	255.00	Seat	0.00	23,841.00	0
Apartments Mid Rise	4.00	Dwelling Unit	0.00	4,000.00	11

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2020
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 - Project Alternative 1

Land Use - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD. Alt 1 replaces 2.5ksf of Commercial Office with 2nd floor residential units.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage (0) would not generate trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	BuildingSpaceSquareFeet	5,737.50	23,841.00
tblLandUse	LandUseSquareFeet	5,737.50	23,841.00
tblLandUse	LotAcreage	0.06	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.13	0.00
tblLandUse	LotAcreage	0.11	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00
tblVehicleTrips	WD_TR	1.76	1.20

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					
2018	27.4010	25.0787	19.2847	0.0370	5.8787	1.4421	6.8315	2.9747	1.3483	3.8513	0.0000	3,566.6679	3,566.6679	0.6195	0.0000	3,578.9865
2019	27.3580	1.9182	2.5489	4.6100e-003	0.1780	0.1299	0.3079	0.0472	0.1299	0.1770	0.0000	445.0239	445.0239	0.0299	0.0000	445.7717
Maximum	**27.4010**	**25.0787**	**19.2847**	**0.0370**	**5.8787**	**1.4421**	**6.8315**	**2.9747**	**1.3483**	**3.8513**	**0.0000**	**3,566.6679**	**3,566.6679**	**0.6195**	**0.0000**	**3,578.9865**

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					
2018	27.4010	25.0787	19.2847	0.0370	5.8787	1.4421	6.8315	2.9747	1.3483	3.8513	0.0000	3,566.6679	3,566.6679	0.6195	0.0000	3,578.9865
2019	27.3580	1.9182	2.5489	4.6100e-003	0.1780	0.1299	0.3079	0.0472	0.1299	0.1770	0.0000	445.0239	445.0239	0.0299	0.0000	445.7717
Maximum	**27.4010**	**25.0787**	**19.2847**	**0.0370**	**5.8787**	**1.4421**	**6.8315**	**2.9747**	**1.3483**	**3.8513**	**0.0000**	**3,566.6679**	**3,566.6679**	**0.6195**	**0.0000**	**3,578.9865**

	ROG	**NOx**	**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**

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	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728
Energy	0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4300e-003	4.2400e-003	232.3836
Mobile	1.1035	3.8845	10.5857	0.0227	1.9366	0.0298	1.9664	0.5176	0.0281	0.5457		2,280.4879	2,280.4879	0.1147		2,283.3562
Total	**2.0758**	**4.0808**	**11.1455**	**0.0238**	**1.9366**	**0.0465**	**1.9831**	**0.5176**	**0.0448**	**0.5624**	**0.0000**	**2,512.2466**	**2,512.2466**	**0.1202**	**4.2400e-003**	**2,516.5125**

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	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728
Energy	0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4300e-003	4.2400e-003	232.3836
Mobile	1.1035	3.8845	10.5857	0.0227	1.9366	0.0298	1.9664	0.5176	0.0281	0.5457		2,280.4879	2,280.4879	0.1147		2,283.3562
Total	**2.0758**	**4.0808**	**11.1455**	**0.0238**	**1.9366**	**0.0465**	**1.9831**	**0.5176**	**0.0448**	**0.5624**	**0.0000**	**2,512.2466**	**2,512.2466**	**0.1202**	**4.2400e-003**	**2,516.5125**

	ROG	NOx	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	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 8,100; Residential Outdoor: 2,700; Non-Residential Indoor: 39,512; Non-Residential Outdoor: 13,171; Striped Parking Area: 10,680 (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	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	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	130	0.42
Paving	Paving Equipment	1	8.00	132	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	35.00	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	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	88.00	34.00	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	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429		2,391.1659	2,391.1659	0.6058		2,406.3105
Total	**2.4838**	**24.3641**	**15.1107**	**0.0241**	**0.3912**	**1.4365**	**1.8277**	**0.0592**	**1.3429**	**1.4021**		**2,391.1659**	**2,391.1659**	**0.6058**		**2,406.3105**

3.2 Demolition - 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	0.0210	0.6463	0.1531	1.3900e-003	0.0305	4.8100e-003	0.0353	8.3600e-003	4.6000e-003	0.0130		149.8063	149.8063	8.6500e-003		150.0225
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	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	**0.0983**	**0.7146**	**0.7375**	**2.6100e-003**	**0.1590**	**5.6900e-003**	**0.1647**	**0.0425**	**5.4100e-003**	**0.0479**		**271.5242**	**271.5242**	**0.0137**		**271.8667**

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					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105
Total	**2.4838**	**24.3641**	**15.1107**	**0.0241**	**0.3912**	**1.4365**	**1.8277**	**0.0592**	**1.3429**	**1.4021**	**0.0000**	**2,391.1659**	**2,391.1659**	**0.6058**		**2,406.3105**

3.2 Demolition - 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	0.0210	0.6463	0.1531	1.3900e-003	0.0305	4.8100e-003	0.0353	8.3600e-003	4.6000e-003	0.0130		149.8063	149.8063	8.6500e-003		150.0225
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	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	**0.0983**	**0.7146**	**0.7375**	**2.6100e-003**	**0.1590**	**5.6900e-003**	**0.1647**	**0.0425**	**5.4100e-003**	**0.0479**		**271.5242**	**271.5242**	**0.0137**		**271.8667**

3.3 Site Preparation - 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					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761		1,735.3630	1,735.3630	0.5402		1,748.8690
Total	**1.8061**	**20.7472**	**8.0808**	**0.0172**	**5.7996**	**0.9523**	**6.7518**	**2.9537**	**0.8761**	**3.8298**		**1,735.3630**	**1,735.3630**	**0.5402**		**1,748.8690**

3.3 Site Preparation - 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	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	**0.0476**	**0.0420**	**0.3596**	**7.5000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**74.9033**	**74.9033**	**3.1100e-003**		**74.9810**

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					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690
Total	**1.8061**	**20.7472**	**8.0808**	**0.0172**	**5.7996**	**0.9523**	**6.7518**	**2.9537**	**0.8761**	**3.8298**	**0.0000**	**1,735.3630**	**1,735.3630**	**0.5402**		**1,748.8690**

3.3 Site Preparation - 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	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	**0.0476**	**0.0420**	**0.3596**	**7.5000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**74.9033**	**74.9033**	**3.1100e-003**		**74.9810**

3.4 Grading - 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					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311		1,421.2605	1,421.2605	0.4425		1,432.3219
Total	**1.4972**	**17.0666**	**6.7630**	**0.0141**	**4.9143**	**0.7947**	**5.7090**	**2.5256**	**0.7311**	**3.2568**		**1,421.2605**	**1,421.2605**	**0.4425**		**1,432.3219**

3.4 Grading - 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	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	**0.0476**	**0.0420**	**0.3596**	**7.5000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**74.9033**	**74.9033**	**3.1100e-003**		**74.9810**

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					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219
Total	**1.4972**	**17.0666**	**6.7630**	**0.0141**	**4.9143**	**0.7947**	**5.7090**	**2.5256**	**0.7311**	**3.2568**	**0.0000**	**1,421.2605**	**1,421.2605**	**0.4425**		**1,432.3219**

3.4 Grading - 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	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	**0.0476**	**0.0420**	**0.3596**	**7.5000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**74.9033**	**74.9033**	**3.1100e-003**		**74.9810**

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	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**		**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

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	0.1881	4.0247	1.4528	6.7100e-003	0.1578	0.0384	0.1962	0.0454	0.0367	0.0822		711.8927	711.8927	0.0497		713.1355
Worker	0.5231	0.4623	3.9554	8.2900e-003	0.8700	5.9500e-003	0.8759	0.2307	5.5000e-003	0.2362		823.9364	823.9364	0.0342		824.7914
Total	**0.7112**	**4.4869**	**5.4081**	**0.0150**	**1.0278**	**0.0443**	**1.0721**	**0.2762**	**0.0422**	**0.3184**		**1,535.8291**	**1,535.8291**	**0.0839**		**1,537.9269**

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	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**	**0.0000**	**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

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	0.1881	4.0247	1.4528	6.7100e-003	0.1578	0.0384	0.1962	0.0454	0.0367	0.0822		711.8927	711.8927	0.0497		713.1355
Worker	0.5231	0.4623	3.9554	8.2900e-003	0.8700	5.9500e-003	0.8759	0.2307	5.5000e-003	0.2362		823.9364	823.9364	0.0342		824.7914
Total	**0.7112**	**4.4869**	**5.4081**	**0.0150**	**1.0278**	**0.0443**	**1.0721**	**0.2762**	**0.0422**	**0.3184**		**1,535.8291**	**1,535.8291**	**0.0839**		**1,537.9269**

3.6 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	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0182**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**		**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

3.6 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	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	**0.0773**	**0.0683**	**0.5843**	**1.2200e-003**	**0.1285**	**8.8000e-004**	**0.1294**	**0.0341**	**8.1000e-004**	**0.0349**		**121.7179**	**121.7179**	**5.0500e-003**		**121.8442**

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	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0182**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**	**0.0000**	**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

3.6 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	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	**0.0773**	**0.0683**	**0.5843**	**1.2200e-003**	**0.1285**	**8.8000e-004**	**0.1294**	**0.0341**	**8.1000e-004**	**0.0349**		**121.7179**	**121.7179**	**5.0500e-003**		**121.8442**

3.7 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	26.9954					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		282.1171
Total	**27.2940**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.7 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	0.1070	0.0946	0.8091	1.7000e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		168.5325	168.5325	7.0000e-003		168.7073
Total	**0.1070**	**0.0946**	**0.8091**	**1.7000e-003**	**0.1780**	**1.2200e-003**	**0.1792**	**0.0472**	**1.1200e-003**	**0.0483**		**168.5325**	**168.5325**	**7.0000e-003**		**168.7073**

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	26.9954					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	0.0000	281.4485	281.4485	0.0267		282.1171
Total	**27.2940**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.7 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	0.1070	0.0946	0.8091	1.7000e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		168.5325	168.5325	7.0000e-003		168.7073
Total	**0.1070**	**0.0946**	**0.8091**	**1.7000e-003**	**0.1780**	**1.2200e-003**	**0.1792**	**0.0472**	**1.1200e-003**	**0.0483**		**168.5325**	**168.5325**	**7.0000e-003**		**168.7073**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.9954					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**27.2618**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

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	0.0962	0.0828	0.7075	1.6400e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		163.5759	163.5759	6.1400e-003		163.7294
Total	**0.0962**	**0.0828**	**0.7075**	**1.6400e-003**	**0.1780**	**1.1800e-003**	**0.1791**	**0.0472**	**1.0900e-003**	**0.0483**		**163.5759**	**163.5759**	**6.1400e-003**		**163.7294**

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	26.9954					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**27.2618**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

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	0.0962	0.0828	0.7075	1.6400e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		163.5759	163.5759	6.1400e-003		163.7294
Total	**0.0962**	**0.0828**	**0.7075**	**1.6400e-003**	**0.1780**	**1.1800e-003**	**0.1791**	**0.0472**	**1.0900e-003**	**0.0483**		**163.5759**	**163.5759**	**6.1400e-003**		**163.7294**

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	1.1035	3.8845	10.5857	0.0227	1.9366	0.0298	1.9664	0.5176	0.0281	0.5457		2,280.4879	2,280.4879	0.1147		2,283.3562
Unmitigated	1.1035	3.8845	10.5857	0.0227	1.9366	0.0298	1.9664	0.5176	0.0281	0.5457		2,280.4879	2,280.4879	0.1147		2,283.3562

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	26.60	25.56	23.44	66,080	66,080
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	40.00	6.15	2.63	67,849	67,849
Movie Theater (No Matinee)	306.00	571.20	471.75	485,758	485,758
Total	372.60	602.91	497.82	619,687	619,687

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
Movie Theater (No Matinee)	13.00	5.00	5.00	1.80	79.20	19.00	66	17	17

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Movie Theater (No Matinee)	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Apartments Mid Rise	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

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	0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4300e-003	4.2400e-003	232.3836
NaturalGas Unmitigated	0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4300e-003	4.2400e-003	232.3836

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					
Apartments Mid Rise	121.305	1.3100e-003	0.0112	4.7600e-003	7.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004		14.2712	14.2712	2.7000e-004	2.6000e-004	14.3560
Enclosed Parking with Elevator	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
General Office Building	112.671	1.2200e-003	0.0111	9.2800e-003	7.0000e-005		8.4000e-004	8.4000e-004		8.4000e-004	8.4000e-004		13.2554	13.2554	2.5000e-004	2.4000e-004	13.3342
Movie Theater (No Matinee)	1729.62	0.0187	0.1696	0.1424	1.0200e-003		0.0129	0.0129		0.0129	0.0129		203.4842	203.4842	3.9000e-003	3.7300e-003	204.6934
Total		**0.0212**	**0.1918**	**0.1565**	**1.1600e-003**		**0.0146**	**0.0146**		**0.0146**	**0.0146**		**231.0108**	**231.0108**	**4.4200e-003**	**4.2300e-003**	**232.3836**

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					
Apartments Mid Rise	0.121305	1.3100e-003	0.0112	4.7600e-003	7.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004		14.2712	14.2712	2.7000e-004	2.6000e-004	14.3560
Enclosed Parking with Elevator	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
General Office Building	0.112671	1.2200e-003	0.0111	9.2800e-003	7.0000e-005		8.4000e-004	8.4000e-004		8.4000e-004	8.4000e-004		13.2554	13.2554	2.5000e-004	2.4000e-004	13.3342
Movie Theater (No Matinee)	1.72962	0.0187	0.1696	0.1424	1.0200e-003		0.0129	0.0129		0.0129	0.0129		203.4842	203.4842	3.9000e-003	3.7300e-003	204.6934
Total		**0.0212**	**0.1918**	**0.1565**	**1.1600e-003**		**0.0146**	**0.0146**		**0.0146**	**0.0146**		**231.0108**	**231.0108**	**4.4200e-003**	**4.2300e-003**	**232.3836**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728
Unmitigated	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728

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	0.2219					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7123					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0169	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003		0.7480	0.7480	9.9000e-004		0.7728
Total	**0.9511**	**4.5000e-003**	**0.4033**	**2.0000e-005**		**2.0800e-003**	**2.0800e-003**		**2.0800e-003**	**2.0800e-003**	**0.0000**	**0.7480**	**0.7480**	**9.9000e-004**	**0.0000**	**0.7728**

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	0.2219					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7123					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0169	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003		0.7480	0.7480	9.9000e-004		0.7728
Total	**0.9511**	**4.5000e-003**	**0.4033**	**2.0000e-005**		**2.0800e-003**	**2.0800e-003**		**2.0800e-003**	**2.0800e-003**	**0.0000**	**0.7480**	**0.7480**	**9.9000e-004**	**0.0000**	**0.7728**

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 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Palm & Nipomo Project - Alternative 1

San Luis Obispo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.50	1000sqft	0.00	2,500.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Movie Theater (No Matinee)	255.00	Seat	0.00	23,841.00	0
Apartments Mid Rise	4.00	Dwelling Unit	0.00	4,000.00	11

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2020

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 - Project Alternative 1

Land Use - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD. Alt 1 replaces 2.5ksf of Commercial Office with 2nd floor residential units.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage (0) would not generate trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	BuildingSpaceSquareFeet	5,737.50	23,841.00
tblLandUse	LandUseSquareFeet	5,737.50	23,841.00
tblLandUse	LotAcreage	0.06	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.13	0.00
tblLandUse	LotAcreage	0.11	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00
tblVehicleTrips	WD_TR	1.76	1.20

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					
2018	27.3882	25.0651	19.1920	0.0376	5.8787	1.4421	6.8315	2.9747	1.3482	3.8513	0.0000	3,627.8723	3,627.8723	0.6193	0.0000	3,640.1303
2019	27.3464	1.9083	2.5647	4.6900e-003	0.1780	0.1299	0.3079	0.0472	0.1299	0.1770	0.0000	453.0508	453.0508	0.0301	0.0000	453.8026
Maximum	**27.3882**	**25.0651**	**19.1920**	**0.0376**	**5.8787**	**1.4421**	**6.8315**	**2.9747**	**1.3482**	**3.8513**	**0.0000**	**3,627.8723**	**3,627.8723**	**0.6193**	**0.0000**	**3,640.1303**

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					
2018	27.3882	25.0651	19.1920	0.0376	5.8787	1.4421	6.8315	2.9747	1.3482	3.8513	0.0000	3,627.8723	3,627.8723	0.6193	0.0000	3,640.1303
2019	27.3464	1.9083	2.5647	4.6900e-003	0.1780	0.1299	0.3079	0.0472	0.1299	0.1770	0.0000	453.0508	453.0508	0.0301	0.0000	453.8026
Maximum	**27.3882**	**25.0651**	**19.1920**	**0.0376**	**5.8787**	**1.4421**	**6.8315**	**2.9747**	**1.3482**	**3.8513**	**0.0000**	**3,627.8723**	**3,627.8723**	**0.6193**	**0.0000**	**3,640.1303**

	ROG	**NOx**	**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**

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	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728
Energy	0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4300e-003	4.2400e-003	232.3836
Mobile	1.1360	3.7626	9.9511	0.0236	1.9366	0.0294	1.9659	0.5176	0.0277	0.5453		2,376.5483	2,376.5483	0.1110		2,379.3230
Total	**2.1083**	**3.9589**	**10.5109**	**0.0248**	**1.9366**	**0.0461**	**1.9827**	**0.5176**	**0.0444**	**0.5620**	**0.0000**	**2,608.3071**	**2,608.3071**	**0.1164**	**4.2400e-003**	**2,612.4793**

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	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728
Energy	0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4300e-003	4.2400e-003	232.3836
Mobile	1.1360	3.7626	9.9511	0.0236	1.9366	0.0294	1.9659	0.5176	0.0277	0.5453		2,376.5483	2,376.5483	0.1110		2,379.3230
Total	**2.1083**	**3.9589**	**10.5109**	**0.0248**	**1.9366**	**0.0461**	**1.9827**	**0.5176**	**0.0444**	**0.5620**	**0.0000**	**2,608.3071**	**2,608.3071**	**0.1164**	**4.2400e-003**	**2,612.4793**

	ROG	NOx	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	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 8,100; Residential Outdoor: 2,700; Non-Residential Indoor: 39,512; Non-Residential Outdoor: 13,171; Striped Parking Area: 10,680 (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	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	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	130	0.42
Paving	Paving Equipment	1	8.00	132	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	35.00	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	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	88.00	34.00	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	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive 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					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429		2,391.1659	2,391.1659	0.6058		2,406.3105
Total	**2.4838**	**24.3641**	**15.1107**	**0.0241**	**0.3912**	**1.4365**	**1.8277**	**0.0592**	**1.3429**	**1.4021**		**2,391.1659**	**2,391.1659**	**0.6058**		**2,406.3105**

3.2 Demolition - 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	0.0205	0.6409	0.1438	1.4100e-003	0.0305	4.7200e-003	0.0352	8.3600e-003	4.5200e-003	0.0129		151.8744	151.8744	8.3600e-003		152.0834
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	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	**0.0885**	**0.7011**	**0.7374**	**2.6900e-003**	**0.1590**	**5.6000e-003**	**0.1646**	**0.0425**	**5.3300e-003**	**0.0478**		**279.5544**	**279.5544**	**0.0135**		**279.8926**

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					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105
Total	**2.4838**	**24.3641**	**15.1107**	**0.0241**	**0.3912**	**1.4365**	**1.8277**	**0.0592**	**1.3429**	**1.4021**	**0.0000**	**2,391.1659**	**2,391.1659**	**0.6058**		**2,406.3105**

3.2 Demolition - 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	0.0205	0.6409	0.1438	1.4100e-003	0.0305	4.7200e-003	0.0352	8.3600e-003	4.5200e-003	0.0129		151.8744	151.8744	8.3600e-003		152.0834
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	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	**0.0885**	**0.7011**	**0.7374**	**2.6900e-003**	**0.1590**	**5.6000e-003**	**0.1646**	**0.0425**	**5.3300e-003**	**0.0478**		**279.5544**	**279.5544**	**0.0135**		**279.8926**

3.3 Site Preparation - 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					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761		1,735.3630	1,735.3630	0.5402		1,748.8690
Total	**1.8061**	**20.7472**	**8.0808**	**0.0172**	**5.7996**	**0.9523**	**6.7518**	**2.9537**	**0.8761**	**3.8298**		**1,735.3630**	**1,735.3630**	**0.5402**		**1,748.8690**

3.3 Site Preparation - 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	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	**0.0419**	**0.0370**	**0.3653**	**7.9000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**78.5723**	**78.5723**	**3.1800e-003**		**78.6518**

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					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690
Total	**1.8061**	**20.7472**	**8.0808**	**0.0172**	**5.7996**	**0.9523**	**6.7518**	**2.9537**	**0.8761**	**3.8298**	**0.0000**	**1,735.3630**	**1,735.3630**	**0.5402**		**1,748.8690**

3.3 Site Preparation - 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	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	**0.0419**	**0.0370**	**0.3653**	**7.9000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**78.5723**	**78.5723**	**3.1800e-003**		**78.6518**

3.4 Grading - 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					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311		1,421.2605	1,421.2605	0.4425		1,432.3219
Total	**1.4972**	**17.0666**	**6.7630**	**0.0141**	**4.9143**	**0.7947**	**5.7090**	**2.5256**	**0.7311**	**3.2568**		**1,421.2605**	**1,421.2605**	**0.4425**		**1,432.3219**

3.4 Grading - 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	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	**0.0419**	**0.0370**	**0.3653**	**7.9000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**78.5723**	**78.5723**	**3.1800e-003**		**78.6518**

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					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219
Total	**1.4972**	**17.0666**	**6.7630**	**0.0141**	**4.9143**	**0.7947**	**5.7090**	**2.5256**	**0.7311**	**3.2568**	**0.0000**	**1,421.2605**	**1,421.2605**	**0.4425**		**1,432.3219**

3.4 Grading - 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	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	**0.0419**	**0.0370**	**0.3653**	**7.9000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**78.5723**	**78.5723**	**3.1800e-003**		**78.6518**

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	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**		**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

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	0.1788	4.0347	1.2972	6.9100e-003	0.1578	0.0374	0.1952	0.0454	0.0358	0.0813		732.7384	732.7384	0.0465		733.9009
Worker	0.4604	0.4074	4.0182	8.6900e-003	0.8700	5.9500e-003	0.8759	0.2307	5.5000e-003	0.2362		864.2950	864.2950	0.0350		865.1698
Total	**0.6392**	**4.4421**	**5.3154**	**0.0156**	**1.0278**	**0.0434**	**1.0711**	**0.2762**	**0.0413**	**0.3175**		**1,597.0334**	**1,597.0334**	**0.0815**		**1,599.0708**

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	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**	**0.0000**	**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

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	0.1788	4.0347	1.2972	6.9100e-003	0.1578	0.0374	0.1952	0.0454	0.0358	0.0813		732.7384	732.7384	0.0465		733.9009
Worker	0.4604	0.4074	4.0182	8.6900e-003	0.8700	5.9500e-003	0.8759	0.2307	5.5000e-003	0.2362		864.2950	864.2950	0.0350		865.1698
Total	**0.6392**	**4.4421**	**5.3154**	**0.0156**	**1.0278**	**0.0434**	**1.0711**	**0.2762**	**0.0413**	**0.3175**		**1,597.0334**	**1,597.0334**	**0.0815**		**1,599.0708**

3.6 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	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0182**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**		**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

3.6 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	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	**0.0680**	**0.0602**	**0.5936**	**1.2800e-003**	**0.1285**	**8.8000e-004**	**0.1294**	**0.0341**	**8.1000e-004**	**0.0349**		**127.6799**	**127.6799**	**5.1700e-003**		**127.8092**

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	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0182**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**	**0.0000**	**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

3.6 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	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	**0.0680**	**0.0602**	**0.5936**	**1.2800e-003**	**0.1285**	**8.8000e-004**	**0.1294**	**0.0341**	**8.1000e-004**	**0.0349**		**127.6799**	**127.6799**	**5.1700e-003**		**127.8092**

3.7 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	26.9954					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		282.1171
Total	**27.2940**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.7 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	0.0942	0.0833	0.8219	1.7800e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		176.7876	176.7876	7.1600e-003		176.9666
Total	**0.0942**	**0.0833**	**0.8219**	**1.7800e-003**	**0.1780**	**1.2200e-003**	**0.1792**	**0.0472**	**1.1200e-003**	**0.0483**		**176.7876**	**176.7876**	**7.1600e-003**		**176.9666**

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	26.9954					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	0.0000	281.4485	281.4485	0.0267		282.1171
Total	**27.2940**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.7 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	0.0942	0.0833	0.8219	1.7800e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		176.7876	176.7876	7.1600e-003		176.9666
Total	**0.0942**	**0.0833**	**0.8219**	**1.7800e-003**	**0.1780**	**1.2200e-003**	**0.1792**	**0.0472**	**1.1200e-003**	**0.0483**		**176.7876**	**176.7876**	**7.1600e-003**		**176.9666**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.9954					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**27.2618**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

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	0.0846	0.0729	0.7233	1.7200e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		171.6027	171.6027	6.3000e-003		171.7603
Total	**0.0846**	**0.0729**	**0.7233**	**1.7200e-003**	**0.1780**	**1.1800e-003**	**0.1791**	**0.0472**	**1.0900e-003**	**0.0483**		**171.6027**	**171.6027**	**6.3000e-003**		**171.7603**

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	26.9954					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**27.2618**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

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	0.0846	0.0729	0.7233	1.7200e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		171.6027	171.6027	6.3000e-003		171.7603
Total	**0.0846**	**0.0729**	**0.7233**	**1.7200e-003**	**0.1780**	**1.1800e-003**	**0.1791**	**0.0472**	**1.0900e-003**	**0.0483**		**171.6027**	**171.6027**	**6.3000e-003**		**171.7603**

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	1.1360	3.7626	9.9511	0.0236	1.9366	0.0294	1.9659	0.5176	0.0277	0.5453		2,376.548 3	2,376.548 3	0.1110		2,379.323 0
Unmitigated	1.1360	3.7626	9.9511	0.0236	1.9366	0.0294	1.9659	0.5176	0.0277	0.5453		2,376.548 3	2,376.548 3	0.1110		2,379.323 0

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	26.60	25.56	23.44	66,080	66,080
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	40.00	6.15	2.63	67,849	67,849
Movie Theater (No Matinee)	306.00	571.20	471.75	485,758	485,758
Total	372.60	602.91	497.82	619,687	619,687

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
Movie Theater (No Matinee)	13.00	5.00	5.00	1.80	79.20	19.00	66	17	17

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Movie Theater (No Matinee)	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Apartments Mid Rise	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

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	0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4300e-003	4.2400e-003	232.3836
NaturalGas Unmitigated	0.0212	0.1918	0.1565	1.1600e-003		0.0146	0.0146		0.0146	0.0146		231.0108	231.0108	4.4300e-003	4.2400e-003	232.3836

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					
Apartments Mid Rise	121.305	1.3100e-003	0.0112	4.7600e-003	7.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004		14.2712	14.2712	2.7000e-004	2.6000e-004	14.3560
Enclosed Parking with Elevator	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
General Office Building	112.671	1.2200e-003	0.0111	9.2800e-003	7.0000e-005		8.4000e-004	8.4000e-004		8.4000e-004	8.4000e-004		13.2554	13.2554	2.5000e-004	2.4000e-004	13.3342
Movie Theater (No Matinee)	1729.62	0.0187	0.1696	0.1424	1.0200e-003		0.0129	0.0129		0.0129	0.0129		203.4842	203.4842	3.9000e-003	3.7300e-003	204.6934
Total		**0.0212**	**0.1918**	**0.1565**	**1.1600e-003**		**0.0146**	**0.0146**		**0.0146**	**0.0146**		**231.0108**	**231.0108**	**4.4200e-003**	**4.2300e-003**	**232.3836**

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					
Apartments Mid Rise	0.121305	1.3100e-003	0.0112	4.7600e-003	7.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004		14.2712	14.2712	2.7000e-004	2.6000e-004	14.3560
Enclosed Parking with Elevator	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
General Office Building	0.112671	1.2200e-003	0.0111	9.2800e-003	7.0000e-005		8.4000e-004	8.4000e-004		8.4000e-004	8.4000e-004		13.2554	13.2554	2.5000e-004	2.4000e-004	13.3342
Movie Theater (No Matinee)	1.72962	0.0187	0.1696	0.1424	1.0200e-003		0.0129	0.0129		0.0129	0.0129		203.4842	203.4842	3.9000e-003	3.7300e-003	204.6934
Total		**0.0212**	**0.1918**	**0.1565**	**1.1600e-003**		**0.0146**	**0.0146**		**0.0146**	**0.0146**		**231.0108**	**231.0108**	**4.4200e-003**	**4.2300e-003**	**232.3836**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728
Unmitigated	0.9511	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	0.7480	0.7480	9.9000e-004	0.0000	0.7728

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	0.2219					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7123					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0169	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003		0.7480	0.7480	9.9000e-004		0.7728
Total	**0.9511**	**4.5000e-003**	**0.4033**	**2.0000e-005**		**2.0800e-003**	**2.0800e-003**		**2.0800e-003**	**2.0800e-003**	**0.0000**	**0.7480**	**0.7480**	**9.9000e-004**	**0.0000**	**0.7728**

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	0.2219					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7123					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0169	4.5000e-003	0.4033	2.0000e-005		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003		0.7480	0.7480	9.9000e-004		0.7728
Total	**0.9511**	**4.5000e-003**	**0.4033**	**2.0000e-005**		**2.0800e-003**	**2.0800e-003**		**2.0800e-003**	**2.0800e-003**	**0.0000**	**0.7480**	**0.7480**	**9.9000e-004**	**0.0000**	**0.7728**

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 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Palm & Nipomo Project - Alternative 1

San Luis Obispo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.50	1000sqft	0.00	2,500.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Movie Theater (No Matinee)	255.00	Seat	0.00	23,841.00	0
Apartments Mid Rise	4.00	Dwelling Unit	0.00	4,000.00	11

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2020
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 - Project Alternative 1

Land Use - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD. Alt 1 replaces 2.5ksf of Commercial Office with 2nd floor residential units.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage (0) would not generate trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	BuildingSpaceSquareFeet	5,737.50	23,841.00
tblLandUse	LandUseSquareFeet	5,737.50	23,841.00
tblLandUse	LotAcreage	0.06	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.13	0.00
tblLandUse	LotAcreage	0.11	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00
tblVehicleTrips	WD_TR	1.76	1.20

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					
2018	0.6483	2.5766	2.1748	4.1600e-003	0.1239	0.1318	0.2557	0.0367	0.1266	0.1633	0.0000	364.7635	364.7635	0.0537	0.0000	366.1055
2019	0.1231	8.6200e-003	0.0115	2.0000e-005	7.8000e-004	5.8000e-004	1.3600e-003	2.1000e-004	5.8000e-004	7.9000e-004	0.0000	1.8222	1.8222	1.2000e-004	0.0000	1.8252
Maximum	**0.6483**	**2.5766**	**2.1748**	**4.1600e-003**	**0.1239**	**0.1318**	**0.2557**	**0.0367**	**0.1266**	**0.1633**	**0.0000**	**364.7635**	**364.7635**	**0.0537**	**0.0000**	**366.1055**

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					
2018	0.6483	2.5766	2.1748	4.1600e-003	0.1239	0.1318	0.2557	0.0367	0.1266	0.1633	0.0000	364.7632	364.7632	0.0537	0.0000	366.1052
2019	0.1231	8.6200e-003	0.0115	2.0000e-005	7.8000e-004	5.8000e-004	1.3600e-003	2.1000e-004	5.8000e-004	7.9000e-004	0.0000	1.8222	1.8222	1.2000e-004	0.0000	1.8252
Maximum	**0.6483**	**2.5766**	**2.1748**	**4.1600e-003**	**0.1239**	**0.1318**	**0.2557**	**0.0367**	**0.1266**	**0.1633**	**0.0000**	**364.7632**	**364.7632**	**0.0537**	**0.0000**	**366.1052**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-5-2018**	**4-4-2018**	0.8218	0.8218
2	**4-5-2018**	**7-4-2018**	0.8158	0.8158
3	**7-5-2018**	**10-4-2018**	0.8249	0.8249
4	**10-5-2018**	**1-4-2019**	0.8138	0.8138
5	**1-5-2019**	**4-4-2019**	0.0732	0.0732
		Highest	0.8249	0.8249

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	0.1733	7.4000e-004	0.0665	0.0000		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	0.1120	0.1120	1.5000e-004	0.0000	0.1157
Energy	3.8600e-003	0.0350	0.0286	2.1000e-004		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	464.0405	464.0405	0.0200	4.6800e-003	465.9361
Mobile	0.1306	0.4759	1.2569	2.8100e-003	0.2329	3.6300e-003	0.2366	0.0624	3.4200e-003	0.0658	0.0000	257.1256	257.1256	0.0125	0.0000	257.4385
Waste						0.0000	0.0000		0.0000	0.0000	0.8465	0.0000	0.8465	0.0500	0.0000	2.0971
Water						0.0000	0.0000		0.0000	0.0000	0.9547	5.3311	6.2857	0.0983	2.3700e-003	9.4479
Total	**0.3077**	**0.5117**	**1.3520**	**3.0200e-003**	**0.2329**	**6.6400e-003**	**0.2396**	**0.0624**	**6.4300e-003**	**0.0688**	**1.8011**	**726.6092**	**728.4103**	**0.1810**	**7.0500e-003**	**735.0353**

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	0.1733	7.4000e-004	0.0665	0.0000		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	0.1120	0.1120	1.5000e-004	0.0000	0.1157
Energy	3.8600e-003	0.0350	0.0286	2.1000e-004		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	464.0405	464.0405	0.0200	4.6800e-003	465.9361
Mobile	0.1306	0.4759	1.2569	2.8100e-003	0.2329	3.6300e-003	0.2366	0.0624	3.4200e-003	0.0658	0.0000	257.1256	257.1256	0.0125	0.0000	257.4385
Waste						0.0000	0.0000		0.0000	0.0000	0.8465	0.0000	0.8465	0.0500	0.0000	2.0971
Water						0.0000	0.0000		0.0000	0.0000	0.9547	5.3311	6.2857	0.0983	2.3700e-003	9.4479
Total	**0.3077**	**0.5117**	**1.3520**	**3.0200e-003**	**0.2329**	**6.6400e-003**	**0.2396**	**0.0624**	**6.4300e-003**	**0.0688**	**1.8011**	**726.6092**	**728.4103**	**0.1810**	**7.0500e-003**	**735.0353**

	ROG	**NOx**	**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	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 8,100; Residential Outdoor: 2,700; Non-Residential Indoor: 39,512; Non-Residential Outdoor: 13,171; Striped Parking Area: 10,680 (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	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	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	130	0.42
Paving	Paving Equipment	1	8.00	132	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	35.00	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	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	88.00	34.00	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	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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					
Fugitive Dust					3.9100e-003	0.0000	3.9100e-003	5.9000e-004	0.0000	5.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2436	0.1511	2.4000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297
Total	**0.0248**	**0.2436**	**0.1511**	**2.4000e-004**	**3.9100e-003**	**0.0144**	**0.0183**	**5.9000e-004**	**0.0134**	**0.0140**	**0.0000**	**21.6923**	**21.6923**	**5.5000e-003**	**0.0000**	**21.8297**

3.2 Demolition - 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	2.1000e-004	6.5400e-003	1.4800e-003	1.0000e-005	3.0000e-004	5.0000e-005	3.5000e-004	8.0000e-005	5.0000e-005	1.3000e-004	0.0000	1.3699	1.3699	8.0000e-005	0.0000	1.3718
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	7.0000e-004	6.7000e-004	5.8000e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1132	1.1132	5.0000e-005	0.0000	1.1143
Total	**9.1000e-004**	**7.2100e-003**	**7.2800e-003**	**2.0000e-005**	**1.5500e-003**	**6.0000e-005**	**1.6100e-003**	**4.1000e-004**	**6.0000e-005**	**4.7000e-004**	**0.0000**	**2.4831**	**2.4831**	**1.3000e-004**	**0.0000**	**2.4862**

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					3.9100e-003	0.0000	3.9100e-003	5.9000e-004	0.0000	5.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2436	0.1511	2.4000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297
Total	**0.0248**	**0.2436**	**0.1511**	**2.4000e-004**	**3.9100e-003**	**0.0144**	**0.0183**	**5.9000e-004**	**0.0134**	**0.0140**	**0.0000**	**21.6923**	**21.6923**	**5.5000e-003**	**0.0000**	**21.8297**

3.2 Demolition - 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	2.1000e-004	6.5400e-003	1.4800e-003	1.0000e-005	3.0000e-004	5.0000e-005	3.5000e-004	8.0000e-005	5.0000e-005	1.3000e-004	0.0000	1.3699	1.3699	8.0000e-005	0.0000	1.3718
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	7.0000e-004	6.7000e-004	5.8000e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1132	1.1132	5.0000e-005	0.0000	1.1143
Total	**9.1000e-004**	**7.2100e-003**	**7.2800e-003**	**2.0000e-005**	**1.5500e-003**	**6.0000e-005**	**1.6100e-003**	**4.1000e-004**	**6.0000e-005**	**4.7000e-004**	**0.0000**	**2.4831**	**2.4831**	**1.3000e-004**	**0.0000**	**2.4862**

3.3 Site Preparation - 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					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0208	8.0800e-003	2.0000e-005		9.5000e-004	9.5000e-004		8.8000e-004	8.8000e-004	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866
Total	**1.8100e-003**	**0.0208**	**8.0800e-003**	**2.0000e-005**	**5.8000e-003**	**9.5000e-004**	**6.7500e-003**	**2.9500e-003**	**8.8000e-004**	**3.8300e-003**	**0.0000**	**1.5743**	**1.5743**	**4.9000e-004**	**0.0000**	**1.5866**

3.3 Site Preparation - 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	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686
Total	**4.0000e-005**	**4.0000e-005**	**3.6000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0685**	**0.0685**	**0.0000**	**0.0000**	**0.0686**

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					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0208	8.0800e-003	2.0000e-005		9.5000e-004	9.5000e-004		8.8000e-004	8.8000e-004	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866
Total	**1.8100e-003**	**0.0208**	**8.0800e-003**	**2.0000e-005**	**5.8000e-003**	**9.5000e-004**	**6.7500e-003**	**2.9500e-003**	**8.8000e-004**	**3.8300e-003**	**0.0000**	**1.5743**	**1.5743**	**4.9000e-004**	**0.0000**	**1.5866**

3.3 Site Preparation - 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	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686
Total	**4.0000e-005**	**4.0000e-005**	**3.6000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0685**	**0.0685**	**0.0000**	**0.0000**	**0.0686**

3.4 Grading - 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					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0341	0.0135	3.0000e-005		1.5900e-003	1.5900e-003		1.4600e-003	1.4600e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988
Total	**2.9900e-003**	**0.0341**	**0.0135**	**3.0000e-005**	**9.8300e-003**	**1.5900e-003**	**0.0114**	**5.0500e-003**	**1.4600e-003**	**6.5100e-003**	**0.0000**	**2.5787**	**2.5787**	**8.0000e-004**	**0.0000**	**2.5988**

3.4 Grading - 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	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372
Total	**9.0000e-005**	**8.0000e-005**	**7.1000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1370**	**0.1370**	**1.0000e-005**	**0.0000**	**0.1372**

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					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0341	0.0135	3.0000e-005		1.5900e-003	1.5900e-003		1.4600e-003	1.4600e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988
Total	**2.9900e-003**	**0.0341**	**0.0135**	**3.0000e-005**	**9.8300e-003**	**1.5900e-003**	**0.0114**	**5.0500e-003**	**1.4600e-003**	**6.5100e-003**	**0.0000**	**2.5787**	**2.5787**	**8.0000e-004**	**0.0000**	**2.5988**

3.4 Grading - 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	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372
Total	**9.0000e-005**	**8.0000e-005**	**7.1000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1370**	**0.1370**	**1.0000e-005**	**0.0000**	**0.1372**

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	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2346	184.2346	0.0371	0.0000	185.1618
Total	**0.2592**	**1.7428**	**1.3877**	**2.2000e-003**		**0.1058**	**0.1058**		**0.1022**	**0.1022**	**0.0000**	**184.2346**	**184.2346**	**0.0371**	**0.0000**	**185.1618**

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	0.0183	0.4079	0.1379	6.8000e-004	0.0154	3.7800e-003	0.0192	4.4600e-003	3.6200e-003	8.0800e-003	0.0000	65.6775	65.6775	4.3600e-003	0.0000	65.7865
Worker	0.0471	0.0454	0.3925	8.4000e-004	0.0847	5.9000e-004	0.0853	0.0225	5.5000e-004	0.0231	0.0000	75.3542	75.3542	3.1000e-003	0.0000	75.4318
Total	**0.0654**	**0.4533**	**0.5303**	**1.5200e-003**	**0.1002**	**4.3700e-003**	**0.1045**	**0.0270**	**4.1700e-003**	**0.0311**	**0.0000**	**141.0318**	**141.0318**	**7.4600e-003**	**0.0000**	**141.2183**

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	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2344	184.2344	0.0371	0.0000	185.1616
Total	**0.2592**	**1.7428**	**1.3877**	**2.2000e-003**		**0.1058**	**0.1058**		**0.1022**	**0.1022**	**0.0000**	**184.2344**	**184.2344**	**0.0371**	**0.0000**	**185.1616**

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	0.0183	0.4079	0.1379	6.8000e-004	0.0154	3.7800e-003	0.0192	4.4600e-003	3.6200e-003	8.0800e-003	0.0000	65.6775	65.6775	4.3600e-003	0.0000	65.7865
Worker	0.0471	0.0454	0.3925	8.4000e-004	0.0847	5.9000e-004	0.0853	0.0225	5.5000e-004	0.0231	0.0000	75.3542	75.3542	3.1000e-003	0.0000	75.4318
Total	**0.0654**	**0.4533**	**0.5303**	**1.5200e-003**	**0.1002**	**4.3700e-003**	**0.1045**	**0.0270**	**4.1700e-003**	**0.0311**	**0.0000**	**141.0318**	**141.0318**	**7.4600e-003**	**0.0000**	**141.2183**

3.6 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	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.0900e-003**	**0.0523**	**0.0450**	**7.0000e-005**		**3.0500e-003**	**3.0500e-003**		**2.8100e-003**	**2.8100e-003**	**0.0000**	**6.1073**	**6.1073**	**1.8700e-003**	**0.0000**	**6.1540**

3.6 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	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572
Total	**3.5000e-004**	**3.4000e-004**	**2.9000e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5566**	**0.5566**	**2.0000e-005**	**0.0000**	**0.5572**

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	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.0900e-003**	**0.0523**	**0.0450**	**7.0000e-005**		**3.0500e-003**	**3.0500e-003**		**2.8100e-003**	**2.8100e-003**	**0.0000**	**6.1073**	**6.1073**	**1.8700e-003**	**0.0000**	**6.1540**

3.6 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	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572
Total	**3.5000e-004**	**3.4000e-004**	**2.9000e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5566**	**0.5566**	**2.0000e-005**	**0.0000**	**0.5572**

3.7 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	0.2835					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1400e-003	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873
Total	**0.2866**	**0.0211**	**0.0195**	**3.0000e-005**		**1.5800e-003**	**1.5800e-003**		**1.5800e-003**	**1.5800e-003**	**0.0000**	**2.6809**	**2.6809**	**2.5000e-004**	**0.0000**	**2.6873**

3.7 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	1.0100e-003	9.7000e-004	8.4300e-003	2.0000e-005	1.8200e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.6184	1.6184	7.0000e-005	0.0000	1.6201
Total	**1.0100e-003**	**9.7000e-004**	**8.4300e-003**	**2.0000e-005**	**1.8200e-003**	**1.0000e-005**	**1.8300e-003**	**4.8000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.6184**	**1.6184**	**7.0000e-005**	**0.0000**	**1.6201**

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	0.2835					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1400e-003	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873
Total	**0.2866**	**0.0211**	**0.0195**	**3.0000e-005**		**1.5800e-003**	**1.5800e-003**		**1.5800e-003**	**1.5800e-003**	**0.0000**	**2.6809**	**2.6809**	**2.5000e-004**	**0.0000**	**2.6873**

3.7 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	1.0100e-003	9.7000e-004	8.4300e-003	2.0000e-005	1.8200e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.6184	1.6184	7.0000e-005	0.0000	1.6201
Total	**1.0100e-003**	**9.7000e-004**	**8.4300e-003**	**2.0000e-005**	**1.8200e-003**	**1.0000e-005**	**1.8300e-003**	**4.8000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.6184**	**1.6184**	**7.0000e-005**	**0.0000**	**1.6201**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514
Total	**0.1227**	**8.2600e-003**	**8.2900e-003**	**1.0000e-005**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**	**0.0000**	**1.1490**	**1.1490**	**1.0000e-004**	**0.0000**	**1.1514**

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.7000e-004	3.1700e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6732	0.6732	3.0000e-005	0.0000	0.6738
Total	**3.9000e-004**	**3.7000e-004**	**3.1700e-003**	**1.0000e-005**	**7.8000e-004**	**1.0000e-005**	**7.9000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.6732**	**0.6732**	**3.0000e-005**	**0.0000**	**0.6738**

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	0.1215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514
Total	**0.1227**	**8.2600e-003**	**8.2900e-003**	**1.0000e-005**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**	**0.0000**	**1.1490**	**1.1490**	**1.0000e-004**	**0.0000**	**1.1514**

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.7000e-004	3.1700e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6732	0.6732	3.0000e-005	0.0000	0.6738
Total	**3.9000e-004**	**3.7000e-004**	**3.1700e-003**	**1.0000e-005**	**7.8000e-004**	**1.0000e-005**	**7.9000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.6732**	**0.6732**	**3.0000e-005**	**0.0000**	**0.6738**

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	0.1306	0.4759	1.2569	2.8100e-003	0.2329	3.6300e-003	0.2366	0.0624	3.4200e-003	0.0658	0.0000	257.1256	257.1256	0.0125	0.0000	257.4385
Unmitigated	0.1306	0.4759	1.2569	2.8100e-003	0.2329	3.6300e-003	0.2366	0.0624	3.4200e-003	0.0658	0.0000	257.1256	257.1256	0.0125	0.0000	257.4385

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	26.60	25.56	23.44	66,080	66,080
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	40.00	6.15	2.63	67,849	67,849
Movie Theater (No Matinee)	306.00	571.20	471.75	485,758	485,758
Total	372.60	602.91	497.82	619,687	619,687

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4
Movie Theater (No Matinee)	13.00	5.00	5.00	1.80	79.20	19.00	66	17	17

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Movie Theater (No Matinee)	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Apartments Mid Rise	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

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	425.7941	425.7941	0.0193	3.9800e-003	427.4624
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	425.7941	425.7941	0.0193	3.9800e-003	427.4624
NaturalGas Mitigated	3.8600e-003	0.0350	0.0286	2.1000e-004		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	38.2464	38.2464	7.3000e-004	7.0000e-004	38.4737
NaturalGas Unmitigated	3.8600e-003	0.0350	0.0286	2.1000e-004		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	38.2464	38.2464	7.3000e-004	7.0000e-004	38.4737

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	44276.3	2.4000e-004	2.0400e-003	8.7000e-004	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3628	2.3628	5.0000e-005	4.0000e-005	2.3768
Enclosed Parking with Elevator	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
General Office Building	41125	2.2000e-004	2.0200e-003	1.6900e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	2.1946	2.1946	4.0000e-005	4.0000e-005	2.2076
Movie Theater (No Matinee)	631310	3.4000e-003	0.0310	0.0260	1.9000e-004		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003	0.0000	33.6891	33.6891	6.5000e-004	6.2000e-004	33.8893
Total		**3.8600e-003**	**0.0350**	**0.0286**	**2.1000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**38.2464**	**38.2464**	**7.4000e-004**	**7.0000e-004**	**38.4737**

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					
Apartments Mid Rise	44276.3	2.4000e-004	2.0400e-003	8.7000e-004	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3628	2.3628	5.0000e-005	4.0000e-005	2.3768
Enclosed Parking with Elevator	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
General Office Building	41125	2.2000e-004	2.0200e-003	1.6900e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	2.1946	2.1946	4.0000e-005	4.0000e-005	2.2076
Movie Theater (No Matinee)	631310	3.4000e-003	0.0310	0.0260	1.9000e-004		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003	0.0000	33.6891	33.6891	6.5000e-004	6.2000e-004	33.8893
Total		**3.8600e-003**	**0.0350**	**0.0286**	**2.1000e-004**		**2.6600e-003**	**2.6600e-003**		**2.6600e-003**	**2.6600e-003**	**0.0000**	**38.2464**	**38.2464**	**7.4000e-004**	**7.0000e-004**	**38.4737**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	17643.9	5.1328	2.3000e-004	5.0000e-005	5.1529
Enclosed Parking with Elevator	1.19972e+006	349.0123	0.0158	3.2700e-003	350.3798
General Office Building	45550	13.2510	6.0000e-004	1.2000e-004	13.3029
Movie Theater (No Matinee)	200741	58.3979	2.6400e-003	5.5000e-004	58.6267
Total		**425.7941**	**0.0193**	**3.9900e-003**	**427.4624**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	17643.9	5.1328	2.3000e-004	5.0000e-005	5.1529
Enclosed Parking with Elevator	1.19972e +006	349.0123	0.0158	3.2700e-003	350.3798
General Office Building	45550	13.2510	6.0000e-004	1.2000e-004	13.3029
Movie Theater (No Matinee)	200741	58.3979	2.6400e-003	5.5000e-004	58.6267
Total		**425.7941**	**0.0193**	**3.9900e-003**	**427.4624**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1733	7.4000e-004	0.0665	0.0000		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	0.1120	0.1120	1.5000e-004	0.0000	0.1157
Unmitigated	0.1733	7.4000e-004	0.0665	0.0000		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	0.1120	0.1120	1.5000e-004	0.0000	0.1157

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	0.0405					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1300					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.7800e-003	7.4000e-004	0.0665	0.0000		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	0.1120	0.1120	1.5000e-004	0.0000	0.1157
Total	**0.1733**	**7.4000e-004**	**0.0665**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.4000e-004**	**3.4000e-004**	**0.0000**	**0.1120**	**0.1120**	**1.5000e-004**	**0.0000**	**0.1157**

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	0.0405					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1300					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.7800e-003	7.4000e-004	0.0665	0.0000		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	0.1120	0.1120	1.5000e-004	0.0000	0.1157
Total	**0.1733**	**7.4000e-004**	**0.0665**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.4000e-004**	**3.4000e-004**	**0.0000**	**0.1120**	**0.1120**	**1.5000e-004**	**0.0000**	**0.1157**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.2857	0.0983	2.3700e-003	9.4479
Unmitigated	6.2857	0.0983	2.3700e-003	9.4479

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.260616 / 0.164301	0.6602	8.5200e-003	2.1000e-004	0.9345
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.444334 / 0.272334	1.1177	0.0145	3.5000e-004	1.5854
Movie Theater (No Matinee)	2.30419 / 0.147076	4.5078	0.0753	1.8100e-003	6.9280
Total		**6.2857**	**0.0983**	**2.3700e-003**	**9.4479**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.260616 / 0.164301	0.6602	8.5200e-003	2.1000e-004	0.9345
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.444334 / 0.272334	1.1177	0.0145	3.5000e-004	1.5854
Movie Theater (No Matinee)	2.30419 / 0.147076	4.5078	0.0753	1.8100e-003	6.9280
Total		**6.2857**	**0.0983**	**2.3700e-003**	**9.4479**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.8465	0.0500	0.0000	2.0971
Unmitigated	0.8465	0.0500	0.0000	2.0971

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1.84	0.3735	0.0221	0.0000	0.9253
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	2.33	0.4730	0.0280	0.0000	1.1718
Total		**0.8465**	**0.0500**	**0.0000**	**2.0971**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1.84	0.3735	0.0221	0.0000	0.9253
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	2.33	0.4730	0.0280	0.0000	1.1718
Total		**0.8465**	**0.0500**	**0.0000**	**2.0971**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Greenhouse Gas Emission Worksheet
N20 Mobile Emissions

Nipomo Palm Parking - Alternative 1

From CalEEMod:

Annual VMT: 619,687

Vehicle Type	Percent Type	CH4 Emission Factor (g/mile)*	CH4 Emission (g/mile)**	N2O Emission Factor (g/mile)*	N2O Emission (g/mile)**
Light Auto	56.0%	0.04	0.0224	0.04	0.0224
Light Truck < 3750 lbs	3.2%	0.05	0.0016	0.06	0.00192
Light Truck 3751-5750 lbs	19.9%	0.05	0.00995	0.06	0.01194
Med Truck 5751-8500 lbs	13.0%	0.12	0.0156	0.2	0.026
Lite-Heavy Truck 8501-10,000 lbs	3.1%	0.12	0.00372	0.2	0.0062
Lite-Heavy Truck 10,001-14,000 lbs	0.7%	0.09	0.00063	0.125	0.000875
Med-Heavy Truck 14,001-33,000 lbs	1.3%	0.06	0.00078	0.05	0.00065
Heavy-Heavy Truck 33,001-60,000 lbs	1.9%	0.06	0.00114	0.05	0.00095
Other Bus	0.2%	0.06	0.00012	0.05	0.0001
Urban Bus	0.1%	0.06	0.00006	0.05	0.00005
Motorcycle	0.5%	0.09	0.00045	0.01	0.00005
School Bus	0.0%	0.06	0	0.05	0
Motor Home	0.1%	0.09	0.00009	0.125	0.000125
Total	**100.0%**		**0.05654**		**0.07126**

Total Emissions (metric tons) =
Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

CH4	21	GWP
N2O	310	GWP
1 ton (short, US) =	0.90718474	metric ton

Annual Mobile Emissions:

	Total Emissions		Total CO2e units	
N20 Emissions:	0.0442	metric tons N2O	**13.69**	metric tons CO2e
		Project Total:	***13.69***	***metric tons CO2e***

References

* from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile).
in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
Assume Model year 2000-present, gasoline fueled.

** Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.

Palm & Nipomo Project - Alternative 2

San Luis Obispo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.00	1000sqft	0.00	5,000.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Apartments Mid Rise	22.00	Dwelling Unit	0.00	22,000.00	63

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2020
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 - Project Alternative 2

Land Use - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD. Alt 2 replaces the Theater use with 22 two-bedroom residential units.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage (0) would not generate trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	LotAcreage	0.11	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.58	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00

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					
2018	29.6865	25.0787	19.3790	0.0370	5.8787	1.4421	6.8315	2.9747	1.3483	3.8513	0.0000	3,562.2436	3,562.2436	0.6195	0.0000	3,574.5278
2019	29.6435	1.9182	2.5489	4.6100e-003	0.1780	0.1299	0.3079	0.0472	0.1299	0.1770	0.0000	445.0239	445.0239	0.0299	0.0000	445.7717
Maximum	**29.6865**	**25.0787**	**19.3790**	**0.0370**	**5.8787**	**1.4421**	**6.8315**	**2.9747**	**1.3483**	**3.8513**	**0.0000**	**3,562.2436**	**3,562.2436**	**0.6195**	**0.0000**	**3,574.5278**

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					
2018	29.6865	25.0787	19.3790	0.0370	5.8787	1.4421	6.8315	2.9747	1.3483	3.8513	0.0000	3,562.2436	3,562.2436	0.6195	0.0000	3,574.5278
2019	29.6435	1.9182	2.5489	4.6100e-003	0.1780	0.1299	0.3079	0.0472	0.1299	0.1770	0.0000	445.0239	445.0239	0.0299	0.0000	445.7717
Maximum	**29.6865**	**25.0787**	**19.3790**	**0.0370**	**5.8787**	**1.4421**	**6.8315**	**2.9747**	**1.3483**	**3.8513**	**0.0000**	**3,562.2436**	**3,562.2436**	**0.6195**	**0.0000**	**3,574.5278**

	ROG	**NOx**	**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**

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	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529
Energy	9.6300e-003	0.0836	0.0447	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263
Mobile	0.4577	1.9232	5.2861	0.0132	1.1741	0.0168	1.1909	0.3138	0.0158	0.3297		1,330.6522	1,330.6522	0.0588		1,332.1217
Total	**1.4086**	**2.0283**	**7.1982**	**0.0138**	**1.1741**	**0.0336**	**1.2077**	**0.3138**	**0.0327**	**0.3465**	**0.0000**	**1,439.0211**	**1,439.0211**	**0.0642**	**1.9300e-003**	**1,441.2009**

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	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529
Energy	9.6300e-003	0.0836	0.0447	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263
Mobile	0.4577	1.9232	5.2861	0.0132	1.1741	0.0168	1.1909	0.3138	0.0158	0.3297		1,330.6522	1,330.6522	0.0588		1,332.1217
Total	**1.4086**	**2.0283**	**7.1982**	**0.0138**	**1.1741**	**0.0336**	**1.2077**	**0.3138**	**0.0327**	**0.3465**	**0.0000**	**1,439.0211**	**1,439.0211**	**0.0642**	**1.9300e-003**	**1,441.2009**

	ROG	NOx	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	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 44,550; Residential Outdoor: 14,850; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped Parking Area: 10,680 (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	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	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	130	0.42
Paving	Paving Equipment	1	8.00	132	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	35.00	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	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	92.00	32.00	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	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429		2,391.1659	2,391.1659	0.6058		2,406.3105
Total	**2.4838**	**24.3641**	**15.1107**	**0.0241**	**0.3912**	**1.4365**	**1.8277**	**0.0592**	**1.3429**	**1.4021**		**2,391.1659**	**2,391.1659**	**0.6058**		**2,406.3105**

3.2 Demolition - 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	0.0210	0.6463	0.1531	1.3900e-003	0.0305	4.8100e-003	0.0353	8.3600e-003	4.6000e-003	0.0130		149.8063	149.8063	8.6500e-003		150.0225
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	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	**0.0983**	**0.7146**	**0.7375**	**2.6100e-003**	**0.1590**	**5.6900e-003**	**0.1647**	**0.0425**	**5.4100e-003**	**0.0479**		**271.5242**	**271.5242**	**0.0137**		**271.8667**

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					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105
Total	**2.4838**	**24.3641**	**15.1107**	**0.0241**	**0.3912**	**1.4365**	**1.8277**	**0.0592**	**1.3429**	**1.4021**	**0.0000**	**2,391.1659**	**2,391.1659**	**0.6058**		**2,406.3105**

3.2 Demolition - 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	0.0210	0.6463	0.1531	1.3900e-003	0.0305	4.8100e-003	0.0353	8.3600e-003	4.6000e-003	0.0130		149.8063	149.8063	8.6500e-003		150.0225
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	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	**0.0983**	**0.7146**	**0.7375**	**2.6100e-003**	**0.1590**	**5.6900e-003**	**0.1647**	**0.0425**	**5.4100e-003**	**0.0479**		**271.5242**	**271.5242**	**0.0137**		**271.8667**

3.3 Site Preparation - 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					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761		1,735.3630	1,735.3630	0.5402		1,748.8690
Total	**1.8061**	**20.7472**	**8.0808**	**0.0172**	**5.7996**	**0.9523**	**6.7518**	**2.9537**	**0.8761**	**3.8298**		**1,735.3630**	**1,735.3630**	**0.5402**		**1,748.8690**

3.3 Site Preparation - 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	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	**0.0476**	**0.0420**	**0.3596**	**7.5000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**74.9033**	**74.9033**	**3.1100e-003**		**74.9810**

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					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690
Total	**1.8061**	**20.7472**	**8.0808**	**0.0172**	**5.7996**	**0.9523**	**6.7518**	**2.9537**	**0.8761**	**3.8298**	**0.0000**	**1,735.3630**	**1,735.3630**	**0.5402**		**1,748.8690**

3.3 Site Preparation - 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	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	**0.0476**	**0.0420**	**0.3596**	**7.5000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**74.9033**	**74.9033**	**3.1100e-003**		**74.9810**

3.4 Grading - 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					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311		1,421.2605	1,421.2605	0.4425		1,432.3219
Total	**1.4972**	**17.0666**	**6.7630**	**0.0141**	**4.9143**	**0.7947**	**5.7090**	**2.5256**	**0.7311**	**3.2568**		**1,421.2605**	**1,421.2605**	**0.4425**		**1,432.3219**

3.4 Grading - 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	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	**0.0476**	**0.0420**	**0.3596**	**7.5000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**74.9033**	**74.9033**	**3.1100e-003**		**74.9810**

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					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219
Total	**1.4972**	**17.0666**	**6.7630**	**0.0141**	**4.9143**	**0.7947**	**5.7090**	**2.5256**	**0.7311**	**3.2568**	**0.0000**	**1,421.2605**	**1,421.2605**	**0.4425**		**1,432.3219**

3.4 Grading - 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	0.0476	0.0420	0.3596	7.5000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		74.9033	74.9033	3.1100e-003		74.9810
Total	**0.0476**	**0.0420**	**0.3596**	**7.5000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**74.9033**	**74.9033**	**3.1100e-003**		**74.9810**

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	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**		**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

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	0.1770	3.7879	1.3673	6.3200e-003	0.1485	0.0361	0.1846	0.0428	0.0346	0.0773		670.0166	670.0166	0.0468		671.1863
Worker	0.5468	0.4833	4.1351	8.6700e-003	0.9095	6.2200e-003	0.9157	0.2412	5.7500e-003	0.2470		861.3881	861.3881	0.0358		862.2820
Total	**0.7239**	**4.2712**	**5.5024**	**0.0150**	**1.0580**	**0.0424**	**1.1004**	**0.2840**	**0.0403**	**0.3243**		**1,531.4047**	**1,531.4047**	**0.0825**		**1,533.4683**

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	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**	**0.0000**	**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

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	0.1770	3.7879	1.3673	6.3200e-003	0.1485	0.0361	0.1846	0.0428	0.0346	0.0773		670.0166	670.0166	0.0468		671.1863
Worker	0.5468	0.4833	4.1351	8.6700e-003	0.9095	6.2200e-003	0.9157	0.2412	5.7500e-003	0.2470		861.3881	861.3881	0.0358		862.2820
Total	**0.7239**	**4.2712**	**5.5024**	**0.0150**	**1.0580**	**0.0424**	**1.1004**	**0.2840**	**0.0403**	**0.3243**		**1,531.4047**	**1,531.4047**	**0.0825**		**1,533.4683**

3.6 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	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0182**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**		**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

3.6 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	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	**0.0773**	**0.0683**	**0.5843**	**1.2200e-003**	**0.1285**	**8.8000e-004**	**0.1294**	**0.0341**	**8.1000e-004**	**0.0349**		**121.7179**	**121.7179**	**5.0500e-003**		**121.8442**

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	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0182**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**	**0.0000**	**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

3.6 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	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	**0.0773**	**0.0683**	**0.5843**	**1.2200e-003**	**0.1285**	**8.8000e-004**	**0.1294**	**0.0341**	**8.1000e-004**	**0.0349**		**121.7179**	**121.7179**	**5.0500e-003**		**121.8442**

3.7 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	29.2808					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		282.1171
Total	**29.5795**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.7 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	0.1070	0.0946	0.8091	1.7000e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		168.5325	168.5325	7.0000e-003		168.7073
Total	**0.1070**	**0.0946**	**0.8091**	**1.7000e-003**	**0.1780**	**1.2200e-003**	**0.1792**	**0.0472**	**1.1200e-003**	**0.0483**		**168.5325**	**168.5325**	**7.0000e-003**		**168.7073**

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	29.2808					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	0.0000	281.4485	281.4485	0.0267		282.1171
Total	**29.5795**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.7 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	0.1070	0.0946	0.8091	1.7000e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		168.5325	168.5325	7.0000e-003		168.7073
Total	**0.1070**	**0.0946**	**0.8091**	**1.7000e-003**	**0.1780**	**1.2200e-003**	**0.1792**	**0.0472**	**1.1200e-003**	**0.0483**		**168.5325**	**168.5325**	**7.0000e-003**		**168.7073**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Archit. Coating	29.2808					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**29.5473**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

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	0.0962	0.0828	0.7075	1.6400e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		163.5759	163.5759	6.1400e-003		163.7294
Total	**0.0962**	**0.0828**	**0.7075**	**1.6400e-003**	**0.1780**	**1.1800e-003**	**0.1791**	**0.0472**	**1.0900e-003**	**0.0483**		**163.5759**	**163.5759**	**6.1400e-003**		**163.7294**

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	29.2808					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**29.5473**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

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	0.0962	0.0828	0.7075	1.6400e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		163.5759	163.5759	6.1400e-003		163.7294
Total	**0.0962**	**0.0828**	**0.7075**	**1.6400e-003**	**0.1780**	**1.1800e-003**	**0.1791**	**0.0472**	**1.0900e-003**	**0.0483**		**163.5759**	**163.5759**	**6.1400e-003**		**163.7294**

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	0.4577	1.9232	5.2861	0.0132	1.1741	0.0168	1.1909	0.3138	0.0158	0.3297		1,330.652 2	1,330.652 2	0.0588		1,332.121 7
Unmitigated	0.4577	1.9232	5.2861	0.0132	1.1741	0.0168	1.1909	0.3138	0.0158	0.3297		1,330.652 2	1,330.652 2	0.0588		1,332.121 7

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	146.30	140.58	128.92	363,443	363,443
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	80.00	12.30	5.25	135,697	135,697
Total	226.30	152.88	134.17	499,140	499,140

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Apartments Mid Rise	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

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	9.6300e-003	0.0836	0.0447	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263
NaturalGas Unmitigated	9.6300e-003	0.0836	0.0447	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263

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					
Apartments Mid Rise	667.177	7.2000e-003	0.0615	0.0262	3.9000e-004		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003		78.4914	78.4914	1.5000e-003	1.4400e-003	78.9578
Enclosed Parking with Elevator	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
General Office Building	225.342	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5109	26.5109	5.1000e-004	4.9000e-004	26.6684
Total		**9.6300e-003**	**0.0836**	**0.0447**	**5.2000e-004**		**6.6500e-003**	**6.6500e-003**		**6.6500e-003**	**6.6500e-003**		**105.0023**	**105.0023**	**2.0100e-003**	**1.9300e-003**	**105.6263**

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					
Apartments Mid Rise	0.667177	7.2000e-003	0.0615	0.0262	3.9000e-004		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003		78.4914	78.4914	1.5000e-003	1.4400e-003	78.9578
Enclosed Parking with Elevator	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
General Office Building	0.225342	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5109	26.5109	5.1000e-004	4.9000e-004	26.6684
Total		**9.6300e-003**	**0.0836**	**0.0447**	**5.2000e-004**		**6.6500e-003**	**6.6500e-003**		**6.6500e-003**	**6.6500e-003**		**105.0023**	**105.0023**	**2.0100e-003**	**1.9300e-003**	**105.6263**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529
Unmitigated	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529

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	0.2407					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0598	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102		3.3666	3.3666	3.4500e-003		3.4529
Total	**0.9413**	**0.0215**	**1.8673**	**1.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**3.3666**	**3.3666**	**3.4500e-003**	**0.0000**	**3.4529**

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	0.2407					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0598	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102		3.3666	3.3666	3.4500e-003		3.4529
Total	**0.9413**	**0.0215**	**1.8673**	**1.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**3.3666**	**3.3666**	**3.4500e-003**	**0.0000**	**3.4529**

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 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Palm & Nipomo Project - Alternative 2

San Luis Obispo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.00	1000sqft	0.00	5,000.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Apartments Mid Rise	22.00	Dwelling Unit	0.00	22,000.00	63

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2020
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 - Project Alternative 2

Land Use - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD. Alt 2 replaces the Theater use with 22 two-bedroom residential units.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage (0) would not generate trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	LotAcreage	0.11	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.58	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00

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					
2018	29.6737	25.0651	19.2984	0.0376	5.8787	1.4421	6.8315	2.9747	1.3482	3.8513	0.0000	3,624.0561	3,624.0561	0.6193	0.0000	3,636.2856
2019	29.6318	1.9083	2.5647	4.6900e-003	0.1780	0.1299	0.3079	0.0472	0.1299	0.1770	0.0000	453.0508	453.0508	0.0301	0.0000	453.8026
Maximum	**29.6737**	**25.0651**	**19.2984**	**0.0376**	**5.8787**	**1.4421**	**6.8315**	**2.9747**	**1.3482**	**3.8513**	**0.0000**	**3,624.0561**	**3,624.0561**	**0.6193**	**0.0000**	**3,636.2856**

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					
2018	29.6737	25.0651	19.2984	0.0376	5.8787	1.4421	6.8315	2.9747	1.3482	3.8513	0.0000	3,624.0561	3,624.0561	0.6193	0.0000	3,636.2856
2019	29.6318	1.9083	2.5647	4.6900e-003	0.1780	0.1299	0.3079	0.0472	0.1299	0.1770	0.0000	453.0508	453.0508	0.0301	0.0000	453.8026
Maximum	**29.6737**	**25.0651**	**19.2984**	**0.0376**	**5.8787**	**1.4421**	**6.8315**	**2.9747**	**1.3482**	**3.8513**	**0.0000**	**3,624.0561**	**3,624.0561**	**0.6193**	**0.0000**	**3,636.2856**

	ROG	**NOx**	**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**

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	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529
Energy	9.6300e-003	0.0836	0.0447	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263
Mobile	0.4696	1.8504	5.1490	0.0138	1.1741	0.0167	1.1908	0.3138	0.0157	0.3295		1,384.9023	1,384.9023	0.0581		1,386.3541
Total	**1.4206**	**1.9554**	**7.0611**	**0.0144**	**1.1741**	**0.0335**	**1.2076**	**0.3138**	**0.0325**	**0.3463**	**0.0000**	**1,493.2712**	**1,493.2712**	**0.0635**	**1.9300e-003**	**1,495.4332**

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	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529
Energy	9.6300e-003	0.0836	0.0447	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263
Mobile	0.4696	1.8504	5.1490	0.0138	1.1741	0.0167	1.1908	0.3138	0.0157	0.3295		1,384.9023	1,384.9023	0.0581		1,386.3541
Total	**1.4206**	**1.9554**	**7.0611**	**0.0144**	**1.1741**	**0.0335**	**1.2076**	**0.3138**	**0.0325**	**0.3463**	**0.0000**	**1,493.2712**	**1,493.2712**	**0.0635**	**1.9300e-003**	**1,495.4332**

	ROG	NOx	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	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 44,550; Residential Outdoor: 14,850; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped Parking Area: 10,680 (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	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	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	130	0.42
Paving	Paving Equipment	1	8.00	132	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	35.00	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	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	92.00	32.00	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	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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					
Fugitive Dust					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429		2,391.1659	2,391.1659	0.6058		2,406.3105
Total	**2.4838**	**24.3641**	**15.1107**	**0.0241**	**0.3912**	**1.4365**	**1.8277**	**0.0592**	**1.3429**	**1.4021**		**2,391.1659**	**2,391.1659**	**0.6058**		**2,406.3105**

3.2 Demolition - 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	0.0205	0.6409	0.1438	1.4100e-003	0.0305	4.7200e-003	0.0352	8.3600e-003	4.5200e-003	0.0129		151.8744	151.8744	8.3600e-003		152.0834
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	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	**0.0885**	**0.7011**	**0.7374**	**2.6900e-003**	**0.1590**	**5.6000e-003**	**0.1646**	**0.0425**	**5.3300e-003**	**0.0478**		**279.5544**	**279.5544**	**0.0135**		**279.8926**

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					0.3912	0.0000	0.3912	0.0592	0.0000	0.0592			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105
Total	**2.4838**	**24.3641**	**15.1107**	**0.0241**	**0.3912**	**1.4365**	**1.8277**	**0.0592**	**1.3429**	**1.4021**	**0.0000**	**2,391.1659**	**2,391.1659**	**0.6058**		**2,406.3105**

3.2 Demolition - 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	0.0205	0.6409	0.1438	1.4100e-003	0.0305	4.7200e-003	0.0352	8.3600e-003	4.5200e-003	0.0129		151.8744	151.8744	8.3600e-003		152.0834
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	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	**0.0885**	**0.7011**	**0.7374**	**2.6900e-003**	**0.1590**	**5.6000e-003**	**0.1646**	**0.0425**	**5.3300e-003**	**0.0478**		**279.5544**	**279.5544**	**0.0135**		**279.8926**

3.3 Site Preparation - 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					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761		1,735.3630	1,735.3630	0.5402		1,748.8690
Total	**1.8061**	**20.7472**	**8.0808**	**0.0172**	**5.7996**	**0.9523**	**6.7518**	**2.9537**	**0.8761**	**3.8298**		**1,735.3630**	**1,735.3630**	**0.5402**		**1,748.8690**

3.3 Site Preparation - 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	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	**0.0419**	**0.0370**	**0.3653**	**7.9000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**78.5723**	**78.5723**	**3.1800e-003**		**78.6518**

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					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690
Total	**1.8061**	**20.7472**	**8.0808**	**0.0172**	**5.7996**	**0.9523**	**6.7518**	**2.9537**	**0.8761**	**3.8298**	**0.0000**	**1,735.3630**	**1,735.3630**	**0.5402**		**1,748.8690**

3.3 Site Preparation - 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	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	**0.0419**	**0.0370**	**0.3653**	**7.9000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**78.5723**	**78.5723**	**3.1800e-003**		**78.6518**

3.4 Grading - 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					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311		1,421.2605	1,421.2605	0.4425		1,432.3219
Total	**1.4972**	**17.0666**	**6.7630**	**0.0141**	**4.9143**	**0.7947**	**5.7090**	**2.5256**	**0.7311**	**3.2568**		**1,421.2605**	**1,421.2605**	**0.4425**		**1,432.3219**

3.4 Grading - 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	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	**0.0419**	**0.0370**	**0.3653**	**7.9000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**78.5723**	**78.5723**	**3.1800e-003**		**78.6518**

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					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219
Total	**1.4972**	**17.0666**	**6.7630**	**0.0141**	**4.9143**	**0.7947**	**5.7090**	**2.5256**	**0.7311**	**3.2568**	**0.0000**	**1,421.2605**	**1,421.2605**	**0.4425**		**1,432.3219**

3.4 Grading - 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	0.0419	0.0370	0.3653	7.9000e-004	0.0791	5.4000e-004	0.0796	0.0210	5.0000e-004	0.0215		78.5723	78.5723	3.1800e-003		78.6518
Total	**0.0419**	**0.0370**	**0.3653**	**7.9000e-004**	**0.0791**	**5.4000e-004**	**0.0796**	**0.0210**	**5.0000e-004**	**0.0215**		**78.5723**	**78.5723**	**3.1800e-003**		**78.6518**

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	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**		**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

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	0.1683	3.7974	1.2209	6.5000e-003	0.1485	0.0352	0.1837	0.0428	0.0337	0.0765		689.6361	689.6361	0.0438		690.7303
Worker	0.4813	0.4259	4.2009	9.0900e-003	0.9095	6.2200e-003	0.9157	0.2412	5.7500e-003	0.2470		903.5811	903.5811	0.0366		904.4957
Total	**0.6496**	**4.2233**	**5.4218**	**0.0156**	**1.0580**	**0.0415**	**1.0995**	**0.2840**	**0.0395**	**0.3235**		**1,593.2173**	**1,593.2173**	**0.0804**		**1,595.2260**

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	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**	**0.0000**	**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

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	0.1683	3.7974	1.2209	6.5000e-003	0.1485	0.0352	0.1837	0.0428	0.0337	0.0765		689.6361	689.6361	0.0438		690.7303
Worker	0.4813	0.4259	4.2009	9.0900e-003	0.9095	6.2200e-003	0.9157	0.2412	5.7500e-003	0.2470		903.5811	903.5811	0.0366		904.4957
Total	**0.6496**	**4.2233**	**5.4218**	**0.0156**	**1.0580**	**0.0415**	**1.0995**	**0.2840**	**0.0395**	**0.3235**		**1,593.2173**	**1,593.2173**	**0.0804**		**1,595.2260**

3.6 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	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0182**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**		**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

3.6 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	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	**0.0680**	**0.0602**	**0.5936**	**1.2800e-003**	**0.1285**	**8.8000e-004**	**0.1294**	**0.0341**	**8.1000e-004**	**0.0349**		**127.6799**	**127.6799**	**5.1700e-003**		**127.8092**

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	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0182**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**	**0.0000**	**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

3.6 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	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	**0.0680**	**0.0602**	**0.5936**	**1.2800e-003**	**0.1285**	**8.8000e-004**	**0.1294**	**0.0341**	**8.1000e-004**	**0.0349**		**127.6799**	**127.6799**	**5.1700e-003**		**127.8092**

3.7 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	29.2808					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		282.1171
Total	**29.5795**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.7 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	0.0942	0.0833	0.8219	1.7800e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		176.7876	176.7876	7.1600e-003		176.9666
Total	**0.0942**	**0.0833**	**0.8219**	**1.7800e-003**	**0.1780**	**1.2200e-003**	**0.1792**	**0.0472**	**1.1200e-003**	**0.0483**		**176.7876**	**176.7876**	**7.1600e-003**		**176.9666**

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	29.2808					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	0.0000	281.4485	281.4485	0.0267		282.1171
Total	**29.5795**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.7 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	0.0942	0.0833	0.8219	1.7800e-003	0.1780	1.2200e-003	0.1792	0.0472	1.1200e-003	0.0483		176.7876	176.7876	7.1600e-003		176.9666
Total	**0.0942**	**0.0833**	**0.8219**	**1.7800e-003**	**0.1780**	**1.2200e-003**	**0.1792**	**0.0472**	**1.1200e-003**	**0.0483**		**176.7876**	**176.7876**	**7.1600e-003**		**176.9666**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.2808					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**29.5473**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

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	0.0846	0.0729	0.7233	1.7200e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		171.6027	171.6027	6.3000e-003		171.7603
Total	**0.0846**	**0.0729**	**0.7233**	**1.7200e-003**	**0.1780**	**1.1800e-003**	**0.1791**	**0.0472**	**1.0900e-003**	**0.0483**		**171.6027**	**171.6027**	**6.3000e-003**		**171.7603**

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	29.2808					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**29.5473**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

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	0.0846	0.0729	0.7233	1.7200e-003	0.1780	1.1800e-003	0.1791	0.0472	1.0900e-003	0.0483		171.6027	171.6027	6.3000e-003		171.7603
Total	**0.0846**	**0.0729**	**0.7233**	**1.7200e-003**	**0.1780**	**1.1800e-003**	**0.1791**	**0.0472**	**1.0900e-003**	**0.0483**		**171.6027**	**171.6027**	**6.3000e-003**		**171.7603**

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	0.4696	1.8504	5.1490	0.0138	1.1741	0.0167	1.1908	0.3138	0.0157	0.3295		1,384.902 3	1,384.902 3	0.0581		1,386.354 1
Unmitigated	0.4696	1.8504	5.1490	0.0138	1.1741	0.0167	1.1908	0.3138	0.0157	0.3295		1,384.902 3	1,384.902 3	0.0581		1,386.354 1

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	146.30	140.58	128.92	363,443	363,443
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	80.00	12.30	5.25	135,697	135,697
Total	226.30	152.88	134.17	499,140	499,140

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Apartments Mid Rise	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

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	9.6300e-003	0.0836	0.0447	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263
NaturalGas Unmitigated	9.6300e-003	0.0836	0.0447	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003		105.0023	105.0023	2.0100e-003	1.9300e-003	105.6263

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					
Apartments Mid Rise	667.177	7.2000e-003	0.0615	0.0262	3.9000e-004		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003		78.4914	78.4914	1.5000e-003	1.4400e-003	78.9578
Enclosed Parking with Elevator	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
General Office Building	225.342	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5109	26.5109	5.1000e-004	4.9000e-004	26.6684
Total		**9.6300e-003**	**0.0836**	**0.0447**	**5.2000e-004**		**6.6500e-003**	**6.6500e-003**		**6.6500e-003**	**6.6500e-003**		**105.0023**	**105.0023**	**2.0100e-003**	**1.9300e-003**	**105.6263**

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					
Apartments Mid Rise	0.667177	7.2000e-003	0.0615	0.0262	3.9000e-004		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003		78.4914	78.4914	1.5000e-003	1.4400e-003	78.9578
Enclosed Parking with Elevator	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
General Office Building	0.225342	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5109	26.5109	5.1000e-004	4.9000e-004	26.6684
Total		**9.6300e-003**	**0.0836**	**0.0447**	**5.2000e-004**		**6.6500e-003**	**6.6500e-003**		**6.6500e-003**	**6.6500e-003**		**105.0023**	**105.0023**	**2.0100e-003**	**1.9300e-003**	**105.6263**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529
Unmitigated	0.9413	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.3666	3.3666	3.4500e-003	0.0000	3.4529

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	0.2407					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0598	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102		3.3666	3.3666	3.4500e-003		3.4529
Total	**0.9413**	**0.0215**	**1.8673**	**1.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**3.3666**	**3.3666**	**3.4500e-003**	**0.0000**	**3.4529**

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	0.2407					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0598	0.0215	1.8673	1.0000e-004		0.0102	0.0102		0.0102	0.0102		3.3666	3.3666	3.4500e-003		3.4529
Total	**0.9413**	**0.0215**	**1.8673**	**1.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**3.3666**	**3.3666**	**3.4500e-003**	**0.0000**	**3.4529**

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 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Palm & Nipomo Project - Alternative 2

San Luis Obispo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.00	1000sqft	0.00	5,000.00	0
Enclosed Parking with Elevator	445.00	Space	1.40	178,000.00	0
Apartments Mid Rise	22.00	Dwelling Unit	0.00	22,000.00	63

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2020
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 - Project Alternative 2

Land Use - Total Lot Acreage = 1.4 based on Project Description, Theater square footage based on PD. Alt 2 replaces the Theater use with 22 two-bedroom residential units.

Construction Phase - Extended arch coating length to 30 days.

Demolition - Demo = 7,700 sf

Vehicle Trips - WkDy Trip Rate based on applicant provided traffic info. Parking Garage (0) would not generate trips

Road Dust - SLO County APCD- CARB

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	30.00
tblLandUse	LotAcreage	0.11	0.00
tblLandUse	LotAcreage	4.00	1.40
tblLandUse	LotAcreage	0.58	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	WD_TR	11.03	16.00

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					
2018	0.6734	2.5546	2.1845	4.1600e-003	0.1269	0.1316	0.2585	0.0375	0.1264	0.1638	0.0000	364.3253	364.3253	0.0536	0.0000	365.6644
2019	0.1334	8.6200e-003	0.0115	2.0000e-005	7.8000e-004	5.8000e-004	1.3600e-003	2.1000e-004	5.8000e-004	7.9000e-004	0.0000	1.8222	1.8222	1.2000e-004	0.0000	1.8252
Maximum	**0.6734**	**2.5546**	**2.1845**	**4.1600e-003**	**0.1269**	**0.1316**	**0.2585**	**0.0375**	**0.1264**	**0.1638**	**0.0000**	**364.3253**	**364.3253**	**0.0536**	**0.0000**	**365.6644**

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					
2018	0.6734	2.5546	2.1845	4.1600e-003	0.1269	0.1316	0.2585	0.0375	0.1264	0.1638	0.0000	364.3250	364.3250	0.0536	0.0000	365.6641
2019	0.1334	8.6200e-003	0.0115	2.0000e-005	7.8000e-004	5.8000e-004	1.3600e-003	2.1000e-004	5.8000e-004	7.9000e-004	0.0000	1.8222	1.8222	1.2000e-004	0.0000	1.8252
Maximum	**0.6734**	**2.5546**	**2.1845**	**4.1600e-003**	**0.1269**	**0.1316**	**0.2585**	**0.0375**	**0.1264**	**0.1638**	**0.0000**	**364.3250**	**364.3250**	**0.0536**	**0.0000**	**365.6641**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-5-2018**	**4-4-2018**	0.8179	0.8179
2	**4-5-2018**	**7-4-2018**	0.8090	0.8090
3	**7-5-2018**	**10-4-2018**	0.8181	0.8181
4	**10-5-2018**	**1-4-2019**	0.8393	0.8393
5	**1-5-2019**	**4-4-2019**	0.0789	0.0789
		Highest	0.8393	0.8393

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	0.1707	3.5500e-003	0.3081	2.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	0.5039	0.5039	5.2000e-004	0.0000	0.5169
Energy	1.7600e-003	0.0153	8.1600e-003	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	421.1291	421.1291	0.0186	4.1000e-003	422.8144
Mobile	0.0731	0.3152	0.8480	2.1800e-003	0.1876	2.7400e-003	0.1904	0.0503	2.5800e-003	0.0528	0.0000	199.3852	199.3852	8.6300e-003	0.0000	199.6010
Waste						0.0000	0.0000		0.0000	0.0000	2.9982	0.0000	2.9982	0.1772	0.0000	7.4279
Water						0.0000	0.0000		0.0000	0.0000	0.7367	5.1299	5.8666	0.0759	1.8300e-003	8.3107
Total	**0.2456**	**0.3340**	**1.1642**	**2.3000e-003**	**0.1876**	**5.6300e-003**	**0.1932**	**0.0503**	**5.4700e-003**	**0.0557**	**3.7349**	**626.1481**	**629.8830**	**0.2808**	**5.9300e-003**	**638.6708**

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	0.1707	3.5500e-003	0.3081	2.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	0.5039	0.5039	5.2000e-004	0.0000	0.5169
Energy	1.7600e-003	0.0153	8.1600e-003	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	421.1291	421.1291	0.0186	4.1000e-003	422.8144
Mobile	0.0731	0.3152	0.8480	2.1800e-003	0.1876	2.7400e-003	0.1904	0.0503	2.5800e-003	0.0528	0.0000	199.3852	199.3852	8.6300e-003	0.0000	199.6010
Waste						0.0000	0.0000		0.0000	0.0000	2.9982	0.0000	2.9982	0.1772	0.0000	7.4279
Water						0.0000	0.0000		0.0000	0.0000	0.7367	5.1299	5.8666	0.0759	1.8300e-003	8.3107
Total	**0.2456**	**0.3340**	**1.1642**	**2.3000e-003**	**0.1876**	**5.6300e-003**	**0.1932**	**0.0503**	**5.4700e-003**	**0.0557**	**3.7349**	**626.1481**	**629.8830**	**0.2808**	**5.9300e-003**	**638.6708**

	ROG	**NOx**	**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	1/5/2018	2/1/2018	5	20	
2	Site Preparation	Site Preparation	2/2/2018	2/5/2018	5	2	
3	Grading	Grading	2/6/2018	2/9/2018	5	4	
4	Building Construction	Building Construction	2/10/2018	11/16/2018	5	200	
5	Paving	Paving	11/17/2018	11/30/2018	5	10	
6	Architectural Coating	Architectural Coating	12/1/2018	1/11/2019	5	30	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.4

Residential Indoor: 44,550; Residential Outdoor: 14,850; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped Parking Area: 10,680 (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	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	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	130	0.42
Paving	Paving Equipment	1	8.00	132	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	35.00	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	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	92.00	32.00	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	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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					
Fugitive Dust					3.9100e-003	0.0000	3.9100e-003	5.9000e-004	0.0000	5.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2436	0.1511	2.4000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297
Total	**0.0248**	**0.2436**	**0.1511**	**2.4000e-004**	**3.9100e-003**	**0.0144**	**0.0183**	**5.9000e-004**	**0.0134**	**0.0140**	**0.0000**	**21.6923**	**21.6923**	**5.5000e-003**	**0.0000**	**21.8297**

3.2 Demolition - 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	2.1000e-004	6.5400e-003	1.4800e-003	1.0000e-005	3.0000e-004	5.0000e-005	3.5000e-004	8.0000e-005	5.0000e-005	1.3000e-004	0.0000	1.3699	1.3699	8.0000e-005	0.0000	1.3718
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	7.0000e-004	6.7000e-004	5.8000e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1132	1.1132	5.0000e-005	0.0000	1.1143
Total	**9.1000e-004**	**7.2100e-003**	**7.2800e-003**	**2.0000e-005**	**1.5500e-003**	**6.0000e-005**	**1.6100e-003**	**4.1000e-004**	**6.0000e-005**	**4.7000e-004**	**0.0000**	**2.4831**	**2.4831**	**1.3000e-004**	**0.0000**	**2.4862**

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					3.9100e-003	0.0000	3.9100e-003	5.9000e-004	0.0000	5.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2436	0.1511	2.4000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	21.6923	21.6923	5.5000e-003	0.0000	21.8297
Total	**0.0248**	**0.2436**	**0.1511**	**2.4000e-004**	**3.9100e-003**	**0.0144**	**0.0183**	**5.9000e-004**	**0.0134**	**0.0140**	**0.0000**	**21.6923**	**21.6923**	**5.5000e-003**	**0.0000**	**21.8297**

3.2 Demolition - 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	2.1000e-004	6.5400e-003	1.4800e-003	1.0000e-005	3.0000e-004	5.0000e-005	3.5000e-004	8.0000e-005	5.0000e-005	1.3000e-004	0.0000	1.3699	1.3699	8.0000e-005	0.0000	1.3718
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	7.0000e-004	6.7000e-004	5.8000e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1132	1.1132	5.0000e-005	0.0000	1.1143
Total	**9.1000e-004**	**7.2100e-003**	**7.2800e-003**	**2.0000e-005**	**1.5500e-003**	**6.0000e-005**	**1.6100e-003**	**4.1000e-004**	**6.0000e-005**	**4.7000e-004**	**0.0000**	**2.4831**	**2.4831**	**1.3000e-004**	**0.0000**	**2.4862**

3.3 Site Preparation - 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					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0208	8.0800e-003	2.0000e-005		9.5000e-004	9.5000e-004		8.8000e-004	8.8000e-004	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866
Total	**1.8100e-003**	**0.0208**	**8.0800e-003**	**2.0000e-005**	**5.8000e-003**	**9.5000e-004**	**6.7500e-003**	**2.9500e-003**	**8.8000e-004**	**3.8300e-003**	**0.0000**	**1.5743**	**1.5743**	**4.9000e-004**	**0.0000**	**1.5866**

3.3 Site Preparation - 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	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686
Total	**4.0000e-005**	**4.0000e-005**	**3.6000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0685**	**0.0685**	**0.0000**	**0.0000**	**0.0686**

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					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0208	8.0800e-003	2.0000e-005		9.5000e-004	9.5000e-004		8.8000e-004	8.8000e-004	0.0000	1.5743	1.5743	4.9000e-004	0.0000	1.5866
Total	**1.8100e-003**	**0.0208**	**8.0800e-003**	**2.0000e-005**	**5.8000e-003**	**9.5000e-004**	**6.7500e-003**	**2.9500e-003**	**8.8000e-004**	**3.8300e-003**	**0.0000**	**1.5743**	**1.5743**	**4.9000e-004**	**0.0000**	**1.5866**

3.3 Site Preparation - 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	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0685	0.0685	0.0000	0.0000	0.0686
Total	**4.0000e-005**	**4.0000e-005**	**3.6000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0685**	**0.0685**	**0.0000**	**0.0000**	**0.0686**

3.4 Grading - 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					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0341	0.0135	3.0000e-005		1.5900e-003	1.5900e-003		1.4600e-003	1.4600e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988
Total	**2.9900e-003**	**0.0341**	**0.0135**	**3.0000e-005**	**9.8300e-003**	**1.5900e-003**	**0.0114**	**5.0500e-003**	**1.4600e-003**	**6.5100e-003**	**0.0000**	**2.5787**	**2.5787**	**8.0000e-004**	**0.0000**	**2.5988**

3.4 Grading - 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	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372
Total	**9.0000e-005**	**8.0000e-005**	**7.1000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1370**	**0.1370**	**1.0000e-005**	**0.0000**	**0.1372**

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					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0341	0.0135	3.0000e-005		1.5900e-003	1.5900e-003		1.4600e-003	1.4600e-003	0.0000	2.5787	2.5787	8.0000e-004	0.0000	2.5988
Total	**2.9900e-003**	**0.0341**	**0.0135**	**3.0000e-005**	**9.8300e-003**	**1.5900e-003**	**0.0114**	**5.0500e-003**	**1.4600e-003**	**6.5100e-003**	**0.0000**	**2.5787**	**2.5787**	**8.0000e-004**	**0.0000**	**2.5988**

3.4 Grading - 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	9.0000e-005	8.0000e-005	7.1000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1370	0.1370	1.0000e-005	0.0000	0.1372
Total	**9.0000e-005**	**8.0000e-005**	**7.1000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1370**	**0.1370**	**1.0000e-005**	**0.0000**	**0.1372**

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	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2346	184.2346	0.0371	0.0000	185.1618
Total	**0.2592**	**1.7428**	**1.3877**	**2.2000e-003**		**0.1058**	**0.1058**		**0.1022**	**0.1022**	**0.0000**	**184.2346**	**184.2346**	**0.0371**	**0.0000**	**185.1618**

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	0.0172	0.3839	0.1298	6.4000e-004	0.0145	3.5600e-003	0.0181	4.2000e-003	3.4100e-003	7.6100e-003	0.0000	61.8142	61.8142	4.1000e-003	0.0000	61.9167
Worker	0.0492	0.0474	0.4103	8.7000e-004	0.0886	6.2000e-004	0.0892	0.0235	5.7000e-004	0.0241	0.0000	78.7794	78.7794	3.2400e-003	0.0000	78.8605
Total	**0.0665**	**0.4314**	**0.5400**	**1.5100e-003**	**0.1031**	**4.1800e-003**	**0.1073**	**0.0277**	**3.9800e-003**	**0.0317**	**0.0000**	**140.5936**	**140.5936**	**7.3400e-003**	**0.0000**	**140.7772**

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	0.2592	1.7428	1.3877	2.2000e-003		0.1058	0.1058		0.1022	0.1022	0.0000	184.2344	184.2344	0.0371	0.0000	185.1616
Total	**0.2592**	**1.7428**	**1.3877**	**2.2000e-003**		**0.1058**	**0.1058**		**0.1022**	**0.1022**	**0.0000**	**184.2344**	**184.2344**	**0.0371**	**0.0000**	**185.1616**

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	0.0172	0.3839	0.1298	6.4000e-004	0.0145	3.5600e-003	0.0181	4.2000e-003	3.4100e-003	7.6100e-003	0.0000	61.8142	61.8142	4.1000e-003	0.0000	61.9167
Worker	0.0492	0.0474	0.4103	8.7000e-004	0.0886	6.2000e-004	0.0892	0.0235	5.7000e-004	0.0241	0.0000	78.7794	78.7794	3.2400e-003	0.0000	78.8605
Total	**0.0665**	**0.4314**	**0.5400**	**1.5100e-003**	**0.1031**	**4.1800e-003**	**0.1073**	**0.0277**	**3.9800e-003**	**0.0317**	**0.0000**	**140.5936**	**140.5936**	**7.3400e-003**	**0.0000**	**140.7772**

3.6 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	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.0900e-003**	**0.0523**	**0.0450**	**7.0000e-005**		**3.0500e-003**	**3.0500e-003**		**2.8100e-003**	**2.8100e-003**	**0.0000**	**6.1073**	**6.1073**	**1.8700e-003**	**0.0000**	**6.1540**

3.6 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	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572
Total	**3.5000e-004**	**3.4000e-004**	**2.9000e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5566**	**0.5566**	**2.0000e-005**	**0.0000**	**0.5572**

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	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.0900e-003**	**0.0523**	**0.0450**	**7.0000e-005**		**3.0500e-003**	**3.0500e-003**		**2.8100e-003**	**2.8100e-003**	**0.0000**	**6.1073**	**6.1073**	**1.8700e-003**	**0.0000**	**6.1540**

3.6 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	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572
Total	**3.5000e-004**	**3.4000e-004**	**2.9000e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5566**	**0.5566**	**2.0000e-005**	**0.0000**	**0.5572**

3.7 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	0.3075					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1400e-003	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873
Total	**0.3106**	**0.0211**	**0.0195**	**3.0000e-005**		**1.5800e-003**	**1.5800e-003**		**1.5800e-003**	**1.5800e-003**	**0.0000**	**2.6809**	**2.6809**	**2.5000e-004**	**0.0000**	**2.6873**

3.7 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	1.0100e-003	9.7000e-004	8.4300e-003	2.0000e-005	1.8200e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.6184	1.6184	7.0000e-005	0.0000	1.6201
Total	**1.0100e-003**	**9.7000e-004**	**8.4300e-003**	**2.0000e-005**	**1.8200e-003**	**1.0000e-005**	**1.8300e-003**	**4.8000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.6184**	**1.6184**	**7.0000e-005**	**0.0000**	**1.6201**

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	0.3075					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1400e-003	0.0211	0.0195	3.0000e-005		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	2.6809	2.6809	2.5000e-004	0.0000	2.6873
Total	**0.3106**	**0.0211**	**0.0195**	**3.0000e-005**		**1.5800e-003**	**1.5800e-003**		**1.5800e-003**	**1.5800e-003**	**0.0000**	**2.6809**	**2.6809**	**2.5000e-004**	**0.0000**	**2.6873**

3.7 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	1.0100e-003	9.7000e-004	8.4300e-003	2.0000e-005	1.8200e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.6184	1.6184	7.0000e-005	0.0000	1.6201
Total	**1.0100e-003**	**9.7000e-004**	**8.4300e-003**	**2.0000e-005**	**1.8200e-003**	**1.0000e-005**	**1.8300e-003**	**4.8000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.6184**	**1.6184**	**7.0000e-005**	**0.0000**	**1.6201**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514
Total	**0.1330**	**8.2600e-003**	**8.2900e-003**	**1.0000e-005**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**	**0.0000**	**1.1490**	**1.1490**	**1.0000e-004**	**0.0000**	**1.1514**

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.7000e-004	3.1700e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6732	0.6732	3.0000e-005	0.0000	0.6738
Total	**3.9000e-004**	**3.7000e-004**	**3.1700e-003**	**1.0000e-005**	**7.8000e-004**	**1.0000e-005**	**7.9000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.6732**	**0.6732**	**3.0000e-005**	**0.0000**	**0.6738**

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	0.1318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	8.2600e-003	8.2900e-003	1.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	1.1490	1.1490	1.0000e-004	0.0000	1.1514
Total	**0.1330**	**8.2600e-003**	**8.2900e-003**	**1.0000e-005**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**	**0.0000**	**1.1490**	**1.1490**	**1.0000e-004**	**0.0000**	**1.1514**

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.7000e-004	3.1700e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6732	0.6732	3.0000e-005	0.0000	0.6738
Total	**3.9000e-004**	**3.7000e-004**	**3.1700e-003**	**1.0000e-005**	**7.8000e-004**	**1.0000e-005**	**7.9000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.6732**	**0.6732**	**3.0000e-005**	**0.0000**	**0.6738**

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	0.0731	0.3152	0.8480	2.1800e-003	0.1876	2.7400e-003	0.1904	0.0503	2.5800e-003	0.0528	0.0000	199.3852	199.3852	8.6300e-003	0.0000	199.6010
Unmitigated	0.0731	0.3152	0.8480	2.1800e-003	0.1876	2.7400e-003	0.1904	0.0503	2.5800e-003	0.0528	0.0000	199.3852	199.3852	8.6300e-003	0.0000	199.6010

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	146.30	140.58	128.92	363,443	363,443
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	80.00	12.30	5.25	135,697	135,697
Total	226.30	152.88	134.17	499,140	499,140

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Enclosed Parking with Elevator	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Enclosed Parking with Elevator	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Apartments Mid Rise	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

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	403.7448	403.7448	0.0183	3.7800e-003	405.3268
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	403.7448	403.7448	0.0183	3.7800e-003	405.3268
NaturalGas Mitigated	1.7600e-003	0.0153	8.1600e-003	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	17.3843	17.3843	3.3000e-004	3.2000e-004	17.4876
NaturalGas Unmitigated	1.7600e-003	0.0153	8.1600e-003	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	17.3843	17.3843	3.3000e-004	3.2000e-004	17.4876

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	243520	1.3100e-003	0.0112	4.7700e-003	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	12.9951	12.9951	2.5000e-004	2.4000e-004	13.0724
Enclosed Parking with Elevator	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
General Office Building	82250	4.4000e-004	4.0300e-003	3.3900e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3892	4.3892	8.0000e-005	8.0000e-005	4.4153
Total		**1.7500e-003**	**0.0153**	**8.1600e-003**	**9.0000e-005**		**1.2200e-003**	**1.2200e-003**		**1.2200e-003**	**1.2200e-003**	**0.0000**	**17.3843**	**17.3843**	**3.3000e-004**	**3.2000e-004**	**17.4876**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	243520	1.3100e-003	0.0112	4.7700e-003	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	12.9951	12.9951	2.5000e-004	2.4000e-004	13.0724
Enclosed Parking with Elevator	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
General Office Building	82250	4.4000e-004	4.0300e-003	3.3900e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3892	4.3892	8.0000e-005	8.0000e-005	4.4153
Total		**1.7500e-003**	**0.0153**	**8.1600e-003**	**9.0000e-005**		**1.2200e-003**	**1.2200e-003**		**1.2200e-003**	**1.2200e-003**	**0.0000**	**17.3843**	**17.3843**	**3.3000e-004**	**3.2000e-004**	**17.4876**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	97041.3	28.2304	1.2800e-003	2.6000e-004	28.3411
Enclosed Parking with Elevator	1.19972e+006	349.0123	0.0158	3.2700e-003	350.3798
General Office Building	91100	26.5020	1.2000e-003	2.5000e-004	26.6059
Total		**403.7448**	**0.0183**	**3.7800e-003**	**405.3268**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	97041.3	28.2304	1.2800e-003	2.6000e-004	28.3411
Enclosed Parking with Elevator	1.19972e+006	349.0123	0.0158	3.2700e-003	350.3798
General Office Building	91100	26.5020	1.2000e-003	2.5000e-004	26.6059
Total		**403.7448**	**0.0183**	**3.7800e-003**	**405.3268**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1707	3.5500e-003	0.3081	2.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	0.5039	0.5039	5.2000e-004	0.0000	0.5169
Unmitigated	0.1707	3.5500e-003	0.3081	2.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	0.5039	0.5039	5.2000e-004	0.0000	0.5169

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	0.0439					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1170					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.8700e-003	3.5500e-003	0.3081	2.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	0.5039	0.5039	5.2000e-004	0.0000	0.5169
Total	**0.1707**	**3.5500e-003**	**0.3081**	**2.0000e-005**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**	**0.0000**	**0.5039**	**0.5039**	**5.2000e-004**	**0.0000**	**0.5169**

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	0.0439					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1170					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.8700e-003	3.5500e-003	0.3081	2.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	0.5039	0.5039	5.2000e-004	0.0000	0.5169
Total	**0.1707**	**3.5500e-003**	**0.3081**	**2.0000e-005**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**	**0.0000**	**0.5039**	**0.5039**	**5.2000e-004**	**0.0000**	**0.5169**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.8666	0.0759	1.8300e-003	8.3107
Unmitigated	5.8666	0.0759	1.8300e-003	8.3107

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.43339 / 0.903658	3.6312	0.0469	1.1300e-003	5.1399
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.888669 / 0.544668	2.2354	0.0291	7.0000e-004	3.1707
Total		**5.8666**	**0.0759**	**1.8300e-003**	**8.3107**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.43339 / 0.903658	3.6312	0.0469	1.1300e-003	5.1399
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.888669 / 0.544668	2.2354	0.0291	7.0000e-004	3.1707
Total		**5.8666**	**0.0759**	**1.8300e-003**	**8.3107**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.9982	0.1772	0.0000	7.4279
Unmitigated	2.9982	0.1772	0.0000	7.4279

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	10.12	2.0543	0.1214	0.0000	5.0894
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Total		**2.9982**	**0.1772**	**0.0000**	**7.4279**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	10.12	2.0543	0.1214	0.0000	5.0894
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Total		**2.9982**	**0.1772**	**0.0000**	**7.4279**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Greenhouse Gas Emission Worksheet

N20 Mobile Emissions

Nipomo Palm Parking Alternative 2

From CalEEMod:

Annual VMT: 499,140

Vehicle Type	Percent Type	CH4 Emission Factor (g/mile)*	CH4 Emission (g/mile)**	N2O Emission Factor (g/mile)*	N2O Emission (g/mile)**
Light Auto	56.0%	0.04	0.0224	0.04	0.0224
Light Truck < 3750 lbs	3.2%	0.05	0.0016	0.06	0.00192
Light Truck 3751-5750 lbs	19.9%	0.05	0.00995	0.06	0.01194
Med Truck 5751-8500 lbs	13.0%	0.12	0.0156	0.2	0.026
Lite-Heavy Truck 8501-10,000 lbs	3.1%	0.12	0.00372	0.2	0.0062
Lite-Heavy Truck 10,001-14,000 lbs	0.7%	0.09	0.00063	0.125	0.000875
Med-Heavy Truck 14,001-33,000 lbs	1.3%	0.06	0.00078	0.05	0.00065
Heavy-Heavy Truck 33,001-60,000 lbs	1.9%	0.06	0.00114	0.05	0.00095
Other Bus	0.2%	0.06	0.00012	0.05	0.0001
Urban Bus	0.1%	0.06	0.00006	0.05	0.00005
Motorcycle	0.5%	0.09	0.00045	0.01	0.00005
School Bus	0.0%	0.06	0	0.05	0
Motor Home	0.1%	0.09	0.00009	0.125	0.000125
Total	**100.0%**		**0.05654**		**0.07126**

Total Emissions (metric tons) =
Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

CH4	21	GWP
N2O	310	GWP
1 ton (short, US) =	0.90718474	metric ton

Annual Mobile Emissions:

	Total Emissions		Total CO2e units	
N20 Emissions:	0.0356	metric tons N2O	**11.03**	metric tons CO2e
		Project Total:	***11.03***	***metric tons CO2e***

References

* from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile).
in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
Assume Model year 2000-present, gasoline fueled.

** Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.

Appendix B

Geotechnical, Geologic, and Hazardous Materials Assessment Report

GEOTECHNICAL, GEOLOGIC, AND HAZARDOUS MATERIALS ASSESSMENT REPORT
PALM AND NIPOMO PARKING STRUCTURE
PALM AND NIPOMO STREETS
SAN LUIS OBISPO, CALIFORNIA

April 21, 2011

Prepared for

Watry Design, Inc.
Attn: Ms. Michelle Wendler

Prepared by

Earth Systems Pacific
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April 21, 2011

FILE NO.: SL-16264-SA

Ms. Michelle Wendler, AIA
Watry Design, Inc.
1700 Seaport Boulevard, Suite 210
Redwood City, CA 94063

PROJECT: PALM AND NIPOMO PARKING STRUCTURE
PALM AND NIPOMO STREETS
SAN LUIS OBISPO, CALIFORNIA

SUBJECT: Geotechnical, Geologic, and Hazardous Materials Assessment Report

CONTRACT
REF.: Letter of Agreement for Design Consulting Services, Palm Nipomo Parking Structure, San Luis Obispo, CA, by Watry Design, Inc., dated July 19, 2010, WDI Job #09079.111

Dear Ms. Wendler:

In accordance with the above-referenced agreement, this geotechnical, geologic, and hazardous materials assessment report has been prepared for use in the on-going development and planning phase of the Palm and Nipomo Parking structure in San Luis Obispo, California. This report is based upon a review of published and unpublished maps and literature, a site reconnaissance and subsurface exploration program, laboratory testing, and evaluation of the information obtained. Two bound copies and one digital copy of this report are furnished for your use. As requested, an additional digital copy is being forwarded as indicated below.

We appreciate the opportunity to have provided geotechnical engineering, geologic, and hazardous materials services for this project and look forward to working with you again in the future. If there are any questions concerning this report, please do not hesitate to contact the undersigned.

Sincerely,

Earth Systems Pacific

4-21-11
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Doc. No.: 1104-091.RPT/rw

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APPENDICES

1.0 INTRODUCTION AND SITE SETTING

The proposed five-level parking structure will be constructed where an existing surface parking lot is located at the southeast corner (in reference to Project North on the Site Vicinity Map in Appendix A) of Palm and Nipomo Streets in San Luis Obispo, California. According to the most recent site plan for Option A (Watry, 2011), the lowest level of the 420-parking space garage will be at an approximate elevation of 190 feet (El. 190). We understand that Option A is the preferred layout of the proposed structure. No other options are addressed herein. The upper four stories of the project will have a similar layout as the lowest level; roughly square. Vehicular access to the garage will occur at two locations; one at the northeast corner off Palm Street and the second at the southwest corner off Nipomo Street. Pedestrian access to the structure is planned at the northeast, southwest, and southeast corners. The proposed structure will encompass the northern two-thirds of the subject land that lies between Monterey and Palm Streets. The southern one-third is being set aside as the future location of the San Luis Obispo Little Theatre. A buffer parcel will be created along the west side of the garage. This parcel, which measures approximately 19 feet wide and 100 feet long, is slated for future commercial use and is not a part of this project and therefore not addressed herein.

The site slopes to the northwest with surface elevations of 203 feet at the southeast corner to El. 190 at the northwest corner. At planned finish floor of the lowest level (El. 190), the finish floor will be within 3 feet of existing grade along the north (Palm Street) and west (Nipomo Street) sides. The southeast corner of the structure will be situated approximately 13 feet below existing grade.

The site is currently used as a surface parking lot by the City of San Luis Obispo. Two residential parcels with existing structures, one at the northeast corner and one at the southwest corner, will be incorporated into the overall project. The structures on these lots will be razed. Mission Preparatory School is situated north of the site, an apartment building lies directly to the east, and two existing residences are situated on the south side of the site near the corner of Monterey and Nipomo streets. To the west, across Nipomo Street are various commercial businesses. The Hays-Latimer Adobe is located directly southeast of the project site.

We have assumed the parking garage will be of pre-stressed and/or post-tensioned Portland cement concrete (PCC) and masonry construction with property line retaining walls up to 15 feet tall. It is anticipated that exterior flatwork will be of PCC construction and that limited areas of asphalt concrete (AC) are planned.

For the purpose of this assessment report, preliminary maximum continuous loads of 15 klf and maximum concentrated loads of 800 kips have been assumed. The assumed loads include dead and live loads that are approximately two-thirds dead and one-third live.

A Constraints-Level Environmental and Geotechnical Assessment report was prepared by Kleinfelder, Inc. (Kleinfelder) in 2005. According to this report the subject site consists of several lots that have been used for residential and commercial purposes. The report indicated that a property in the northwest corner of the site, variously identified as 609 Palm Street and 960 Nipomo Street, had been used as a welding shop from circa 1942 to 1985 and later as an automotive repair business. In the 1980's, these parcels were consolidated to create the current municipal parking lot.

2.0 SCOPE OF SERVICES

The scope of work for this geotechnical, geologic, and hazardous materials assessment included research of existing information about the general area, a site reconnaissance and field investigation, laboratory testing, analysis of data, and preparation of this report. The tests were performed in general conformance with the standards cited, as modified by common geotechnical/geologic/environmental practice in this area under similar conditions at this time. The study and subsequent assessment are based upon information and a conceptual site plan provided by the client.

In 2005, Kleinfelder prepared a constraints level environmental and geotechnical assessment for the site (Kleinfelder, 2005). As a part of that assessment, Kleinfelder performed a field investigation, laboratory analyses, and prepared an assessment report. Upon review of that report, it was determined that acquisition of further data was warranted. As a result, additional information was obtained and this study was prepared to supplement the Kleinfelder assessment and address the major geotechnical, geologic, and hazardous material issues that could potentially affect the project, thus providing a framework for continued project planning. The intent of this report is to provide geotechnical, geologic, and hazardous materials information to be used in the preparation of an Initial Environmental Study (IES), which is being prepared by others. In addition to the information needed for the IES, we are also providing a discussion of the overall feasibility of the project, particularly from a geotechnical standpoint. Also included are recommendations for future study and analyses as the project further develops toward the design and construction phase. This report is intended to be used solely by the client in planning the project.

In the event that there are any changes in the nature, design, or location of improvements, or if any of the assumptions used in the preparation of this report prove to be incorrect, the conclusions contained in this report shall not be considered valid unless the changes are reviewed and the conclusions of this report verified or modified by the soils engineer and/or geologist in writing. Please note that this report is not intended as a design level document. The criteria presented in this report are considered preliminary until such time as they are modified by the soils engineer or verified by additional studies such as a design-level geotechnical engineering report. It is possible that variations exist beyond or between points explored during the course of this investigation. Changes in conditions could also occur due to contaminant migration, variations in rainfall, temperature, or other factors not apparent at the time of field work.

This report does not address issues in the domain of contractors such as, but not limited to, site safety, loss of volume due to stripping of the site, shrinkage of soils during compaction, excavatability, dewatering, shoring, temporary slope angles, construction means and methods, etc. Analyses of the soil for mold potential, man-made asbestos, corrosivity, radioisotopes, or chemical properties other than those addressed for hazardous materials analyses are beyond the scope of this report. Ancillary features such as access roads, fences, flag and light poles, signage, exterior flatwork, above or below ground drainage basins, and nonstructural fills are not within our scope and are also not addressed.

3.0 FIELD INVESTIGATION

As a part of the previous assessment by Kleinfelder, on February 15, 2005, three exploratory borings (Borings 1 through 3) were drilled at the site to depths ranging from 21.5 to 41.5 feet below the surface. To supplement this information, five exploratory borings (Borings 4 through 8) were drilled by this firm to depths of 11.5 to 46.5 feet on August 18, 2010. Borings 4 through 8 were drilled using a truck-mounted Mobile Drill rig, Model B-53, equipped with an 8-inch outside diameter hollow stem auger. The locations of the Kleinfelder borings, as well as the borings by this firm, are depicted on the Boring Location Map in Appendix A.

Soils encountered in the borings by this firm were categorized and logged in general accordance with the Unified Soil Classification System and ASTM D 2488-09a. The approximate surface elevations at the boring locations were determined from a topographic map of the site prepared by RRM Design Group (RRM, 2006). Logs of the borings by this firm are also attached, along with a boring log legend. In reviewing the boring logs and legend, the reader should recognize that the legend is intended as a guideline only, and there are a number of conditions that may influence the soil characteristics as observed during drilling. These include, but are not limited to, the presence of cobbles or boulders, cementation, variations in soil moisture, presence of groundwater, and other factors. Consequently, the logger must exercise judgment in interpreting soil characteristics, possibly resulting in soil descriptions that vary somewhat from the legend. Where rock was encountered, its properties were described based upon observation of ring and/or Standard Penetration Test samples, observation of the auger cuttings, the effort required to drill into the rock, and the effort required to drive samplers into the rock.

As the borings were drilled by this firm, Standard Penetration Tests (SPT) were performed (ASTM D 1586-08a) and soil samples were obtained using a ring-lined barrel sampler (ASTM D 3550-01/07 with shoe similar to D 2937-04). Bulk samples were obtained from the auger cuttings. To explore the potential for hazardous materials, Borings 4 through 6 were drilled in the general area of the former welding shop/auto repair business, and soil samples were collected from these borings for chemical analysis. Samples were collected from depths of 2, 5 and 10 feet using a 2.5-inch diameter drive sampler lined with stainless steel sleeves. Sample sleeves were capped with Teflon, labeled and placed on ice for transport to the testing laboratory. Sampling equipment was cleaned between samples to reduce the potential for cross-contamination.

4.0 LABORATORY ANALYSES

Geotechnical

Ring samples were tested for unit weight and moisture (ASTM D 2937-04, as modified for ring liners). Two SPT samples were combined as a composite sample and tested for expansion index (ASTM D 4829-08a). The angle of shearing resistance and cohesion (ASTM D 3080-04) was determined for one ring sample. Three samples were analyzed for grain size distribution (ASTM D 1140-06 and D 422-07), and two ring samples were tested for unconfined compressive strength (ASTM D 2166-06). The Kleinfelder report presented laboratory tests on soil samples that included a test on a ring sample for one-dimensional consolidation and unconfined compressive strength tests on two ring samples. The geotechnical laboratory data, including the data from Kleinfelder are presented in Appendix C.

Hazardous Materials

Nine soil samples were submitted to a State-certified laboratory, Oilfield Environmental and Compliance, Inc. for analysis. Each sample was analyzed for Total Petroleum Hydrocarbons (TPH) as diesel and motor oil by EPA Test Method 8015m, and four of the samples were analyzed for LUFT Metals (cadmium, chromium, lead, nickel and zinc) by EPA Test Method 6020. The test results are presented in Appendix D.

5.0 SUBSURFACE PROFILE

Preliminary subsurface information was presented in a letter from this firm following our field investigation (ESP, 2010). Subsurface conditions encountered in the borings were generally consistent. In the borings drilled by this firm, pavement sections in the parking lot consisted of 3.5 to 7.5 inches of AC over 4 inches of aggregate base. Beneath the pavement sections, subsurface conditions consisted of fill and alluvium overlying bedrock materials of the Franciscan Mélange.

Fill was encountered below the pavement sections in Borings 4 and 8. In Boring 4, the fill consisted of medium stiff sandy lean clay to a depth of 5.5 feet. In Boring 8, fill, consisting of medium dense silty sand with gravel was encountered to a depth of 3 feet. Below the fill in Borings 4 and 8 and beneath the pavement sections of Borings 1 through 3, and 5 through 7, alluvium was encountered. The alluvium consisted of clay and clayey sand with various proportions of clay, sand, and gravel. The clays were generally stiff to hard and the sands, where encountered, were generally medium dense to dense.

In Borings 1, 2, 4, 7, and 8, bedrock was encountered at depths of 25 to 44 feet below the surface. Kleinfelder classified the rock as a highly to moderately foliated and weak to moderately strong shale. This firm classified the bedrock as very soft to soft Metavolcanic rock in Borings 4 and 8. Very soft claystone was recovered in Boring 7. Bedrock materials encountered by this firm were logged as being intensely to moderately weathered and fractured. No field signs of contamination (odor, discoloration) were noted in any of the borings. Soils and rock were logged as being moist to wet. Subsurface water was encountered at depths of 23 to 34 feet below the surface. Table 1 summarizes the eight borings drilled at the site.

Table 1
Exploratory Boring Summary

Boring No.	Surface Elevation*, ft	Date Drilled	Subsurface Water Elevation, ft.	Bedrock Elevation, ft
1	205.5	2/15/2005	175.5	165.0
2	190.0	2/15/2005	NA	164.0
3	201.0	2/15/2005	NA	NA
4	190.0	8/18/2010	166.0	165.0
5	191.0	8/18/2010	NA	NA
6	190.5	8/18/2010	NA	NA
7	200.5	8/18/2010	177.5	167.5
8	204.0	8/18/2010	170.0	160.0

* Surface elevations estimated from topographic map by RRM Design Group, dated 2006

6.0 HAZARDOUS MATERIALS ASSESSMENT

Project Background

According to the Constraints-Level Environmental Assessment report (Kleinfelder, 2005), the subject site consists of several lots that have historically been used for residential and commercial purposes. The report indicates that a property in the northwest corner of the site, identified as 609 Palm Street and 960 Nipomo Street, had been used as a welding shop from circa 1942 to 1985 and later as an automotive repair business.

Archived documents at the San Luis Obispo Fire Department indicated that the welding/repair shop contained several areas of oil-stained soil, a dry well and a hydraulic lift. These features were reportedly removed or addressed in the late 1980's. At that time, the site was converted into a municipal parking lot, which is the current use. It is not known, however, whether confirmation sampling was conducted at the time of the removal of the dry well and hydraulic lift, as no such documents were present in the Fire Department files.

As part of their 2005 study, Kleinfelder drilled three exploratory borings at the site. Soil samples from the borings were analyzed for volatile and semi-volatile organic compounds (VOCs/SVOCs), and for cadmium, chromium, nickel, lead and zinc. Because of the preliminary nature of the study, only one sample, collected at a depth of 5 feet was analyzed from each boring. VOCs and SVOCs were not detected in any of the samples analyzed by Kleinfelder. Cadmium, lead and zinc were detected at typical background concentrations. Nickel and chromium concentrations were somewhat elevated, but were below their respective thresholds for hazardous waste disposal. The elevated concentrations of these elements were attributed to the presence of metavolcanic rock of the Franciscan Mélange beneath the site, which commonly contains minerals with relatively high iron, nickel, chromium and magnesium concentrations.

The intent of additional sampling and testing was to obtain information on soils at shallower depths and in locations where historically, contaminants have been reported or detected.

Laboratory Test Results and Analyses

Diesel-range Total Petroleum Hydrocarbons (TPHd) were not detected in any of the nine samples submitted for analysis. Motor oil-range Total Petroleum Hydrocarbons (TPHo) were detected in three of the nine samples, at concentrations ranging from 71 to 3,700 milligrams per kilogram (mg/kg). Varying concentrations of metals were detected in each of the samples submitted for analysis. Test results and their corresponding regulatory thresholds are summarized in Table 2.

TPH results are listed in Table 3. Laboratory reports and chain-of-custody documents are included in Appendix D.

TABLE 2
RESULTS OF SOIL ANALYSIS-METALS

	B-4 @ 2'	B-4 @ 4'	B-5 @ 2'	B-6 @ 3'	TTLC	STLC	10xSTLC	CHHSL
Cadmium	1.4	1.7	1.3	1.5	100	1.0	10	7.5/1.7
Chromium	**280**	**200**	**120**	**130**	500	5	50	10,000/ 10,000
Lead	25	45	14	27	1,000	5.0	50	320/80
Nickel	**400**	**250**	160	**210**	2,000	20	200	16,000/ 1,600
Zinc	69	89	65	66	5,000	250	2,500	100,000/ 23,000

Notes:
All results expressed in milligrams per kilogram (mg/kg)

TTLC	Total Threshold Limit Concentration, 22CCR §66699 (hazardous waste threshold)
STLC	Soluble Threshold Limit Concentration, 22CCR §66699 (hazardous waste threshold)
CHHSL	California Human Health Screening Level, commercial/residential setting, California OEHHA, 2009.

Numbers in bold typeface exceed 10X STLC threshold, indicating possible need for soluble analysis.

TABLE 3
RESULTS OF SOIL ANALYSIS-HYDROCARBONS

Sample ID	TPHd	TPHo
B-4 @ 2'	ND <10	ND <50
B-4 @ 4'	ND <10	140
B-4 @ 9'	ND <10	ND <50
B-5 @ 2'	ND <10	ND <50
B-5 @ 5'	ND <10	ND <50
B-5 @ 10'	ND <10	ND <50
B-6 @ 3'	ND <50	3,700
B-6 @ 5'	ND <10	71
B-6 @ 10'	ND <10	ND <50

Notes:
All results expressed in milligrams per kilogram (mg/kg)

Motor oil-range TPH concentrations in samples from Borings 4 and 6 at depths of 4 and 3 feet, respectively, exceed the City of San Luis Obispo Fire Department action level of 100 mg/kg. The vertical extent of TPH appears to be limited, as TPH concentrations from underlying samples were low or non-detectable.

Nickel and chromium were elevated in tested samples from Borings 4 through 6, but were below hazardous waste levels. The total concentrations detected are *theoretically* high enough to exceed soluble hazardous waste levels, assuming that 100% of the nickel and chromium are soluble; however, Kleinfelder's 2005 analysis indicates that only these elements are 2% to 7% soluble, and are well below hazardous waste thresholds. Although no soluble analysis was conducted during the current investigation, total concentrations were similar Kleinfelder's 2005 data, and thus we conclude that soluble concentrations would also be below hazardous waste thresholds.

Conclusions and Recommendations

Construction of the proposed parking structure will require excavation of a large volume of soil that will need to be removed from the site. The export of large volumes of soil will require consideration of several issues:

- Once the material has been excavated, it is technically considered a 'waste,' and hazardous waste regulations would apply to material exported from the site. Based on the data obtained to date, it is unlikely that the excavated soil would be classified as a hazardous waste; however, we recommend that supplemental testing for soluble nickel and chromium be conducted prior to excavation to confirm this assumption.

- While soils excavated from the site may not be classified as hazardous, they may not be suitable for use as fill on sites with sensitive uses, such as schools, hospitals or residential properties. Health-based thresholds for contaminants have been established by the California EPA, Office of Environmental Health Hazard Assessment (OEHHA). These thresholds, termed California Human Health Screening Levels (CHHSLs), have been developed using standard exposure assumptions and toxicity data published by the USEPA and California EPA (OEHHA, 2005). CHHSLs have been developed for two exposure scenarios: an unrestricted (residential) setting and a commercial/industrial setting. The levels of cadmium found in the samples approach the residential CHHSL of 1.7 mg/kg for this element, suggesting that the soil may not be suitable for sites with residential uses. None of the analytical data exceed or approach the commercial/industrial CHHSLs, and consequently the soil would be suitable for fill at these types of sites. Based on the results of soluble analysis from the 2005 Kleinfelder report, it appears unlikely that soluble concentrations of nickel or chromium will exceed hazardous waste thresholds; however, it is recommended that additional testing for soluble nickel and chromium be conducted on soils that will be exported from the site to verify that this is the case.

- Based on the former presence of the welding/auto repair shop, and comments in Fire Department files regarding subsurface features at that site (a mechanic's pit, dry well, etc.), there is a reasonable probability that these or other undocumented buried features will be encountered during excavation for the structure. It has been our experience at other large-scale excavations in the downtown area that it was common practice for older subsurface features to be abandoned in place. It is possible to perform shallow geophysical investigations to locate such features when their general location is known; however, smaller unknown features are difficult to identify during such an investigation. Although it does not appear that widespread soil contamination is present beneath the project, localized areas of contaminated soil associated with such abandoned structures should be anticipated during excavation.

- The levels of TPH found in Boring 6, and to a lesser extent in Boring 4, exceed the City Fire Department's action level of 100 mg/kg. It appears that the affected materials are limited to the upper few feet of soil; however, we recommend that additional shallow soil samples be collected in the northwest corner of the site prior to beginning earthwork, to confirm the findings of this initial assessment.

7.0 PRELIMINARY GEOTECHNICAL AND GEOLOGIC ASSESSMENT

Preliminary Geologic Assessment

The site lies on an alluvial plain within the San Luis Valley. San Luis Valley is bounded to the northeast by the San Lucia Range and to the southwest by the San Luis Range. The alluvial deposits underlying the site were generally deposited from Chorro Creek to the north and San Luis Creek, located south of the site. Based upon the borings drilled, alluvial deposits range in thickness from 25 to 44 feet and are underlain by metavolcanic rock and claystone of the Franciscan Mélange. The conditions encountered in the borings coincide with the mapped units on the Geologic Map in Appendix B. That map is based upon the published map by T.W. Dibblee, Jr. in 2004.

Landslides/Slope Instability

The site is relatively flat with no significant slopes on or immediately adjacent to the site. Therefore, the potential for landsliding or slope instability to occur on site considered to be very low.

Flooding and Erosion

The United States Department of Homeland Security, Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map (FIRM), Map No. 06079C1068F for San Luis Obispo

County, California, dated August 28, 2008, was evaluated for the site. The western side of the project area is located within in a 100-year Flood Zone that has 1.0 percent chance of being equaled or exceeded in any given year. According to the map, the flood elevation is 192, which is 2 feet above finish floor for the lowest level of the planned garage. Refer to the FIRM Flood Zone Map in Appendix B.

Surface water runoff at the site is generally by sheetflow. No evidence of significant erosion, such as gullying or rilling, was observed within or immediately around the site. The site is relatively flat with no significant drainages or creeks that cross or lie immediately adjacent to the site. It is judged that there is a low potential for erosion to occur on site; however, in the event of a flood (see previous paragraph) localized erosion may occur where soil is exposed. The potential for erosion could be increased if the development of the site results in an increased concentration of uncontrolled surface drainage.

Naturally Occurring Asbestos and Radon

Radon is a colorless, odorless gas present in soil and rock, which is derived from the decay of uranium. The occurrence of radon correlates with the presence of specific minerals, and it's concentrations in soil or rock will vary depending on the mineralogy of the surrounding bedrock, temperature, barometric pressure, moisture and other factors. According to Special Report 208, by the California Geological Survey (Churchill, 2008) radon is most commonly found in areas of San Luis Obispo County that are underlain by bedrock of the Monterey formation. The site is underlain by alluvial deposits, metavolcanic rock and claystone (Franciscan Mélange) which are not part of the Monterey formation. Therefore, the potential for naturally occurring radon gas to be present at the site is considered to be very low.

Asbestos occurs naturally in certain, known asbestos-bearing rock formations such serpentinite or ultramafic materials. The claystone and metavolcanic rock encountered in the borings are not asbestos-bearing geologic materials. Therefore, the potential for naturally-occurring asbestos to affect the project is considered to be very low to nil.

Fault Rupture

No mapped active faults cross or lie immediately adjacent to the site. The Los Osos, Hosgri, and San Andreas faults are considered to be the most significant regional active faults that could affect the proposed project during its anticipated lifespan. The closest active fault to the site is the Los Osos Fault which lies approximately 2.5 miles southwest. At this distance, there is only a very low potential for ground rupture to occur on site due to nearby active faults.

Ground Shaking

The site is in a region of generally high seismicity and has the potential to experience strong ground shaking from earthquakes on regional or local causative faults. To characterize the seismicity at the site and to provide seismic parameters, a seismic hazard analysis was performed to assess the deterministic ground motions that could occur at the site. The deterministic ground motions are based on the 2010 California Building Code (CBC) Section 1613.5.4, utilizing the United States Geological Survey Earthquake Hazards Program website (USGS, 2010). A CBC Site Class "D" was also used in the analysis. The results of the analysis are presented in Table 4.

TABLE 4

SUMMARY OF RESPONSE ACCELERATION PARAMETERS

Mapped Acceleration Values for Site Class B		**2010 CBC Site Coefficients and General Procedure Adjusted MCE Spectral Response Acceleration Parameters For Site Class D Site Coordinates: 35.2795; -120.6663 (PGA = 0.36g)**					
Seismic Parameter	Value (g)	Site Coefficients	Value (g)	Seismic Parameter	Value (g)	Seismic Parameter	Value (g)
S_S	1.37	F_a	1.00	S_{MS}	1.37	S_{DS}	0.910
S_1	0.503	F_v	1.50	S_{M1}	0.754	S_{D1}	0.503

Liquefaction and Seismically Induced Settlement

Soil liquefaction is the loss of soil strength during a significant seismic event. During liquefaction, the energy from the earthquake causes the water pressure within the pores of the soil to increase. The increase in water pressure decreases the friction between the soil grains, allowing the soil grains to move relative to one another. During this state, the soil will behave as a viscous liquid, temporarily losing its ability to support foundations and other improvements. The high pressure water will flow through the soil along the path of least resistance. As the pressure is released, the soils typically settle in a process called "dynamic settlement." Dynamic settlement can cause damage to structures and other surface and subsurface improvements.

Liquefaction potential is influenced by such factors as soil type, depth to groundwater, degree of seismic shaking, and density of the soil. It occurs most commonly in saturated, loose to medium dense, fine to medium grained sands, and sandy silts. Common types of liquefaction-related ground deformation include differential settlement and lateral spreading. In some cases, cracks in the ground surface occur, allowing mixtures of sand and water to be released at the surface in conical deposits known as "sand boils." Lightweight buried structures, such as pipelines and vaults, can also float to the surface. Other heavier structures can settle.

Layers of clayey sand, clayey gravel with sand, and clayey sand with gravel were encountered in some of the borings. A loose layer of clayey sand with gravel was recovered at a depth of 32 feet in Boring 8, which is located beyond the current project area. These materials were typically encountered directly above or slightly above the bedrock and were in a wet condition. It was judged that these layers of soil could potentially be liquefiable.

A liquefaction analysis requires both the earthquake magnitude and the Peak Ground Acceleration (PGA). The PGA was determined by dividing S_{DS} (see Table 4) by 2.5 as prescribed in CBC Section 1803.5.12.2, which resulted in a value of 0.36g. The seismicity of nearby faults was then deaggregated to determine the statistical mean and modal earthquake magnitudes that contributed to the site PGA. These two magnitudes were then compared to one another and the higher of the two was used in the analysis. In this case, the modal magnitude was higher than the mean magnitude; this value was a maximum moment magnitude of 7.8.

Using the developed seismic values, liquefaction potential at the site was analyzed following the guidelines of Special Publication 117 (CDMG, 1997, Revised 2008), and recommended procedures for analyzing liquefaction potential (Martin and others, 1999) using the "Simplified Procedure" as presented at the NCEER workshop and summarized by Youd and others (2001). The analysis also considered recent information presented by Seed and others (2003) and Idriss and others (2004). The analysis indicated that the potential for liquefaction and subsequent dynamic settlement to be very low to nil. This is mostly due to the density of the clay and granular soils, and the discontinuous nature of the potentially liquefiable layers.

Lateral Spreading

Lateral spreading can occur as a consequence of liquefaction. This phenomenon is confined to areas where the terrain is sloping, or where the liquefied zone extends below sloping terrain, and generally affects slopes along creeks, bays, or other water features bordered by slopes. This site is not situated near a body of water and the potential for liquefaction at this site is very low to nil. Therefore, the potential for lateral spreading is considered to be nil.

Seismically Induced Landslides

The site is relatively flat with no significant slopes on or within the immediate vicinity. Therefore, the potential for the seismically induced landsliding or slope instability to occur on site is considered to be nil.

Tsunami and Seiche Potential

The site is not located in the County of San Luis Obispo Tsunami Inundation Zone according to maps published by the California Emergency Management Agency. With elevations ranging between 190 and 203 feet and the fact that the site is 10 miles from the Pacific Ocean, the potential for a tsunami to affect the site is considered to be nil.

A seiche is a single water wave that can be generated in a reservoir, lake or pond as the result of long-period surface waves normally generated by strong local earthquakes or larger earthquakes at farther distances. The closest open body of water to the site is Laguna Lake. It is located approximately 1.63 miles west and is separated by Cerro San Luis and associated topography. Given the distance from Laguna Lake and the terrain that exists between the site and the lake, the potential for a seiche to affect the project site is nil.

Preliminary Geotechnical Assessment

In our opinion, the site appears suitable, from a geotechnical/geologic standpoint, for the proposed parking structure. No conditions were observed that would constitute a sufficiently severe geotechnical/geologic constraint that constructing the proposed project would be precluded. The primary geotechnical/geologic concerns anticipated at this site are the presence of existing fill, the potential for total and differential settlement of the structure, protection of the surrounding streets and other improvements during construction, and the soil's expansive nature. Other items discussed are lateral earth pressures and subsurface water.

Existing Fill

Fill was encountered in Boring 4, which was located on the north side of the site. The depth of fill was approximately 5.5 feet. Fill was also encountered in Boring 8, but this boring is beyond the limits of the currently proposed structure. Based upon the information discussed in the Hazardous Materials Assessment section of this report, this boring could be located where a feature of the previous welding/auto repair shop existed. According to our research, features including a dry well and a mechanic's pit may have been backfilled with undocumented fill material. The surface elevation where Boring 4 was drilled is nearly the proposed finish floor elevation of the structure. As a result, planned excavation of the site to construct the project would likely not remove the fill. The existing fill is not considered suitable to support the proposed structure. Regardless of the mitigative option for potential settlement (see below) any future grading recommendations should take into account the presence of this fill and mitigation of any fill encountered in this area will probably include removing and replacing it with properly moisture conditioned and compacted soil.

Total and Differential Settlement

The depth to bedrock varied from 25 to 44 feet below the surface in the borings. Considering the proposed finish floor elevation of 190, the bedrock surface is 22.5 to 30 feet below this proposed elevation. Soil below the proposed structure consists of interbedded layers of medium stiff to very stiff sandy lean clay and loose to medium dense clayey sands. The Kleinfelder report states that assuming allowable bearing capacities of 4,000 psf, estimated amounts of settlement of 1.5 to 2.0 inches could be expected. Given the local geologic and geotechnical conditions, the allowable bearing capacity that Kleinfelder assumed is higher than typically given for alluvial materials in San Luis Obispo. Depending upon the actual design loads of the structure, the degree of settlement stated in the Kleinfelder report might actually be on the low end. Considering the information available to date, there is a potential for excessive settlement of the parking structure if it is supported by conventional foundations without first performing some type of mitigative program. We considered several mitigative options to address the settlement potential of the site. These included overexcavation and recompaction, drilled caissons, driven piles, and rammed aggregate piers.

Mitigation of settlement potential can often be accomplished with a program of overexcavation and recompaction of the causative soils. Due to the relatively high anticipated loads of the parking structure, overexcavation depths on the order of 5 to 10 feet below the bottom of the proposed footing elevation may be warranted. Taking these depths into consideration, overexcavation and recompaction would likely be a considerable undertaking, due to the depth to which the subject soils extend and the limited working area of the project site. The removed soil would be moisture conditioned and placed back as compacted fill for a part of the depth. To provide bearing capacities of 2,000 to 3,000 psf, the upper portion of the fill below the foundations and slab areas should be an imported high quality granular fill such as Class 2 aggregate base or decomposed granite. For these presumed bearing capacities, foundations would need to be on the order of 3 feet in depth below lowest adjacent grade.

Another mitigative option would be to utilize some type of deep foundation system such as caissons or driven piles. Drilled caissons (CIDH piles), socketed into bedrock, have been used to support numerous structures including all of the other parking garages within the downtown area of San Luis Obispo. This type of deep foundation system would not involve as significant an amount of excavation as an overexcavation program. Caissons are able to support fairly large loads, which can be particularly advantageous for parking structures where concentrated column loads are common. Subsurface water was encountered at elevations of 166 to 177.5 feet. Drilling of caissons into the underlying bedrock would likely require the use of casing or drill fluid during construction of some of the holes if they do not stay open. It has been our experience that casing or drill fluid is typically utilized during caisson construction in this area of

San Luis Obispo. It is anticipated that skin friction values on the order of 800 to 1,300 psf for the underlying rock may be utilized for caisson design.

For the purposes of this assessment report, the use of driven piles was also considered. Such a process involves mobilizing large equipment, it is very noisy, and can damage nearby buildings. Given the proximity of historic buildings to the site and the noise sensitivity of the area, the use of driven piles does not seem to be a suitable solution for this project.

We also considered the use of rammed aggregate piers as another option for supporting the proposed structure. In this type of support, a rig is utilized to drill pilot holes to a specified depth. In this case we would consider the surface of the bedrock to be a likely depth of the piers. The holes are then sequentially filled with coarse aggregate and rammed with a proprietary device that consolidates the gravel thus creating firm, compacted bulbs in the soil matrix. The process modifies the ground and results in columns of very densely packed aggregate where foundation loads are more uniformly distributed through the subsurface stratum. Once the piers are installed, conventional foundations are then constructed over the modified ground. It is anticipated that allowable bearing capacities of 3,000 to 4,000 psf may be used in the design of foundations supported by rammed aggregate piers. It is our understanding that this process is relatively fast, may be less expensive than other types of deep foundation systems, and considering the subsurface conditions is judged to be a viable mitigative solution.

Protection of Adjacent Structures and Improvements

An issue of concern will be the proximity of public streets, existing structures, and other improvements to the excavation required to construct the project. Along the southern and eastern boundaries of the project, excavation depths on the order of 13 feet are anticipated. These depths would be necessary to accommodate the planned finish floor elevation of 190. Sloping the excavation walls in accordance with Cal-OSHA requirements does not appear to be feasible because the slopes would most likely encroach into neighboring properties and historic structures. Depending upon the planned earthwork/foundation program, excavations along Palm and Nipomo Streets may also approach depths greater than 5 feet. Consequently, it is anticipated that shoring will be necessary to support the walls of the excavation. Shoring methods could include, but are not limited to, shotcrete-faced soil nail walls, tangent drilled caissons, whaler-braced retaining walls, and steel I-beam and lagging walls.

Shotcrete-faced soil nail walls are a composite shoring system. Soil nails are inserted and grouted into holes drilled into the sides of the excavation at a slight downward incline. The facing of the excavation is covered with reinforcing steel and sprayed with shotcrete. These walls can provide a clean and safe working environment and can be designed to be part of the permanent structure. Soil nail lengths depend upon soil types and field testing however, they typically have lengths roughly equivalent to the height of the wall. The soil nails would encroach into public rights of way and private property, requiring easements.

Another option for shoring could be steel I-beams with wood, steel, or precast concrete lagging. If the I-beams are cantilevered (i.e. not anchored or braced with interior bracing), their overall lengths will depend upon the exposed excavation height. A rule of thumb is that the embedment depth may approach twice the cantilevered height. Proposed excavations are on the order of 13 feet deep; therefore the total length of the beams could reach 40 feet. Utilizing tiebacks with steel whalers or interior braced frames will typically reduce I-beam lengths substantially. While beams approaching 40 feet long may not be economically feasible, cantilevered shoring could be considered for shallower excavations.

Regardless of the type of shoring/support to be utilized, there will be a need to monitor local streets, structures, and improvements for damage during construction of the project as a result of the planned excavation.

Expansive Soils

The result of expansion index testing on a composite of two soil samples yielded a value of 87. This value indicates that soils anticipated at proposed excavation depths are moderate to highly expansive. Expansive soils tend to swell with seasonal increases in soil moisture and shrink during the dry season as soil moisture decreases. The volume changes that the soils undergo in this cyclical pattern can stress and damage slabs, retaining walls, and foundations if precautionary measures are not incorporated into the design and construction procedure. This will be particularly true for slabs and foundations that are near the surface where the shrink-swell cycle is most pronounced.

Use of imported nonexpansive materials combined with premoistening of the soil might be recommended to provide protection for slabs and flatwork. For this site, it is probable that a layer of nonexpansive material 18 to 24 inches thick would be recommended. Post-tensioned slabs-on-grade could also be utilized to mitigate the expansive soils on the site.

Lateral Earth Pressures

With respect to design of retaining walls, generally, the on-site expansive soil would not be recommended to be used as retaining wall backfill as it will be more difficult to compact and will have greater settlement potential than crushed gravel or sand/cement slurry. Sand/cement slurry or gravel backfill will also apply the least active pressure on the walls, and will provide adequate support for foundations that bear in the retaining wall backfill zone. Active equivalent fluid pressures, not including any surcharges, on the order of 30 to 35 pcf are anticipated for slurry or gravel backfill. In limited areas, native soils might be suitable for use as wall backfill; active pressures, not including any surcharges, of about 50 to 65 pcf are anticipated. At-rest equivalent fluid pressures for rigid walls will be about 15 to 20 pcf higher than the active pressures for the applicable type of backfill.

Section 1803.5.12.1 of the 2010 CBC identifies the need for determining earthquake loads on buried structures and retaining walls. Such criteria are typically developed based upon the Mononobe-Okabe method (1926, 1929) as modified by Seed and Whitman (1970). This methodology has been the accepted geotechnical standard for development of seismic parameters for retaining wall design for over 35 years. In October, 2010, a professional paper was published in the Journal of Geotechnical and Environmental Engineering that has challenged this generally accepted view. The paper, entitled “Seismic Earth Pressures on Cantilever Retaining Structures” was authored by Linda Al Atik, Ph.D. and Nicholas Sitar, Ph.D. of the University of California at Berkeley. The paper was also presented, in association with several prominent structural and geotechnical engineers, at the Structural Engineering Association of California (SEAOC) 2010 Convention. In their research, the paper’s authors were able to model gravitational forces through the use of centrifuge modeling at U.C. Davis, an element that was lacking in previous studies. Among other findings, they concluded that the effects of seismic soil loading on retaining walls are negligible for peak ground acceleration of less than about 0.4g. As the peak ground acceleration at the site was found to be 0.36g, we believe that the findings of Atik and Sitar apply to the project. The seismic loading of soil on retaining walls and buried structures may be disregarded as the design progresses.

Lateral resistance will be derived from passive pressure and friction of the retaining wall footings on the bearing material. Passive resistance of 300 to 350 pcf (equivalent fluid pressure) is anticipated. The friction coefficients will probably range from about 0.30 to 0.35.

Subsurface Water

Subsurface water was encountered in the borings at elevations of 166.0 to 177.5. At these elevations, subsurface water is not anticipated to be a significant issue. However, the 100-yr flood elevation is approximately 2 feet above planned finish floor (see Preliminary Geologic Conclusions). As a result, a subslab drain coupled with pressure relief pop-up valves in any recessed or below grade areas where hydrostatic pressure could develop in the lower level slab-on-grade should be considered. In addition, proper drainage of retaining walls and thorough waterproofing of walls facing habitable areas, or other areas where transmission of moisture would be undesirable, will be essential.

Recommendations

As the project design progresses, it will be essential that a geotechnical engineering investigation be undertaken and a comprehensive design-level report be prepared. Additional borings are recommended to address specific areas of the site once ultimate loads are determined. The report should address: a more in-depth analysis of total and differential settlement under the ultimate structure loads, retaining wall and buried structure design parameters, expansive soils, site specific seismicity, soil corrosivity, and any other items deemed relevant to the geotechnical engineer.

8.0 CLOSURE

Our intent was to perform the investigation in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the locality of this project under similar conditions at this time. No representation, warranty, or guarantee is either expressed or implied. This report is intended for the exclusive use by the client, as discussed in the "Scope of Services" section of this report. Application beyond the stated intent is strictly at the user's risk.

This report is valid for conditions as they exist at this time for the type of project described herein. The conclusions and recommendations contained in this report could be rendered invalid, either in whole or in part, due to changes in building codes, regulations, standards of geotechnical or construction practice, changes in physical conditions, or the broadening of knowledge.

If changes with respect to project type or location become necessary, if items not addressed in this report are incorporated into plans, or if any of the assumptions used in the preparation of this report are not correct, the soils engineer/geologist should be notified for modifications to this report. Any items not specifically addressed in this report should comply with a design-level geotechnical engineering report, the CBC, other applicable standards, and the requirements of the governing jurisdiction.

The preliminary recommendations of this soils report are based upon the geotechnical conditions encountered at the site, and may be augmented by additional requirements of the architect/engineer, or by additional recommendations provided by the soils engineer based on a design-level geotechnical engineering report, peer or jurisdiction reviews, or conditions exposed at the time of construction.

This document, the data, conclusions, and recommendations contained herein are the property of Earth Systems Pacific. This report shall be used in its entirety, with no individual sections reproduced or used out of context. Copies may be made only by Earth Systems Pacific, the client, and the client's authorized agents for use exclusively on the subject project. Any other use is subject to federal copyright laws and the written approval of Earth Systems Pacific.

Thank you for this opportunity to have been of service. If you have any questions, please feel free to contact this office at your convenience.

End of Text.

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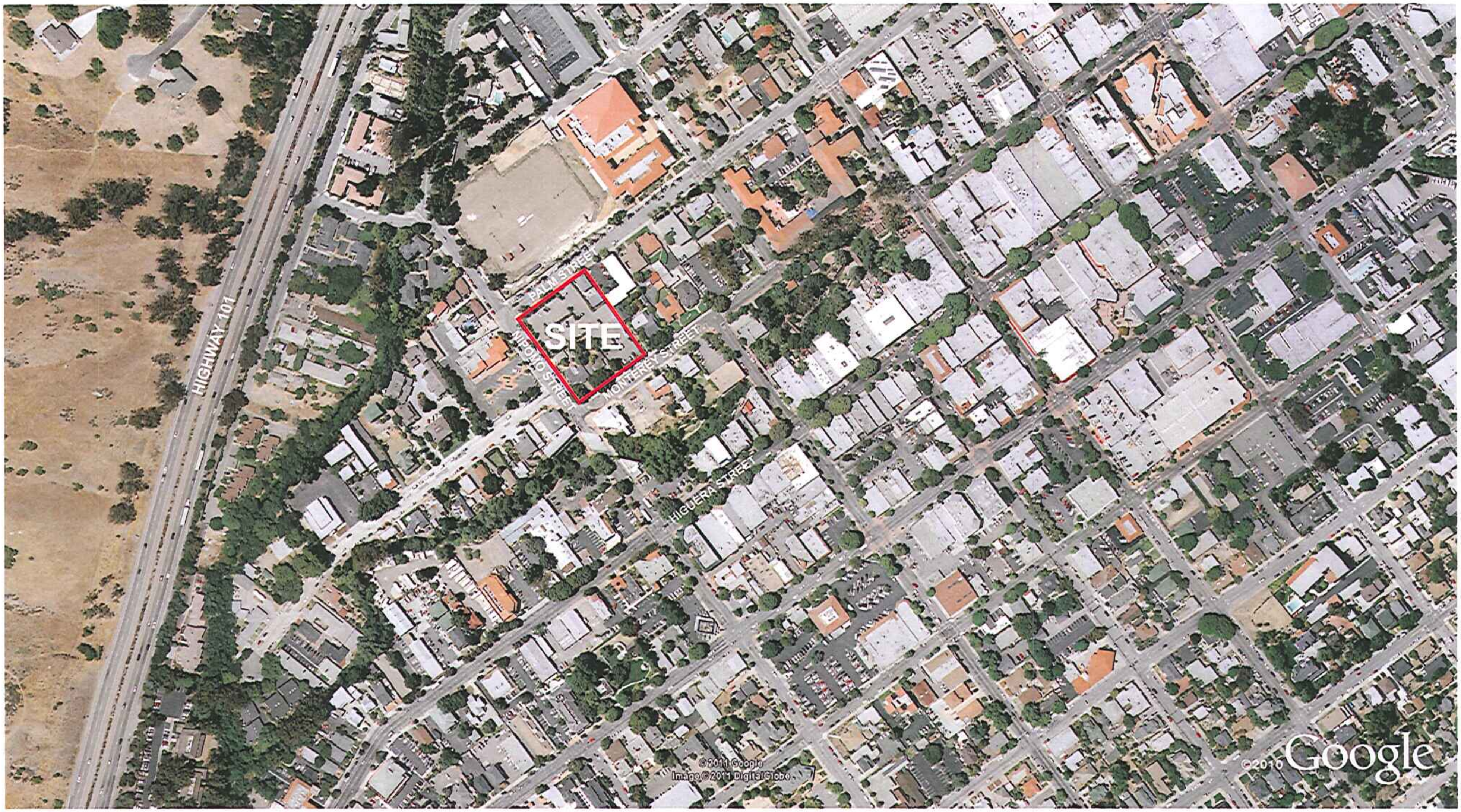
APPENDIX A

Site Vicinity Map
Boring Location Map
Log Key, Kleinfelder
Boring Logs 1 through 3, Kleinfelder
Boring Log Legend, Earth Systems Pacific
Boring Logs 4 through 8, Earth Systems Pacific

SITE VICINITY MAP

PALM AND NIPOMO PARKING STRUCTURE

Palm and Nipomo Streets
San Luis Obispo, California



(Approximate scale: 1" = 400')

N (Project North)
N (True North)

EARTH SYSTEMS PACIFIC
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February 2011

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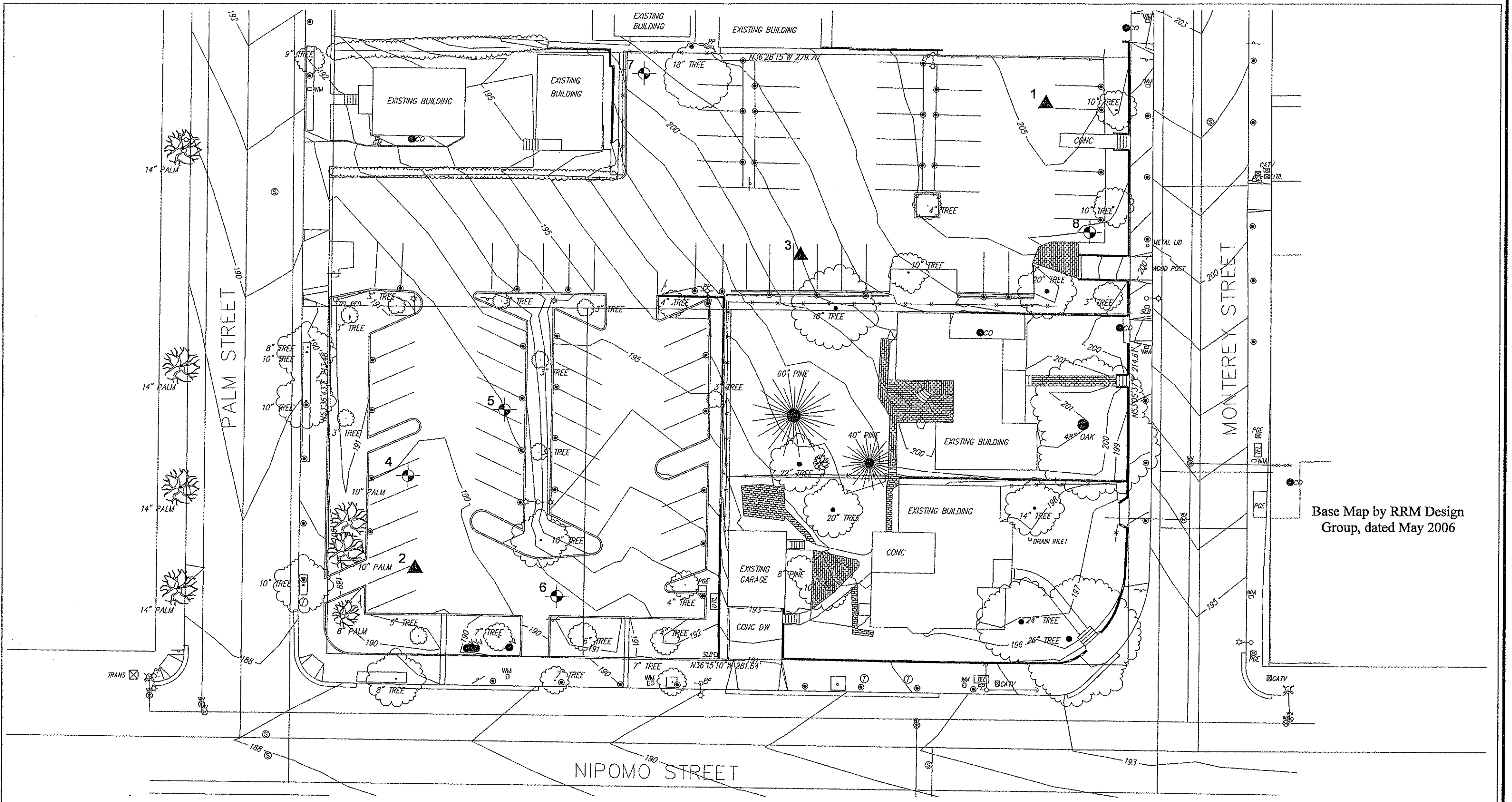
SL-16264-SA



Base Map by RRM Design Group, dated May 2006

LEGEND

3 ▲ Borings 1-3 Location (Approx.), drilled by Kleinfelder, Inc., 2/15/2005

5 ⊕ Borings 4-8 Location (Approx.), drilled by Earth Systems Pacific, 8/18/2010

Project North

NOT TO SCALE

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Septembber 1, 2010
SB
SL-16264-SA

BORING LOCATION MAP

PALM AND NIPOMO PARKING STRUCTURE

Palm and Nipomo Streets
San Luis Obispo, California

PALM NIPOMO PARKING STRUCTURE-090110Borings

LOG SYMBOLS

⊠	BULK / BAG SAMPLE
■	MODIFIED CALIFORNIA SAMPLER (2-1/2 inch outside diameter)
◧	CALIFORNIA SAMPLER (3 inch outside diameter)
◩	STANDARD PENETRATION SPLIT SPOON SAMPLER (2 inch outside diameter)
▯	NX SIZE CORE BARREL
▯	CONTINUOUS SAMPLER (3 inch outside diameter)
▼	WATER LEVEL (level after completion)
▽	WATER LEVEL (level where first encountered)
≈	SEEPAGE

-4	PERCENT FINER THAN THE NO. 4 SIEVE (ASTM Test Method C 136)
-200	PERCENT FINER THAN THE NO. 200 SIEVE (ASTM Test Method C 117)
LL	LIQUID LIMIT (ASTM Test Method D 4318)
PI	PLASTICITY INDEX (ASTM Test Method D 4318)
EI	EXPANSION INDEX (UBC Standard 18-2)
COL	COLLAPSE POTENTIAL
UC	UNCONFINED COMPRESSION
MC	MOISTURE CONTENT
NFGWE	NO FREE GROUND WATER ENCOUNTERED

GENERAL NOTES

1. Lines separating strata on the logs represent approximate boundaries only. Actual transitions may be gradual.
2. No warranty is provied as to the continuity of soil conditions between individual sample locations.
3. Logs represent general soil conditions observed at the point of exploration on the date indicated.
4. In general, Unified Soil Classification designations presented on the logs were evaluated by visual methods only. Therefore, actual designations (based on laboratory tests) may vary.
5. A temporary benckmark for relative elevation was located at:

KLEINFELDER

Drafted By:
Date:

Project No.: 54188-1
File Number:

LOG KEY

PALM - NIPOMO SITE

SAN LUIS OBISPO, CALIFORNIA

PLATE

C

KEYLOGG 54188.GPJ 6/8/05

Date Completed: **2/15/05**
Logged By: **M. Guilbert**
Total Depth: **41.5 feet**

Surface Conditions: **SLIGHT SLOPE, PAVED PARKING AREA**
Rig Type: **CME 55** Auger Type: **6" H.S.**
Groundwater: **30 feet**

Depth, ft	FIELD		LABORATORY				Pen, tsf	DESCRIPTION
	Sample	Blows/ft	Dry Density pcf	Moisture Content %	Approx. Saturation %	Other Tests		Approximate Surface Elevation (ft):
								AC & BASE
								CLAY to SANDY CLAY (CL) - red brown, moist, medium stiff to very hard, no diesel, gas or other noticeable petroleum, no obvious discoloration or staining
5		42						
10		73	106.1	14.2				... red brown, becoming more clay stone
15		16	101.8	22.9				... dark red brown
								... color change to dark brown
20		58	116.1	12.6				... gravelly; gravel up to 1.5 in diameter
								... gravel
25		78	114.7	13.8				**CLAYEY GRAVEL (GC)** - dark brown, moist, dense to very dense, gravel up to 1 inch diameter, rounded
								... very slow drilling, more competent formation
30				▼				

KLEINFELDER

PROJECT NO. 54188-1

LOG OF BORING B- 1
PALM - NIPOMO SITE

SAN LUIS OBISPO, CALIFORNIA

PLATE
1 of 2

C1

Depth, ft	FIELD Sample	 Blows/ft	LABORATORY Dry Density pcf	 Moisture Content %	 Approx. Saturation %	 Other Tests	Pen, tsf	DESCRIPTION
								(Continued from previous plate)
		41	120.0	11.2				... wet, coarse grained sand to 2 mm ... easier drilling
35								... brown
		94+	116.7	20.7				
40		100+						**BLACK SHALE** - highly foliated, weak to moderately strong
45								
50								
55								
60								

Notes:

1.) Bottom of boring at 41.5 feet.

2.) Groundwater encountered at 30 feet.

3.) Boring backfilled with soil cuttings to 20 feet below ground surface, bentonite grout to surface 02/15/2005.

KLEINFELDER

PROJECT NO. 54188-1

LOG OF BORING B- 1
PALM - NIPOMO SITE

SAN LUIS OBISPO, CALIFORNIA

PLATE
2 of 2

C1

Date Completed: 2/15/05

Logged By: M. Guilbert

Total Depth: 36.5 feet

Surface Conditions: SLIGHT SLOPE, PAVED PARKING AREA

Rig Type: CME 55 Auger Type: 6" H.S.

Groundwater: No free groundwater encountered.

Depth, ft	FIELD Sample	 Blows/ft	LABORATORY Dry Density pcf	 Moisture Content %	 Approx. Saturation %	 Other Tests	Pen, tsf	DESCRIPTION Approximate Surface Elevation (ft):
								AC & BASE
								CLAYEY SAND(SC) - red brown, moist, medium dense, sand to 0.5 mm, no petroleum or chemical odor perceived,no discoloration or staining evident
5	■	7						
10	■	18						**CLAYEY GRAVEL(GC)** - brown, moist, medium dense, gravel to 1"
15	■	17						**SANDY CLAY (CL)** - brown, moist, stiff, trace coarse sand to 1/4"
20	■	21						**CLAYEY GRAVEL(GC)** - brown, moist, medium dense, gravel coarse to 1" **CLAY (CL)** - olive gray, moist, stiff
25	■	83+						**SHALE** - light brown to gray, foliated (fracture not applicable) rocks, weak ... very slow drilling, competent formation ... easier drilling, shale chips
30								

KLEINFELDER

PROJECT NO. 54188-1

LOG OF BORING B- 2

PALM - NIPOMO SITE

SAN LUIS OBISPO, CALIFORNIA

PLATE
1 of 2

C2

	FIELD		LABORATORY					
Depth, ft	Sample	Blows/ft	Dry Density pcf	Moisture Content %	Approx. Saturation %	Other Tests	Pen, tsf	DESCRIPTION
								(Continued from previous plate)
	▮	100+						... black, highly foliated (fracture not applicable), weathered, weak to moderately strong
35	▮	100+						
40								
45								
50								
55								
60								

Notes:

1.) Bottom of boring at 36.5 feet.

2.) No free groundwater encountered.

3.) Boring backfilled with soil cuttings to 20 feet below ground surface, bentonite grout to surface 02/15/2005.

KLEINFELDER

PROJECT NO. 54188-1

LOG OF BORING B- 2

PALM - NIPOMO SITE

SAN LUIS OBISPO, CALIFORNIA

PLATE
2 of 2

C2

Date Completed: 2/15/05
Logged By: M. Guilbert
Total Depth: 21.5 feet

Surface Conditions: SLIGHT SLOPE, PAVED PARKING AREA
Rig Type: CME 55 *Auger Type:* 6" H.S.
Groundwater: No free groundwater encountered.

Depth, ft	FIELD		LABORATORY				Pen, tsf	DESCRIPTION
	Sample	Blows/ft	Dry Density pcf	Moisture Content %	Approx. Saturation %	Other Tests		*Approximate Surface Elevation (ft):*
								AC & BASE
								SANDY CLAY (CL) - red brown, moist, stiff, trace gravel to 1/2", no perceptible petroleum or chemical odor, no discoloration or staining evident
5	■	26						
10	■	25						**CLAYEY GRAVEL(GC)** - brown, moist, medium dense, gravel to 1"
15	■	27						**SANDY CLAY (CL)** - light brown to gray, moist, stiff to hard
20	■	41						... brown, gravel to 3/4"
25								
30								

Notes:
1.) Bottom of boring at 21.5 feet.
2.) No free groundwater encountered.
3.) Boring backfilled with soil cuttings to 20 feet, bentonite grout to surface 02/15/2005.

KLEINFELDER

PROJECT NO. 54188-1

LOG OF BORING B- 3
PALM - NIPOMO SITE

SAN LUIS OBISPO, CALIFORNIA

PLATE
1 of 1

C3

Earth Systems Pacific

BORING LOG LEGEND

SAMPLE / SUBSURFACE WATER SYMBOLS

SAMPLE / SUBSURFACE WATER SYMBOLS	GRAPH. SYMBOL
CALIFORNIA MODIFIED	▬
STANDARD PENETRATION TEST (SPT)	●
SHELBY TUBE	▭
BULK	○
SUBSURFACE WATER DURING DRILLING	▼
SUBSURFACE WATER AFTER DRILLING	▽

SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS		GROUP SYMBOL	TYPICAL DESCRIPTIONS	GRAPH. SYMBOL
COARSE GRAINED SOILS	MORE THAN HALF OF MATERIAL IS TESTED OR JUDGED TO BE LARGER THAN #200 SIEVE SIZE	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	∘∘∘
		GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	⬡
		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES, NON-PLASTIC FINES	▦
		GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES, PLASTIC FINES	⬡
		SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	▒
		SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	░
		SM	SILTY SANDS, SAND-SILT MIXTURES, NON-PLASTIC FINES	▥
		SC	CLAYEY SANDS, SAND-CLAY MIXTURES, PLASTIC FINES	▩
FINE GRAINED SOILS	HALF OR MORE OF MATERIAL IS TESTED OR JUDGED TO BE SMALLER THAN #200 SIEVE SIZE	ML	INORGANIC SILTS AND VERY FINE SANDS, SILTY, CLAYEY FINE SANDS, CLAYEY SILTS WITH SLIGHT PLASTICITY	▥
		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	▧
		OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	┄
		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY, SILTY SOILS, ELASTIC SILTS	▥
		CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	▧
		OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	┅
		PT	PEAT AND OTHER HIGHLY ORGANIC SOILS	▽ ▽ ▽

OBSERVED MOISTURE CONDITION

DRY	SLIGHTLY MOIST	MOIST	VERY MOIST	WET
LITTLE/NO MOISTURE	JUDGED BELOW OPTIMUM	JUDGED ABOUT OPTIMUM	JUDGED OVER OPTIMUM	SATURATED

TYPICAL CONSISTENCY

COARSE GRAINED SOILS

BLOWS/FOOT		DESCRIPTIVE TERM
SPT	CA SAMPLER	
0-10	0-16	LOOSE
11-30	17-50	MEDIUM DENSE
31-50	51-83	DENSE
OVER 50	OVER 83	VERY DENSE

FINE GRAINED SOILS

BLOWS/FOOT		DESCRIPTIVE TERM
SPT	CA SAMPLER	
0-2	0-3	VERY SOFT
3-4	4-7	SOFT
5-8	8-13	MEDIUM STIFF
9-15	14-25	STIFF
16-30	26-50	VERY STIFF
OVER 30	OVER 50	HARD

GRAIN SIZES

U.S. STANDARD SERIES SIEVE				CLEAR SQUARE SIEVE OPENING		
# 200	# 40	# 10	# 4	3/4"	3"	12"

SILT & CLAY	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

TYPICAL ROCK HARDNESS

MAJOR DIVISIONS	TYPICAL DESCRIPTIONS
EXTREMELY HARD	CORE, FRAGMENT, OR EXPOSURE CANNOT BE SCRATCHED WITH KNIFE OR SHARP PICK; CAN ONLY BE CHIPPED WITH REPEATED HEAVY HAMMER BLOWS
VERY HARD	CANNOT BE SCRATCHED WITH KNIFE OR SHARP PICK; CORE OR FRAGMENT BREAKS WITH REPEATED HEAVY HAMMER BLOWS
HARD	CAN BE SCRATCHED WITH KNIFE OR SHARP PICK WITH DIFFICULTY (HEAVY PRESSURE); HEAVY HAMMER BLOW REQUIRED TO BREAK SPECIMEN
MODERATELY HARD	CAN BE GROOVED 1/16 INCH DEEP BY KNIFE OR SHARP PICK WITH MODERATE OR HEAVY PRESSURE; CORE OR FRAGMENT BREAKS WITH LIGHT HAMMER BLOW OR HEAVY MANUAL PRESSURE
SOFT	CAN BE GROOVED OR GOUGED EASILY BY KNIFE OR SHARP PICK WITH LIGHT PRESSURE, CAN BE SCRATCHED WITH FINGERNAIL; BREAKS WITH LIGHT TO MODERATE MANUAL PRESSURE
VERY SOFT	CAN BE READILY INDENTED, GROOVED OR GOUGED WITH FINGERNAIL, OR CARVED WITH KNIFE; BREAKS WITH LIGHT MANUAL PRESSURE

TYPICAL ROCK WEATHERING

MAJOR DIVISIONS	TYPICAL DESCRIPTIONS
FRESH	NO DISCOLORATION, NOT OXIDIZED
SLIGHTLY WEATHERED	DISCOLORATION OR OXIDATION IS LIMITED TO SURFACE OF, OR SHORT DISTANCE FROM; SOME FRACTURES PRESENT; FELDSPAR CRYSTALS ARE DULL
MODERATELY WEATHERED	DISCOLORATION OR OXIDATION EXTENDS FROM FRACTURES, USUALLY THROUGHOUT; Fe-Mg MINERALS ARE "RUSTY"; FELDSPAR CRYSTALS ARE "CLOUDY"
INTENSELY WEATHERED	DISCOLORATION OR OXIDATION THROUGHOUT; FELDSPAR AND Fe-Mg MINERALS ARE ALTERED TO CLAY TO SOME EXTENT OR CHEMICAL ALTERATION PRODUCES IN SITU DISAGGREGATION
DECOMPOSED	DISCOLORATION OR OXIDATION THROUGHOUT, BUT RESISTANT MINERALS SUCH AS QUARTZ MAY BE UNALTERED; FELDSPAR AND Fe-Mg MINERALS ARE COMPLETELY ALTERED TO CLAY

drafting/masters/Boring Log Legend091608.dwg

Earth Systems Pacific

Boring No. 4

PAGE 1 OF 2

LOGGED BY: T. Conroy
DRILL RIG: Mobile Drill, Model B-53 w/ Autohammer
AUGER TYPE: 8" Hollow Stem
Approximate Surface Elevation: +/- 190.0 ft
JOB NO.: SL-16264-SA
DATE: 08/18/10

PALM AND NIPOMO PARKING STRUCTURE
Palm and Nipomo Streets
San Luis Obispo, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.
0		■	5.5" asphalt concrete over 4.0" aggregate base					
1	CL	▨	SANDY LEAN CLAY: brown, medium stiff, moist, trace fine gravel, ceramic and brick fragments to 0.5" diameter (fill)	2.0–3.5	Ⓔ			7 5 4
		▨		3.5–5.0	Ⓔ			5 5 5
		▨		5.0–6.5	■	105.5	13.0	5 11 14
5.5	CL	▨	SANDY LEAN CLAY: gray/brown mottled, stiff, moist, trace fine gravel (alluvium)					
		▨		8.5–10.0	Ⓔ			5 10 11
10		▨	very stiff	10.0–11.5	■	94.5	22.9	8 14 19
12		▨	light brown, gravel ends					
14.5		▨	brown to light brown	14.0–15.5	■	103.1	23.7	12 18 18
19.5	CL	▨	SANDY LEAN CLAY WITH GRAVEL: light brown, very stiff, moist	20.0–21.5	●			8 13 17
24		▨	wet ▼					
25		▩	METAVOLCANIC ROCK: dark olive green to dark gray, soft, wet, intensely weathered, fractured (Franciscan Melange)	25.0–26.5	●			12 16 50/5.0"

LEGEND: ■ Ring Sample ○ Grab Sample ☐ Shelby Tube Sample ● SPT Ⓔ Environmental Sample

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Boring No. 4

PAGE 2 OF 2
LOGGED BY: T. Conroy
DRILL RIG: Mobile Drill, Model B-53 w/ Autohammer
AUGER TYPE: 8" Hollow Stem
Approximate Surface Elevation: +/- 190.0 ft
JOB NO.: SL-16264-SA
DATE: 08/18/10

PALM AND NIPOMO PARKING STRUCTURE
Palm and Nipomo Streets
San Luis Obispo, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.
27		▨	METAVOLCANIC ROCK: as above					
28		▨						
29		▨						
30		▨		30.0–31.5	●			34 50/5.0"
31		▨						
32		▨						
33		▨	moderately hard, moderately weathered					
34		▨						
35		▨		35.0–36.5	●			50/2.0"
36			End of Boring @ 35.5' Subsurface water encountered @ 24.0'.					
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								

LEGEND: ▨ Ring Sample ○ Grab Sample ☐ Shelby Tube Sample ● SPT

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Boring No. 5

PAGE 1 OF 1

JOB NO.: SL-16264-SA

DATE: 08/18/10

LOGGED BY: T. Conroy

DRILL RIG: Mobile Drill, Model B-53 w/ Autohammer

AUGER TYPE: 8" Hollow Stem   Approximate Surface Elevation: +/- 191.0 ft

PALM AND NIPOMO PARKING STRUCTURE

Palm and Nipomo Streets
San Luis Obispo, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.
0		■	4.5" asphalt concrete over 4.0" aggregate base					
1	CL	▨	SANDY LEAN CLAY: brown, medium stiff, moist (alluvium)					
2				2.0–3.5	Ⓔ			6 10 11
3								
4								
5				5.0–6.5	Ⓔ			10 17 19
6	SC	▨	CLAYEY SAND WITH GRAVEL: brown to light brown, medium dense, moist					
7								
8								
9	CL	▨	SANDY LEAN CLAY: brown, very stiff, moist					
10				10.0–11.5	Ⓔ			10 18 19
11								
12			End of Boring @ 11.5' No subsurface water encountered.					
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

LEGEND: ■ Ring Sample ○ Grab Sample ▭ Shelby Tube Sample ● SPT Ⓔ Environmental Sample

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Boring No. 6

PAGE 1 OF 1
JOB NO.: SL-16264-SA
DATE: 08/18/10

LOGGED BY: T. Conroy
DRILL RIG: Mobile Drill, Model B-53 w/ Autohammer
AUGER TYPE: 8" Hollow Stem Approximate Surface Elevation: +/- 190.5 ft

PALM AND NIPOMO PARKING STRUCTURE

Palm and Nipomo Streets
San Luis Obispo, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA				
				INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.
0		■	7.5" asphalt concrete over 4.0" aggregate base					
1	CL	▧	SANDY LEAN CLAY WITH GRAVEL: brown, medium stiff, moist (alluvium)					3
2				2.0–3.5	Ⓔ			8 7
3								
4								5
5				5.0–6.5	Ⓔ			9 19
6	SC	▩	CLAYEY SAND: brown to light brown, medium dense, moist, trace fine gravel					
7								
8								
9	CL	▧	SANDY LEAN CLAY: brown, stiff, moist					9
10				10.0–11.5	Ⓔ			10 12
11								
12			End of Boring @ 11.5' No subsurface water encountered.					
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

LEGEND: ■ Ring Sample ○ Grab Sample ▭ Shelby Tube Sample ● SPT Ⓔ Environmental Sample

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Boring No. 7

PAGE 1 OF 2
JOB NO.: SL-16264-SA
DATE: 08/18/10

LOGGED BY: T. Conroy
DRILL RIG: Mobile Drill, Model B-53 w/ Autohammer
AUGER TYPE: 8" Hollow Stem   Approximate Surface Elevation: +/- 200.5 ft

PALM AND NIPOMO PARKING STRUCTURE
Palm and Nipomo Streets
San Luis Obispo, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.
0		■	3.5" asphalt concrete over 4.0" aggregate base					
1	CL	▨	LEAN CLAY: light brown, medium stiff, moist, trace sand (alluvium)					
5		▨		5.0–6.5	●			8 13 20
6	CL	▨	SANDY LEAN CLAY: light brown, hard, moist, trace fine gravel					
10		▨		10.0–11.5	●			10 12 16
11		▨	very stiff					
15		▨	hard	15.0–16.0	■	114.4	17.2	15 50
17		▨	increasing sand content					
20		▨		20.0–21.5	●			8 12 12
23	SC	▨	▼ CLAYEY SAND WITH GRAVEL: brown, dense, wet, coarse gravel					
25		▨		25.0–26.0	■	No Return		18 50
26								

LEGEND: ■ Ring Sample ○ Grab Sample ☐ Shelby Tube Sample ● SPT Ⓔ Environmental Sample

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Boring No. 7

PAGE 2 OF 2

LOGGED BY: T. Conroy
DRILL RIG: Mobile Drill, Model B-53 w/ Autohammer
AUGER TYPE: 8" Hollow Stem   Approximate Surface Elevation: +/- 200.5 ft

JOB NO.: SL-16264-SA
DATE: 08/18/10

PALM AND NIPOMO PARKING STRUCTURE
Palm and Nipomo Streets
San Luis Obispo, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.
27	SC	▨	CLAYEY SAND WITH GRAVEL: as above					
29		▨	cobbles to 5" diameter	30.0–31.5	●			20 12 14
30.5	CL	▧	SANDY LEAN CLAY WITH GRAVEL: gray/dark red mottled, stiff, wet					
33		× × ×	CLAYSTONE: gray, very soft, moist, moderately to highly weathered, closely fractured (Franciscan Melange)	34.0–35.5	●			12 50
35			End of Boring @ 35.0' Subsurface water encountered @ 23.0'.					

LEGEND: ▬ Ring Sample ○ Grab Sample ☐ Shelby Tube Sample ● SPT

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Boring No. 8

PAGE 1 OF 2

LOGGED BY: T. Conroy
DRILL RIG: Mobile Drill, Model B-53 w/ Autohammer
AUGER TYPE: 8" Hollow Stem Approximate Surface Elevation: +/- 204.0 ft
JOB NO.: SL-16264-SA
DATE: 08/18/10

PALM AND NIPOMO PARKING STRUCTURE
Palm and Nipomo Streets
San Luis Obispo, California

				SAMPLE DATA				
DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.
0		■	3.5" asphalt concrete over 4.0" aggregate base					
1	SM	▥	SILTY SAND WITH GRAVEL: brown, medium dense, moist (fill)					
3	CL	▧	SANDY LEAN CLAY: red brown, very stiff, moist, trace fine gravel (alluvium)					
5		▧	hard	5.0–6.5	●			15 34 34
8	CL	▧	SANDY LEAN CLAY WITH GRAVEL: brown, very stiff, moist, coarse gravel					
10		▧		10.0–11.5	●			7 9 11
13	CL	▧	SANDY LEAN CLAY: red brown, stiff, moist					
15		▧		15.0–16.5	●			4 6 7
20		▧	hard	20.0–21.5	▬	116.5	16.3	4 18 33
25		▧	very moist, stiff	25.0–26.5	●			4 6 6

LEGEND: ▬ Ring Sample ○ Grab Sample ☐ Shelby Tube Sample ● SPT Ⓔ Environmental Sample

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Boring No. 8

PAGE 2 OF 2

LOGGED BY: T. Conroy
DRILL RIG: Mobile Drill, Model B-53 w/ Autohammer
AUGER TYPE: 8" Hollow Stem   Approximate Surface Elevation: +/- 204.0 ft

JOB NO.: SL-16264-SA
DATE: 08/18/10

PALM AND NIPOMO PARKING STRUCTURE
Palm and Nipomo Streets
San Luis Obispo, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.
27	CL		SANDY LEAN CLAY: as above					
30			light brown, interbedded gravels	30.0–31.5	●			3 6 8
32	SC		CLAYEY SAND WITH GRAVEL: light brown, loose, very moist, fine gravel					
34			wet ▼	34.0–35.5	●			2 4 4
37	GC		CLAYEY GRAVEL WITH SAND: gray, medium dense, wet					
40				40.0–41.5	●			5 8 12
44			METAVOLCANIC ROCK: light olive brown, very soft, very moist, intensely weathered, closely fractured (Franciscan Melange)	45.0–46.5	●			6 24 38
45.5			dark gray, soft, moderately weathered					
46.5			End of Boring @ 46.5' Subsurface water encountered @ 34.0'.					

Depth scale: 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53

LEGEND: ▬ Ring Sample ○ Grab Sample ☐ Shelby Tube Sample ● SPT

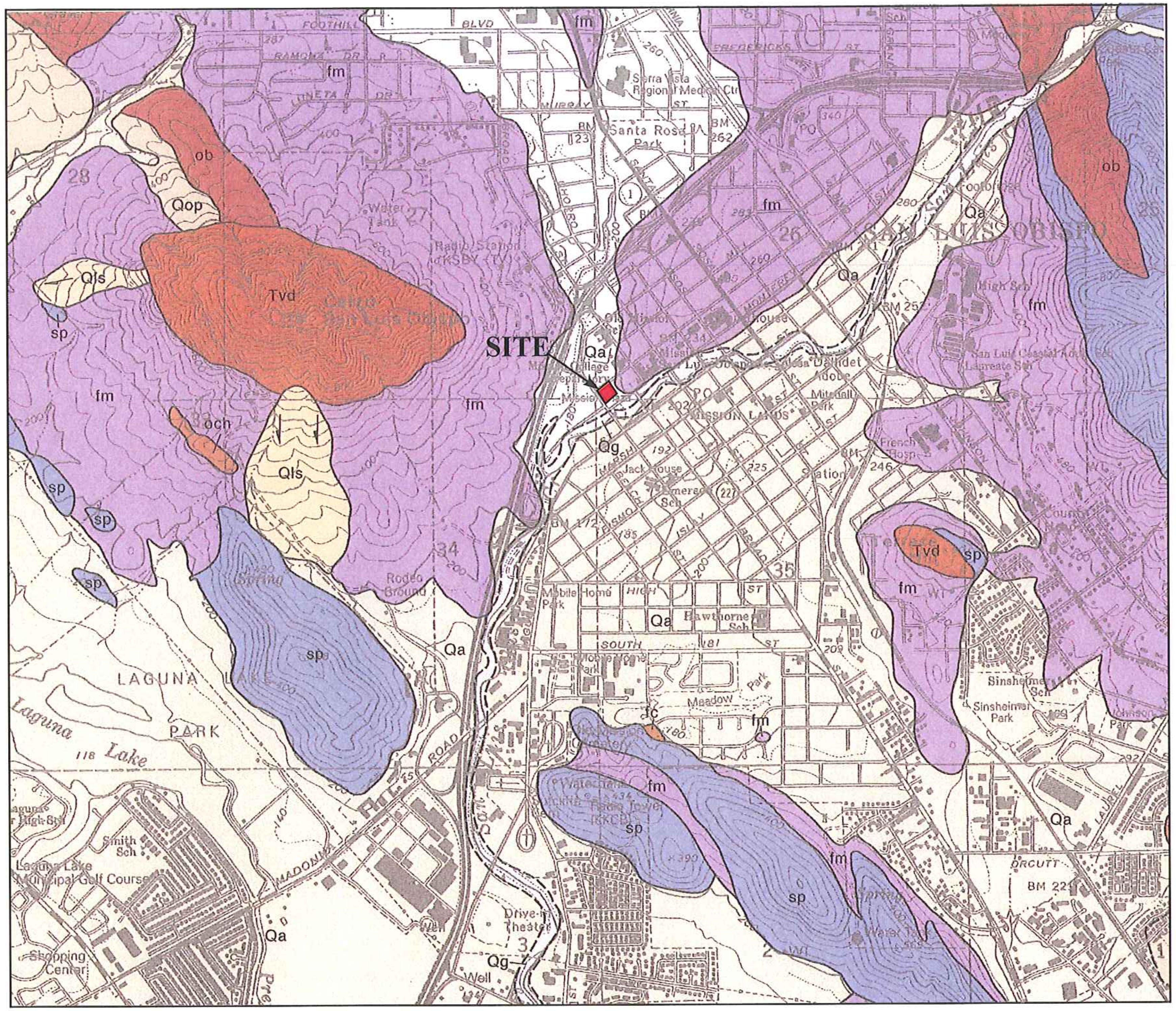
NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

APPENDIX B

Geologic Map
FIRM Flood Zone Map

GEOLOGIC MAP

PALM AND NIPOMO PARKING STRUCTURE
Palm and Nipomo Streets
San Luis Obispo, California



Extract from: Geologic Map of the San Luis Obispo Quadrangle, San Luis Obispo County, California, by T.W. Dibblee, Jr., 2004

EXPLANATION

Geologic Units

Qa / Qg
Surficial Sediments
-alluvial sand and gravel
of valley areas

Tvd
Volcanic Intrusive Rocks
-dacite of quartz latite porphyry

ob
Coast Range Ophiolite Complex
-basalt-diabase, black, fine-grained

sp
Serpentine
blue-green slicked, gray, slickensided

fm
Franciscan Assemblage
fs-mostly greywacke sandstone,
gray, fine-grained, hard, but fractured

Geologic Symbols

Contact
Dashed where approximately located or inferred

High-angle fault
Dashed where approximately located or inferred; dotted where concealed

Thrust or reverse fault
Dashed where approximately located or inferred; dotted where concealed.
Saw-teeth on upper plate. Dip of fault plane between 30° and 80°

Anticline
Showing axis at surface. Dashed where approximately located; dotted where concealed

Syncline
Showing axis at surface. Dashed where approximately located; dotted where concealed

⊕ Horizontal | 30 Inclined | 90 Vertical
Strike and dip of beds

N (Project North) | N (True North)

Approx. Scale: 1" = 2000'

Earth Systems Pacific
4378 Old Santa Fe Road, San Luis Obispo, CA 93401
February 2011

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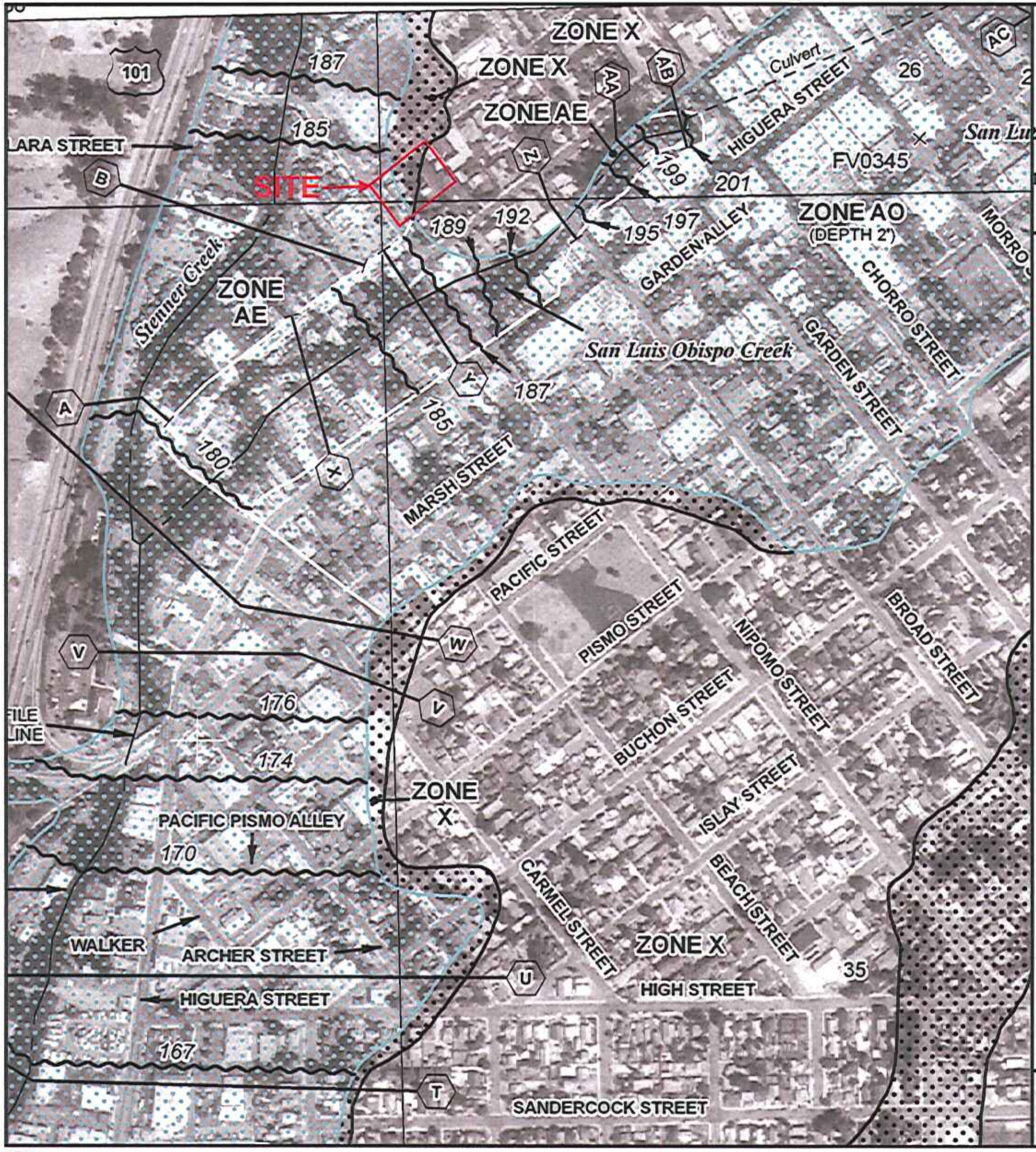
www.earthsys.com - e-mail: esc@earthsystems.com
SL-16264-SA

FIRM FLOOD ZONE MAP

PALM AND NIPOMO PARKING STRUCTURE

Palm and Nipomo Streets
San Luis Obispo, California



MAP SCALE 1" = 500' (Project North)

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1068F

FIRM
FLOOD INSURANCE RATE MAP

SAN LUIS OBISPO
COUNTY,
CALIFORNIA
AND INCORPORATED AREAS

PANEL 1068 OF 2050
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SAN LUIS OBISPO COUNTY	060304	1068	F
SAN LUIS OBISPO, CITY OF	060310	1068	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06079C1068F

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

EARTH SYSTEMS PACIFIC

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February 2011

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SL-16264-SA

APPENDIX C

Geotechnical Laboratory Test Results, Earth Systems Pacific
Geotechnical Laboratory Test Results, Kleinfelder

BULK DENSITY TEST RESULTS

ASTM D 2937-04 (modified for ring liners)

August 29, 2010

BORING NO.	DEPTH feet	MOISTURE CONTENT, %	WET DENSITY, pcf	DRY DENSITY, pcf
4	5.5 - 6.0	13.0	119.2	105.5
4	10.5 - 11.0	22.9	116.1	94.5
4	15.0 - 15.5	23.7	127.5	103.1
7	15.5 - 16.0	17.2	134.1	114.4
8	21.0 - 21.5	16.3	135.5	116.5

EXPANSION INDEX TEST RESULTS

ASTM D 4829-08a

SAMPLE	EXPANSION INDEX
Composite sample of: 7 @ 10.0-10.5' 8 @ 16.0-16.5'	87

Palm and Nipomo Parking Structure

SL-16264-SA

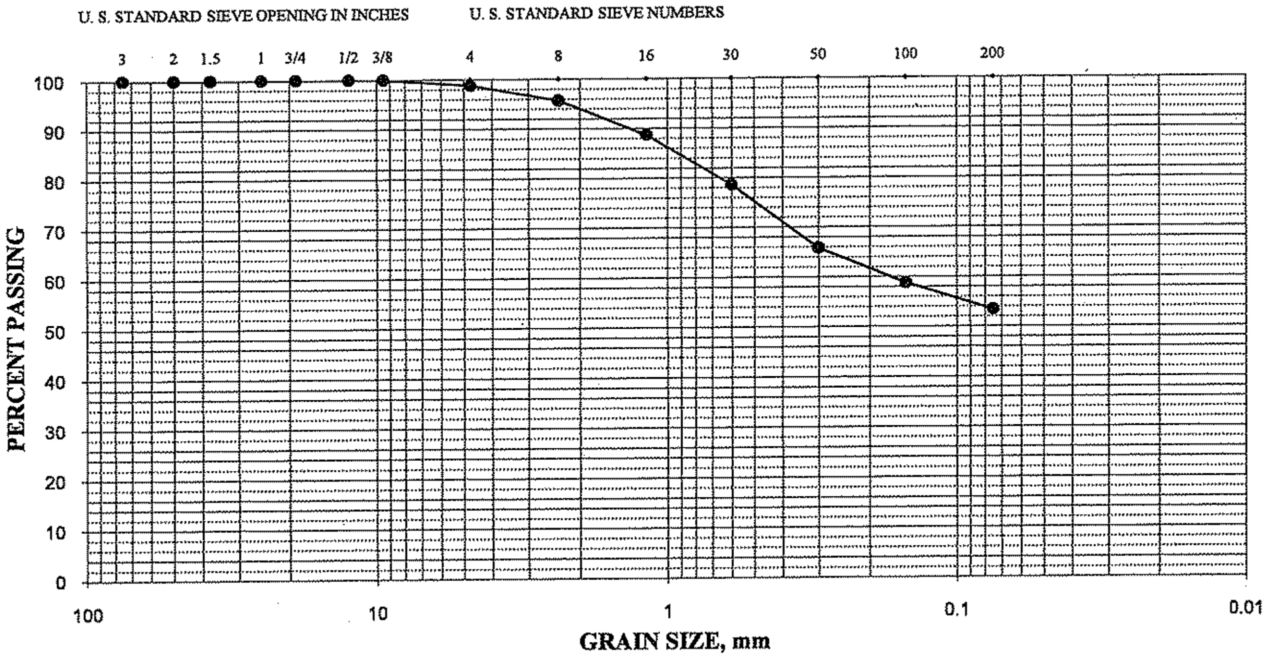
PARTICLE SIZE ANALYSIS

ASTM D 422-63/07; D 1140-06

Boring #4 @ 15.0 - 15.5'
Sandy Lean Clay (CL)

August 29, 2010

Sieve size	% Retained	% Passing
3" (75-mm)	0	100
2" (50-mm)	0	100
1.5" (37.5-mm)	0	100
1" (25-mm)	0	100
3/4" (19-mm)	0	100
1/2" (12.5-mm)	0	100
3/8" (9.5-mm)	0	100
#4 (4.75-mm)	1	99
#8 (2.36-mm)	4	96
#16 (1.18-mm)	11	89
#30 (600-µm)	21	79
#50 (300-µm)	34	66
#100 (150-µm)	41	59
#200 (75-µm)	47	53



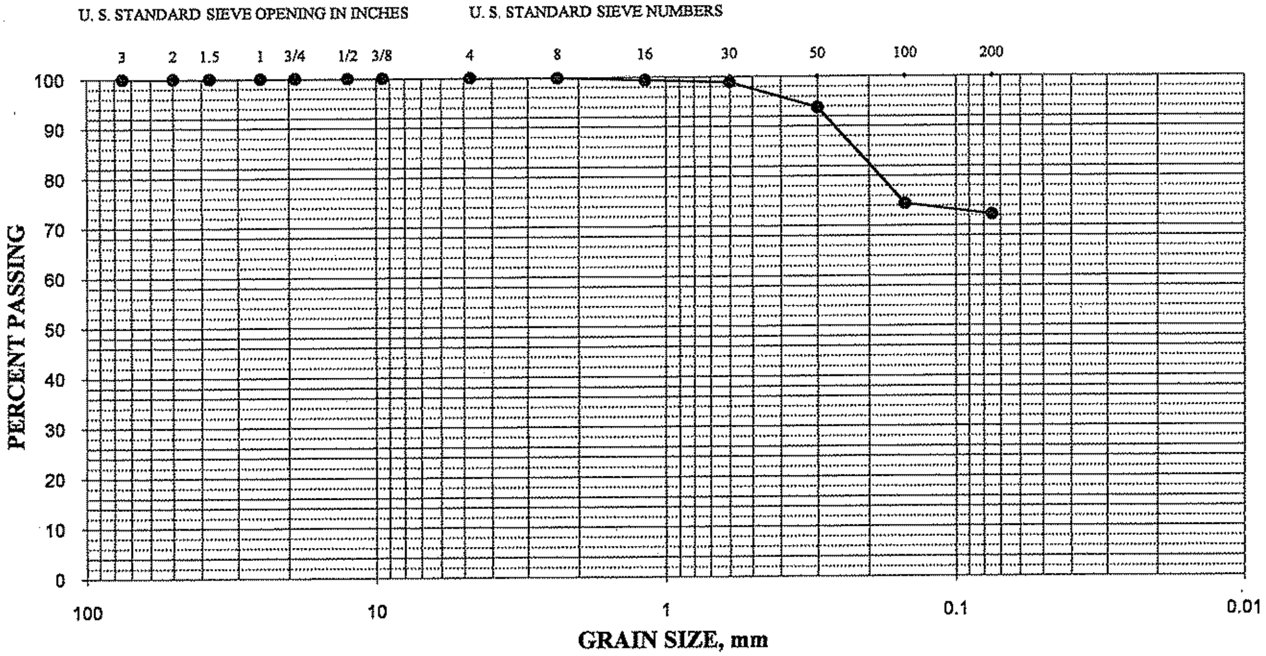
PARTICLE SIZE ANALYSIS

ASTM D 422-63/07; D 1140-06

Boring #7 @ 20.0 - 21.5'
Sandy Lean Clay (CL)

August 29, 2010

Sieve size	% Retained	% Passing
3" (75-mm)	0	100
2" (50-mm)	0	100
1.5" (37.5-mm)	0	100
1" (25-mm)	0	100
3/4" (19-mm)	0	100
1/2" (12.5-mm)	0	100
3/8" (9.5-mm)	0	100
#4 (4.75-mm)	0	100
#8 (2.36-mm)	0	100
#16 (1.18-mm)	1	99
#30 (600-µm)	1	99
#50 (300-µm)	6	94
#100 (150-µm)	26	74
#200 (75-µm)	28	72



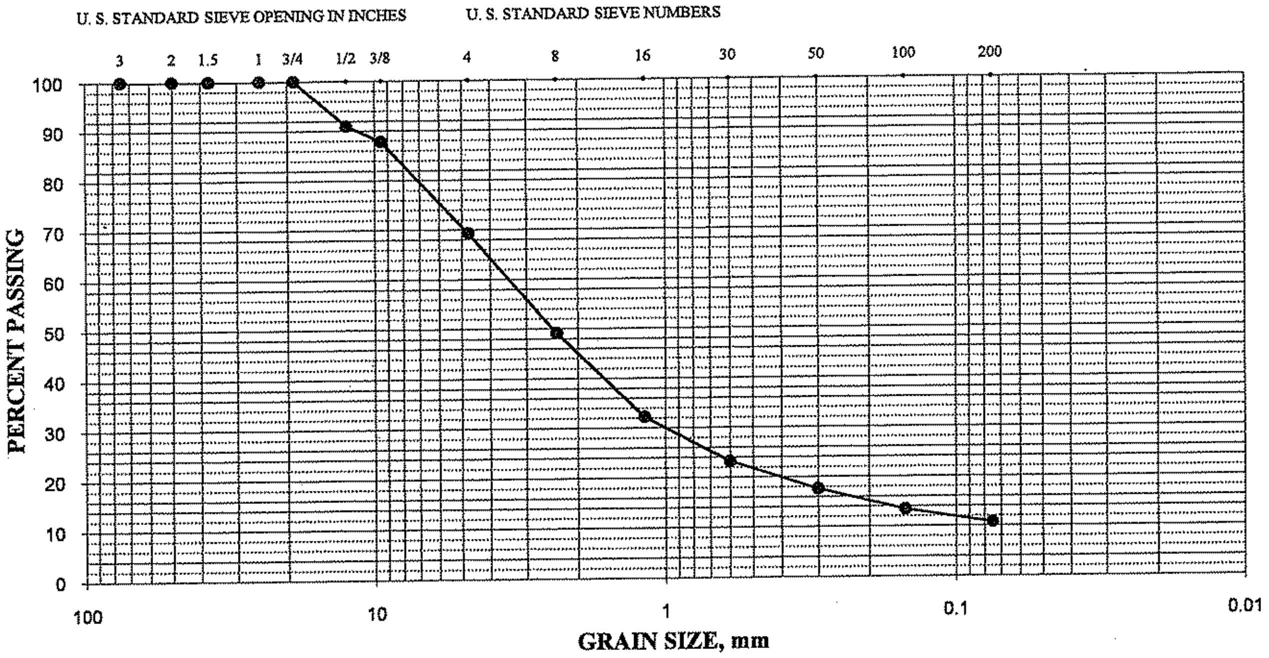
PARTICLE SIZE ANALYSIS

ASTM D 422-63/07; D 1140-06

August 29, 2010

Boring #8 @ 35.0 - 35.5'
Clayey Sand with Gravel (SC)

Sieve size	% Retained	% Passing
3" (75-mm)	0	100
2" (50-mm)	0	100
1.5" (37.5-mm)	0	100
1" (25-mm)	0	100
3/4" (19-mm)	0	100
1/2" (12.5-mm)	9	91
3/8" (9.5-mm)	12	88
#4 (4.75-mm)	31	69
#8 (2.36-mm)	51	49
#16 (1.18-mm)	68	32
#30 (600-µm)	77	23
#50 (300-µm)	82	18
#100 (150-µm)	87	13
#200 (75-µm)	89	11



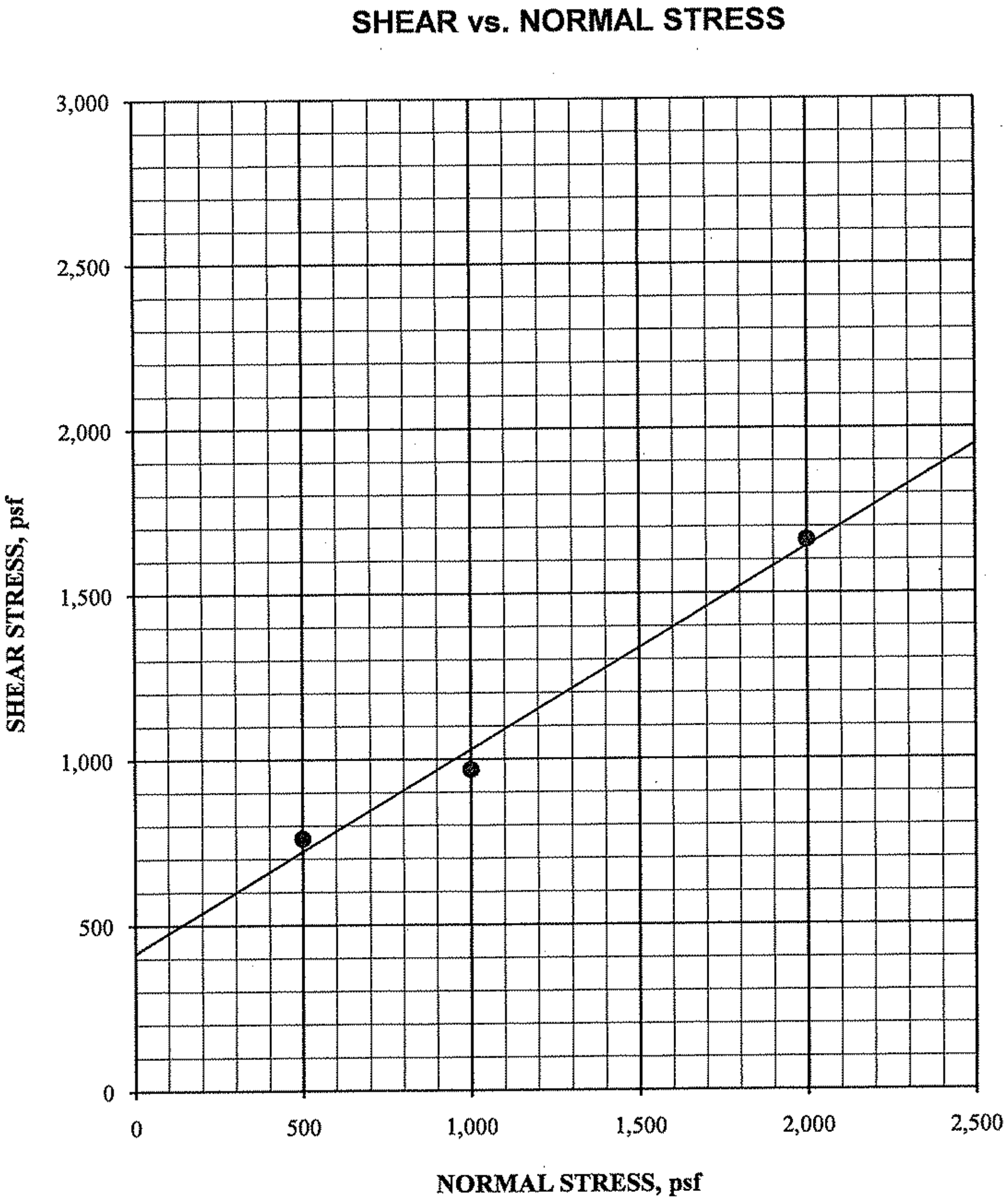
DIRECT SHEAR

ASTM D 3080-04 (modified for consolidated, undrained conditions)

August 29, 2010

Boring #4 @ 6.0 - 6.5'
Sandy Lean Clay (CL)
Ring sample, saturated

INITIAL DRY DENSITY: 101.5 pcf
INITIAL MOISTURE CONTENT: 13.0 %
PEAK SHEAR ANGLE (Ø): 32°
COHESION (C): 415 psf



DIRECT SHEAR continued

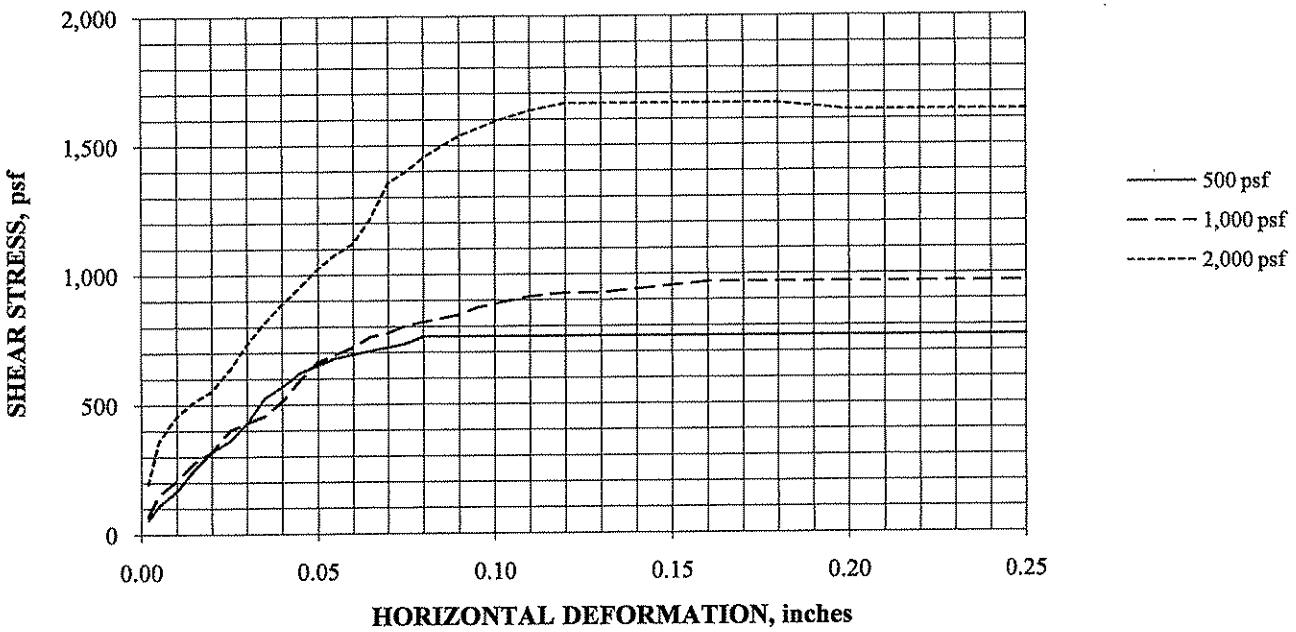
ASTM D 3080-04 (modified for consolidated, undrained conditions)

Boring #4 @ 6.0 - 6.5'
Sandy Lean Clay (CL)
Ring sample, saturated

August 29, 2010

SPECIFIC GRAVITY: 2.70 (assumed)

SAMPLE NO.:	1	2	3	AVERAGE
INITIAL				
WATER CONTENT, %	13.0	13.0	13.0	13.0
DRY DENSITY, pcf	102.0	103.9	98.7	101.5
SATURATION, %	53.8	56.4	49.6	53.3
VOID RATIO	0.652	0.622	0.707	0.660
DIAMETER, inches	2.375	2.375	2.375	
HEIGHT, inches	1.00	1.00	1.00	
AT TEST				
WATER CONTENT, %	25.3	22.1	22.0	
DRY DENSITY, pcf	103.9	106.8	106.0	
SATURATION, %	100.0	100.0	100.0	
VOID RATIO	0.621	0.578	0.589	
HEIGHT, inches	0.98	0.97	0.93	



UNCONFINED COMPRESSION ON COHESIVE SOIL

ASTM D 2166-06

August 29, 2010

Boring #7 @ 15.5 - 16'
Sandy Lean Clay (CL)
Ring Sample
COMPRESSIVE STRENGTH: 102 psi (14,636 psf)

Dry Density: 114.4 pcf
Moisture Content: 17.2%
Degree Saturation: 98.3%
Specific Gravity: 2.70 (assumed)
H/D Ratio: 2.13

TIME (MINUTES)	DEFORM, in (X 1000)	AXIAL STRAIN	AREA (SQ. IN.)	APPLIED LOAD (LBS)	STRENGTH (PSI)	STRENGTH (PSF)
0.5	21	0.0042	4.45	76	17	2,460
1.0	43	0.0085	4.47	145	32	4,673
1.5	64	0.0127	4.49	206	46	6,611
2.0	83	0.0164	4.50	253	56	8,088
2.5	102	0.0202	4.52	291	64	9,268
3.0	122	0.0242	4.54	325	72	10,309
3.5	142	0.0281	4.56	350	77	11,057
4.0	161	0.0319	4.58	370	81	11,643
4.5	181	0.0358	4.59	388	84	12,160
5.0	200	0.0396	4.61	405	88	12,643
5.5	220	0.0436	4.63	419	90	13,026
6.0	239	0.0473	4.65	431	93	13,346
6.5	260	0.0515	4.67	446	95	13,751
7.0	286	0.0566	4.70	458	98	14,044
7.5	314	0.0622	4.72	469	99	14,297
8.0	342	0.0677	4.75	476	100	14,424
8.5	370	0.0733	4.78	483	101	14,549
9.0	400	0.0792	4.81	489	102	14,636
9.5	433	0.0857	4.85	491	101	14,591
10.0	467	0.0925	4.88	479	98	14,130

UNCONFINED COMPRESSION ON COHESIVE SOIL

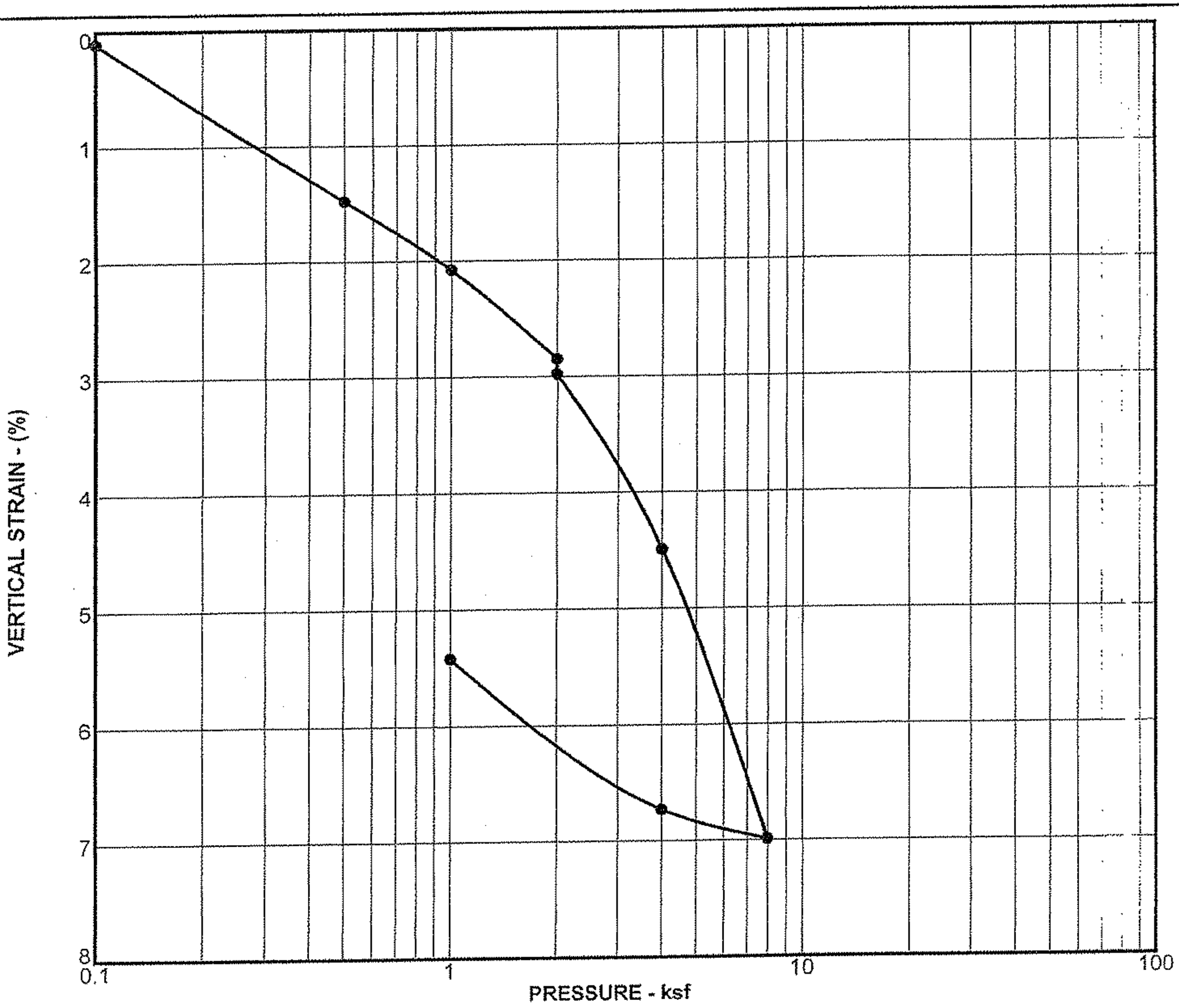
ASTM D 2166-06

August 29, 2010

Boring #8 @ 21.0 - 21.5'
Sandy Lean Clay (CL)
Ring Sample
COMPRESSIVE STRENGTH: 110 psi (15,886 psf)

Dry Density: 116.5 pcf
Moisture Content: 16.3%
Degree Saturation: 98.7%
Specific Gravity: 2.70 (assumed)
H/D Ratio: 1.69

TIME (MINUTES)	DEFORM, in (X 1000)	AXIAL STRAIN	AREA (SQ. IN.)	APPLIED LOAD (LBS)	STRENGTH (PSI)	STRENGTH (PSF)
0.5	27	0.0067	4.46	128	29	4,133
1.0	55	0.0137	4.49	243	54	7,790
1.5	84	0.0209	4.52	330	73	10,502
2.0	113	0.0282	4.56	386	85	12,193
2.5	143	0.0357	4.59	424	92	13,290
3.0	171	0.0426	4.63	456	99	14,190
3.5	200	0.0499	4.66	478	103	14,762
4.0	227	0.0566	4.70	498	106	15,271
4.5	256	0.0638	4.73	509	108	15,489
5.0	284	0.0708	4.77	521	109	15,736
5.5	312	0.0778	4.80	529	110	15,857
6.0	340	0.0848	4.84	534	110	15,886
6.5	370	0.0923	4.88	531	109	15,667
7.0	399	0.0995	4.92	504	102	14,752
7.5	426	0.1062	4.96	464	94	13,480
8.0	456	0.1137	5.00	416	83	11,984
8.5	483	0.1204	5.04	361	72	10,321
9.0	510	0.1272	5.08	325	64	9,220
9.5	529	0.1319	5.10	285	56	8,042
10.0	565	0.1409	5.16	241	47	6,730



Sample	B- 1
Depth	16.0 ft
Description	Clay
Classification	CL

	Initial	Final
Dry density, pcf	101.3	109.0
Water content, %	22.9	21.6
Sample height, in.	1	0.9301

KLEINFELDER

PROJECT NO. 54188-1

CONSOLIDATION TEST
PALM - NIPOMO SITE

SAN LUIS OBISPO, CALIFORNIA

PLATE

E-1

Unconfined Compression Test

Project Name: Palm Nipomo
Sample Date/Time: Not Provided
Project Number: 54188
Test Date: 5/3/05
Description: Sandy Clay (CL) Olive Brown, Fine Grained
Sample/Lab No.: B2
Client Ref No: Not Provided
Location: B2
Sample Depth: 15'
Source: Native
Vol./Tons: Not Provided
Proposed Use: Geotechnical
Proving Ring No.: 3487 **lbs./div.:** 0.322
Total Wt. Specimen Wet 723.6

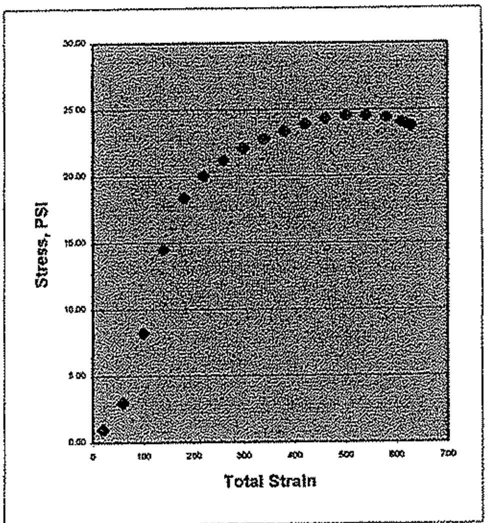
Water Content Determination

Tare No. 1
Water Content %:
Diameter, D_o, in.: 2.42
Wt. Specimen Wet + Tare: 823.6
Dry Wt. At 105°C:
Area, A_o, in^2: 4.60
Wt. Specimen Dry + Tare:
Unit Wt. Wet: 124.9
Height,H_o, in.: 4.8
Wt. Water: 823.6
Unit Wt. Dry:
Volume,V_o, in^3: 22.08
Wt. Tare: 100
Wt. Specimen Dry:

Corr. Area = A_o / 1-Unit Strain

Test Data

Load Dial (0.0001")	Axial Load	Total Strain	Unit Strain	Corrected Area, in.2	Stress, PSI
14	4.5	20	0.0042	4.62	0.98
43	13.8	60	0.0125	4.66	2.97
120	38.6	100	0.0208	4.70	8.23
213	68.6	140	0.0292	4.74	14.48
272	87.6	180	0.0375	4.78	18.33
300	96.6	220	0.0458	4.82	20.04
320	103.0	260	0.0542	4.86	21.19
336	108.2	300	0.0625	4.91	22.05
350	112.7	340	0.0708	4.95	22.77
362	116.6	380	0.0792	5.00	23.34
374	120.4	420	0.0875	5.04	23.89
384	123.6	460	0.0958	5.09	24.31
391	125.9	500	0.1042	5.13	24.52
395	127.2	540	0.1125	5.18	24.54
396	127.5	580	0.1208	5.23	24.37
393	126.5	610	0.1271	5.27	24.02
392	126.2	620	0.1292	5.28	23.90
390	125.6	630	0.1313	5.29	23.72



Failure Conditions: conical at middle of sample

q (psf) =	3533.9
C (psf) =	1767.0

Remarks:

Check Test: ● ASTM D2166

Technician: F. Portillo
Lab Coordinator: P. Geitner

KLEINFELDER, INC. (559) 486-0750/ Fax (559)442-5081
GEOTECHNICAL, ENVIRONMENTAL & MATERIALS TESTING ENGINEERING

Unconfined Compression Test

Project Name: Palm Nipomo

Sample Date/Time: Not Provided

Project Number: 54188

Test Date: 5/3/05

Description: Silty Clay (CL) Dark Brown, Fine Grained

Sample/Lab No.: B3

Client Ref No: Not Provided

Location: B3

Sample Depth: 15'

Source: Native

Vol./Tons: Not Provided

Proposed Use: Geotechnical

Proving Ring No.: 3487 **lbs./div.:** 0.322

Total Wt. Specimen Wet 732.6

Water Content Determination

Tare No. 1

Wt. Specimen Wet + Tare: 832.6

Wt. Specimen Dry + Tare:

Wt. Water: 832.6

Wt. Tare: 100

w

Water Content %:

Dry Wt. At 105°C:

Unit Wt. Wet: 140.5

Unit Wt. Dry:

Diameter, D_o, in.: 2.42

Area, A_o, in^2: 4.60

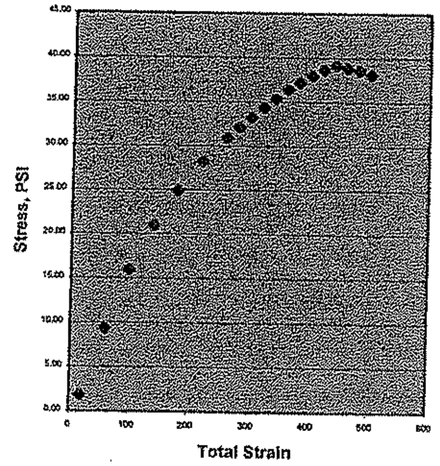
Height, H_o, in.: 4.32

Volume, V_o, in^3: 19.87

Corr. Area = A_o / 1-Unit Strain

Test Data

Load Dial (0.0001")	Axial Load	Total Strain	Unit Strain	Corrected Area, in.2	Stress, PSI
25	8.1	20	0.0046	4.62	1.74
135	43.5	60	0.0139	4.66	9.32
233	75.0	100	0.0231	4.71	15.93
309	99.5	140	0.0324	4.75	20.93
371	119.5	180	0.0417	4.80	24.89
424	136.5	220	0.0509	4.85	28.17
470	151.3	260	0.0602	4.89	30.92
490	157.8	280	0.0648	4.92	32.08
510	164.2	300	0.0694	4.94	33.22
529	170.3	320	0.0741	4.97	34.29
548	176.5	340	0.0787	4.99	35.34
567	182.6	360	0.0833	5.02	36.39
583	187.7	380	0.0880	5.04	37.22
598	192.6	400	0.0926	5.07	37.99
612	197.1	420	0.0972	5.09	38.68
622	200.3	440	0.1019	5.12	39.11
621	200.0	460	0.1065	5.15	38.85
619	199.3	480	0.1111	5.17	38.52
615	198.0	500	0.1157	5.20	38.07



Failure Conditions: conical at middle of sample

q (psf) = 5631.7

C (psf) = 2815.8

Remarks:

Check Test: ● ASTM D2166

Technician: F. Portillo

Lab Coordinator: P. Geitner

APPENDIX C

Geotechnical Laboratory Test Results, Earth Systems Pacific
Geotechnical Laboratory Test Results, Kleinfelder

BULK DENSITY TEST RESULTS

ASTM D 2937-04 (modified for ring liners)

August 29, 2010

BORING NO.	DEPTH feet	MOISTURE CONTENT, %	WET DENSITY, pcf	DRY DENSITY, pcf
4	5.5 - 6.0	13.0	119.2	105.5
4	10.5 - 11.0	22.9	116.1	94.5
4	15.0 - 15.5	23.7	127.5	103.1
7	15.5 - 16.0	17.2	134.1	114.4
8	21.0 - 21.5	16.3	135.5	116.5

EXPANSION INDEX TEST RESULTS

ASTM D 4829-08a

SAMPLE	EXPANSION INDEX
Composite sample of: 7 @ 10.0-10.5' 8 @ 16.0-16.5'	87

Palm and Nipomo Parking Structure

SL-16264-SA

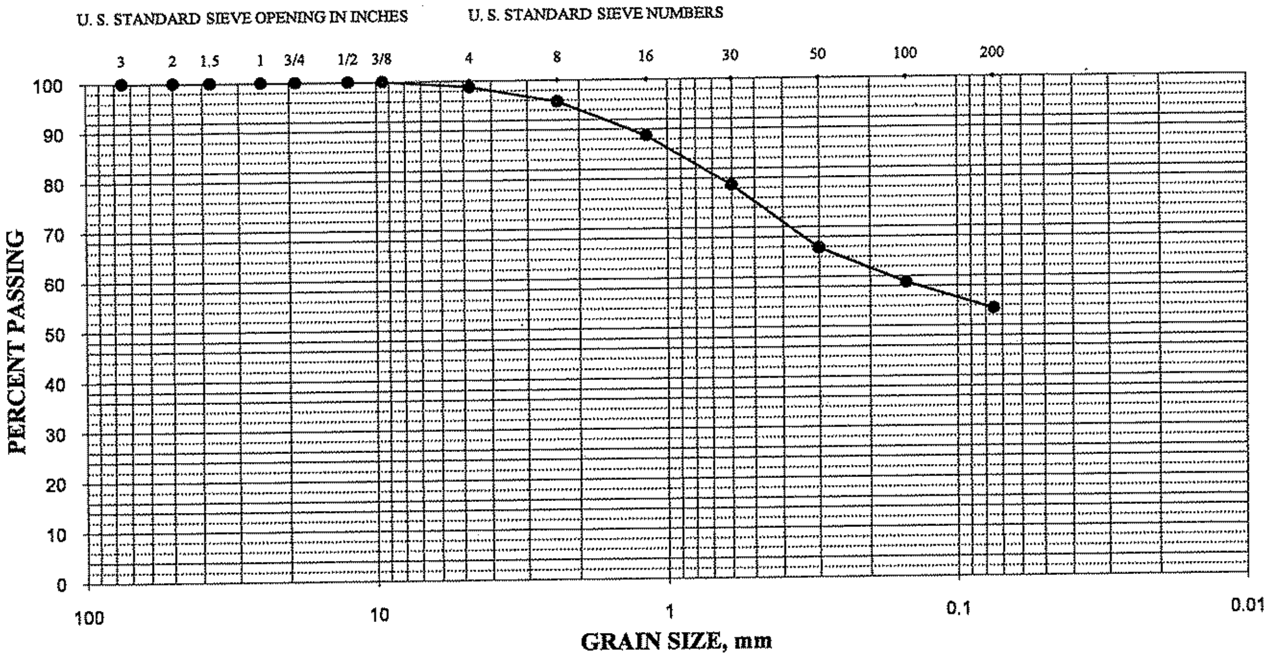
PARTICLE SIZE ANALYSIS

ASTM D 422-63/07; D 1140-06

Boring #4 @ 15.0 - 15.5'
Sandy Lean Clay (CL)

August 29, 2010

Sieve size	% Retained	% Passing
3" (75-mm)	0	100
2" (50-mm)	0	100
1.5" (37.5-mm)	0	100
1" (25-mm)	0	100
3/4" (19-mm)	0	100
1/2" (12.5-mm)	0	100
3/8" (9.5-mm)	0	100
#4 (4.75-mm)	1	99
#8 (2.36-mm)	4	96
#16 (1.18-mm)	11	89
#30 (600-µm)	21	79
#50 (300-µm)	34	66
#100 (150-µm)	41	59
#200 (75-µm)	47	53



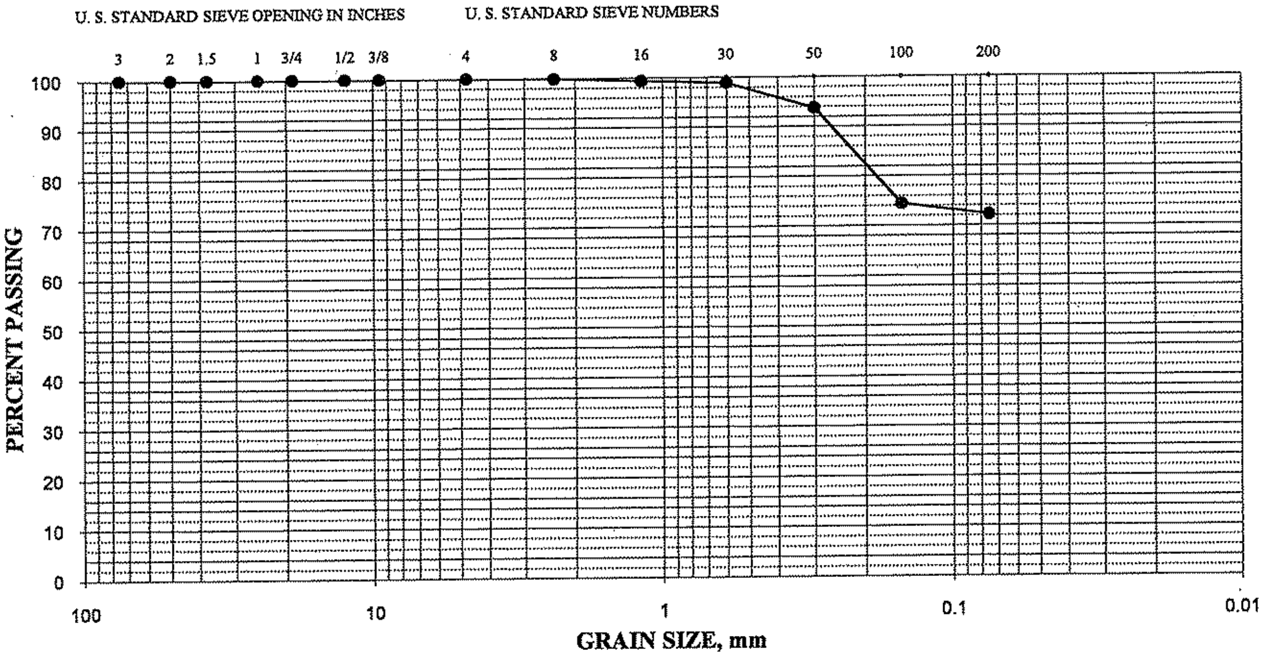
PARTICLE SIZE ANALYSIS

ASTM D 422-63/07; D 1140-06

Boring #7 @ 20.0 - 21.5'
Sandy Lean Clay (CL)

August 29, 2010

Sieve size	% Retained	% Passing
3" (75-mm)	0	100
2" (50-mm)	0	100
1.5" (37.5-mm)	0	100
1" (25-mm)	0	100
3/4" (19-mm)	0	100
1/2" (12.5-mm)	0	100
3/8" (9.5-mm)	0	100
#4 (4.75-mm)	0	100
#8 (2.36-mm)	0	100
#16 (1.18-mm)	1	99
#30 (600-µm)	1	99
#50 (300-µm)	6	94
#100 (150-µm)	26	74
#200 (75-µm)	28	72



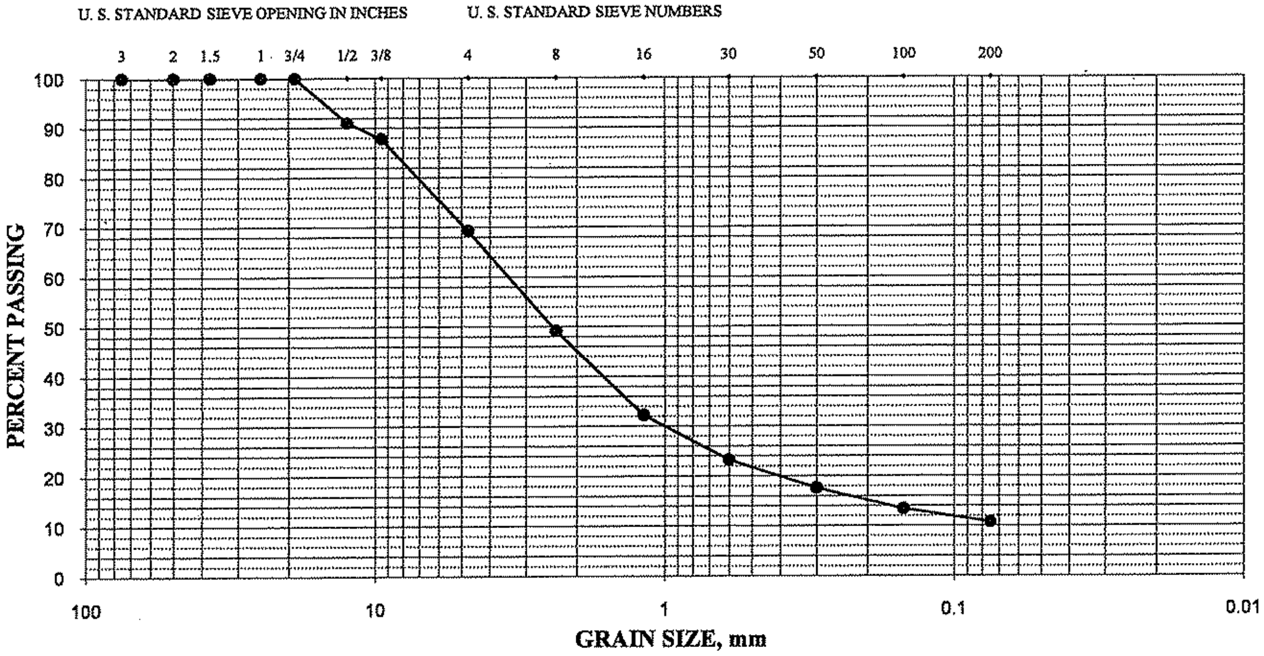
PARTICLE SIZE ANALYSIS

ASTM D 422-63/07; D 1140-06

Boring #8 @ 35.0 - 35.5'
Clayey Sand with Gravel (SC)

August 29, 2010

Sieve size	% Retained	% Passing
3" (75-mm)	0	100
2" (50-mm)	0	100
1.5" (37.5-mm)	0	100
1" (25-mm)	0	100
3/4" (19-mm)	0	100
1/2" (12.5-mm)	9	91
3/8" (9.5-mm)	12	88
#4 (4.75-mm)	31	69
#8 (2.36-mm)	51	49
#16 (1.18-mm)	68	32
#30 (600-µm)	77	23
#50 (300-µm)	82	18
#100 (150-µm)	87	13
#200 (75-µm)	89	11



Palm and Nipomo Parking Structure

SL-16264-SA

DIRECT SHEAR

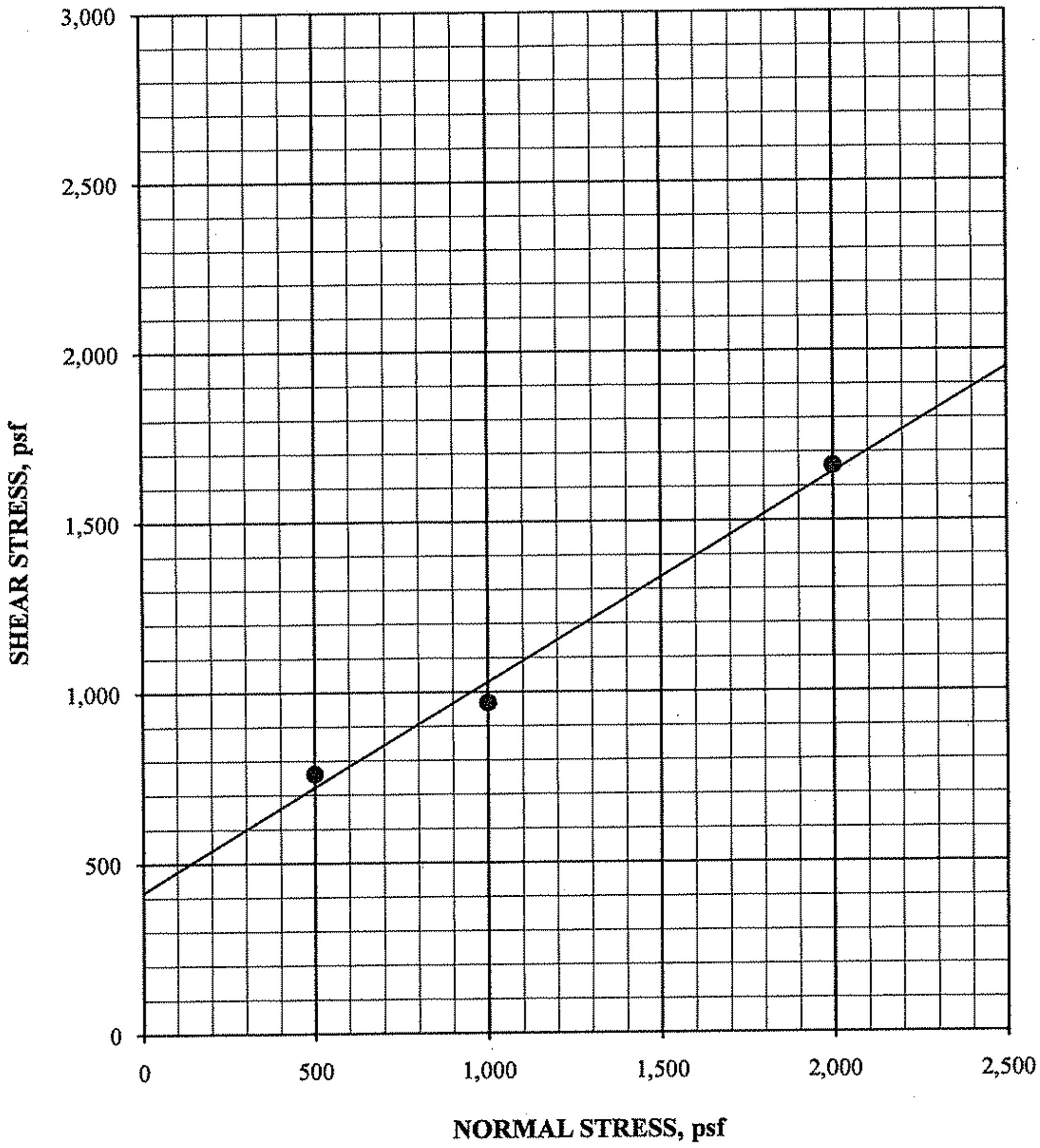
ASTM D 3080-04 (modified for consolidated, undrained conditions)

August 29, 2010

Boring #4 @ 6.0 - 6.5'
Sandy Lean Clay (CL)
Ring sample, saturated

INITIAL DRY DENSITY: 101.5 pcf
INITIAL MOISTURE CONTENT: 13.0 %
PEAK SHEAR ANGLE (Ø): 32°
COHESION (C): 415 psf

SHEAR vs. NORMAL STRESS



DIRECT SHEAR continued

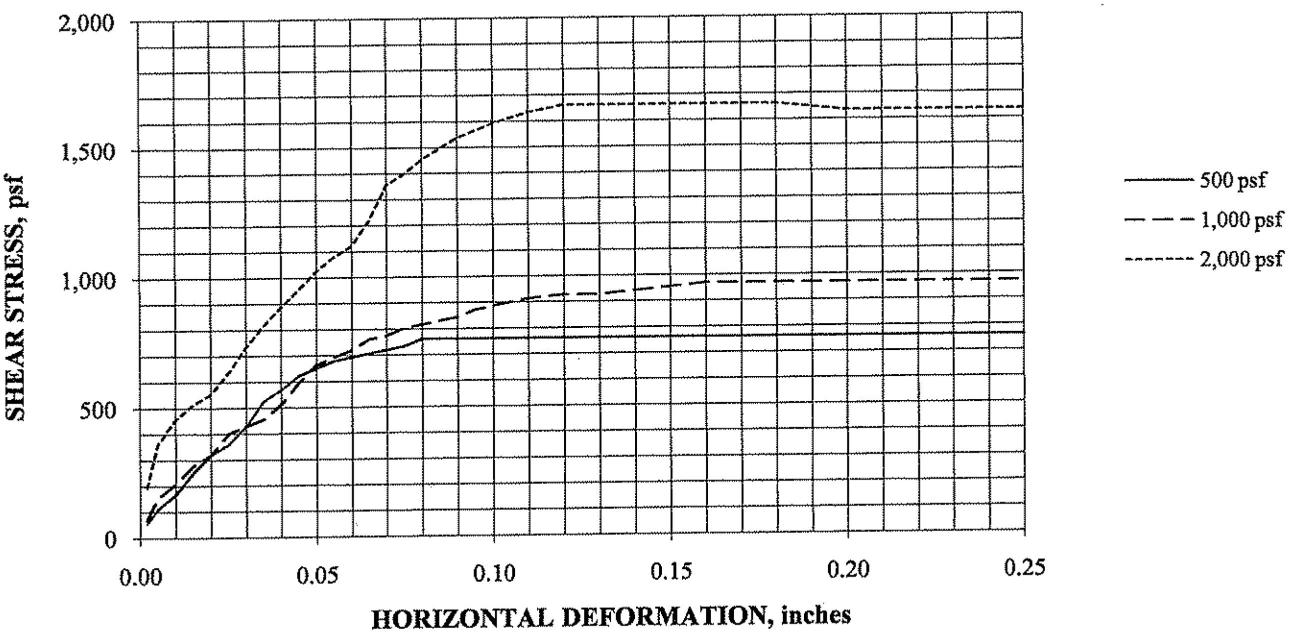
ASTM D 3080-04 (modified for consolidated, undrained conditions)

August 29, 2010

Boring #4 @ 6.0 - 6.5'
Sandy Lean Clay (CL)
Ring sample, saturated

SPECIFIC GRAVITY: 2.70 (assumed)

SAMPLE NO.:	1	2	3	AVERAGE
INITIAL				
WATER CONTENT, %	13.0	13.0	13.0	13.0
DRY DENSITY, pcf	102.0	103.9	98.7	101.5
SATURATION, %	53.8	56.4	49.6	53.3
VOID RATIO	0.652	0.622	0.707	0.660
DIAMETER, inches	2.375	2.375	2.375	
HEIGHT, inches	1.00	1.00	1.00	
AT TEST				
WATER CONTENT, %	25.3	22.1	22.0	
DRY DENSITY, pcf	103.9	106.8	106.0	
SATURATION, %	100.0	100.0	100.0	
VOID RATIO	0.621	0.578	0.589	
HEIGHT, inches	0.98	0.97	0.93	



Palm and Nipomo Parking Structure SL-16264-SA

UNCONFINED COMPRESSION ON COHESIVE SOIL

ASTM D 2166-06

August 29, 2010

Boring #7 @ 15.5 - 16'
Sandy Lean Clay (CL)
Ring Sample
COMPRESSIVE STRENGTH: 102 psi (14,636 psf)

Dry Density: 114.4 pcf
Moisture Content: 17.2%
Degree Saturation: 98.3%
Specific Gravity: 2.70 (assumed)
H/D Ratio: 2.13

TIME (MINUTES)	DEFORM, in (X 1000)	AXIAL STRAIN	AREA (SQ. IN.)	APPLIED LOAD (LBS)	STRENGTH (PSI)	STRENGTH (PSF)
0.5	21	0.0042	4.45	76	17	2,460
1.0	43	0.0085	4.47	145	32	4,673
1.5	64	0.0127	4.49	206	46	6,611
2.0	83	0.0164	4.50	253	56	8,088
2.5	102	0.0202	4.52	291	64	9,268
3.0	122	0.0242	4.54	325	72	10,309
3.5	142	0.0281	4.56	350	77	11,057
4.0	161	0.0319	4.58	370	81	11,643
4.5	181	0.0358	4.59	388	84	12,160
5.0	200	0.0396	4.61	405	88	12,643
5.5	220	0.0436	4.63	419	90	13,026
6.0	239	0.0473	4.65	431	93	13,346
6.5	260	0.0515	4.67	446	95	13,751
7.0	286	0.0566	4.70	458	98	14,044
7.5	314	0.0622	4.72	469	99	14,297
8.0	342	0.0677	4.75	476	100	14,424
8.5	370	0.0733	4.78	483	101	14,549
9.0	400	0.0792	4.81	489	102	14,636
9.5	433	0.0857	4.85	491	101	14,591
10.0	467	0.0925	4.88	479	98	14,130

UNCONFINED COMPRESSION ON COHESIVE SOIL

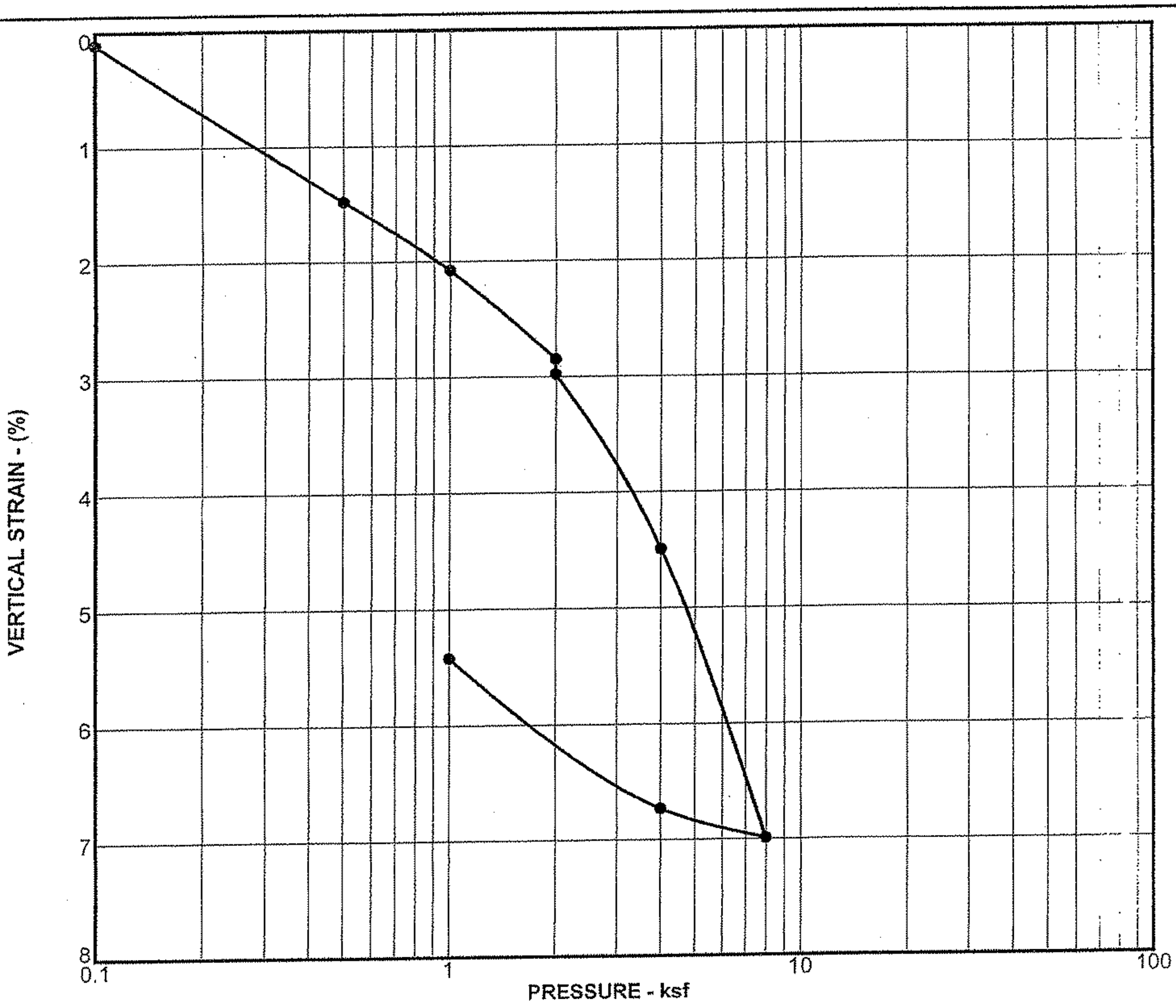
ASTM D 2166-06

August 29, 2010

Boring #8 @ 21.0 - 21.5'
Sandy Lean Clay (CL)
Ring Sample
COMPRESSIVE STRENGTH: 110 psi (15,886 psf)

Dry Density: 116.5 pcf
Moisture Content: 16.3%
Degree Saturation: 98.7%
Specific Gravity: 2.70 (assumed)
H/D Ratio: 1.69

TIME (MINUTES)	DEFORM, in (X 1000)	AXIAL STRAIN	AREA (SQ. IN.)	APPLIED LOAD (LBS)	STRENGTH (PSI)	STRENGTH (PSF)
0.5	27	0.0067	4.46	128	29	4,133
1.0	55	0.0137	4.49	243	54	7,790
1.5	84	0.0209	4.52	330	73	10,502
2.0	113	0.0282	4.56	386	85	12,193
2.5	143	0.0357	4.59	424	92	13,290
3.0	171	0.0426	4.63	456	99	14,190
3.5	200	0.0499	4.66	478	103	14,762
4.0	227	0.0566	4.70	498	106	15,271
4.5	256	0.0638	4.73	509	108	15,489
5.0	284	0.0708	4.77	521	109	15,736
5.5	312	0.0778	4.80	529	110	15,857
6.0	340	0.0848	4.84	534	110	15,886
6.5	370	0.0923	4.88	531	109	15,667
7.0	399	0.0995	4.92	504	102	14,752
7.5	426	0.1062	4.96	464	94	13,480
8.0	456	0.1137	5.00	416	83	11,984
8.5	483	0.1204	5.04	361	72	10,321
9.0	510	0.1272	5.08	325	64	9,220
9.5	529	0.1319	5.10	285	56	8,042
10.0	565	0.1409	5.16	241	47	6,730



Sample	B- 1
Depth	16.0 ft
Description	Clay
Classification	CL

	Initial	Final
Dry density, pcf	101.3	109.0
Water content, %	22.9	21.6
Sample height, in.	1	0.9301

KLEINFELDER

CONSOLIDATION TEST
PALM - NIPOMO SITE

SAN LUIS OBISPO, CALIFORNIA

PLATE

E-1

PROJECT NO. 54188-1

KLEINFELDER, INC. (559) 486-0750/ Fax (559)442-5081
GEOTECHNICAL, ENVIRONMENTAL & MATERIALS TESTING ENGINEERING

Unconfined Compression Test

Project Name:	Palm Nipomo	**Sample Date/Time:**	Not Provided
Project Number:	54188	**Test Date:**	5/3/05
Description:	Sandy Clay (CL) Olive Brown, Fine Grained		
Sample/Lab No.:	B2	**Client Ref No:**	Not Provided
Location:	B2	**Sample Depth:**	15'
Source:	Native	**Vol./Tons:**	Not Provided
Proposed Use:	Geotechnical		

Proving Ring No.: 3487 **lbs./div.:** 0.322 **Total Wt. Specimen Wet** 723.6

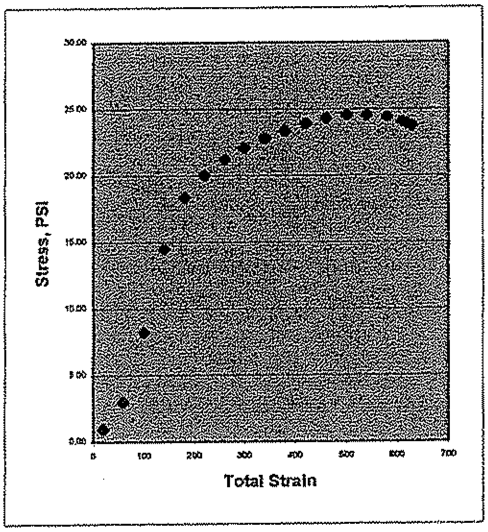
Water Content Determination

Tare No.	1	Water Content %:		Diameter, D_o, in.:	2.42
Wt. Specimen Wet + Tare:	823.6	Dry Wt. At 105°C:		Area, A_o, in^2:	4.60
Wt. Specimen Dry + Tare:		Unit Wt. Wet:	124.9	Height, H_o, in.:	4.8
Wt. Water:	823.6	Unit Wt. Dry:		Volume, V_o, in^3:	22.08
Wt. Tare:	100				
Wt. Specimen Dry:					

Corr. Area = A_o / 1-Unit Strain

Test Data

Load Dial (0.0001")	Axial Load	Total Strain	Unit Strain	Corrected Area, in.2	Stress, PSI
14	4.5	20	0.0042	4.62	0.98
43	13.8	60	0.0125	4.66	2.97
120	38.6	100	0.0208	4.70	8.23
213	68.6	140	0.0292	4.74	14.48
272	87.6	180	0.0375	4.78	18.33
300	96.6	220	0.0458	4.82	20.04
320	103.0	260	0.0542	4.86	21.19
336	108.2	300	0.0625	4.91	22.05
350	112.7	340	0.0708	4.95	22.77
362	116.6	380	0.0792	5.00	23.34
374	120.4	420	0.0875	5.04	23.89
384	123.6	460	0.0958	5.09	24.31
391	125.9	500	0.1042	5.13	24.52
395	127.2	540	0.1125	5.18	24.54
396	127.5	580	0.1208	5.23	24.37
393	126.5	610	0.1271	5.27	24.02
392	126.2	620	0.1292	5.28	23.90
390	125.6	630	0.1313	5.29	23.72



Failure Conditions: conical at middle of sample

q (psf) = 3533.9
C (psf) = 1767.0

Remarks:

Check Test: ● ASTM D2166

Technician: F. Portillo

Lab Coordinator: P. Geitner

KLEINFELDER, INC. (559) 486-0750/ Fax (559)442-5081
GEOTECHNICAL, ENVIRONMENTAL & MATERIALS TESTING ENGINEERING

Unconfined Compression Test

Project Name: Palm Nipomo
Sample Date/Time: Not Provided
Project Number: 54188
Test Date: 5/3/05
Description: Silty Clay (CL) Dark Brown, Fine Grained
Sample/Lab No.: B3
Client Ref No: Not Provided
Location: B3
Sample Depth: 15'
Source: Native
Vol./Tons: Not Provided
Proposed Use: Geotechnical
Proving Ring No.: 3487 **lbs./div.:** 0.322
Total Wt. Specimen Wet 732.6

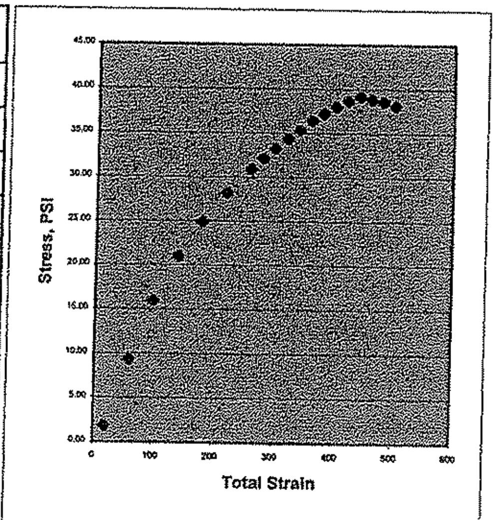
Water Content Determination

Tare No. 1
Water Content %:
Diameter, D_o, in.: 2.42
Wt. Specimen Wet + Tare: 832.6
Dry Wt. At 105°C:
Area, A_o, in^2: 4.60
Wt. Specimen Dry + Tare:
Unit Wt. Wet: 140.5
Height, H_o, in.: 4.32
Wt. Water: 832.6
Unit Wt. Dry:
Volume, V_o, in^3: 19.87
Wt. Tare: 100
w

Corr. Area = A_o / 1-Unit Strain

Test Data

Load Dial (0.0001")	Axial Load	Total Strain	Unit Strain	Corrected Area, in.2	Stress, PSI
25	8.1	20	0.0046	4.62	1.74
135	43.5	60	0.0139	4.66	9.32
233	75.0	100	0.0231	4.71	15.93
309	99.5	140	0.0324	4.75	20.93
371	119.5	180	0.0417	4.80	24.89
424	136.5	220	0.0509	4.85	28.17
470	151.3	260	0.0602	4.89	30.92
490	157.8	280	0.0648	4.92	32.08
510	164.2	300	0.0694	4.94	33.22
529	170.3	320	0.0741	4.97	34.29
548	176.5	340	0.0787	4.99	35.34
567	182.6	360	0.0833	5.02	36.39
583	187.7	380	0.0880	5.04	37.22
598	192.6	400	0.0926	5.07	37.99
612	197.1	420	0.0972	5.09	38.68
622	200.3	440	0.1019	5.12	39.11
621	200.0	460	0.1065	5.15	38.85
619	199.3	480	0.1111	5.17	38.52
615	198.0	500	0.1157	5.20	38.07



Failure Conditions: conical at middle of sample

q (psf) = 5631.7
C (psf) = 2815.8

Remarks:

Check Test: ● ASTM D2166

Technician: F. Portillo
Lab Coordinator: P. Geitner

APPENDIX D

Hazardous Materials Laboratory Test Results
Chain of Custody Documents

Oilfield Environmental and Compliance, INC.

Tim Conroy
Earth Systems Pacific
4378 Santa Fe Rd.
San Luis Obispo, CA 93401

02 September 2010

RE: Palm-Nipomo Parking Structure

Work Order: 1003032

Dear Client:

Enclosed is an analytical report for the above referenced project. The samples included in this report were received on 20-Aug-10 17:10 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Lisa Race

Laboratory Manager

Earth Systems Pacific 4378 Santa Fe Rd. San Luis Obispo CA, 93401	Project: Palm-Nipomo Parking Structure Project Number: SL-16264-SA Project Manager: Tim Conroy	**Reported:** 02-Sep-10 11:00

ANALYTICAL REPORT FOR SAMPLES

Sample ID	**Laboratory ID**	**Matrix**	**Date Sampled**	**Date Received**
B-4/2'	1003032-01	Solid	18-Aug-10 00:00	20-Aug-10 17:10
B-4/4'	1003032-02	Solid	18-Aug-10 00:00	20-Aug-10 17:10
B-4/9'	1003032-03	Solid	18-Aug-10 00:00	20-Aug-10 17:10
B-5/2'	1003032-04	Solid	18-Aug-10 00:00	20-Aug-10 17:10
B-5/5'	1003032-05	Solid	18-Aug-10 00:00	20-Aug-10 17:10
B-5/10'	1003032-06	Solid	18-Aug-10 00:00	20-Aug-10 17:10
B-6/3'	1003032-07	Solid	18-Aug-10 00:00	20-Aug-10 17:10
B-6/5'	1003032-08	Solid	18-Aug-10 00:00	20-Aug-10 17:10
B-6/10'	1003032-09	Solid	18-Aug-10 00:00	20-Aug-10 17:10

B-4/2'
1003032-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Metals by EPA 6000/7000 Series Methods									
Cadmium	**1.4**	0.85	mg/kg	5	A008544	30-Aug-10	01-Sep-10	EPA 6020	
Chromium	**280**	3.4	"	20	"	"	01-Sep-10	"	
Lead	**25**	0.85	"	5	"	"	01-Sep-10	"	
Nickel	**400**	3.4	"	20	"	"	01-Sep-10	"	
Zinc	**69**	2.1	"	5	"	"	01-Sep-10	"	
TEPH by GC FID									
TPH Diesel (C13-C22)	ND	10	mg/kg	1	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	ND	50	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*112 %*	*50-150*		"	"	"	"	

B-4/4'
1003032-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Metals by EPA 6000/7000 Series Methods									
Cadmium	**1.7**	0.92	mg/kg	5	A008544	30-Aug-10	01-Sep-10	EPA 6020	
Chromium	**200**	1.8	"	10	"	"	01-Sep-10	"	
Lead	**45**	0.92	"	5	"	"	01-Sep-10	"	
Nickel	**250**	1.8	"	10	"	"	01-Sep-10	"	
Zinc	**89**	2.3	"	5	"	"	01-Sep-10	"	
TEPH by GC FID									
TPH Diesel (C13-C22)	ND	10	mg/kg	1	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	**140**	50	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*107 %*	*50-150*		"	"	"	"	

Earth Systems Pacific 4378 Santa Fe Rd. San Luis Obispo CA, 93401	Project: Palm-Nipomo Parking Structure Project Number: SL-16264-SA Project Manager: Tim Conroy	**Reported:** 02-Sep-10 11:00

B-4/9'

1003032-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TEPH by GC FID									
TPH Diesel (C13-C22)	ND	10	mg/kg	1	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	ND	50	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*108 %*	*50-150*		"	"	"	"	

B-5/2'

1003032-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Metals by EPA 6000/7000 Series Methods									
Cadmium	**1.3**	0.90	mg/kg	5	A008544	30-Aug-10	01-Sep-10	EPA 6020	
Chromium	**120**	1.8	"	10	"	"	01-Sep-10	"	
Lead	**14**	0.90	"	5	"	"	01-Sep-10	"	
Nickel	**160**	1.8	"	10	"	"	01-Sep-10	"	
Zinc	**65**	2.2	"	5	"	"	01-Sep-10	"	
TEPH by GC FID									
TPH Diesel (C13-C22)	ND	10	mg/kg	1	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	ND	50	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*112 %*	*50-150*		"	"	"	"	

B-5/5'

1003032-05 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TEPH by GC FID									
TPH Diesel (C13-C22)	ND	10	mg/kg	1	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	ND	50	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*107 %*	*50-150*		"	"	"	"	

B-5/10'

1003032-06 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TEPH by GC FID									
TPH Diesel (C13-C22)	ND	10	mg/kg	1	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	ND	50	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*107 %*	*50-150*		"	"	"	"	

B-6/3'

1003032-07 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Metals by EPA 6000/7000 Series Methods									
Cadmium	**1.5**	0.97	mg/kg	5	A008544	30-Aug-10	01-Sep-10	EPA 6020	
Chromium	**130**	0.97	"	"	"	"	"	"	
Lead	**27**	0.97	"	"	"	"	"	"	
Nickel	**210**	1.9	"	10	"	"	01-Sep-10	"	
Zinc	**66**	2.4	"	5	"	"	01-Sep-10	"	
TEPH by GC FID									
TPH Diesel (C13-C22)	ND	50	mg/kg	5	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	**3700**	250	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*99.3 %*	*50-150*		"	"	"	"	

B-6/5'

1003032-08 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TEPH by GC FID									
TPH Diesel (C13-C22)	ND	10	mg/kg	1	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	**71**	50	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*106 %*	*50-150*		"	"	"	"	

Earth Systems Pacific
4378 Santa Fe Rd.
San Luis Obispo CA, 93401

Project: Palm-Nipomo Parking Structure
Project Number: SL-16264-SA
Project Manager: Tim Conroy

Reported:
02-Sep-10 11:00

B-6/10'

1003032-09 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TEPH by GC FID									
TPH Diesel (C13-C22)	ND	10	mg/kg	1	A008439	24-Aug-10	24-Aug-10	EPA 8015	
TPH Motor Oil (C23-C40)	ND	50	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*106 %*	*50-150*		"	"	"	"	

Total Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A008544 - EPA 3050B										
Blank (A008544-BLK1)				Prepared: 30-Aug-10 Analyzed: 01-Sep-10						
Cadmium	ND	0.20	mg/kg							
Chromium	ND	0.20	"							
Lead	ND	0.20	"							
Nickel	ND	0.20	"							
Zinc	ND	0.50	"							
LCS (A008544-BS1)				Prepared: 30-Aug-10 Analyzed: 01-Sep-10						
Cadmium	15.3	0.20	mg/kg	15.0		102	85-115			
Chromium	14.8	0.20	"	15.0		98.9	85-115			
Lead	15.2	0.20	"	15.0		101	85-115			
Nickel	15.5	0.20	"	15.0		103	85-115			
Zinc	16.5	0.50	"	15.0		110	85-115			
LCS Dup (A008544-BSD1)				Prepared: 30-Aug-10 Analyzed: 01-Sep-10						
Cadmium	15.2	0.20	mg/kg	15.0		101	85-115	0.777	20	
Chromium	15.1	0.20	"	15.0		101	85-115	1.88	20	
Lead	15.5	0.20	"	15.0		103	85-115	2.10	20	
Nickel	15.8	0.20	"	15.0		105	85-115	2.20	20	
Zinc	14.2	0.50	"	15.0		94.5	85-115	14.9	20	
Duplicate (A008544-DUP1)	**Source: 1003032-01**			Prepared: 30-Aug-10 Analyzed: 01-Sep-10						
Cadmium	1.83	1.0	mg/kg		1.39			27.4	20	QM-04
Chromium	167	4.0	"		278			49.8	20	QM-04
Lead	31.8	1.0	"		24.7			25.0	20	QM-04
Nickel	264	4.0	"		403			41.7	20	QM-04
Zinc	93.5	2.5	"		68.7			30.5	20	QM-04
Matrix Spike (A008544-MS1)	**Source: 1003032-01**			Prepared: 30-Aug-10 Analyzed: 01-Sep-10						
Cadmium	295	3.4	mg/kg	255	1.39	115	79-119			
Chromium	439	8.5	"	255	278	63.2	84-118			QM-06
Lead	314	3.4	"	255	24.7	114	60-136			
Nickel	603	8.5	"	255	403	78.3	77-123			
Zinc	233	8.5	"	255	68.7	64.4	56-141			

Total Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A008544 - EPA 3050B										
Matrix Spike Dup (A008544-MSD1)		**Source: 1003032-01**		Prepared: 30-Aug-10 Analyzed: 01-Sep-10						
Cadmium	324	4.0	mg/kg	299	1.39	108	79-119	6.44	20	
Chromium	493	4.0	"	299	278	71.8	84-118	12.8	20	QM-06
Lead	357	4.0	"	299	24.7	111	60-136	2.36	20	
Nickel	570	10	"	299	403	55.6	77-123	33.8	20	QM-06
Zinc	306	10	"	299	68.7	79.4	56-141	20.8	20	QM-06

Earth Systems Pacific 4378 Santa Fe Rd. San Luis Obispo CA, 93401	Project: Palm-Nipomo Parking Structure Project Number: SL-16264-SA Project Manager: Tim Conroy	**Reported:** 02-Sep-10 11:00

TEPH by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A008439 - EPA 3550B										
Blank (A008439-BLK1)				Prepared & Analyzed: 24-Aug-10						
TPH Diesel (C13-C22)	ND	10	mg/kg							
TPH Motor Oil (C23-C40)	ND	50	"							
Surrogate: o-Terphenyl	*52.1*		"	*50.0*		*104*	*50-150*			
LCS (A008439-BS1)				Prepared & Analyzed: 24-Aug-10						
TPH Diesel (C13-C22)	459	10	mg/kg	500		91.9	70-130			
Surrogate: o-Terphenyl	*52.1*		"	*50.0*		*104*	*50-150*			
LCS Dup (A008439-BSD1)				Prepared & Analyzed: 24-Aug-10						
TPH Diesel (C13-C22)	464	10	mg/kg	500		92.7	70-130	0.902	20	
Surrogate: o-Terphenyl	*54.3*		"	*50.0*		*109*	*50-150*			
Duplicate (A008439-DUP1)	**Source: 1003032-01**			Prepared: 24-Aug-10 Analyzed: 25-Aug-10						
TPH Diesel (C13-C22)	ND	10	mg/kg		ND				20	
TPH Motor Oil (C23-C40)	20.9	50	"		21.7			3.62	20	
Surrogate: o-Terphenyl	*55.7*		"	*50.0*		*111*	*50-150*			
Matrix Spike (A008439-MS1)	**Source: 1003032-01**			Prepared: 24-Aug-10 Analyzed: 25-Aug-10						
TPH Diesel (C13-C22)	550	10	mg/kg	500	ND	110	70-130			
Surrogate: o-Terphenyl	*53.3*		"	*50.0*		*107*	*50-150*			
Matrix Spike Dup (A008439-MSD1)	**Source: 1003032-01**			Prepared: 24-Aug-10 Analyzed: 25-Aug-10						
TPH Diesel (C13-C22)	539	10	mg/kg	500	ND	108	70-130	2.16	20	
Surrogate: o-Terphenyl	*52.6*		"	*50.0*		*105*	*50-150*			

Notes and Definitions

QM-06	Due to noted non-homogeneity of the QC sample matrix, the MS/MSD did not provide reliable results for accuracy and precision. Sample results for the QC batch were accepted based on LCS/LCSD percent recoveries and RPD values.
QM-04	Visual evaluation of the sample indicates the RPD is above the control limit due to a non-homogeneous sample matrix.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Oilfield Environmental and Compliance
307 Roemer Way, Suite 300, Santa Maria, CA 93454
phone: (805) 922-4772 fax: (805) 925-3376

Page 1 of 1

CHAIN OF CUSTODY

Company: Earth Systems Pacific
Street Address: 4378 Santa Fe Rd
City: SLO **State:** CA **Zip:** 93401
Telephone: 544-3276 **Fax:** 544-3276
Report To: Tim Conroy **Sampler:** Tim Conroy

Project Name: Palm - Nipomo Parking Structure
Site: SL-16264-SA
Comments

Turnaround Time: ☒ 10 Work Days ☐ 5 Work Days ☐ 3 Work Days ☐ 2 Work Days ☐ 1 Work Day ☐ 2-8 Hours

Lab Sample ID	Date/Time Sampled	Matrix	# of Cont.	Client Sample ID	TPHd/TPHg 8015M		LUFT METALS							Remarks
1003032-1A	8/18/10	SOIL	1	B-4/2'	X		X							
2A			1	B-4/4' TC	X		X							
3A			1	B-4/9' TC	X									
4A			1	B-5/2'	X		X							
5A			1	B-5/5'	X									
6A			1	B-5/10'	X									
7A			1	B-6/3'	X		X							
8A			1	B-6/5'	X									
9A	↓	↓	1	B-6/10'	X									

Relinquished By: T. Conroy **Date:** 8/19/10 **Time:** 1600 **Received By:** **Date:** 8-20-10 **Time:** 1630
Relinquished By: **Date:** 8-20-10 **Time:** 1710 **Received By:** Sherry Mobley **Date:** 8-20-10 **Time:** 1710
Relinquished By: **Date:** **Time:** **Received By:** **Date:** **Time:**

Sample integrity upon receipt: Method of shipment
Samples received cold y / n Samples received intact y / n
Custody seals y / n

Comments

OEC SAMPLE RECEIPT

Rev. 01/15/10

CLIENT: Earth Systems **OEC ID #:** 1003032 **Temp:** 5 °C
Acceptable Range: 0°C to 6°C

COC RECEIVED DATE/TIME: 8-20-10 1710

RECEIPT LOGIN DATE/TIME: 8-23-10 11:18

REFRIGERATOR(s): 8

SAMPLE TRANSPORT, RECEIPT, CONDITION & PRESERVATION:

- ☑ OEC Courier/Sampler
- ☐ Delivery(Other than OEC Courier)
- ☑ Samples Received on Ice
- ☐ Samples Received Outside Temp. Range*
- ☐ Samples Direct from field (Outside Temp)
- ☐ After-Hours Outside Drop-off [Brought Inside]

(Initials/Date/Time):

	Yes	No	N/A
COC document(s) received with samples	☑	☐*	☐
Correct containers for analysis requested	☑	☐*	☐
Container(s) intact and in good condition	☑	☐*	☐
Container label(s) consistent with COC	☑	☐*	☐
OEC preservative added (**note std ID)	☐**	☐	☑
Proper preservation on sample label(s)	☐	☐	☑
VOA containers free of headspace	☐	☐*	☑
Tedlar Bags free of condensation	☐	☐*	☑

(*) PROBLEM CHAIN FORM NEEDED

Custody Seals (circle): Present / [✓ Absent]
Samples / Coolers
Intact / Broken*

Method of Shipment & Tracking #(if applicable):

(**) OEC Preservative ID:

Dissolved Metals Filtration: (Date/Init/Preserve ID)

CONTAINERS, COC CHANGES AND/OR CORRECTIONS

CHANGES AUTHORIZED BY:

OEC ID	Client ID ***If blank, refer to CoC	Container Description	Preservative	ResCl /pH	Matrix	Date/Time Sampled ***	Comments / Remarks / Condition Notes, Etc.
1-9A		1-Soil tube ea	—	—	Solid		

RECEIPT LOGIN BY: SM

RECEIPT REVIEWED BY:

Appendix B

Cultural Resources Inventory Report and Native American Correspondence

---

From:	Cohen, Rachel <rcohen@slocity.org>
Sent:	Wednesday, August 02, 2017 2:12 PM
To:	Salinantribe
Cc:	Shauna Callery
Subject:	RE: AB 52 notices: Palm Nipomo Parking Garage

Dear Ms. Dunton-

Thank you for your e-mail. We appreciate receiving your comments regarding the Palm Nipomo Parking Garage project. We have noted your comments and they will be taken into consideration as part of the environmental review process. Rincon, the environmental consultants for the project, have informed me that an archaeological survey has been completed for the site as part of the evaluation.

If you have any further comments or questions, please do not hesitate to contact me.

Sincerely,

Rachel Cohen
Associate Planner
Community Development
919 Palm Street, San Luis Obispo, CA 93401-3218 E rcohen@slocity.org T 805.781.7574 slocity.org

-----Original Message-----
From: Salinantribe [mailto:salinantribe@aol.com]
Sent: Monday, July 31, 2017 12:59 PM
To: Cohen, Rachel <rcohen@slocity.org>
Subject: AB 52 notices

Greetings Rachel, I have reviewed the two proposed development projects. I have concerns about both projects. He first project is the proposed housing development at 791 Orcutt Rd. Because the property is surrounded by two creeks and undeveloped we have concerns there could be unknown resources at the location. We would like to see a phase I archaeological study be done. If the survey is positive for resources we would then request more studies be done. Any ground disturbance activities for studies or development, must be monitored by a cultural resource specialist from this tribe be on site. If there is a negative result we would request that since there maybe buried unknown resources we would request that we are able to do spot monitoring. To make sure unknown recourses such as burials are not being impacted. Now for the second project this is concerning the new Palm Nipomo Parking Structure. Because of the projects location to mission San Luis Obispo de Tolosa and San Luis creek we realize there may also be known and unknown resources at this site. Even though most of the property has been previously disturbed there may still be intact buried resources. You would know more if resources have ever been identified at that location or not. I would request that a phase I archaeological survey be done even with the minimal ground that is not covered. And again when the asphalt is removed and any after any other demolition. This would insure intact or disturbed resources can be identified. If resources are identified then we would request that all further ground disturbing activities be monitored by a cultural resource specialist from this tribe. Thanks so much, Patti Dunton, Tribal Administrator

Sent from my iPhone

Cultural Resources Inventory for the Palm-Nipomo Parking Structure, San Luis Obispo, California

Barry A. Price, Keith Warren,
Aubrie Morlet, and Damon M. Haydu

Prepared By

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Submitted To
City of San Luis Obispo
Department of Public Works
955 Morro Street
San Luis Obispo, CA 93401

June 2011
draft

USGS San Luis Obispo 7.5′ quad
1.5 acres
Keywords: Mission San Luis Obispo; 610 Monterey Street; 614 Monterey Street (Heyd Property)

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1
INTRODUCTION AND PROJECT DESCRIPTION

The City of San Luis Obispo (City) plans to build a new multilevel parking garage in the downtown area between Palm and Monterey streets at Nipomo Street. The proposed five-level structure will encompass approximately 1.1 acres at the site of an existing City-owned surface parking lot. The new structure's height, excluding elevator towers, is envisioned to be 33 feet from Monterey Street, 36 feet from Nipomo Street, and 44 feet from Palm Street; the site would be excavated to a maximum depth of 185 feet. Vehicle entry would be provided from either Palm or Nipomo Street; no vehicle access would be provided to Monterey Street, although walkways would connect to that corridor.

The City's goals for the new parking structure are to:

- Provide a minimum of 400 parking spaces;
- Accommodate cultural and/or residential uses on Monterey Street in front of the structure;
- Include a public use area at the corner of Nipomo and Monterey streets;
- Provide a direct pedestrian connection from the structure to Monterey Street;
- Preserve the large oak tree on site;
- Incorporate green technologies into the structure; and
- Consider the contextual sensitivity of surrounding properties (Rincon Consultants, Inc. 2010).

This project is located within Section 35 of Township 30 South, Range 12 East, as depicted on the U.S. Geological Survey 7.5-minute San Luis Obispo, California, topographic quadrangle (Figure 1-1). The project area is in the Downtown Historic District, and several properties on the City's Master List of Historic Resources (updated April 2010) and List of Contributing Historic Resources (updated April 2010) are adjacent on Monterey and Nipomo streets. The parking structure's height would be stepped back toward the center of the property to reduce the visual impact as seen from adjoining residential properties to the northeast, including the Master List Hays-Latimer Adobe at 642 Monterey Street. The adjacent residence at 614 Monterey Street, a Contributing Historic Resource, can be retained with the current design until the property along Monterey Street is redeveloped; however, much of the residence's rear yard would be devoted to the parking structure. Structures slated for demolition to accommodate the proposed parking structure include the residences at 633 and 633½ Palm Street and the rear garage at 610 Monterey Street (Figure 1-2). Ultimately, plans for development of the property may include demolition of the buildings at 610 and 614 Monterey.

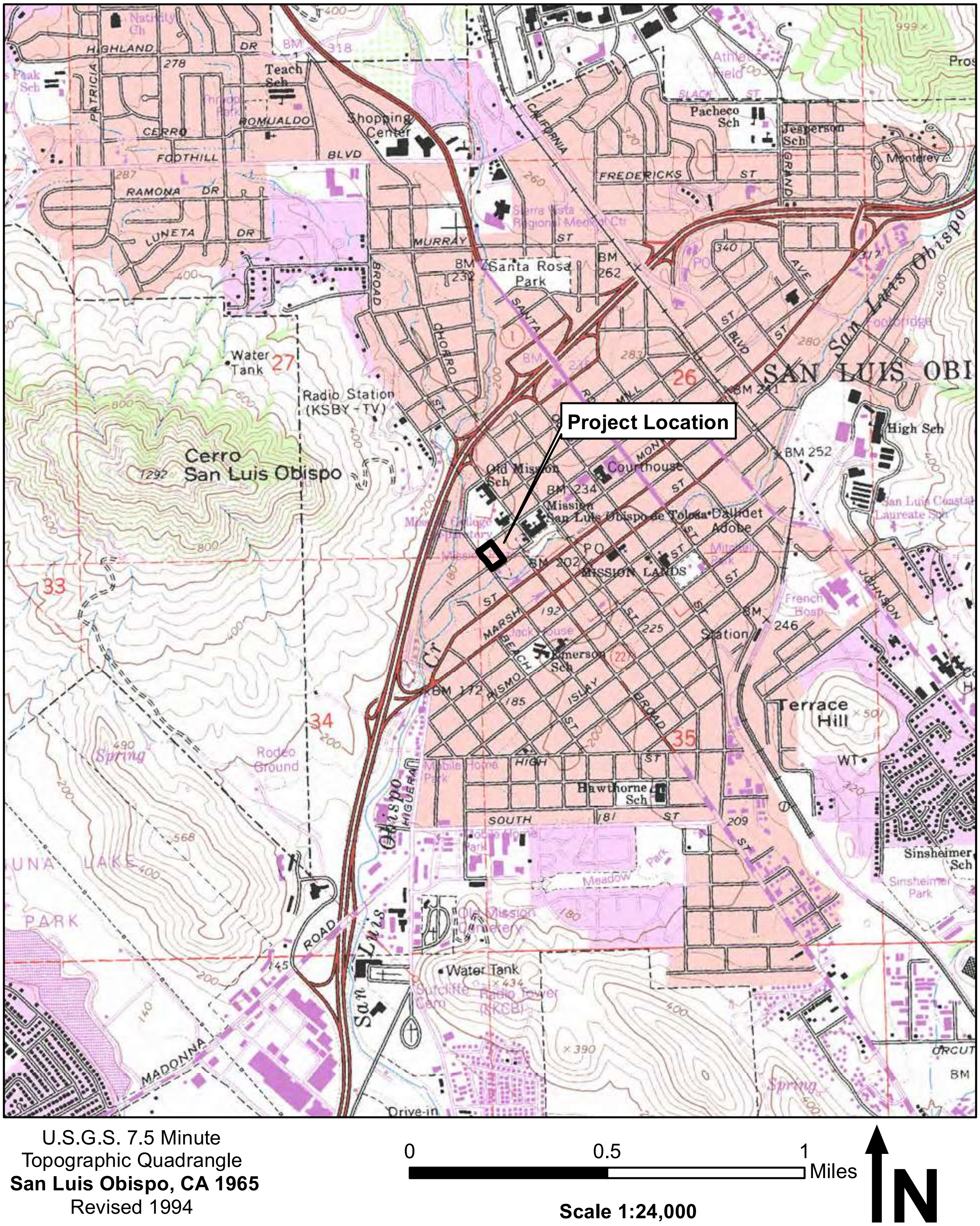

Figure 1-1 Study Location in central San Luis Obispo County, California.

Figure 1-2 Detail of building location at the corner of Palm and Nipomo streets.

Because the project entails ground disturbance and building demolition, and has the potential to affect significant archaeological deposits and architectural resources, it is subject to the cultural resource requirements of the California Environmental Quality Act (CEQA), which mandate that state and local agencies consider the impacts of their projects on the natural and cultural environment. In addition, the City of San Luis Obispo General Plan as well as the City's *Archaeological Resource Preservation Program Guidelines* and *Historic Preservation Program Guidelines* set forth provisions regarding the protection of cultural resources.

The first step in complying with these laws, regulations, and standards is the identification of cultural resources within the project area. To this end, Rincon Consultants retained Applied EarthWorks, Inc. (Æ) to perform a cultural resources investigation to determine if any archaeological sites or historic structures lie within project boundaries. The investigation included a records search at the Central Coast Information Center, archival and historical research, field survey of the property, predictive modeling of archaeological resources, evaluation of any potentially significant historic structures on the property, and assessment of potential impacts to the surrounding Downtown Historic District. Recommendations resulting from this study as well as additional compliance obligations and procedures essentially depend on the presence (or absence) of significant resources within the project area.

Æ completed the first phase of the study in January and February 2011. Following consultation with Rincon and the City on the initial results, Æ completed additional research in June 2011. Barry Price served as Project Manager and Principal in Charge of the study. Keith Warren served as the Project Archaeologist and Aubrie Morlet was the Architectural Historian. Damon Haydu assisted with the impact analysis and report preparation. Personnel qualifications are provided in Appendix A.

2
CULTURAL CONTEXT

2.1 PREHISTORIC CONTEXT

Recent studies regarding the prehistory and archaeology of the Central Coast have been conducted by Bertrando and Levulett (2004), Fitzgerald (2000), Glassow (1996), Jones et al. (1994), Jones and Waugh (1995), and Mikkelsen et al. (2000). *California Prehistory: Colonization, Culture and Complexity* (Jones and Klar 2007), the most recent comprehensive synthesis of California prehistory, addresses many questions relevant to the Central Coast.

Current evidence suggests that Native American use of the Central Coast region began during the late Pleistocene, prior to 9000 B.C. Local evidence from this earliest period of occupation is limited to isolated fluted projectile points discovered near Santa Margarita (Gibson 1995) and Nipomo (Mills et al. 2005), although more conclusive evidence comes from the surrounding region and the offshore Channel Islands (Erlandson 1994; Lebow et al. 2001). Fluted points may be as much as 12,000–13,000 years old, and speak to the great antiquity of Native land use in the area.

More conclusive evidence of human occupation has been found at a few coastal sites dating to the early Holocene, prior to 6500 B.C. The paucity of sites and materials from this time, termed the Paleocoastal Period by Moratto (1984), suggests that population density was low and settlements were impermanent. People used relatively simple technology to procure plant foods, shellfish, and a limited array of vertebrate species (Breschini and Haversat 1982; Carter 1941; Greenwood 1972; Jones and Waugh 1995; Jones et al. 1994; King 1990).

Well-developed shell middens, numerous milling implements, and fishing tools provide the evidence for more intensive and settled human occupation after 6500 B.C. The period is best defined by the predominance of handstones and milling slabs, indicating a reliance on hard seeds and other plant foods; flaked stone tools include leaf-shaped bifaces, oval bifacial knives, choppers, and scrapers. Hammerstones, fishing equipment (grooved net sinkers and bipointed gorges), and *Olivella* beads round out the artifact assemblage.

Cultural changes after 3500 B.C. are thought to be a response to environmental shifts, rising sea levels, and an increase in population. Diagnostic artifacts of this period include large side-notched, square stemmed, and contracting stemmed projectile points as well as *Olivella* beads. Although milling slabs and handstones continued as the primary plant processing tools, mortars and pestles were added to the artifact inventory, probably indicating systematic use of acorns (Glassow 1996; Glassow and Wilcoxon 1988). Trade and exchange also increased in importance, as evidenced by exotic shell beads and obsidian materials in midden deposits (Jones et al. 1994).

Prehistoric technology and economy became markedly more complex after 600 B.C. The artifact assemblage contains shell fishhooks and other fishing gear, saucer-type *Olivella* beads, and contracting stemmed projectile points. The use of handstones and milling slabs continued during this period, but pestles and mortars occur in greater proportions (Jones and Waugh 1995:121).

After A.D. 500 the *tomol*, or plank canoe, was developed on the coast (King 1990), and the bow and arrow was adopted in the interior. Subsistence practices emphasized fish and acorns, with greater use of seasonal resources and the first attempts at food storage (Glassow 1996; Glassow and Wilcoxon 1988; King 1990). Continuation of trade relationships is evident in the increased number and diversity of obsidian items and beads.

The period after A.D. 1000 was a time of emergent political complexity, development of social ranking, and the rapid development of craft specialization along the Santa Barbara Channel. Similar evidence is lacking, however, in San Luis Obispo County. In this area settlement appears to have shifted away from the coast, perhaps reflecting adaptations to warmer temperatures and changes in available resources on the coast (Jones et al. 1994). Artifact assemblages contain a mixture of earlier artifact types such as stemmed projectile points, milling slabs, handstones, bowl mortars, and *Olivella* beads. Moreover, the absence of imported obsidian after A.D. 1000 suggests a change in trade relationships that is likely associated with the shift in settlement patterns (Jones et al. 1994). Native populations in San Luis Obispo County may have decreased during this time as villages became temporary hunting camps and native inhabitants increasingly relied on terrestrial mammals for subsistence.

2.2 ETHNOGRAPHIC CONTEXT

San Luis Obispo is within the area historically occupied by the Obispeño Chumash, the northernmost of the Chumash people of California (Gibson 1991; Greenwood 1978; Kroeber 1976). The Obispeño occupied land from the Pacific coast east to the Coast Ranges and from the Santa Maria River north to approximately Point Estero. Chumash and Obispeño material culture, social organization, traditions and rituals, and cosmology have been described by many scholars including Blackburn (1975), Grant (1993), Greenwood (1978), Hudson and Blackburn (1982–1987), Hudson et al. (1978), Hudson and Underhay (1978), Johnson (1988), King (1990), Woodman et al. (1991).

Various lines of historical and archaeological evidence indicate that the general population density in the northern Chumash region was far less at the time of contact than in earlier prehistoric times, and the neophyte population at Mission San Luis Obispo was never as high as at the more southerly missions at Santa Barbara, Lompoc, and Santa Ynez (Greenwood 1978). The Indian neophyte population at Mission San Luis Obispo reached its peak of 919 in 1803, as most of the Obispeño abandoned their native villages and moved into the mission or its outposts.

2.3 GENERAL HISTORIC CONTEXT: BRIEF HISTORY OF SAN LUIS OBISPO

2.3.1 Spanish Incursion—The Mission Era (1772–1850)

The era of Chumash contact with Europeans began with the initial Spanish exploration of California in 1542. In 1769 the Portolá expedition traveled overland from San Diego to Monterey, journeying inland to Morro Bay, and passed through the project area again on their return voyage in 1770. Mission San Luis Obispo de Tolosa was founded in 1772, the first Spanish establishment in Chumash territory.

The first structures at the mission comprised a temporary church constructed of timber and tule, a granary, and a log-and-tule house for the soldiers of the mission guard. In 1773, Francisco Palóu brought five families of Baja California Indians to the mission, and huts were erected to house them. A permanent church was built in 1774. Several fires necessitated construction of a new church, which was completed in 1793; that structure still stands today, dominating the landscape of Mission Plaza and Chorro Street (Figure 2-1). A cemetery is located outside of the eastern wall of the chapel. Scholars estimate that more than 2,600 Native Americans and a few Hispanics were buried in this cemetery before it was closed shortly after 1853. Additions to the eastern side of the church in 1893 and 1948 uncovered burials and Native American artifacts (Kocher 1972; Tognazzini 1993).

The mission vineyard, which was south of San Luis Obispo Creek, approximately 0.25 mile southeast of the current project area, was surrounded by a stone wall that roughly followed Garden, Buchon, and Santa Rosa streets. This was the second-largest vineyard in the California mission chain, consisting of 44.66 acres of grapes planted prior to 1800 (Bertrando and Bertrando 2003; Kocher 1972).

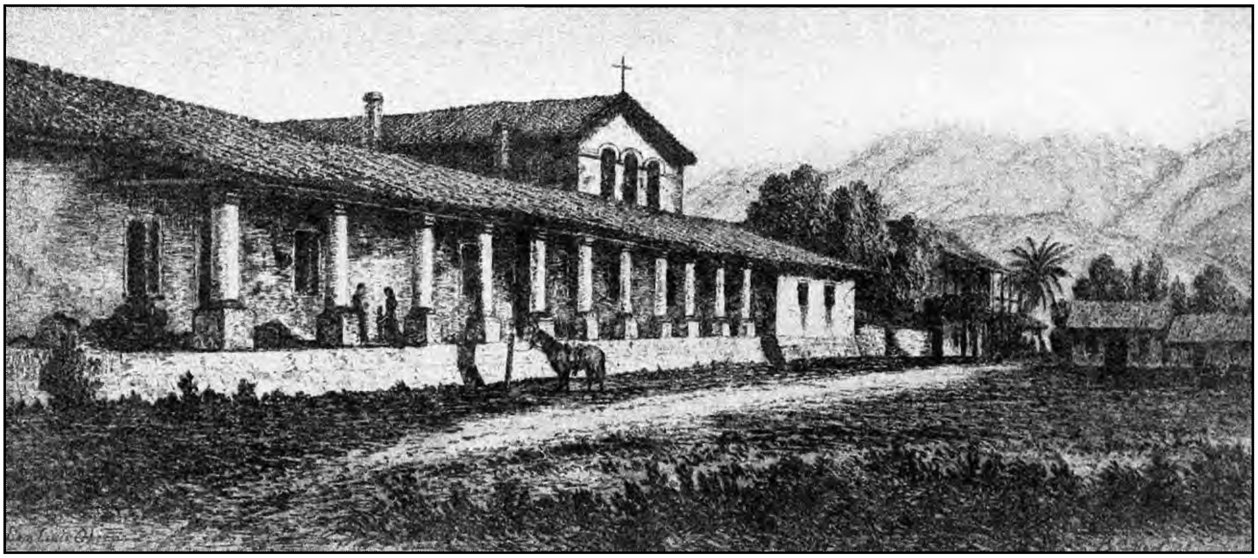

Figure 2-1 Drawing of Mission San Luis Obispo (1793).

Other construction projects completed in the 1790s in the vicinity of the current project site included living quarters for the padres, dwellings and workshops for five guards and their families, and the first grist mill (Kocher 1972; Webb 1952). The water-powered mill was reportedly located "further up Monterey Street from the large reservoir, to the left of the road and by the side of San Luis Creek" (*Monitor* 1938). Another source pinpoints its location on San Luis Obispo Creek "where the 'White House' now stands." The White House, built in 1912, was located at 860 Higuera Street. When the remains of the mill were uncovered, one millstone purportedly was still lying by the creek and the old mill had a "fine stone floor" (Mission San Luis Obispo 1937).

In 1800, Father Martinez began an aggressive construction program that would complete and beautify the mission quadrangle. Construction over the following 11 years included a weaving room, a wall to enclose the quadrangle, more than 80 permanent mission Indian houses (measuring 20 feet by 17 feet) made of adobe and roofed with clay tiles, dormitories, a hospital, a second grist mill, additional reservoirs, a community kitchen, two granaries, and a corral

(Englehardt 1933; Kocher 1972; Mitchell 1930; *Monitor* 1938; Webb 1952). Because there are no known maps of the mission facilities, the exact location of these structures is unknown. However, construction and archaeological work in the city has uncovered pieces to this puzzle. Most recently, a portion of one of the mission reservoirs was uncovered on Chorro Street, between Palm and Mill streets, during trenching for a sewer line lateral. A portion of the mission orchard wall was uncovered near the Broad Street northbound on-ramp to U.S. Highway 101. One of the Native American dormitories may have been uncovered north of the project site across Palm Street (Parker 2005). The mission Indian housing was described as two low rows of buildings along both sides of Chorro Street. One row of these dwellings formed the outer wall of the cemetery, and the dwellings are purported to have remained in place until 1875. A simple adobe wall with a gateway to the cemetery connected this row of Indian houses with the vestibule, or portico, of the church building (*Monitor* 1938). When the Quintana Building (now the Blackstone Hotel) was constructed in 1876, remains that have been identified as mission-era soap and tallow vats were reportedly uncovered near the entrance of 986 Chorro Street (Webb 1952).

In 1822 California became a Mexican Territory, and the mission lands gradually became private ranchos via new Mexican land grants. In 1834, the proclamation for secularization was issued, and the mission was essentially disbanded. By that time, “missionization,” disease, and destruction of the native subsistence base had virtually eliminated the Chumash and their culture. By 1838, only 170 Native Americans, including Chumash, Salinans, and Yokuts remained at the mission (Greenwood 1978).

2.3.2 Early Settlement (1850–1875)

When California achieved statehood in 1850, immigrants were mainly interested in the riches to be found in the gold fields of the Sierra Nevada. Newcomers were able to find some semblance of the culture they left behind in the northern part of the state and the San Francisco Bay area, but Southern California was seen as a wild, untamed country full of lawlessness. As a result, the population of the newly formed San Luis Obispo County grew slowly. The 1850 census lists 336 residents, but ethnicity is not recorded. However, over 230 were born in California, suggesting Native American and/or Mexican heritage. Fifty-five were born in Mexico, 20 were born in America, and 26 were European immigrants. The population makeup must have remained unchanged through most of that decade, because in 1856, Henry Miller observed about 150 houses, inhabited principally by Native Americans and Mexicans (Miller 1856).

A cholera epidemic in the 1850s decimated the Native American population in the region. At least 70 Native Americans are said to have died from the disease, and many who were not affected fled the area and were not seen again. The effect of this disaster is noticeable in the 1860 census, which lists only 162 Indians within a town population of 1,808 residents.

Disaster hit the county from 1862 to 1864 when great droughts caused the death of hundreds of thousands of sheep and cattle, bankrupting many of the Hispanic families who had acquired large ranchos. These families were forced to sell out to Euro-American entrepreneurs who were arriving in the area (Krieger 1988). Those new arrivals spurred development within the sleepy town. With the influx of Euro-American landholders, growth came rapidly, and by 1868 housing demand far exceeded supply.

The Roman Catholic Church held titles to large sections of land such as the mission orchard and vineyard. By the 1870s, the demand for town lots was overwhelming. Seeing an opportunity to finance their extensive building repair program, the Mission Parish began selling the Mission vineyard lands for subdivision. Robert R. Harris's 1874 map depicts how the area was platted after sale of the mission lands. By 1875, the entire vineyard had been sold (Kocher 1972).

2.3.3 Growth of Industry and Commerce (1875–1900)

In 1875, 2,500 residents were concentrated in a 4-square-mile area, with the outskirts of the town sparsely settled. The City waterworks maintained a 2-mile open flume that carried water from springs above the town to a stone and cement reservoir. This water was then distributed through 5 miles of pipes that ran below all principal streets. The architecture was described as "rather primitive but of late marked improvement" (Cooper 1875:17). There were more buildings of a more permanent nature, and many who had been renting were now building. Rental housing was in demand, and there was a limited supply; these had "reasonable rents at $10 to $25/month according to size and location" (Cooper 1875). The city waterworks serviced residences near the town center and those elsewhere were supplied from individual wells. In 1875, Paulson reported four hotels, six livery stables, and one paper—the *Weekly Tribune*. He told how the city "commands trade up and down the coast and at least 100 miles to the interior" (Paulson 1875).

Access to the outside world was through the Coast Line Stage. This company carried U.S. mail for Wells Fargo and Company to points north and south of the city. Passenger coaches also ran from the city to the harbor, and a tri-weekly stage between the city and the town of Cambria provided residents with a connection to the communities of Morro, Old Creek, and Cayucos. Additionally, a telegraph from San Francisco to Santa Barbara ran through San Luis Obispo, with an additional line from the city to the port (Cooper 1875).

The narrow-gauge Pacific Coast Railway from Port Harford to Los Alamos, which first ran in 1876, made San Luis Obispo the commercial center of the region and provided access for passenger steamer service. The City of San Luis Obispo was incorporated on March 20, 1876, and a codified system of ordinances was prepared and enacted. At the time of the 1880 census, there were 2,500 residents in the city. Just 3 years later, that number was reported to have increased to 3,000 (Angel 1883).

2.3.4 Population Growth and Modernization (1900–1945)

The 1900 United States census enumerated just over 3,000 residents in the City of San Luis Obispo. Several events spurred growth of the city in the early twentieth century. By 1901 the city was served by the Pacific Coast Railway and mainline Southern Pacific (Krieger 1988). The completion of a rail line that allowed travel and shipment of goods to the south meant greater opportunities for selling and buying of commodities. The establishment of California Polytechnic State University (Cal Poly) in 1903 as a vocational school on 281 acres also was a significant draw for the city.

Between 1909 and 1926, many changes related to the increase in the ownership of automobiles and the ease of travel were taking place in the city. When the new state highway was opened for travel in 1915, San Luis Obispo was a prime location for travelers to rest on the long trip from San Francisco to Los Angeles. Commercial ventures catering to travelers, including hotels, motels, restaurants, and service stations, cropped up around the city (City of San Luis Obispo 1983; Krieger 1988; Palmer et al. 2001). These services were primarily located along Monterey and Higuera streets.

By the 1930 Census, the city's population had surpassed 8,300. Additional growth occurred at the end of World War II, when military installations established in response to the war stimulated the local economy. Between 1940 and 1941, the U.S. Army converted Camp Merriam, a 2,000-acre National Guard base founded in 1928, to an infantry and artillery training camp known as Camp San Luis Obispo. Many of those soldiers, who remembered the mild climate and gentle hills of the Central Coast, returned permanently to San Luis Obispo after the war (Krieger 1988:102–104).

2.3.5 Downtown Growth (1945–present)

Many of the returning soldiers were instrumental in the modernization of San Luis Obispo in the second half of the twentieth century. Joe Navoni and a group of veterans took over the City Garbage Company and bought trucks that could handle dumpsters. Archie Stinson, who used the GI Bill to study at Cal Poly, started a poultry processing plant that soon supplied most stores in San Luis Obispo and Santa Barbara counties. On December 2, 1946, Southwest Airlines established airmail and passenger service out of the small county airport on the edge of town (McKeen 1988). In 1958, Alex Madonna and his wife Phyllis built the landmark Madonna Inn.

The influx of new commerce meant that the landscape of downtown was changing. Older buildings, including many residences, were demolished to make way for more modern structures and parking lots. City landmarks such as the Clock Tower at the intersection of Chorro and Higuera streets and the Mission Mill guesthouse were demolished in the 1950s and 1960s. Many of the remaining adobes were also lost during this period.

Citizens, government, and downtown businesses spent a considerable amount of the 1950s arguing about what to do about San Luis Obispo Creek. Many citizens believed that the creek, then a trash-filled eyesore, could be cleaned up and a lovely plaza could be developed in front of the mission. Downtown businessmen, hungry for parking spaces for their customers, thought the creek was a waste of space and encouraged the city to pave it over (McKeen 1988). The issue would not be decided until 1968, when voters approved the closing of Monterey Street and creation of the plaza that exists there today (McKeen 1988; Tritenbach 1989).

Even though business leaders lost out on parking spaces at the mission, many other city parking lots were established in the downtown core. These include the Court Street lot (which has recently been redeveloped), the Kozak lot at the corner of Palm and Morro streets, and the parking lot on the current project site.

3
METHODS

3.1 ARCHIVAL RESEARCH

Æ obtained a records search for downtown San Luis Obispo from the Central Coast Information Center of the California Historical Resources Information System at the University of California, Santa Barbara in January 2011. The records search identified previously recorded cultural resources and the survey coverage of prior investigations within and adjacent to the current project area (Appendix B). Sources examined during the records search included maps pinpointing cultural resources locations, survey coverage maps, and site record and report files. The State Historic Property Data Files, National Register of Historic Places, National Register of Determined Eligible Properties, California Points of Historic Interest, California Office of Historic Preservation Archaeological Determinations of Eligibility, and the California Department of Transportation State and Local Bridge Surveys were also analyzed. Additionally, Æ has a large in-house library of sources which include city directories, Great Registers, various historical maps, and newspapers.

3.2 ARCHAEOLOGICAL RESOURCES SURVEY

Æ performed a pedestrian survey of the project area on January 18, 2011. The project parcel was surveyed on foot, and the surrounding environment and structures also were examined. Sanborn Fire Insurance maps were consulted in the field to help identify areas of historic land use. Digital photographs were taken with a Cannon Powershot A1100 IS.

3.3 ARCHITECTURAL RESOURCES SURVEY

Æ Architectural Historian Aubrie Morlet conducted the initial architectural resources survey of the project site on January 21, 2011; on June 7, 2011, she conducted a follow-up survey. These studies included archival research, building documentation, and an evaluation of structures within the project area. Sources reviewed in support of the evaluation included Applications for San Luis Obispo Building Permits (1906–1937), MS034, Special Collections, Robert E. Kennedy Library, California Polytechnic State University, San Luis Obispo; City of San Luis Obispo Building Permits; City of San Luis Obispo Community Development Files on Historical Properties; U.S. Census Records and Index to Registration Affidavits; and city directories on file, History Room, San Luis Obispo City-County Library.

The buildings were recorded on a California Department of Parks and Recreation Primary Record (523A) and Building, Structure, and Object Record (523B). These forms describe each building's features and summarize the evaluations of significance. Photographs were taken with a Sony DSC-H55 digital camera. Completed forms and photograph records are provided in Appendix C of this report.

4
FINDINGS

4.1 RECORDS SEARCH

The records search revealed that 18 previous studies have been conducted within the general project area and five archaeological sites have been identified. A search of the inventories of the State Historic Property Data Files, National Register of Historic Places, National Register of Determined Eligible Properties, California Historical Landmarks, California Points of Historic Interest, California OHP Archaeological Determinations of Eligibility and the California Department of Transportation State and Local Bridge Surveys yielded eight property evaluations within the search area.

Three archaeological sites have been identified previously within or immediately adjacent to the current project area. CA-SLO-1890/H was recorded in 1998 following investigations at 963 Broad Street, the location of a wood frame house built between 1886 and 1891. The site consisted of adobe remains, cobblestone foundations, and tile fragments. Numerous post-1880 bone, glass, and ceramics artifacts were also noted (Singer 1998). CA-SLO-2206H is the site of the 1876 Academy of the Immaculate Heart, located on Block 36, immediately north of the current project area. Construction monitoring in 2002 revealed trash pits, a privy, a well, sheet refuse, and structural remains associated with the convent (Parker 2002). CA-SLO-2341H covered a city-wide water line installation project undertaken in 2003. The project was largely in the street right-of-way and much of the project area was subject to prior disturbances. A black powder flask (1790–1860) was discovered at the intersection of Palm and Nipomo streets; however, no other archaeological resources were indentified adjacent to the current project area (Rowe 2003).

In December 1996, at the request of the City of San Luis Obispo, Bertrando and Bertrando Research Consultants prepared *Cultural Resource Investigation of the 906 Palm Street, Palm/Nipomo Parking Lot, San Luis Obispo, CA*. The project area consisted of approximately 0.5 acre (Lot 1) at the corner of Palm and Nipomo and is encompassed by the current project area. Background research demonstrated that the block was occupied as early as 1855 when Roberto Villa owned an adobe on Lot 2 at the corner of Monterey and Nipomo streets (Bertrando and Bertrando 1996:5). The Bertrandos conducted a pedestrian survey of the area, which was largely inconclusive. Approximately 90 percent of the parcel was covered in asphalt, concrete, standing structures, or dense cover. Marine shellfish was observed and historical material was noted as abundant on the surface but appeared to be associated with recently removed structures.

After the removal of asphalt and concrete in May 1997, the parcel was reinspected by Bertrando and Bertrando (1997a). The inspection found that disturbances did not generally penetrate deeper than 6 inches below the exposed surface. Historical material was noted in situ in the upper 12 inches and a generally intact transition to subsoil was noted at around 12 inches deep (Bertrando and Bertrando 1997a). Because of the potential for archaeological remains to be preserved in the area, the Bertrandos recommended that construction be halted in the event that historical remains were exposed during construction until the cultural material could be assessed by a qualified archaeologist.

In April 1999, trenching for a water line took place on the property. The trenching exposed a rock foundation that subsequently was inspected by the Bertrandos. The rock foundation, constructed of dacite, appeared to be associated with the circa 1905 house removed in 1996 (Bertrando and Bertrando 1997b). An intensive surface survey, also undertaken after the ground had been cleared, identified additional historical artifacts, including glass, ceramics, nails, shell, and *tejas* (ceramic roof tiles). These were thought to be associated with twentieth century structures—a residence (1905–1996) and welding shop (1926–1996).

4.2 SITE-SPECIFIC CONTEXT

Æ completed limited historical research to determine the specific history of the proposed project area, including the sequence of prior development, in order to understand the historic context of the area and develop a predictive model of archeological resources. Proposed project plans were overlaid on the Sanborn fire insurance maps and the area of potential impact was assessed. The results of that property-specific research are described below.

Properties lining Monterey and Higuera streets between Nipomo and Santa Rosa streets were rapidly developed in the 1860s for both commercial and residential purposes. Residential development, often dependent on transportation, grew out of this core part of town but remained close to local businesses. An act passed by the California State Legislature on March 23, 1868 gave the Common Council of the Town of San Luis Obispo the right to sell and confirm ownership of land. The formal survey of town lands was conducted by Robert R. Harris and Hubert C. Ward in 1870. This survey provided the foundation for individual land petitions. Most Petitions for Grant included a sketch map that was elaborated upon by the petitioner. Many early petitions were denied by the Common Council due to lack of improvements or evidence of settlement. As such, most of the petitions beginning in 1870 stated when the property was first settled and the value of improvements.

The Harris and Ward Map established Block 9, bound by Palm, Broad, Monterey, and Nipomo streets, divided into six lots. The owners are identified as: Lot 1, illegible; Lot 2, Roberto Villa; Lot 3, S. A. Pollard; Lot 4, Dr. W. W. Hays; Lot 5, J. Stannseich; and Lot 6, Ramona Wilson. The current project area encompasses Lots 1 and 2. With the exception of Lots 1 and 2, the properties stretch from Monterey Street to Palm Street.

Roberto Villa presented his petition for Lot 2 in 1870. Villa's accompanying sketch map (Figure 4-1) shows an adobe dwelling which he valued at $200. Villa indicated that he settled on the land in 1855, making his the earliest recorded occupation of Block 9 (Bertrando and Bertrando 1996:np). Villa's property and a solitary structure also appear on an 1859 petition for land that also depicts a fence on Lot 1 (Bertrando and Bertrando 1996:5).

Other petitions for Grant in Block 9 revealed that Samuel A. Pollard, Justice of the Peace, settled on Lot 3 in 1868 and made improvements valued at $2,000 (Bertrando and Bertrando 1996:5). Ramona Wilson, widow of Captain John Wilson, settled Lot 6 in 1855, with improvements valued at $2,000.

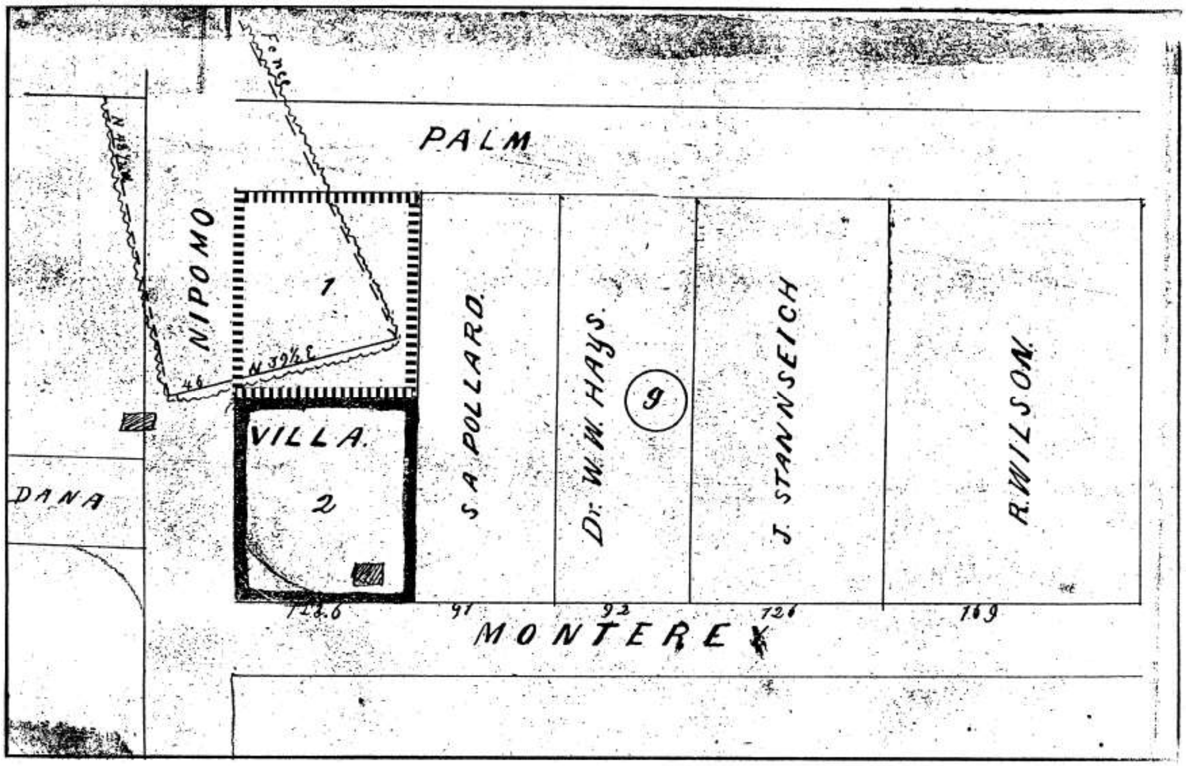

Figure 4-1 **Sketch map provided with the Petition to Grant for Block 9, Lot 2 filed on July 19, 1870; Roberto Villa used the 1870 Harris Map as justification for ownership.**

Although his petition only read "valuable improvements," San Luis Obispo's first resident physician, Dr. W. W. Hays, was granted deed to Lot 4, where he settled in an existing adobe dwelling in the late 1860s. John Stannseich does not indicate a date of settlement but does value land improvements at $1,000. No information was located in the petitions regarding Lot 1.

By the time R. R. Harris prepared his Map of San Luis Obispo County in 1874, the project area had been divided into four parcels. No structures are depicted, but Villa owns the eastern half of Lot 2 at 614 Monterey. Judge McDowell K. Venable (San Luis Obispo County Judge from 1871 to 1879) purchased Lot 3 from Pollard and the western half of Lot 2 (610 Monterey) from Villa. This map indicates that Lot 1 was owned by Brizzolara. No other ownership changes had occurred.

During the last quarter of the nineteenth century, the project site experienced little change while Monterey Street, to the east, continued to develop with commercial and residential infill. Several hotels, small businesses, and individual dwellings were located on both the north and south sides of the street. The San Luis Obispo Mission Church remained on the north side of Monterey between Broad and Chorro streets, with secular development on the south. Within the project area, dwellings at 610, 614, and 630 Monterey Street exhibited small additions to the rears of the buildings. The 1886, 1888, and 1891 Sanborn Maps show the three residences within the project area, including an outhouse at the rear of the adobe on Lot 3. James Moore operated a dyeing and cleaning business in a shed at 614 Monterey Street. Three small ancillary buildings, one a shed, were present at 610 Monterey Street. All of these buildings are no longer present on the project site.

Shortly after the turn of the twentieth century, the city began improving streets by grading roads and filling in low places with gravel (Curry 1968). Higuera Street was widened to 70 feet between Nipomo and Osos streets. New development throughout the city followed these improvements. Within the project area, the 1903 Sanborn map depicts a house moved to Lot 1 between 1891 and 1903 and the 1909 map includes an associated outbuilding which may be an outhouse or shed. During this same time, James Moore moved his dyeing and cleaning business from 614 Monterey Street to the enlarged residence at 610 Monterey Street. Moore would continue to operate his business at this location until after 1925. Between 1903 and 1905 a single family dwelling was constructed at 976 Nipomo, on Palm Street. The property, Lot 1 of Block 9, had remained in the Brizzolara name since 1874. Widow Marial Brizzolara and her son Joe Ghigliotti, Chief of the City of San Luis Obispo Fire Department, resided on the property at least through 1936. By 1926 the outbuildings on Lot 2 are no longer extant. and by 1957 the house on Lot 1 was moved to the south of the lot and a welding shop was placed at the original location of the house.

During the 1930s, the project area began to experience a greater physical change. In 1930, the Harmony Valley Creamery Association opened a processing plant on the corner of Nipomo and Dana streets. This plant provided fresh milk, butter, and cheese to residents of the city. By 1938, the Brizzolara dwelling had been moved south, closer to Monterey Street, and converted into a duplex (972-970 Nipomo Street). A new business, a welding shop, was added to the property on the previous location of the dwelling. The two dwellings at 610 and 614 Monterey Street were demolished. Louis R. Heyd, an engineer for the Union Oil Company, built a new dwelling at 614 Monterey Street in 1935. Heyd's family had owned the property since 1900; in 1933 it was occupied by the son and his family. Klien J. Williams, a creamery worker, constructed a new dwelling across the street from the creamery at 610 Monterey Street in 1937. Both Heyd and Williams remained on the property beyond 1975.

New surface parking lots established in the 1960s and 70s frequently replaced older buildings and historic uses of the properties. Within the project area, the weather-boarded adobe dwelling at 630 Monterey Street was demolished to clear space for the parking lot that exists today. More recently, the Brizzolara dwelling at 970 Nipomo was relocated to 576 Buchon Street and the old welding shop was demolished.

4.3 ADOBE CONSTRUCTION IN SAN LUIS OBISPO

Adobe construction had its origins in the Spanish-Mission period and is commonly seen throughout the California Central Coast. Founded in 1772, Mission San Luis Obispo de Tolosa is located on Monterey Street between Broad and Chorro. The current church and convento wing were built in 1794. The two gable-front and side-gable buildings were simple in style with thick, whitewashed adobe walls and straight barrel mission tile on the roofs. The portico on the church front and colonnades on the wing shaded the entrances to the buildings in traditional fashion.

Following Mexican independence from Spain in 1821, the San Luis Obispo Mission was secularized and sold to Captain John Wilson. The military, followed by the county, used the mission buildings for civic purposes such as a jail and courthouse. In 1855 the U.S. Land Commission returned the mission property to the Catholic Church. By that time a thriving community had become established, fanning out from the central mission property. The Sauer

Adobe, Walter Murray Adobe, and the Overland Stage Company Adobe were located around the mission, along with numerous other residential and commercial buildings (Figure 4-2). Monterey Street, which ran past the front of the mission, was one of four main streets during the early town development.

Figure 4-2 Old Overland Stage Company Adobe located at Dana and Nipomo; this building was demolished for construction of the Harmony Valley Creamery buildings by 1930.

In 1886, the French Hotel, Swiss American Hotel, two boardinghouses, several small businesses, and 16 residential dwellings were located on Monterey Street between Chorro and Nipomo (Figure 4-3). During the 1880s, several adobe buildings, such as the Sauer Adobe and two dwellings at 642 and 630 Monterey, all built during the 1860s, were covered with wood siding. It is likely that many other adobe buildings existed but were demolished during the first half of the twentieth century for new development downtown. Only a handful of examples remain today outside the mission property.

Secularization had taken a toll on the adobe mission buildings and in 1872 the church replaced the tile roof shingles with wood in hopes of slowing deterioration. During the early 1880s, the convento wing colonnades and the church front portico/belfry were removed due to extensive damage. Soon after, the exterior adobe walls were covered with wood siding and a New England style belfry with steeple was added, in keeping with the tastes of the time. An additional wing was added to the east facade of the church in 1893. By the start of the twentieth century, the mission had achieved an interesting Victorian-influenced appearance (Figure 4-4).

The Mission San Luis Obispo de Tolosa underwent a restoration project in 1933–1934. The project, managed by Father John Harnett, returned the property to the earlier mission appearance (Figure 4-5). This included removal of the steeple, re-exposing the adobe bricks, reconstruction of the portico/belfry and colonnade, and new roof tiles. The restoration was the culmination of a 10-year fundraising effort following a fire in the sacristy in 1920. Public outreach is a part of any fundraising effort, and those living and working near the mission would have been especially aware of the proposed project. The actual restoration activity would have been very visible and

Figure 4-3 Monterey Street with mission church, French Hotel, and Fulton Market in the 1870s.

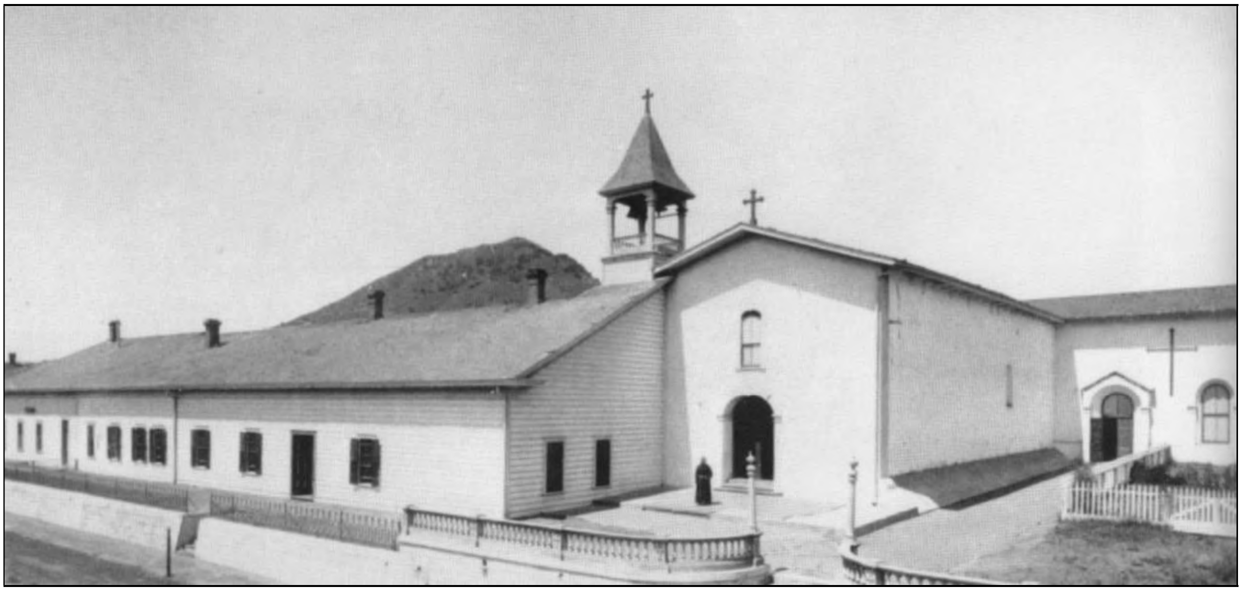

Figure 4-4 Mission church and convento wing after the American-influenced alterations in the 1880s.

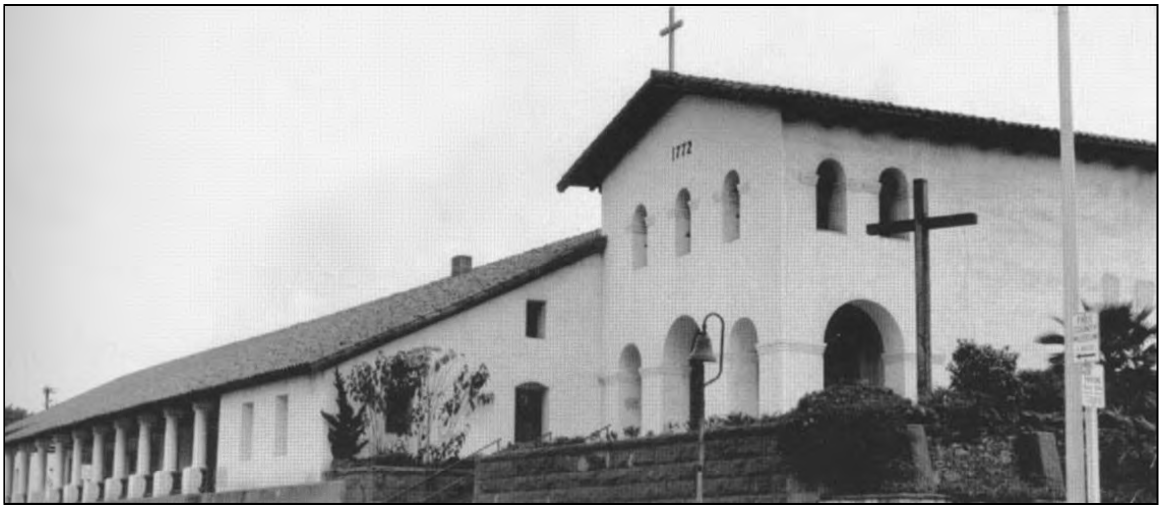

Figure 4-5 Restored Mission San Luis Obispo de Tolosa.

may have even created a renewed interest in adobe construction. Within 2 years, a new adobe dwelling was built at 614 Monterey Street. At this time adobe was not a frequently utilized material; however, a renewed interest in adobe building occurred during the mid to late 1930s, most notably in projects carried out by the Depression-era Works Progress Administration (WPA). The New Deal program funded construction of adobe homes in residential tracts for families relocating from the dustbowl. These projects appear to have occurred mostly in the southwestern United States, including southern California. The WPA built the County Courthouse and other projects in San Luis Obispo, but it does not appear that the program undertook any adobe residential projects on the Central Coast.

4.4 ARCHAEOLOGICAL RESOURCES SURVEY

The study area is highly developed with residential structures, landscaped islands, sidewalks, curbs, and paved parking lots. Little exposed ground surface was present. However, along the Monterey Street boundary of the project parcel, several exposed strips of native soil contained historic-period debris, including glass and ceramic fragments, ferrous metal items, and shell. In addition, these same constituents were observed in the yards of adjacent properties along Monterey Street. Surface observations were insufficient to determine whether these constituents represent intact archaeological deposits; however, the surrounding landform along the Monterey Street portion of the project area appears to be fairly intact. Background research shows that the property within the project area was occupied as least as early as 1855, when Roberto Villa owned land at the corner of Monterey and Nipomo streets. Historical maps including the Sanborn fire insurance maps demonstrate the potential for backyard artifact-filled features such as outhouses, one of which is clearly noted on the 1886 map. Previous investigations noted intact archaeological features in the general area, and overall site integrity is anticipated to be good. Since the area was utilized as early as the mid-nineteenth century, intact historical deposits are anticipated and could include sheet midden, refuse deposits, structural remains (i.e., foundations, walls, footings, piers, builders trenches and cellars), hollow or pit features (trash pits, privies, wells, cisterns, utility vaults) and fill layers. Resources associated with the mission era may include residences, agricultural features such as granaries, holding pens, threshing floors, aqueducts, or refuse deposits.

4.5 ARCHITECTURAL RESOURCES SURVEY

As illustrated in Figure 4-6, in 1950 Lot 3 contained 633 and 633½ Palm Street and 630, 632, and 630½ Monterey Street. This map reflects all of the buildings that once stood on the property. The majority of the lot is now utilized for parking and only 633 and 633½ Palm Street remain.

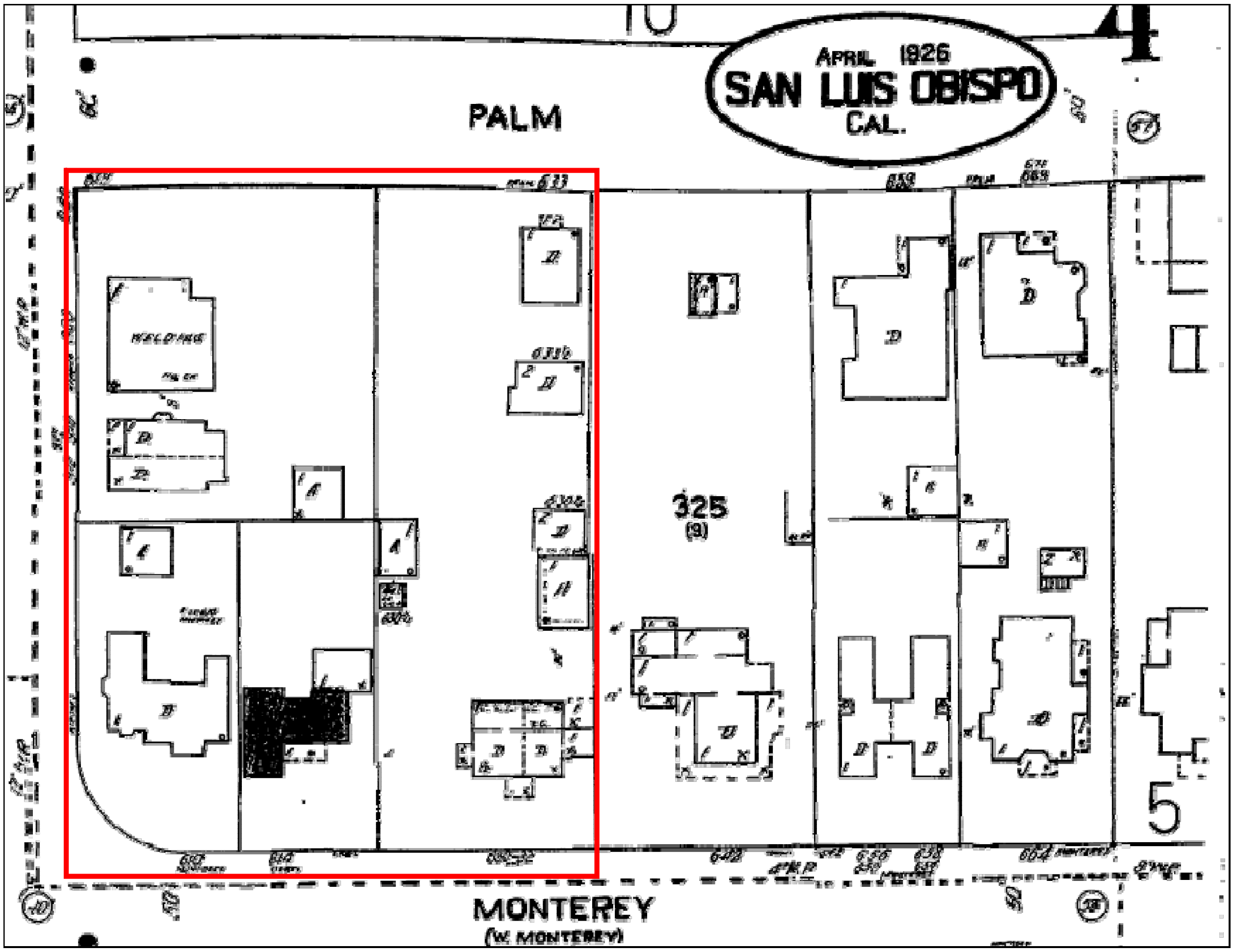

Figure 4-6 Project area shown on the 1950 Sanborn map, which is an update from the 1926 Sanborn map.

Æ identified and recorded four residential buildings in the study area, at 633 and 633½ Palm Street, 610 Monterey Street, and 614 Monterey Street.

4.5.1 633 and 633½ Palm Street

The wood constructed residence at 633 Palm Street rests on a concrete foundation with a rectangular footprint. The walls are clad with slender wood boards. The medium-pitched gable-front roof is covered with composition shingles and the eaves are open. Wood slat vents are present in the gable peak. Three steps lead to the concrete stoop that is shaded by the dropped, gable-front porch. Fenestration includes wood sash transomed windows on the north facade, wood sash windows on the east and west facades, and a wood-framed glass door at the main entrance. A concrete driveway leads to the building at the rear of the property, 633½ Palm Street. The two-story wood constructed building at 633½ Palm Street rests on a concrete foundation

Figure 4-7 Residence at 633 Palm Street.

Figure 4-8 Residence at 633½ Palm Street.

with a rectangular footprint and presents a front overhang. The walls are clad with wide beveled wood boards on most of the north facade and plaster on all remaining facades. The gable roof is covered with composition shingles and the eaves are open. Rectangular vents are present in the gable end. Wood sash windows are mixed with newer metal windows and large multiple-paned fixed windows. Wood constructed stairs leading to the second story landing are shaded by a dropped gable roof.

According to the building permit, construction on 633 Palm Street started in December 1927. This building does not appear significantly altered. A building permit was filed for the construction of 633½ Palm Street in December 1947. The building is described as a residence with garage. Based on visual inspection, it appears that the first story of the building was a garage for both buildings and the living space was on the second story. At an unknown time, the first story was converted into living space with a small storage area concealed by wood board doors on the west end. A permit was filed in May 1956 for unspecified alterations and repairs. Based on materials utilized, it is possible that the first story conversion occurred at that time. In 2003, 633 Palm was reroofed.

4.5.2 610 Monterey Street

The wood-framed building at 610 Monterey Street (Figure 4-9) rests on a concrete foundation with an irregular footprint. The walls are clad with plaster. The low-pitched cross-hipped roof is covered with composition shingles and the eaves are boxed. Fenestration includes a bay window on the south and west facades, wood sash windows, metal sliding windows on the northwest corner, and a solid wood door on the south facade. Two chimneys are present on the west facade; a tapered chimney is attached on the south end and a square chimney pierces the roof slope. A two-car garage is located to the north of the dwelling with a concrete drive leading to Nipomo Street. The garage is clad with plaster and the hipped roof is covered with composition shingles. Two single wood doors open into the garage.

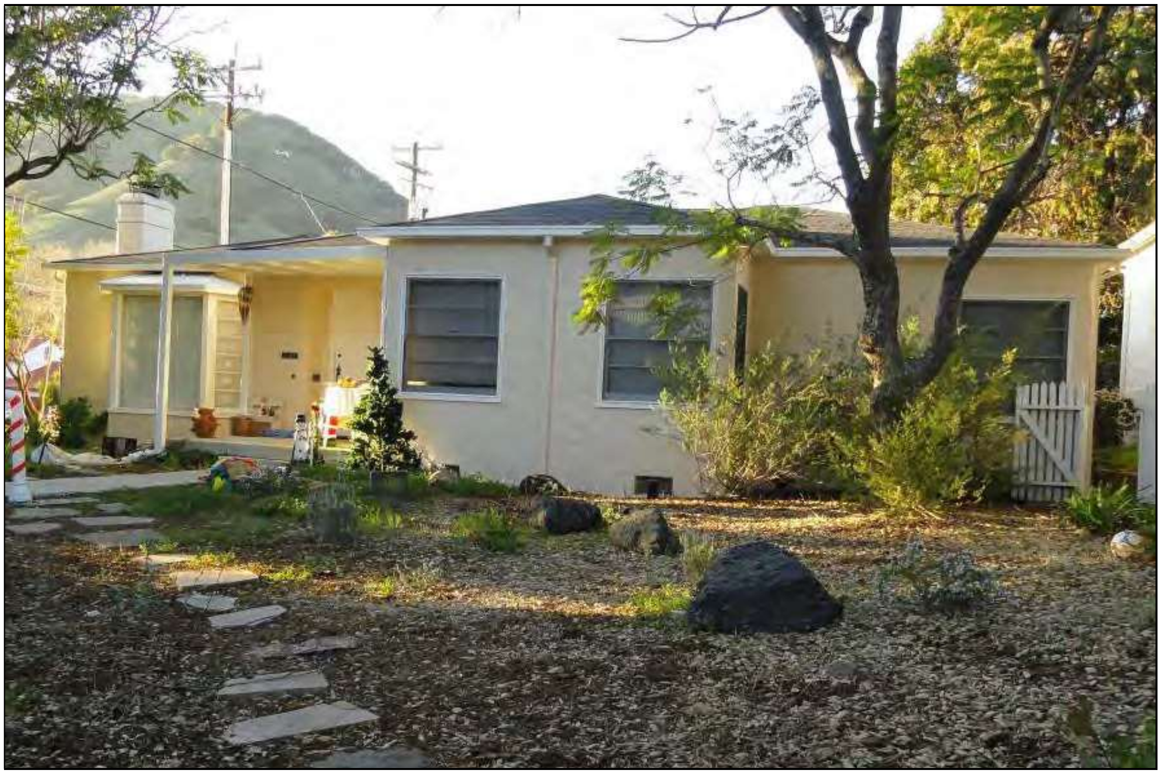

Figure 4-9 Residence at 610 Monterey Street.

According to the San Luis Obispo County Assessor's Office, the building was constructed in 1937. City directories do not list the property prior to 1938. A building permit was issued on October 3, 1957 to roof the existing porch. No original building permit was located. It also appears that a single metal sliding window at the rear of the west facade was either replaced or added at an unknown time. No other alterations are visible.

4.5.3 614 Monterey Street (Heyd Property)

The adobe brick building (Figure 4-10) rests on a concrete foundation with an irregular footprint. The walls are 12 inches thick and the exterior is painted. The low-pitched cross-hipped roof is covered with wood shingles and the eaves are closed. Fenestration includes recessed wood sash windows on all facades and a solid wood door on the south facade. The two front windows on either side of the south facade door are square, while the windows on the east and west facades are rectangular. Two chimneys are present: a tapered chimney is attached on the southeast corner and a rectangular chimney pierces the roof ridge near the cross joint. A single-car garage is attached to the north facade on the east side. This wood addition is clad with stucco. A single wood sash window is present on the north facade of the garage. Important landscape features include a large live oak tree in the front yard, brick steps and pathway from the sidewalk on Monterey Street to the front porch stoop, and the adobe retaining wall along the east side of the driveway.

Figure 4-10 Adobe residence at 614 Monterey Street.

According to the San Luis Obispo County Assessor's Office, the building was constructed in 1939. Early assessor records are often estimated dates of construction, and City directories revealed that the family was living in the dwelling consistently from 1936, making it likely that the construction year was 1935. No original building permit or subsequent permits were located. The property does appear to have an attached garage addition completed before 1950. No other alterations are visible.

4.5.4 Downtown Historic District

In 1987, the City of San Luis Obispo designated three historic districts within the urban area. In addition to the districts, the City maintains a Master List of Historic Resources, which identifies buildings that are considered historically significant on their own merits, and a List of Contributing Historic Resources, which identifies structures that contribute to the significance of designated historic districts, although they may not be individually significant. The districts and initial historic resources lists were created as a result of a 1981 survey performed by a citizens' committee appointed by the City Council. The property forms associated with the survey are on file at the Community Development Department.

The project area is partially located within the Downtown Historic District, which stretches east from Highway 101 and Dana Street to just beyond Osos Street and runs north from Marsh Street to Palm Street. Many of the city's most important historic buildings are found in the district, which includes an eclectic mixture of architectural styles from the Mission San Luis Obispo de Tolosa to the Streamline Moderne Fremont Theater. While the majority of the buildings within the Downtown District are used commercially, quite a few are still residential properties, especially west of Broad Street. Two Master List properties and two contributing properties lie within or adjacent to the current project area (Table 4-1). The single-story vernacular residence with a detached garage at 610 Monterey Street is a contributing property built in 1937 by Klien Williams. The single-story, mission-influenced vernacular residence at 614 Monterey Street was built by Louis R. Heyd in 1935 is also is a contributing property. Both lie within the current project area. The Hays-Latimer Adobe, a weather-boarded single-story adobe residence, is a Master List property built in 1860. The multistory Harmony Creamery is also a Master List property. Built in 1930 by the Harmony Valley Creamer Association, it is Spanish Colonial Revival in style. Both are adjacent to the current project.

Table 4-1
Designated Historic Buildings Within and Adjacent to the Palm-Nipomo Parking Structure Project Site

Address	Local Designation	Location Relative to Project Site
610 Monterey Street	Contributing property to Downtown Historic District	Within
614 Monterey Street (Heyd Property)	Contributing property to Downtown Historic District	Within
638-642 Monterey Street (Hays-Latimer Adobe)	On Master List of Historic Resources, Downtown Historic District	Adjacent
991 Nipomo Street (Harmony Creamery)	On Master List of Historic Resources, Downtown Historic District	Adjacent

4.6 RESOURCE EVALUATIONS

4.6.1 Archaeological Resources

A small amount of historic-period debris was observed in exposed native soils along the Monterey Street portion of the project site. However, due to the developed status of the project area, there was little exposed ground surface to examine. Historic documents suggest that this area of the city was part of the mission lands prior to secularization and was developed as early as 1855. Sanborn maps depict residences and several privies within the project footprint. A previous study by Bertrando and Bertrando (1999) uncovered historic-period debris in unconsolidated fill and the remains of a foundation or wall. These items were related to a house or welding shop that faced Nipomo Street as early as 1903. Thus, it is likely that additional remains related to mission and post-mission occupation of the site are present.

Historic documents and previous similar work have shown that subsurface archaeological deposits exist throughout the city, including areas adjacent to the current project. Trenches excavated on Monterey Street directly east of the subject property revealed a large archaeological deposit. Archaeological investigations for the Court Street Development Project parking garage, approximately 1/8-mile east, revealed that a mission-era midden containing significant Native American deposits was present along a long stretch of Palm Street on the side opposite the mission; it is unclear whether that deposit extends into the current project area. Because only six structures have ever existed on the project site, it is quite likely that subsurface cultural remains are intact. Any intact features likely would qualify as historical resources under CEQA, and would sustain significant impacts from the proposed demolition and construction.

4.6.2 Architectural Resources

Æ evaluated the buildings within the project site for historical significance by applying the criteria of the California Register of Historical Resources (CRHR) and the City of San Luis Obispo Evaluation Criteria for Historic Resource Listing with reference to the context presented in Chapter 2. Whereas the CRHR criteria provide the general standards of significance, the context delineates the specific themes (i.e., currents within the flow of history) to which a resource may be related. Significance is based on how well the subject resource represents one or more of these themes based on its specific history and the people associated with the resource, as well as its inherent qualities (i.e., architecture and potential to yield information about the past).

4.6.3 California Register of Historical Resources Criteria

A resource is eligible for the California Register if it meets the criteria defined in Section 5024.1 of the California Public Resources Code:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

(2) Is associated with the lives of persons important in our past.

(3) Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

(4) Has yielded, or may be likely to yield, information important in prehistory or history [California Code of Regulations, Title 14, Chapter 3].

The site must also, except in rare circumstance, be 50 years old or older. The CRHR criteria parallel those of the National Register of Historic Places, which requires that the resource retain enough of its historic character to convey the reason for its significance. Per the National Park Service's guidance, integrity is assessed by examining seven aspects of integrity, which are defined as follows:

> Location is the place where the historic property was constructed or the place where the historic event occurred. . . .
>
> Design is the combination of elements that create the form, plan, space, structure, and style of a property. . . .
>
> Setting is the physical environment of a historic property. . . .
>
> Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. . . .
>
> Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. . . .
>
> Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. . . .
>
> Association is the direct link between an important historic event or person and a historic property. . . [National Park Service 2002:Part VIII].

"Integrity is based on significance: why, where, and when a property is important" (National Park Service 2002:Part VIII). Only after significance is fully established is the issue of integrity addressed. Ultimately, the question of integrity is answered by whether or not the property retains the identity for which it is significant.

4.6.4 City of San Luis Obispo Historic Preservation Ordinance

Evaluation Criteria for Historic Resources Listing

The City's historic preservation ordinance (Title 14 of the San Luis Obispo Municipal Code) states that the Cultural Heritage Committee and City Council shall consider the standards of the State Historic Preservation Office (SHPO) when determining if a property should be designated as a listed Historic or Cultural Resource (Section 14.01.070). In order to be eligible for designation, the resource shall exhibit a high level of historic integrity, be at least fifty (50) years old (less than 50 if it can be demonstrated that enough time has passed to understand its historical importance) and satisfy at least one of the following criteria:

A. **Architectural Criteria:** Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values.

(1) **Style:** Describes the form of a building, such as size, structural shape and details within that form (e.g. arrangement of windows and doors, ornamentation, etc.). Building style will be evaluated as a measure of:

   a. The relative purity of a traditional style;

   b. Rarity of existence at any time in the locale; and/or current rarity although the structure reflects a once popular style;

   c. Traditional, vernacular and/or eclectic influences that represent a particular social milieu and period of the community; and/or the uniqueness of hybrid styles and how these styles are put together.

(2) **Design:** Describes the architectural concept of a structure and the quality of artistic merit and craftsmanship of the individual parts. Reflects how well a particular style or combination of styles are expressed through compatibility and detailing of elements. Also, suggests degree to which the designer (e.g., carpenter-builder) accurately interpreted and conveyed the style(s). Building design will be evaluated as a measure of:

a. Notable attractiveness with aesthetic appeal because of its artistic merit, details and craftsmanship (even if not necessarily unique);

b. An expression of interesting details and eclecticism among carpenter-builders, although the craftsmanship and artistic quality may not be superior.

(3) **Architect:** Describes the professional (an individual or firm) directly responsible for the building design and plans of the structure. The architect will be evaluated as a reference to:

a. A notable architect (e.g., Wright, Morgan), including architects who made significant contributions to the state or region, or an architect whose work influenced development of the city, state or nation.

b. An architect who, in terms of craftsmanship, made significant contributions to San Luis Obispo (e.g., Abrahams who, according to local sources, designed the house at 810 Osos—Frank Avila's father's home—built between 1927–30).

B. Historic Criteria

(1) **History—Person:** Associated with the lives of persons important to local, California, or national history. Historic person will be evaluated as a measure of the degree to which a person or group was:

   a. Significant to the community as a public leader (e.g., mayor, congress member, etc.) or for his or her fame and outstanding recognition—locally, regionally, or nationally.

   b. Significant to the community as a public servant or person who made early, unique, or outstanding contributions to the community, important local affairs or institutions (e.g., council members, educators, medical professionals, clergymen, railroad officials).

(2) **History—Event:** Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States. Historic event will be evaluated as a measure of:

(i) A landmark, famous, or first-of-its-kind event for the city—regardless of whether the impact of the event spread beyond the city.

(ii) A relatively unique, important or interesting contribution to the city (e.g., the Ah Louis Store as the center for Chinese-American cultural activities in early San Luis Obispo history).

(3) **History—Context:** Associated with and also a prime illustration of predominant patterns of political, social, economic, cultural, medical, educational, governmental, military, industrial, or religious history. Historic context will be evaluated as a measure of the degree to which it reflects:

a. Early, first, or major patterns of local history, regardless of whether the historic effects go beyond the city level, that are intimately connected with the building (e.g., County Museum).

b. Secondary patterns of local history, but closely associated with the building (e.g., Park Hotel).

C. Integrity: Authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Integrity will be evaluated by a measure of:

(1) Whether or not a structure occupies its original site and/or whether or not the original foundation has been changed, if known.

(2) The degree to which the structure has maintained enough of its historic character or appearance to be recognizable as an historic resource and to convey the reason(s) for its significance.

(3) The degree to which the resource has retained its design, setting, materials, workmanship, feeling and association.

Historic District Designation, Purpose

A. Historic (H) District Designation. All properties within historic districts shall be designated by an "H" zoning (14.01.080). Properties zoned "H" shall be subject to the provisions and standards as provided in Ordinance 17.54 (Zoning) of the Municipal Code.

B. Purposes of Historic Districts. The purposes of historic districts and H zone designation are to:

(1) Implement cultural resource preservation policies of the General Plan, the preservation provisions of adopted area plans, the Historic Preservation and Archaeological Resource Preservation Program Guidelines, and

(2) Identify and preserve definable, unified geographical entities that possess a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development;

(3) Implement historic preservation provisions of adopted area and neighborhood improvement plans;

(4) Enhance and preserve the setting of historic resources so that surrounding land uses and structures do not detract from the historic or architectural integrity of designated historic resources and districts; and

(5) Promote the public understanding and appreciation of historic resources.

4.6.5 Individual Property Evaluations

4.6.5.1 633 and 633½ Palm Street

No significant historical events appear to have taken place on the 633 and 633½ Palm Street property (Criterion 1). The buildings have had many residents over the years, but none appear to have played a significant role in the history or development of San Luis Obispo (Criterion 2). The buildings are of a common construction type for their function and the period in which they were built (Criterion 3). Finally, Criterion 4 is often applied to archaeological sites, but may be applied to structures if they contain information that would not be available by any means but studying the structures. The buildings and structures at 633 and 633½ Palm are representative of construction forms that have been well documented in San Luis Obispo County and California and cannot provide any new information on materials or design (Criterion 4). Therefore, the subject property does not appear to be eligible for the CRHR, nor does it meet any of the eligibility criteria for listing as a Master List property for the City of San Luis Obispo. Neither does it qualify as a contributing element of the Downtown Historic District.

4.6.5.2 610 Monterey Street

This property does not appear to be associated with events or individuals significant in the history or development of San Luis Obispo (Criteria 1 and 2). The building is vernacular in style and does not exhibit distinctive architectural characteristics or high artistic values; neither does it display a relative purity of a traditional style, a rarity of existence, or uniqueness of style nor does it possess an aesthetic appeal or artistic merit in its design (Criterion 3). Finally, Criterion 4 is often applied to archaeological sites, but may be applied to structures if they contain information that would not be available by any means but studying the structures. The buildings at 610 Monterey Street are representative of construction forms that have been well documented in San Luis Obispo County and California and cannot provide any new information on materials or design (Criterion 4).Therefore, the property does not meet any of the eligibility criteria for individual listing as a Master List property for the City of San Luis Obispo nor does it appear to be eligible for the CRHR.

This property is listed as a contributor to the Downtown Historic Preservation District and does provide continuity in the historic streetscape and an essential linkage between properties along Monterey Street and those along Nipomo and Dana streets. It is therefore considered a historical resource for the purposes of CEQA.

4.6.5.3 614 Monterey Street (Heyd Property)

The property at 614 Monterey Street does not appear to be associated with events or individuals significant in the history or development of San Luis Obispo. Although the building is vernacular in style, it appears to be a rare architectural example of Depression-era adobe architecture within the City of San Luis Obispo. The building was erected soon after the renovation of the Mission San Luis Obispo de Tolosa, which returned the mission buildings to their original appearance by revealing the previously covered adobe walls and removing other Victorian-age embellishments. The building at 614 Monterey Street, located just seven parcels away from the mission, was constructed of adobe and continues the theme of mission-style architecture down the block. The 1930s dwelling is a rarity in the City of San Luis Obispo and is the only adobe of its time period within the Downtown Historic District. Although the property does not appear to be individually eligible for the CRHR, the property does appear to meet the eligibility criteria for individual listing as a Master List property under criteria A(1)b and A(1)c because of its rarity and its representation of the vernacular renewal of adobe architecture in the decades prior to World War II. This property is also listed as a contributor to the Downtown Historic Preservation District and provides essential continuity along the historic streetscape. It is therefore considered a historical resource for the purposes of CEQA.

5
IMPACT ASSESSMENT AND RECOMMENDATIONS

5.1 PARKING STRUCTURE PROJECT

5.1.1 Archaeological Resources

Given the known sensitivity of the project vicinity and its potential for important archaeological resources to be preserved in the project area, archaeological investigations are recommended pursuant to the City's *Archaeological Resource Preservation Program Guidelines*. This work should be guided by a comprehensive research design and testing and mitigation plan prepared prior to building demolition or other construction to guide all phases of the archaeological investigation. The work should include:

- Monitoring of demolition of the buildings foundations and removal of all pavement by a qualified archaeologist and Native American monitor (demolition of the upper portions of the building need not be monitored).
- If archaeological resources are discovered during monitoring, they will be tested and treated pursuant to the testing and mitigation plan.
- When the site has been cleared, a qualified archaeologist shall test for the presence of significant archaeological resources. This work will be guided by the testing plan.
- If resources are discovered during testing, they should be evaluated for significance using criteria set forth in the testing and mitigation plan. Impacts to significant finds should be mitigated through a data recovery program using appropriate archaeological field and laboratory methods, pursuant to the mitigation plan.

Æ recommends using a consolidated approach to the archaeological investigations, as outlined in Section 5.0 of the City's *Archaeological Resource Preservation Program Guidelines*. The project timeline must include sufficient opportunity prior to construction to allow for identification and evaluation of cultural resources, and for full recovery of the significant subsurface resources that would be affected by the project. The results of the program should be presented in a report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and makes provisions for artifact curation and public display/interpretation of the significant resources. Artifacts recovered from significant resources should be housed at a qualified curation facility.

5.1.2 Architectural Resources

5.1.2.1 633 and 633½ Palm Street

The project proposes to demolish the buildings at 633 and 633½ Palm Street. Per the evaluation above, these buildings are not considered historical resources according to CEQA Guidelines, nor are they eligible for individual listing on the City's Master List of Historic Resources. The properties are not within the Downtown Historic District, and thus loss of the buildings would not diminish the integrity of the district. Therefore, demolition of the buildings at 633 and 633½ Palm Street is not considered a significant impact on historical resources.

5.1.2.2 610 Monterey Street

As currently designed, completion of the proposed parking structure requires demolition of an existing two-car garage located at 610 Monterey Street. The project will also utilize a large portion of the backyard. The detached garage is associated with a one-story vernacular residence built in 1937 by Klien Williams. The garage is accessed from Nipomo Street and is not visible from the front of the residence. City records do not indicate which character-defining features of this property qualify it as a contributing element of the Downtown Historic District; while the residence itself provides continuity in the historic streetscape and provides an essential linkage between properties in the historic district along Monterey Street and those along Nipomo and Dana streets, the garage is not visible from Monterey Street and is visually shielded by mature landscaping along Nipomo Street. Thus, it does not appear that the district's integrity will suffer due to the loss of the detached garage. Therefore, demolition of the detached garage at 610 Monterey Street does not constitute an impact to the contributing property or the Downtown Historic District.

As construction activities will take place in close proximity to the dwelling, protective measures shall be taken to preserve the integrity of the dwelling:

- The residential building and landscaping features shall be photodocumented prior to the beginning of construction activities. The photo-documentation is intended to provide a complete record of the property as the basis for repairs if inadvertent damage occurs during construction.

- The residential building and landscaping shall have a barrier fence made of metal posts and construction safety netting to protect the residential building and surrounding landscape from inadvertent damage due to construction activities. This fence will extend from the project boundary south of the garage to the sidewalk on both Nipomo and Monterey streets and connect with the fencing at 614 Monterey Street.

- Notify the contractor that no demolition or construction work is to occur within or on the perimeter of the protective fencing.

- Construction monitoring will ensure that the protective measures are upheld.

5.1.2.3 614 Monterey Street (Heyd Property)

The project proposes a land take from the back yard of the property at 614 Monterey Street. This will place the proposed parking garage directly behind the residential building. This property appears to meet the eligibility criteria as a Master List property for the City of San Luis Obispo under criteria A(1)b and A(1)c. In addition, the property is listed as a contributing element of the Downtown Historic District; thus, it is considered a historical resource for the purposes of

CEQA. The backyard has not been identified as a character-defining feature of the property, and thus the taking *per se* does not constitute a significant direct impact on a historical resource. However, placing the proposed parking structure in such close proximity to the building could diminish its integrity of setting, feeling, and association. To avoid such impacts, the new structure will have to be designed very sensitively with respect to the height, scale, and massing of the historical resource. The proposed parking structure design should be reviewed by the Cultural Heritage Committee (CHC) to ensure it meets design standards and historical values consistent with the location. Moreover, as construction activities will take place in close proximity to the dwelling, protective measures must be taken to preserve the integrity of the dwelling:

- The residential building and landscaping features shall be photodocumented prior to the beginning of construction activities. The photo-documentation is intended to provide a complete documentation as the basis for implementing adequate repairs if inadvertent damage occurs to the property.
- The residential building and landscaping shall have a barrier fence made of metal posts and construction safety netting to protect the residential building and surrounding landscape from inadvertent damage due to construction activities. This fence will extend from the southern project boundary to the sidewalk on Monterey Street and connect with the fencing at 610 Monterey Street and the wood fence on the eastern parcel boundary.
- Notify the contractor that no demolition or construction work is to occur within or on the perimeter of the protective fencing.
- Construction monitoring will ensure that the protective measures are upheld.

5.1.2.4 Downtown Historic District

Monterey Street from Osos Street to the end of Dana Street is the core from which the Downtown Historic District expands. The majority of the proposed project takes place inside of the district boundaries, which wrap around Monterey and Nipomo streets and extend west on Dana Street. The proposed parking structure will be located directly across the street from the Master List Harmony Creamery building at 991 Nipomo, adjacent to the Master List Hays-Latimer Adobe at 642 Monterey, and will be visible from the entire length of contributing properties located along Dana Street. The visual impacts of the project may even reach as far as to the Dr. George B. Nichols House at 664 Monterey, the Carnegie Library at 696 Monterey, and the San Luis Obispo de Tolosa Mission, all Master List properties.

To preserve the setting, feeling, and historical associations of the Downtown Historic District in the project vicinity and ensure the proposed parking structure meets design standards and historic values consistent with its placement in the historic district, the project should adhere to the Community Design Guidelines adopted in 2002 while developing a final project design.

- The proposed parking structure design shall respect the height, scale, and massing of the historic resources in the project area and within the Downtown Historic District.

- The proposed parking structure design shall be reviewed by the Cultural Heritage Committee (CHC) to ensure it meets design standards and historical values consistent with the location within the Downtown Historic District.

- The CHC will forward a recommendation to the Architectural Review Commission, which would take the final action on the design plans for the proposed parking structure.

5.2 FUTURE DEVELOPMENT SCENARIO

The City has indicated plans for redevelopment of the corner of Monterey and Nipomo streets. The future development scenario includes demolition of the residential buildings at 610 and 614 Monterey Street and eventual construction of new commercial and or public structures. The following sections assess the impacts to historical resources under this future development scenario.

5.2.1 Archaeological Resources

As with the parking structure project, archaeological investigations are recommended under the future development scenario pursuant to the City's *Archaeological Resource Preservation Program Guidelines*. This work should be guided by a comprehensive research design and testing and mitigation plan prepared prior to building demolition or other construction to guide all phases of the archaeological investigation. The work should include:

- Monitoring of demolition of the buildings foundations and removal of all pavement by a qualified archaeologist and Native American monitor (demolition of the upper portions of the building need not be monitored).

- If archaeological resources are discovered during monitoring, they will be tested and treated pursuant to the testing and mitigation plan.

- When the site has been cleared, a qualified archaeologist shall test for the presence of significant archaeological resources. This work will be guided by the testing plan.

- If resources are discovered during testing, they should be evaluated for significance using criteria set forth in the testing and mitigation plan. Impacts to significant finds should be mitigated through a data recovery program using appropriate archaeological field and laboratory methods, pursuant to the mitigation plan.

Æ recommends using a consolidated approach to the archaeological investigations, as outlined in Section 5.0 of the City's *Archaeological Resource Preservation Program Guidelines*. The project timeline must include sufficient opportunity prior to construction to allow for identification and evaluation of cultural resources, and for full recovery of the significant subsurface resources that would be affected by the project. The results of the program should be presented in a report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and makes provisions for artifact curation and public display/interpretation of the significant resources. Artifacts recovered from significant resources should be housed at a qualified curation facility.

5.2.2 Architectural Resources

5.2.2.1 610 Monterey Street

Demolition of this building under the future development scenario would constitute a significant impact to the Downtown Historic District because it would remove an important contributing element that provides continuity along the historical streetscape. Replacement with modern structures would sever the portion of the historic district along Dana Street from the remainder of the district and insert nonconforming intrusions in its place. Thus, the integrity of the district would be substantially diminished.

Were demolition to occur, full Historic American Building Survey (HABS)-like Level III documentation of the property and of the Monterey streetscape, along with additional archival research and public interpretation, would lessen the impacts but would not reduce them to less than significant levels. As an alternative to demolition, this building could be rezoned for office or small retail uses; sensitive remodeling or renovation for such uses could be done in a manner that retains the building's character-defining historical and architectural features. Were a remodel to take place, the project should follow the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, and Restoring Historic Buildings*. Following these guidelines in the development of future plans for this property would reduce impacts to less than significant levels.

5.2.2.2 614 Monterey Street (Heyd Property)

Demolition of any part of this building under the future development scenario would constitute a significant impact to the Master List-eligible property and the Downtown Historic District because it would remove an important contributing element that provides continuity along the historical streetscape. Replacement with modern structures would sever the portion of the historic district along Dana Street from the remainder of the district and insert nonconforming intrusions in its place. Thus, the integrity of the district would be substantially diminished.

Were demolition to occur, full HABS-like Level III documentation of the property and of the Monterey streetscape, along with additional archival research and public interpretation, would lessen the impacts but would not reduce them to less than significant levels. As an alternative to demolition, this building could be rezoned for office or small retail uses; sensitive remodeling or renovation for such uses could be done in a manner that retains the building's character-defining historical and architectural features. Were a remodel to take place, the project should follow the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, and Restoring Historic Buildings*. Following these guidelines in the development of future plans for this property would reduce impacts to less than significant levels.

5.2.2.3 Downtown Historic District

The buildings on the north side of Monterey Street create a historic streetscape that connects the area west of Mission Plaza to the westernmost section of the Downtown Historic District on Dana Street. Many architecturally and historically significant residential and commercial buildings are located on Dana Street, including three Master List properties and 10 contributing properties. Demolition of the two buildings at 610 and 614 Monterey Street, which create a critical linkage between the mission area and the Dana Street complex, would cause a substantial diminishment of the integrity of the historic district and would thus be a significant impact under CEQA.

Construction of new buildings and structures at these locations would create intrusions that would further degrade the integrity of the historic district. Since the establishment of the historic district in 1987, Nipomo Street between Higuera and Palm streets has already sustained several other significant impacts. Three buildings were removed (one relocated outside of the district) for the creation of the existing parking area at Palm and Nipomo streets in 1997. The new Children's Museum at the corner of Nipomo and Monterey streets is very modern in appearance, in stark conflict with surrounding properties. The new Soda Water Works building was also constructed with a modern appearance. Both of these properties are inside the Downtown Historic District boundaries but are no longer contributing resources. The introduction of still more new, nonconforming elements would be highly detrimental, essentially severing the Dana Street group from the rest of the district. Implementing the recommendations described above prior to demolition and new construction would lessen the impacts to the historic district, but would not reduce them to less than significant levels.

6
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APPENDIX A

Personnel Qualifications

APPENDIX B

Records Search Results

CENTRAL COAST INFORMATION CENTER

California
Archaeological
Inventory

SAN LUIS OBISPO AND
SANTA BARBARA COUNTIES

Department of Anthropology
University of California, Santa Barbara
Santa Barbara, CA 93106-3210
(805) 893-2474
FAX (805) 893-8707
Email: centralcoastinfo@gmail.com

1/13/2011

Damon Haydu
Applied Earthworks
743 Pacific Street Suite A
San Luis Obispo, CA 93401

Dear Mr. Haydu

Enclosed are the results of the record search you requested for the Palm-Nipomo Parking Structure. Our records were searched for all known archaeological sites, historic resources, and previous cultural resource surveys within a 200-foot radius of the project area.

In this search, five archaeological site(s) and eighteen previous cultural resource survey(s) were found. The survey locations were mapped onto portions of the San Luis Obispo quad(s). A bibliography of these surveys is included. A search of the inventories for the State Historic Property Data Files, National Register of Historic Places, National Register of Determined Eligible Properties, California Historical Landmarks, California Points of Historic Interest, California OHP Archaeological Determinations of Eligibility, and the Caltrans State and Local Bridge Surveys yielded eight property evaluation(s) within the search radius.

According to our records, the project area has been previously surveyed. Therefore it is recommended that you consult the report(s) before beginning construction.

Please contact me if you have any questions about this search.

Sincerely,

Kristina Gill
Assistant Coordinator

E Number 718 Date 1985 Author Hoover, R.
Title Letter Report: Proposed Nipomo Street Bridge Improvement

Quad San Luis Obispo
Site Negative **Comments**
Area **Units** **ReportType** **Pages**

E Number 1972 **Date** 1991 **Author** Dills, C.
Title Archaeological Potential of Project at Nipomo and Palm, San Luis Obispo (0755)

Quad San Luis Obispo
Site Negative **Comments**
Area **Units** **ReportType** **Pages**

E Number 2529 **Date** 1993 **Author** Singer, C., J. Atwood, J. Frierman
Title It Came From Beneath the Streets: An Archaeological Report on the Expansion of the City of San Luis Obispo Wastewater Treatment System

Quad Pismo Beach; San Luis Obispo
Site SLO 1449H **Comments**
Area 3.5 linear **Units** **ReportType** **Pages** 141

E Number 2630 **Date** 1994 **Author** Bertrando, E.; Bertrando, B.
Title Cultural Resource Investigation of the Nipomo Street Bridge Replacement San Luis Obispo, CA

Quad San Luis Obispo
Site SLO-1668H **Comments**
Area 404.7 sq m **Units** **ReportType** **Pages**

E Number 2651 **Date** 1983 **Author** City of San Luis Obispo
Title Completion Report: Historic Resources Survey

Quad San Luis Obispo
Site **Comments**
Area **Units** **ReportType** **Pages**

E Number 4212 **Date** 2000 **Author** Bertrando, Ethan

Title Cultural Resource Inventory of the 1000 Block of Broad Street, San Luis Obispo, CA.

Quad San Luis Obispo

Site CA-SLO-1668/H **Comments** pp.16

Area >1 **Units** acres **ReportType** **Pages**

E Number 4678 **Date** 2002 **Author** Conway, Thor

Title An Archaeological Surface Survey for the San Luis Obispo Children's Museum Expansion, San Luis Obispo, CA

Quad San Luis Obispo

Site Negative **Comments** 11 pp.

Area <1 **Units** acres **ReportType** Survey **Pages**

E Number 5033 **Date** 2002 **Author** Bertrando, E.

Title Cultural Resource Inventory of the Water, Sewer, Storm Drain Imporvment Project within the City of San Luis Obispo Historic District, San Luis Obispo, CA

Quad San Luis Obispo

Site SLO-64 **Comments** 35pp.

Area <2 **Units** acres **ReportType** Survey **Pages**

E Number 5333 **Date** 2004 **Author** Higgins, H.

Title Cultural Resource Construction Monitoring for the Century Project, San Luis Obispo County, California

Quad San Luis Obispo

Site CA-SLO-084H **Comments** 93 pp.

Area 4,510,254 **Units** square **ReportType** Excavation **Pages**

E Number 5314 **Date** 2004 **Author** Bertrando, E and B. Bertrando

Title Cultural Resource Inventory of the Proposed Nipomo Street Drain Line, 1000 Block of Nipomo Street, San Luis Obispo County, California

Quad San Luis Obispo

Site negative **Comments** 23 pp.

Area 1.2 **Units** acres **ReportType** Survey **Pages**

E Number 3554 **Date** 1998 **Author** Singer, Clay

Title Archaeological Resources Inventory and Impact Assessment for Proposed Improvements at the Mission college Prep High School sports field in the City of San Luis Obispo, SLO County, CA

Quad San Luis Obispo

Site negative **Comments** pp. 9

Area none given **Units** **ReportType** **Pages**

E Number 3771 **Date** 1999 **Author** Conway, Thor

Title An Archaeological Surface Survey of 610 Monterey Street, San Luis Obispo, California

Quad San Luis Obispo

Site negative **Comments** pp. 10

Area none given **Units** **ReportType** **Pages**

E Number 3943 **Date** 1998 **Author** Bertrando, Betsy and Ethan Bertrando

Title Cultural Resource Investigation of the Soda Water Works and Tullman Residence Complex APN 02-402-15 Located on the South Corner of Nipomo and Dana Streets, City of San Luis Obispo, CA

Quad San Luis Obispo

Site SLO-1668H **Comments** pp. 27

Area .33 acre **Units** **ReportType** **Pages**

E Number 3828 **Date** 1996 **Author** Bertrando, Ethan

Title Cultural Resource Investigation of the Palm Street/Nipomo Street Parking Lot, San Luis Obispo, CA

Quad San Luis Obispo

Site negative **Comments** 6 pp.

Area none given **Units** **ReportType** **Pages**

E Number 4128 **Date** 2000 **Author** Singer, Clay A.

Title Archaeological monitoring of mechanical excavations at 1015 Nipomo Street in the city of San Luis Obispo, San Luis Obispo County, California

Quad San Luis Obispo

Site SLO-1668H **Comments** 16 ppp

Area 1 acre **Units** **ReportType** **Pages**

E Number 5639 **Date** 2005 **Author** Price, Barry A.

Title Archaeological Monitoring for the Nipomo Street Drain Line (ER 40-05).

Quad San Luis Obispo

Site CA-SLO-1668/H **Comments**

Area 3164 **Units** square feet **ReportType** Monitoring **Pages** 4

E Number 5672 **Date** 2003 **Author** Bertrando, Betsy

Title Historic Resource Inventory and House Evaluation 581 Dana Street San Luis Obispo, CA (P-40-041148; APN 002-402-014)

Quad San Luis Obispo

Site P-40-041148 **Comments**

Area 1 parcel **Units** **ReportType** Historic Property Evaluation **Pages** 13

E Number 5676 **Date** 2005 **Author** Bertrando, Ethan; Betsy Bertrando

Title Historic Resource Inventory and Initial Structure Evaluation for the Leitcher Apartments (P 40-002391) 667 Monterey Street, City of San Luis Obispo, CA.

Quad San Luis Obispo

Site P-40-002391 **Comments**

Area 22500 **Units** square feet **ReportType** Historic Property Evaluation **Pages** 30

APPENDIX C

Cultural Resource Records

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 **of** 4 **Resource Name or #:** 633 and 633½ Palm Street

P1. Other Identifier:

***P2. Location: a. County:** San Luis Obispo ☐ **Not for Publication** ☒ **Unrestricted**
b. USGS 7.5′ Quad: San Luis Obispo, CA **Date** 1965, Photorevised 1979 T 30S, R 12E; Section 26 **B.M.**
c. Address: 633 and 633½ Palm Street, San Luis Obispo, CA 93401
d. UTM: NAD , Zone ; **mE /** **mN**
e. Other Locational Data: APN 002-412-003

***P3a. Description:** The wood constructed building rests on a concrete foundation with a rectangular footprint. The walls are clad with slender wood boards. The medium-pitched gable-front roof is covered with composition shingles and the eaves are open. Wood slat vents are present in the gable peak. Three steps lead to the concrete stoop that is shaded by the dropped, gable-front porch. Fenestration includes transomed wood sash windows on the north facade, wood sash windows on the east and west facades, and a wood framed glass door at the main entrance. A concrete driveway leads to the building at the rear of the property, 633½ Palm Street. The two-story wood constructed building rests on a concrete foundation with a rectangular footprint and presents a front overhang. The walls are clad with wide beveled wood boards on most of the north facade and plaster on all remaining facades. The gable roof is covered with composition shingles and the eaves are open. Rectangular vents are present in the gable end. Wood sash windows are mixed with newer metal windows and large multiple-paned fixed windows. Wood constructed stairs leading to the second story landing are shaded by a dropped gable roof.

***P3b. Resource Attributes:** HP3 Multiple family property

***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other:

***P5a. Photograph**

P5b. Description of Photo: View looking south at the north facade.

***P6. Date Constructed/Age and Sources:** 1928, 1947 City Building Permits
☐ Prehistoric ☒ Historic ☐ Both

***P7. Owner and Address:**
City of San Luis Obispo
990 Palm Street
San Luis Obispo, CA 93401

***P8. Recorded By:** Aubrie Morlet
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

***P9. Date Recorded:** January 21, 2011

***P10. Survey Type:** ☒ Intensive
☐ Reconnaissance ☐ Other
Describe:

***P11. Report Citation:** Price, Barry A., Keith Warren, Aubrie Morlet, and Damon M. Haydu
2011 *Cultural Resources Inventory for the Palm-Nipomo Parking Structure, San Luis Obispo, California.* Applied EarthWorks, Inc., San Luis Obispo, California. Submitted to City of San Luis Obispo Department of Public Works, San Luis Obispo, California.

***Attachments:** ☐ NONE ☐ Location Map ☐ Site/Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (list):

Resource Name or #: 633 and 633½ Palm Street

☒ Continuation ☐ Update

P5c. Description of Photo: View looking southeast at the north and west facades of 633½ Palm Street and west facade of 633 Palm Street.

P5d. Description of Photo: View looking north at the west and south facades of 633½ Palm Street.

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code**

Page 3 **of** 4 **Resource Name or #:** 633 and 633½ Palm Street

B1. Historic Name:

B2. Common Name:

B3. Original Use: Single family residences **B4. Present Use:** Multiple family residence at 633½

***B5. Architectural Style:** Craftsman, Vernacular

***B6. Construction History (construction date, alterations, and dates of alterations):** According to the building permit, construction on 633 Palm Street was begun in December 1927. This building does not appear significantly altered. A building permit was filed for the construction of 633½ Palm Street in December 1947. The building is described as a residence with garage. Based on visual inspection, it appears that the first story of the building was a garage for both buildings and the living space was on the second story. At an unknown time, the first story was converted into living space with a small storage area concealed by wood board doors on the west end. A permit was filed in May 1956 for unspecified alterations and repairs. Based on materials utilized, it is possible that the first story conversion occurred at that time. In 2003, 633 Palm was re-roofed.

***B7. Moved?:** ☒ No ☐ Yes ☐ Unknown Date: Original Location:

***B8. Related Features:**

B9. a. Architect: Unknown **b. Builder:** James Jepson, 633; unknown 633½

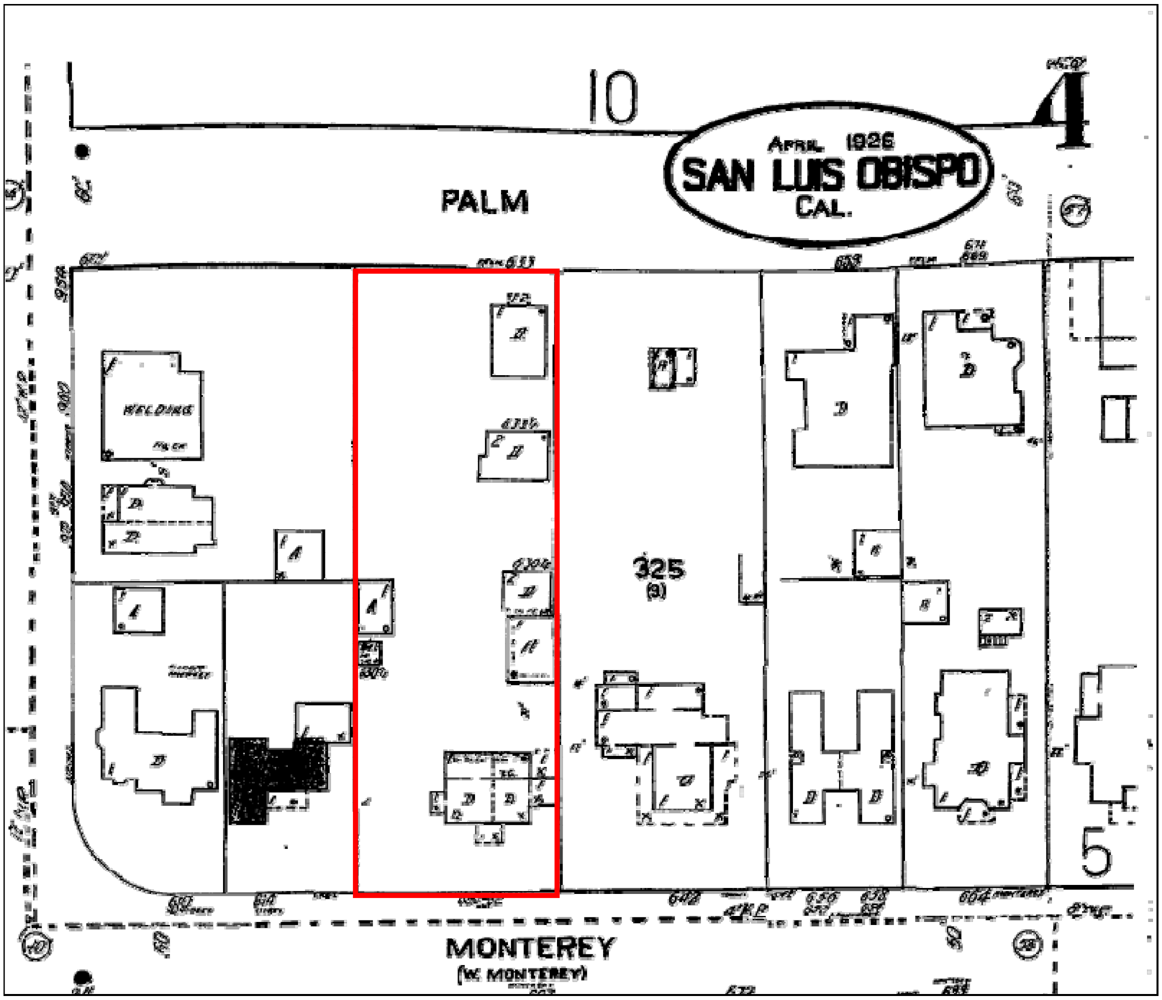
***B10. Significance:** Theme: Area:
Period of Significance: Property Type: Applicable Criteria:
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The subject property is located in Block 9, Lot 3 of the 1870 Harris and Ward Map of the Town of San Luis Obispo. At that time, S. A. Pollard is listed as the owner and the lot stretched from Monterey Street to Palm Street. Pollard listed on the Petition to Grant (land) that he had settled the property in 1868 and valued land improvements at $2000. The 1874 Map of San Luis Obispo County by R.R. Harris illustrated that Judge McDowell K. Venable (San Luis Obispo County Judge from 1871-1879) owned lot 3. The 1886 Sanborn map illustrates a hipped roof dwelling with full width front porch fronting Monterey Street and an outhouse located to the north of the dwelling. A few ancillary buildings come and go but by 1903 only the dwelling is present on the lot. Ownership is unknown between 1874 and 1923 but the 1910 Census indicated that the dwelling was rented to William Walter and family. In May 1923, Percy L. Tonks owns the property. Tonks, born on December 1, 1886, was living in the Women's Relief Society's Orphanage in Oakland California during the 1900 Census. After serving five years in the U.S. Navy, Tonks took several odd jobs working in Los Angeles (1916), Avila (1917), and San Luis Obispo (1920). From 1920 to 1924, Tonks worked as a hotel porter at the Hotel Andrews at 955 Monterey Street. Upon purchasing the subject property, Tonks constructs residential buildings in 1923, 1927, and 1928. It is unknown how long Tonks owned the property. The last residential building was constructed in 1947; the original building permit is missing. The buildings at 630-632 and 630½ Monterey Street were demolished in 1977.

All of the buildings, included those at 633 and 633½ Palm Street have had many residents over the years. None of which appears to have played a significant role in the history or development of San Luis Obispo. The buildings are of a common construction type for its function and the

This space reserved for official comments.

period in which it was built. No significant historical events appear to have taken place on the property. Therefore, the subject property does not meet any of the eligibility criteria for listing as a Master List property for the City of San Luis Obispo nor does it appear to be eligible for the CRHR.



The above map is from the 1950 Sanborn map, update from the 1926 Sanborn Map. Lot 3 is illustrated with 633, 633½ Palm and 630, 632, 630½ Monterey Street. This map reflects all of the buildings that once stood on the property. The majority of the lot is now utilized for parking with only 633 and 633½ Palm Street remaining.

B11. Additional Resource Attributes (list attributes and codes):

***B12. References:** Applications for San Luis Obispo Building Permits (1906–1937), MS034, Special Collections, Robert E. Kennedy Library, Calpoly; City of San Luis Obispo Building Permits; City of San Luis Obispo Community Development Files on Historical Properties; US Census Records and Index to Registration Affidavits; City Directories, History Room, San Luis Obispo City-County Library.

B13. Remarks:

***B14. Evaluator:** Aubrie Morlet
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

Date of Evaluation: January 2011

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 **of** 4 **Resource Name or #:** 610 Monterey Street

P1. Other Identifier:

***P2. Location: a. County:** San Luis Obispo ☐ **Not for Publication** ☒ **Unrestricted**

b. USGS 7.5′ Quad: San Luis Obispo, CA **Date** 1965, Photorevised 1979 T 30S, R 12E; Section 35 **B.M.**

c. Address: 610 Monterey Street, San Luis Obispo, CA 93401

d. UTM: NAD , Zone ; **mE /** **mN**

e. Other Locational Data: APN 002-412-011

***P3a. Description:** The wood-constructed building rests on a concrete foundation with an irregular footprint. The walls are clad with plaster. The low-pitched cross-hipped roof is covered with composition shingles and the eaves are boxed. Fenestration includes a bay window on the south and west facades, wood sash windows, metal sliding windows on the northwest corner, and a solid wood door on the south facade. Two chimneys are present on the west facade; a tapered chimney is attached on the south end and a square chimney pierces the roof slope. A two car garage is located to the north of the dwelling with a concrete drive leading to Nipomo Street. The garage is clad with plaster and the hipped roof is covered with composition shingles. Two single wood doors open into the garage.

***P3b. Resource Attributes:** HP2 Single-family property

***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other:

***P5a. Photograph**

P5b. Description of Photo: View looking northwest at the south facade.

***P6. Date Constructed/Age and Sources:** 1937 San Luis Obispo County Assessor’s Office
☐ Prehistoric ☒ Historic ☐ Both

***P7. Owner and Address:**
City of San Luis Obispo
990 Palm Street
San Luis Obispo, CA 93401

***P8. Recorded By:** Aubrie Morlet
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

***P9. Date Recorded:** January 21, 2011

***P10. Survey Type:** ☒ Intensive
☐ Reconnaissance ☐ Other
Describe:

***P11. Report Citation:** Price, Barry A., Keith Warren, Aubrie Morlet, and Damon M. Haydu
2011 *Cultural Resources Inventory for the Palm-Nipomo Parking Structure, San Luis Obispo, California.* Applied EarthWorks, Inc., San Luis Obispo, California. Submitted to City of San Luis Obispo Department of Public Works, San Luis Obispo, California.

***Attachments:** ☐ NONE ☒ Building, Structure, and Object Record ☐ Photograph Record ☐ Location Map ☐ Archaeological Record ☐ Milling Station Record ☐ Other (list): ☐ Site/Sketch Map ☐ District Record ☐ Rock Art Record ☒ Continuation Sheet ☐ Linear Feature Record ☐ Artifact Record

CONTINUATION SHEET

Page 2 **of** 4 **Resource Name or #:** 610 Monterey Street

☒ Continuation ☐ Update

P5c. Description of Photo: View looking east at the west facade along Nipomo Street.

P5d. Description of Photo: View looking southeast at the north and west facade of the detached garage.

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI #/Trinomial**

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code**

Page 3 **of** 4 **Resource Name or #:** 610 Monterey Street

B1. Historic Name:

B2. Common Name:

B3. Original Use: Single-family residence **B4. Present Use:** Same

***B5. Architectural Style:** Vernacular

***B6. Construction History (construction date, alterations, and dates of alterations):** According to the San Luis Obispo County Assessor's Office, the building was constructed in 1937. City directories do not list the property prior to 1938. A building permit was issued October 3, 1957 to roof the existing porch. No original building permit was located. Upon property survey, it appears that a single metal sliding window at the rear of the west facade was either replaced or added at an unknown time. No other alterations are visible.

***B7. Moved?:** ☒ No ☐ Yes ☐ Unknown Date: Original Location:

***B8. Related Features:** A detached garage is located north of the residential building.

B9. a. Architect: Unknown **b. Builder:** Unknown

***B10. Significance:** Theme: Area:
Period of Significance: Property Type: Applicable Criteria:
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The subject property is located in Block 9, Lot 2 of the 1870 Harris and Ward Map of the Town of San Luis Obispo. At that time, Roberto Villa is listed as the owner. According to the Petition to Grant filed on July 19, 1870 Villa settled the land in 1855 and valued land improvements at $200. The 1874 Map of San Luis Obispo County by R.R. Harris illustrates that Villa subdivided his lot into two; selling the parcel adjacent to Nipomo Street to Judge McDowell K Venable (also owned lot 3) and retaining for himself the inside lot. The 1886 Sanborn map illustrates a single dwelling with a full-width front porch and bay window on the west facade. This building was demolished after 1930. The building currently on site was constructed in 1937 or 1938. No building permit was located but the city directories listed Kline J Williams as the homeowner from 1938 to at least 1975. The Index to Registration Affidavits for the San Luis Obispo No. 9 Precinct General Election state that Williams is a Creamery Worker. Although William's employer is unknown, the Harmony Valley Creamery Association opened a processing plant on the corner of Nipomo and Dana Streets in 1930, across the street from the subject property. (continued on page 4)

B11. Additional Resource Attributes (list attributes and codes):

***B12. References:** City of San Luis Obispo Building Permits; City of San Luis Obispo Community Development Files on Historical Properties; US Census Records and Index to Registration Affidavits; City Directories, History Room, San Luis Obispo City-County Library.

B13. Remarks:

***B14. Evaluator:** Aubrie Morlet
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

Date of Evaluation: May 2011

This space reserved for official comments.

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI #/Trinomial**

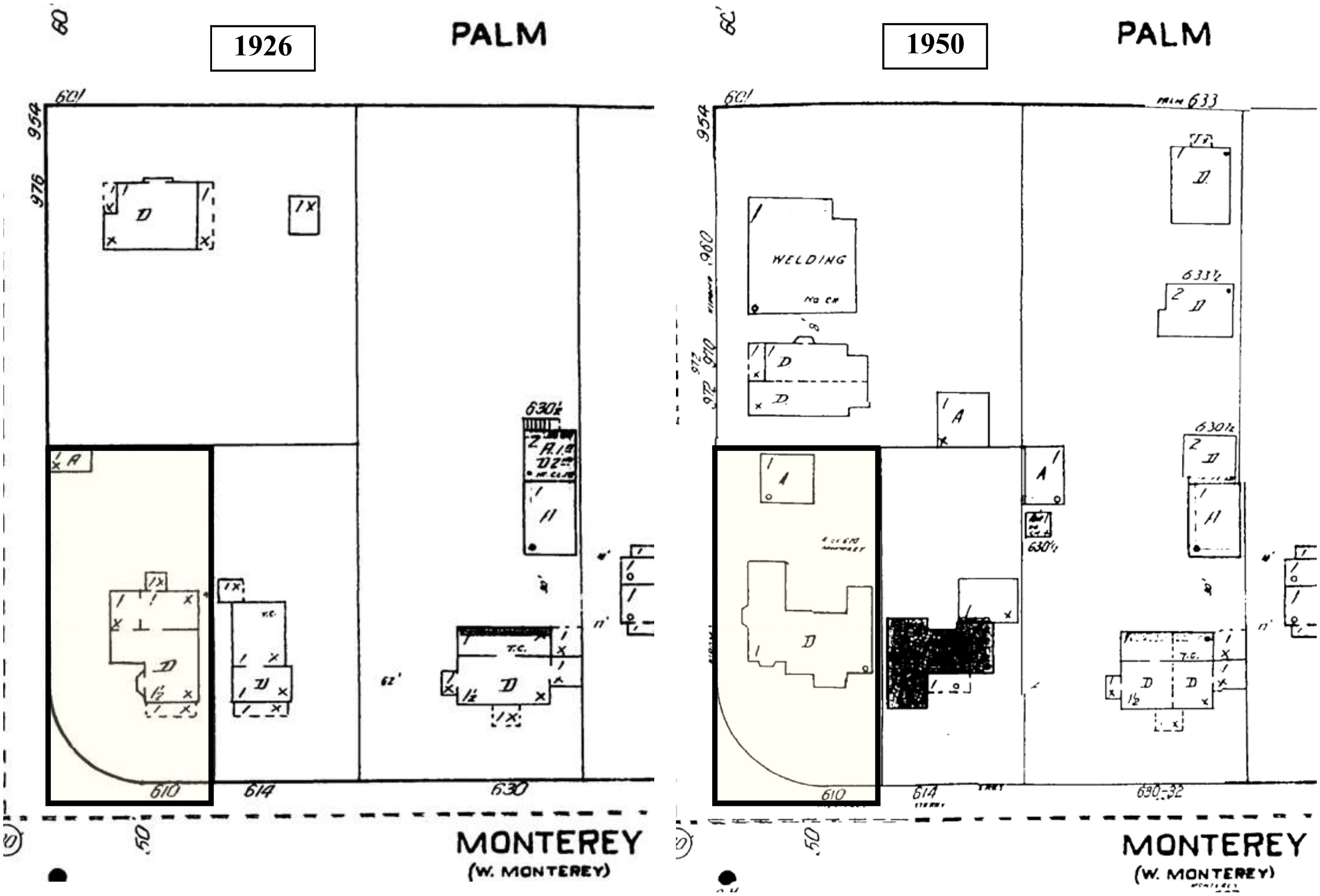
BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code**

Page 4 **of** 4 **Resource Name or #:** 610 Monterey Street

***B10. Significance: (continued from page 3)**

The property does not appear to be associated with events and individuals significant in the history or development of San Luis Obispo. The building is vernacular in style and does not display a relative purity of a traditional style, a rarity of existence, or uniqueness of style nor does it possess an aesthetic appeal or artistic merit in its design. Therefore, the property does not meet any of the eligibility criteria for individual listing as a Master List property for the City of San Luis Obispo nor does it appear to be eligible for the CRHR. This property is listed as a contributor to the Downtown Historic Preservation District and is therefore considered a historical resource for the purposes of CEQA.



The above maps are from the 1926 Sanborn and the updated 1950 Sanborn map. The divided Lot 2 includes the subject property labeled 610 Monterey. The 1926 image illustrates the building constructed prior to 1886. The 1950 updated map illustrates the new building facing Monterey Street and the garage facing Nipomo Street.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 **of** 4 **Resource Name or #:** 614 Monterey Street (Heyd Property)

P1. Other Identifier:

***P2. Location: a. County:** San Luis Obispo ☐ **Not for Publication** ☒ **Unrestricted**
b. USGS 7.5′ Quad: San Luis Obispo, CA **Date** 1965, Photorevised 1979 T 30S, R 12E; Section 35 **B.M.**
c. Address: 614 Monterey Street, San Luis Obispo, CA 93401
d. UTM: NAD , Zone ; **mE /** **mN**
e. Other Locational Data: APN 002-412-012

***P3a. Description:** The abode brick constructed building rests on a concrete foundation with an irregular footprint. The walls 12 inches thick and the exterior is painted. The low-pitched cross-hipped roof is covered with wood shingles and the eaves are close. Fenestration includes recessed wood sash windows on all facades and a solid wood door on the south facade. The two front windows on either side of the south facade door are square in shape while the windows on the east and west facades are rectangular. Two chimneys are present; a tapered chimney is attached on the southeast corner and a rectangular chimney pierces the roof ridge near the cross joint. A single car width garage is attached to the north facade east side. This wood constructed addition is clad with stucco. A single wood sash window is present on the north facade of the garage.

***P3b. Resource Attributes:** HP2 Single-family property

***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other:

***P5a. Photograph**

P5b. Description of Photo: View looking northwest at the south facade.

***P6. Date Constructed/Age and Sources:** c. 1935, 1939 San Luis Obispo County Assessor's Office
☐ Prehistoric ☒ Historic ☐ Both

***P7. Owner and Address:**
City of San Luis Obispo
990 Palm Street
San Luis Obispo, CA 93401

***P8. Recorded By:** Aubrie Morlet
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

***P9. Date Recorded:** January 21, 2011

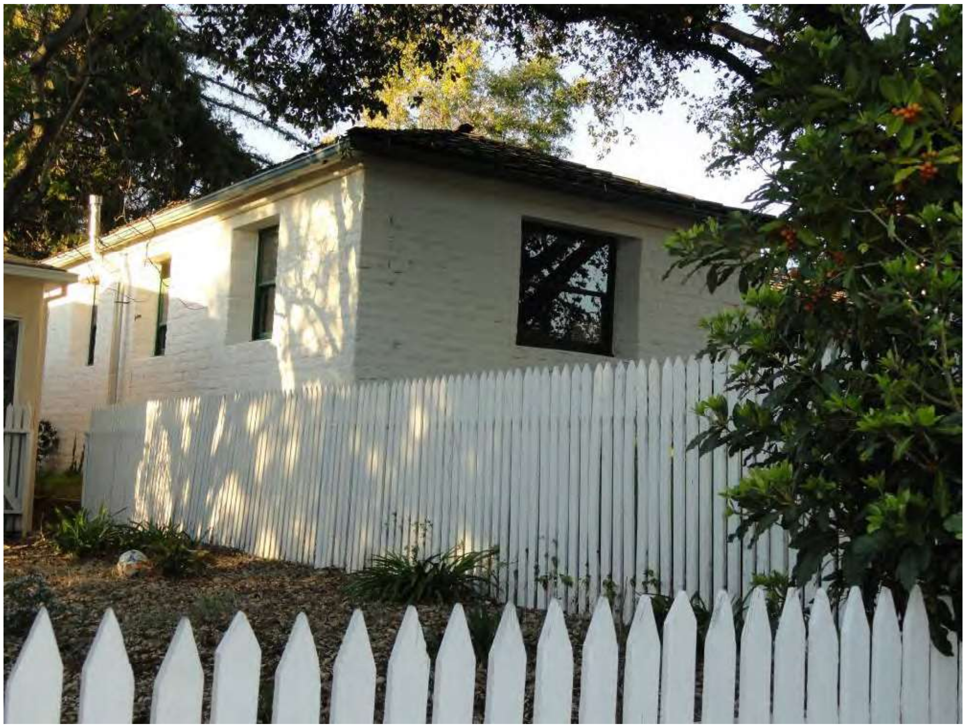
***P10. Survey Type:** ☒ Intensive
☐ Reconnaissance ☐ Other
Describe:

***P11. Report Citation:** Price, Barry A., Keith Warren, Aubrie Morlet, and Damon M. Haydu
2011 *Cultural Resources Inventory for the Palm-Nipomo Parking Structure, San Luis Obispo, California.* Applied EarthWorks, Inc., San Luis Obispo, California. Submitted to City of San Luis Obispo Department of Public Works, San Luis Obispo, California.

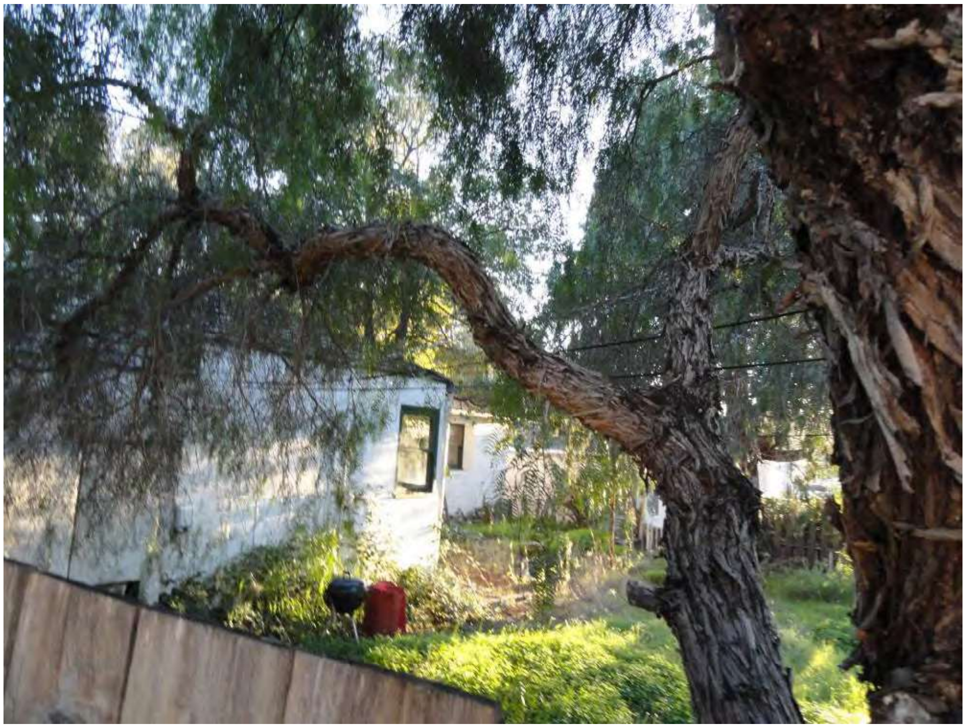
***Attachments:** ☐ NONE ☒ Building, Structure, and Object Record ☐ Photograph Record ☐ Location Map ☐ Archaeological Record ☐ Milling Station Record ☐ Other (list): ☐ Site/Sketch Map ☐ District Record ☐ Rock Art Record ☒ Continuation Sheet ☐ Linear Feature Record ☐ Artifact Record

Resource Name or #: 614 Monterey Street (Heyd Property)

☒ Continuation ☐ Update



P5c. Description of Photo: View looking northeast at the west and south facades.



P5d. Description of Photo: View looking southwest at the north facade and backyard.

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI #/Trinomial**

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code**

Page 3 **of** 4 **Resource Name or #:** 614 Monterey Street (Heyd Property)

B1. Historic Name:

B2. Common Name:

B3. Original Use: Single-family residence **B4. Present Use:** Same

***B5. Architectural Style:** Vernacular, Mission influence

***B6. Construction History (construction date, alterations, and dates of alterations):** According to the San Luis Obispo County Assessor's Office, the building was constructed in 1939 although the owners are residing at the property in 1936. No original building permit or subsequent permits were located. The property does appear to have an attached garage addition completed before 1950. No other alterations are visible.

***B7. Moved?:** ☒ No ☐ Yes ☐ Unknown Date: Original Location:

***B8. Related Features:** None

B9. a. Architect: Unknown **b. Builder:** Unknown

***B10. Significance:** Theme: Continuation of Mission Influenced Architecture Area: San Luis Obispo, CA
Period of Significance: 1935–1939 Property Type: Dwelling Applicable Criteria: SLO A(1)b
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The subject property is located in Block 9, Lot 2 of the 1870 Harris and Ward Map of the Town of San Luis Obispo. At that time, Roberto Villa is listed as the owner. According to the Petition to Grant filed on July 19, 1870 Villa settled the land in 1855 and valued land improvements at $200. The 1874 Map of San Luis Obispo County by R.R. Harris illustrates that Villa subdivided his lot into two; selling the parcel adjacent to Nipomo Street to Judge McDowell K Venable (also owned lot 3) and retaining for himself the inside lot at 614 Monterey. The 1886 Sanborn map illustrates a single dwelling with a full-width front porch. In the 1910 U.S. Census, Louis and Elizabeth Heyd are registered as the owners and occupants of the property. Louis Heyd Sr., a tailor by trade, resided at the property until his death in 1917. Elizabeth De Folque Heyd, a nurse after her children were grown, resided at the property until her death in 1933. This building was demolished after 1933. According to the County Assessors Office the building currently on site was constructed in 1939, although Heyd's son and family are residing on the property as early as 1936. It is possible that the building was constructed as early as 1935.(continued on page 4).

B11. Additional Resource Attributes (list attributes and codes):

***B12. References:** City of San Luis Obispo Building Permits; City of San Luis Obispo Community Development Files on Historical Properties; US Census Records and Index to Registration Affidavits; City Directories, History Room, San Luis Obispo City-County Library.

B13. Remarks:

***B14. Evaluator:** Aubrie Morlet
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

Date of Evaluation: June 2011

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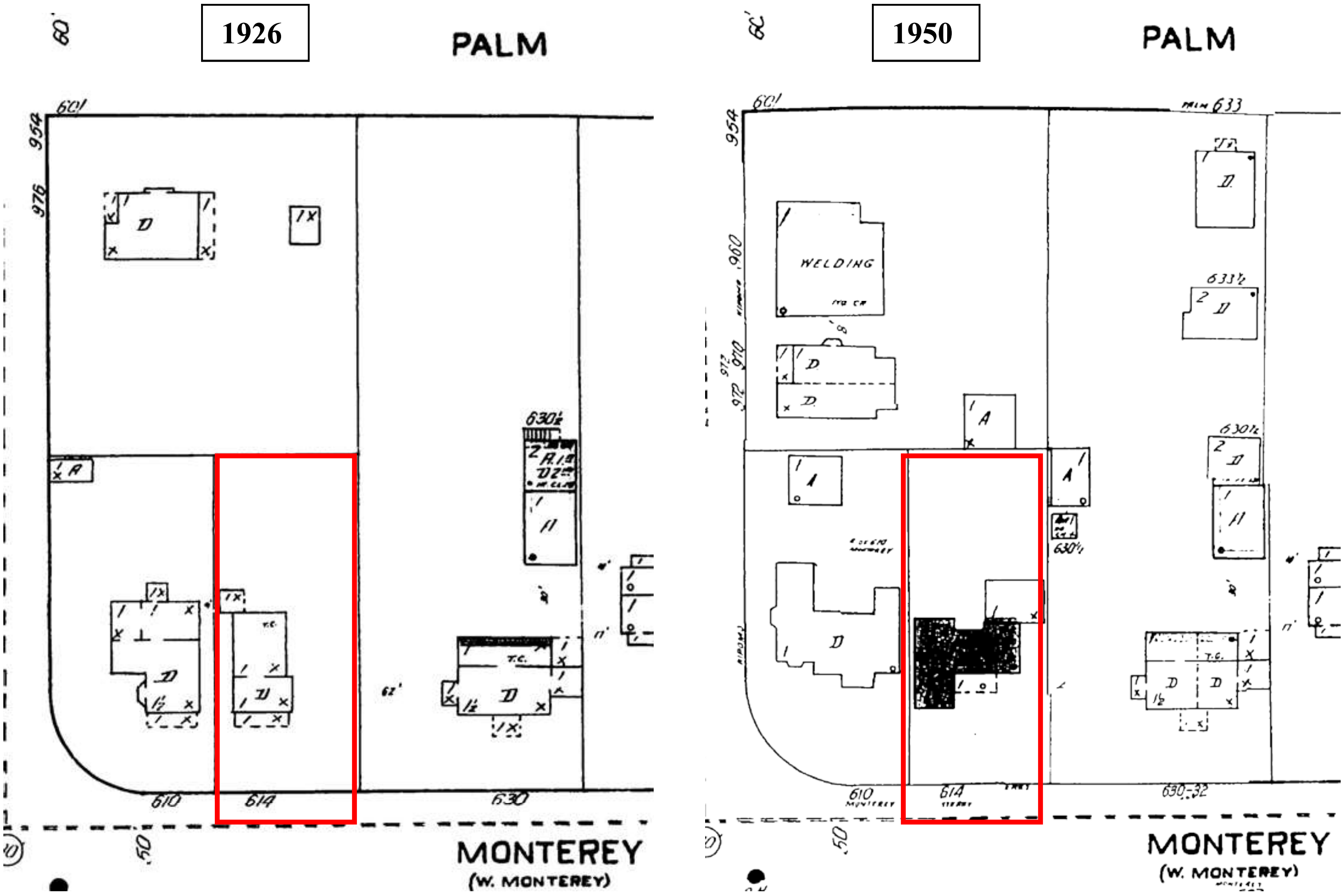
***B10. Significance: (continued from page 3)**

No building permit was located but the city directories listed Louis and Lucy Heyd as the residents and homeowners from 1936 to at least 1975. The 1934 City Directory states that Louis Heyd is a Stationary Engineer for the Union Oil Company.

The property does not appear to be associated with events and individuals significant in the history or development of San Luis Obispo. Although the building is vernacular in style, it does appear to be a rare architectural example within the City of San Luis Obispo. The building was constructed soon after the renovation of the Mission San Luis Obispo de Tolosa. The renovation returned the Mission buildings to their original appearance including the revealing of the adobe walls. It is possible that the building at 614 Monterey Street, located seven parcels away from the Mission, was constructed of adobe in an effort to continue the theme of the mission architecture. The 1930s abode dwelling appears to be a rarity of existence in the City of San Luis Obispo and is the only abode of its time period within the Downtown Historic District. Although the property does not appear to be individually eligible for the CRHR, the property does appear to meet the eligibility criteria for individual listing as a Master List property for the City of San Luis Obispo under criterion A(1)b. This property is also listed as a contributor to the Downtown Historic Preservation District and is therefore considered a historical resource for the purposes of CEQA.


1926

1950

The above maps are from the 1926 Sanborn and the updated 1950 Sanborn map. The 1926 image illustrates the building constructed prior to 1886. The 1950 updated map illustrates the new building facing Monterey Street. The darkened area indicates the brick construction while the other buildings are wood framed.

Appendix C

Noise Modeling Worksheets

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          08/14/2017
Case Description:       Nipomo Palm - Arch Coating

                     **** Receptor #1 ****

                           Baselines (dBA)
Description                  Land Use       Daytime    Evening    Night
-----------                --------      -------    -------    -----
Receptor - Reis Family Mortuary    Residential       64.7       45.0     45.0

                       Equipment
                       ---------
                       Spec    Actual    Receptor    Estimated
            Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Compressor (air)       No     40           77.7        25.0         0.0

                       Results
                       -------
                                    Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                           ------------------------------------------    ------------------------------------------
                Calculated (dBA)        Day         Evening        Night            Day         Evening        Night
                ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment               Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Compressor (air)         83.7    79.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
          Total      83.7    79.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A

                     **** Receptor #2 ****

                           Baselines (dBA)
Description                  Land Use       Daytime    Evening    Night
-----------                --------      -------    -------    -----
Receptor - Palm View Apartments    Residential       60.4       45.0     45.0

                       Equipment
                       ---------
                       Spec    Actual    Receptor    Estimated
            Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Compressor (air)       No     40           77.7        25.0         0.0

                       Results
                       -------
                                    Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                           ------------------------------------------    ------------------------------------------
```

```
                    Calculated (dBA)       Day          Evening        Night            Day          Evening        Night
                    ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------    ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Compressor (air)         83.7    79.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
          Total     83.7    79.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A

                         **** Receptor #3 ****

                                Baselines (dBA)
Description                 Land Use       Daytime    Evening    Night
-----------               --------       -------    -------    -----
Receptor - Monterey Street    Residential       56.0       45.0     45.0

                            Equipment
                            ---------
                            Spec    Actual    Receptor    Estimated
                Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Compressor (air)       No     40           77.7        25.0         0.0

                            Results
                            -------
                                          Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                              ---------------------------------------------    ---------------------------------------------
                    Calculated (dBA)       Day          Evening        Night            Day          Evening        Night
                    ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------    ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Compressor (air)         83.7    79.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
          Total     83.7    79.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
```

```
                    Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          08/14/2017
Case Description:       Palm Nipomo - Construction

                         **** Receptor #1 ****

                                Baselines (dBA)
Description                     Land Use       Daytime    Evening    Night
-----------                  --------       -------    -------    -----
Receptor - Reis Family Mortuary    Residential       64.7       45.0     45.0

                            Equipment
                            ---------
                            Spec    Actual    Receptor    Estimated
                 Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Crane              No     16           80.6        25.0         0.0
Generator            No     50           80.6        25.0         0.0
Tractor            No     40    84.0               25.0         0.0
Front End Loader       No     40           79.1        25.0         0.0
Backhoe              No     40           77.6        25.0         0.0
Welder / Torch         No     40           74.0        25.0         0.0

                            Results
                            -------
                                          Noise Limits (dBA)                    Noise Limit Exceedance (dBA)
                                --------------------------------------------    --------------------------------------------
                    Calculated (dBA)        Day          Evening         Night             Day          Evening         Night
                    ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                 Lmax    Leq       Lmax    Leq      Lmax    Leq      Lmax    Leq       Lmax    Leq      Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Crane                 86.6    78.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Generator               86.7    83.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Tractor               90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                 83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Welder / Torch           80.0    76.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
           Total      90.0    89.9       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A

                         **** Receptor #2 ****

                                Baselines (dBA)
Description                     Land Use       Daytime    Evening    Night
```

```
-----------                  --------       -------    -------    -----
Receptor - Palm View Apartments    Residential       60.4      45.0     45.0

                             Equipment
                             ---------
                             Spec    Actual    Receptor    Estimated
                Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Crane                 No     16           80.6        25.0         0.0
Generator               No     50           80.6        25.0         0.0
Tractor               No     40    84.0              25.0         0.0
Front End Loader       No     40           79.1        25.0         0.0
Backhoe                No     40           77.6        25.0         0.0
Welder / Torch         No     40           74.0        25.0         0.0

                             Results
                             -------
                                   Noise Limits (dBA)                 Noise Limit Exceedance (dBA)
                                 ---------------------------------------------    ---------------------------------------------
                   Calculated (dBA)       Day         Evening        Night            Day          Evening         Night
                   ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Crane                86.6    78.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Generator              86.7    83.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor              90.0    86.0      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                83.6    79.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Welder / Torch          80.0    76.0      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
           Total     90.0    89.9      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                          **** Receptor #3 ****

                                 Baselines (dBA)
Description                   Land Use       Daytime    Evening    Night
-----------                 --------       -------    -------    -----
Receptor - Monterey Street    Residential       56.0       45.0     45.0

                             Equipment
                             ---------
                             Spec    Actual    Receptor    Estimated
                Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Crane                 No     16           80.6        25.0         0.0
```

```
Generator              No     50            80.6         25.0          0.0
Tractor              No     40     84.0                25.0          0.0
Front End Loader       No     40            79.1         25.0          0.0
Backhoe                No     40            77.6         25.0          0.0
Welder / Torch         No     40            74.0         25.0          0.0

                          Results
                          -------
                                         Noise Limits (dBA)                Noise Limit Exceedance (dBA)
                              ----------------------------------------    ----------------------------------------
                  Calculated (dBA)        Day          Evening         Night             Day          Evening          Night
                  ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment               Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Crane                 86.6    78.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Generator               86.7    83.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Tractor               90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                 83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Welder / Torch           80.0    76.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
           Total     90.0    89.9       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          08/14/2017
Case Description:       Nipomo Palm - Demolition

                     **** Receptor #1 ****

                           Baselines (dBA)
Description                    Land Use       Daytime    Evening    Night
-----------                  --------       -------    -------    -----
Receptor - Reis Family Mortuary    Residential       64.7       45.0     45.0

                        Equipment
                        ---------
                        Spec    Actual    Receptor    Estimated
             Impact  Usage    Lmax    Lmax     Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Concrete Saw          No     20            89.6        25.0         0.0
Dozer              No     40            81.7        25.0         0.0
Tractor            No     40     84.0              25.0         0.0
Front End Loader       No     40            79.1        25.0         0.0
Backhoe             No     40            77.6        25.0         0.0

                        Results
                        -------
                                     Noise Limits (dBA)                 Noise Limit Exceedance (dBA)
                           ---------------------------------------------    ---------------------------------------------
                Calculated (dBA)        Day          Evening         Night            Day          Evening         Night
                ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Saw           95.6    88.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Dozer              87.7    83.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor            90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader        85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe             83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
         Total     95.6    92.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                     **** Receptor #2 ****

                           Baselines (dBA)
Description                    Land Use       Daytime    Evening    Night
-----------                  --------       -------    -------    -----
Receptor - Palm View Apartments    Residential       60.4       45.0     45.0
```

```
                                Equipment
                                ---------
                                Spec    Actual    Receptor    Estimated
                Impact  Usage    Lmax    Lmax     Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------       ------  -----    -----   -----     --------    ---------
Concrete Saw           No     20           89.6         0.0         0.0
Dozer              No     40           81.7         0.0         0.0
Tractor            No     40    84.0               0.0         0.0
Front End Loader       No     40           79.1         0.0         0.0
Backhoe            No     40           77.6         0.0         0.0

                                Results
                                -------
                                              Noise Limits (dBA)                 Noise Limit Exceedance (dBA)
                             ---------------------------------------------   ---------------------------------------------
                   Calculated (dBA)       Day         Evening        Night           Day         Evening        Night
                   ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment               Lmax    Leq       Lmax    Leq    Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Saw                 -7.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Dozer                   -4.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A     N/A
Tractor                 -4.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A     N/A
Front End Loader             -4.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                  -4.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
           Total      0.0     2.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A     N/A

                             **** Receptor #3 ****

                                  Baselines (dBA)
Description                 Land Use       Daytime    Evening    Night
-----------               --------       -------    -------    -----
Receptor - Monterey Street    Residential       56.0       45.0     45.0

                                Equipment
                                ---------
                                Spec    Actual    Receptor    Estimated
                Impact  Usage    Lmax    Lmax     Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------       ------  -----    -----   -----     --------    ---------
Concrete Saw           No     20           89.6        25.0         0.0
Dozer              No     40           81.7        25.0         0.0
Tractor            No     40    84.0               25.0         0.0
Front End Loader       No     40           79.1        25.0         0.0
Backhoe            No     40           77.6        25.0         0.0

                                Results
                                -------
                                              Noise Limits (dBA)                 Noise Limit Exceedance (dBA)
                             ---------------------------------------------   ---------------------------------------------
```

```
                  Calculated (dBA)      Day        Evening       Night          Day        Evening        Night
                  ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment             Lmax    Leq      Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------    ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Saw          95.6    88.6      N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Dozer              87.7    83.7      N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Tractor            90.0    86.0      N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader        85.1    81.2      N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Backhoe              83.6    79.6      N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
          Total     95.6    92.0      N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          08/14/2017
Case Description:       Palm Nipomo - Grading

                      **** Receptor #1 ****

                            Baselines (dBA)
Description                      Land Use       Daytime    Evening    Night
-----------                    --------       -------    -------    -----
Receptor - Reis Family Mortuary    Residential       64.7       45.0     45.0

                         Equipment
                         ---------
                            Spec    Actual    Receptor    Estimated
                Impact  Usage    Lmax    Lmax      Distance    Shielding
Description           Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------          ------  -----    -----   -----     --------     ---------
Concrete Mixer Truck       No     40            78.8        25.0         0.0
Paver                No     50            77.2        25.0         0.0
Pavement Scarafier         No     20            89.5        25.0         0.0
Front End Loader          No     40            79.1        25.0         0.0
Backhoe              No     40            77.6        25.0         0.0
Tractor              No     40     84.0                25.0         0.0
Roller               No     20            80.0        25.0         0.0
Auger Drill Rig          No     20            84.4        25.0         0.0

                         Results
                         -------
                                    Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                              ---------------------------------------------    ---------------------------------------------
                Calculated (dBA)       Day         Evening        Night            Day         Evening         Night
                ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Mixer Truck      84.8    80.8       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A
N/A     N/A
Paver                 83.2    80.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Pavement Scarafier       95.5    88.5       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader        85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe               83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor              90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Roller               86.0    79.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Auger Drill Rig          90.4    83.4       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
         Total      95.5    92.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
```

```
N/A

                    **** Receptor #2 ****

                               Baselines (dBA)
Description                    Land Use       Daytime   Evening   Night
-----------                  --------       -------   -------   -----
Receptor - Palm View Apartments   Residential      60.4      45.0     45.0

                           Equipment
                           ---------
                              Spec    Actual   Receptor   Estimated
                  Impact  Usage    Lmax    Lmax     Distance   Shielding
Description            Device   (%)     (dBA)   (dBA)     (feet)      (dBA)
-----------            ------  -----    -----   -----     --------    ---------
Concrete Mixer Truck       No     40          78.8        25.0        0.0
Paver                  No     50          77.2        25.0        0.0
Pavement Scarafier        No     20          89.5        25.0        0.0
Front End Loader          No     40          79.1        25.0        0.0
Backhoe                  No     40          77.6        25.0        0.0
Tractor                  No     40    84.0              25.0        0.0
Roller                  No     20          80.0        25.0        0.0
Auger Drill Rig           No     20          84.4        25.0        0.0

                           Results
                           -------
                                        Noise Limits (dBA)                Noise Limit Exceedance (dBA)
                               ----------------------------------------    ----------------------------------------
                  Calculated (dBA)       Day         Evening        Night           Day         Evening        Night
                  ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment               Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Mixer Truck      84.8    80.8       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A
N/A     N/A
Paver                83.2    80.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Pavement Scarafier       95.5    88.5       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor                90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Roller                86.0    79.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Auger Drill Rig          90.4    83.4       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
         Total      95.5    92.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                    **** Receptor #3 ****
```

```
                              Baselines (dBA)
Description                 Land Use       Daytime    Evening    Night
-----------                 --------       -------    -------    -----
Receptor - Monterey Street    Residential       56.0      45.0     45.0

                           Equipment
                           ---------
                              Spec    Actual    Receptor    Estimated
                 Impact  Usage    Lmax    Lmax      Distance    Shielding
Description           Device   (%)     (dBA)   (dBA)     (feet)      (dBA)
-----------           ------  -----    -----   -----     --------    ---------
Concrete Mixer Truck       No     40           78.8        25.0         0.0
Paver                 No     50           77.2        25.0         0.0
Pavement Scarafier        No     20           89.5        25.0         0.0
Front End Loader          No     40           79.1        25.0         0.0
Backhoe                   No     40           77.6        25.0         0.0
Tractor                 No     40     84.0              25.0         0.0
Roller                  No     20           80.0        25.0         0.0
Auger Drill Rig            No     20           84.4         0.0         0.0

                           Results
                           -------
                                        Noise Limits (dBA)                   Noise Limit Exceedance (dBA)
                               ---------------------------------------------   ---------------------------------------------
                 Calculated (dBA)       Day         Evening        Night           Day         Evening        Night
                 ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment               Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------    ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Mixer Truck      84.8    80.8       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A
N/A     N/A
Paver                 83.2    80.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Pavement Scarafier       95.5    88.5       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                 83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor                 90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Roller                  86.0    79.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Auger Drill Rig                 -7.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
          Total     95.5    92.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

```
                    Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          08/14/2017
Case Description:       Nipomo Palm - Paving

                         **** Receptor #1 ****

                              Baselines (dBA)
Description                   Land Use       Daytime    Evening    Night
-----------                --------       -------    -------    -----
Receptor - Reis Family Mortuary    Residential       64.7       45.0     45.0

                           Equipment
                           ---------
                              Spec    Actual    Receptor    Estimated
                   Impact  Usage    Lmax    Lmax      Distance    Shielding
Description             Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------            ------  -----    -----   -----     --------     ---------
Concrete Mixer Truck       No     40           78.8        25.0         0.0
Paver                    No     50           77.2        25.0         0.0
Tractor                  No     40     84.0               25.0         0.0
Front End Loader          No     40           79.1        25.0         0.0
Backhoe                    No     40           77.6        25.0         0.0
Roller                   No     20           80.0        25.0         0.0

                           Results
                           -------
                                        Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                              ----------------------------------------    ----------------------------------------
                   Calculated (dBA)        Day          Evening         Night             Day          Evening         Night
                   ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Mixer Truck      84.8    80.8       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A
N/A     N/A
Paver                  83.2    80.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor                90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader          85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                 83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Roller                 86.0    79.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
          Total     90.0    89.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                         **** Receptor #2 ****

                              Baselines (dBA)
Description                   Land Use       Daytime    Evening    Night
```

```
-----------                    --------       -------    -------    -----
Receptor - Palm View Apartments    Residential       60.4      45.0     45.0

                               Equipment
                               ---------
                                  Spec    Actual    Receptor    Estimated
                    Impact  Usage    Lmax    Lmax      Distance    Shielding
Description           Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------           ------  -----    -----   -----     --------     ---------
Concrete Mixer Truck        No     40           78.8        25.0         0.0
Paver                    No     50           77.2        25.0         0.0
Tractor                  No     40    84.0               25.0         0.0
Front End Loader           No     40           79.1        25.0         0.0
Backhoe                   No     40           77.6        25.0         0.0
Roller                   No     20           80.0        25.0         0.0

                               Results
                               -------
                                              Noise Limits (dBA)                    Noise Limit Exceedance (dBA)
                                    ---------------------------------------------    ---------------------------------------------
                    Calculated (dBA)        Day          Evening        Night            Day          Evening         Night
                    ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                 Lmax    Leq       Lmax    Leq     Lmax     Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------     ------  ------  ------  ------  ------  ------
Concrete Mixer Truck      84.8    80.8       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A
N/A     N/A
Paver                  83.2    80.2       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Tractor                90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                 83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Roller                 86.0    79.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
           Total      90.0    89.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A

                           **** Receptor #3 ****

                                   Baselines (dBA)
Description                   Land Use       Daytime    Evening    Night
-----------                 --------       -------    -------    -----
Receptor - Monterey Street    Residential       56.0       45.0     45.0

                               Equipment
                               ---------
                                  Spec    Actual    Receptor    Estimated
                    Impact  Usage    Lmax    Lmax      Distance    Shielding
Description           Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------           ------  -----    -----   -----     --------     ---------
Concrete Mixer Truck        No     40           78.8        25.0         0.0
```

```
Paver                  No     50          77.2        25.0        0.0
Tractor                No     40     84.0             25.0        0.0
Front End Loader         No     40          79.1        25.0        0.0
Backhoe                  No     40          77.6        25.0        0.0
Roller                 No     20          80.0         0.0         0.0

                            Results
                            -------
                                         Noise Limits (dBA)                 Noise Limit Exceedance (dBA)
                                ---------------------------------------------    ---------------------------------------------
                   Calculated (dBA)       Day          Evening        Night            Day          Evening         Night
                   ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment             Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Mixer Truck      84.8    80.8       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A
N/A     N/A
Paver                  83.2    80.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor                90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                  83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Roller                       -7.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A     N/A
           Total      90.0    89.3       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          08/14/2017
Case Description:       Palm Nipomo - Site Preparation

                     **** Receptor #1 ****

                           Baselines (dBA)
Description                  Land Use       Daytime    Evening    Night
-----------                --------       -------    -------    -----
Receptor - Reis Family Mortuary    Residential       64.7       45.0     45.0

                        Equipment
                        ---------
                        Spec    Actual    Receptor    Estimated
             Impact  Usage    Lmax    Lmax      Distance    Shielding
Description       Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------       ------  -----    -----   -----     --------    ---------
Grader              No     40     85.0              25.0         0.0
Dozer               No     40           81.7        25.0         0.0
Tractor             No     40     84.0              25.0         0.0
Front End Loader       No     40           79.1        25.0         0.0
Backhoe              No     40           77.6        25.0         0.0

                        Results
                        -------
                                      Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                           ---------------------------------------------    ---------------------------------------------
                Calculated (dBA)       Day          Evening         Night            Day          Evening         Night
                ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Grader                91.0    87.0      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Dozer                 87.7    83.7      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor               90.0    86.0      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                83.6    79.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
         Total      91.0    91.3      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                     **** Receptor #2 ****

                           Baselines (dBA)
Description                  Land Use       Daytime    Evening    Night
-----------                --------       -------    -------    -----
Receptor - Palm View Apartments    Residential       60.4       45.0     45.0
```

```
                              Equipment
                              ---------
                              Spec    Actual    Receptor    Estimated
                 Impact  Usage    Lmax    Lmax     Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------        ------  -----    -----   -----      --------     ---------
Grader              No     40     85.0              25.0          0.0
Dozer               No     40            81.7        25.0          0.0
Tractor             No     40    84.0               25.0          0.0
Front End Loader       No     40            79.1        25.0          0.0
Backhoe              No     40            77.6        25.0          0.0

                              Results
                              -------
                                         Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                                  ---------------------------------------------    ---------------------------------------------
                   Calculated (dBA)        Day          Evening        Night            Day          Evening        Night
                   ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Grader                91.0    87.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Dozer                 87.7    83.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor               90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                 83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
           Total      91.0    91.3       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                           **** Receptor #3 ****

                                  Baselines (dBA)
Description                    Land Use        Daytime    Evening    Night
-----------                 --------        -------    -------    -----
Receptor - Monterey Street    Residential        56.0       45.0     45.0

                              Equipment
                              ---------
                              Spec    Actual    Receptor    Estimated
                 Impact  Usage    Lmax    Lmax     Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------        ------  -----    -----   -----      --------     ---------
Grader              No     40     85.0              25.0          0.0
Dozer               No     40            81.7        25.0          0.0
Tractor             No     40    84.0               25.0          0.0
Front End Loader       No     40            79.1        25.0          0.0
Backhoe              No     40            77.6        25.0          0.0

                              Results
```

```
                              -------
                                        Noise Limits (dBA)              Noise Limit Exceedance (dBA)
                                  -------------------------------------------    -------------------------------------------
                    Calculated (dBA)       Day          Evening        Night           Day          Evening         Night
                    ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                 Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Grader                   91.0    87.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Dozer                    87.7    83.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor                  90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                  83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
            Total     91.0    91.3       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          09/20/2017
Case Description:       Nipomo Palm - Arch Coating

                     **** Receptor #1 ****

                           Baselines (dBA)
Description                    Land Use       Daytime    Evening    Night
-----------                  --------       -------    -------    -----
Receptor - Reis Family Mortuary    Residential       64.7       45.0     45.0

                        Equipment
                        ---------
                        Spec    Actual    Receptor    Estimated
             Impact  Usage    Lmax    Lmax      Distance    Shielding
Description       Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------       ------  -----    -----   -----     --------    ---------
Compressor (air)       No     40           77.7        50.0         0.0

                        Results
                        -------
                                      Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                            ---------------------------------------------    ---------------------------------------------
                Calculated (dBA)        Day          Evening        Night            Day          Evening        Night
                ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment               Lmax    Leq       Lmax    Leq      Lmax     Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Compressor (air)         77.7    73.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
          Total     77.7    73.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A

                     **** Receptor #2 ****

                           Baselines (dBA)
Description                    Land Use       Daytime    Evening    Night
-----------                  --------       -------    -------    -----
Receptor - Palm View Apartments    Residential       60.4       45.0     45.0

                        Equipment
                        ---------
                        Spec    Actual    Receptor    Estimated
             Impact  Usage    Lmax    Lmax      Distance    Shielding
Description       Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------       ------  -----    -----   -----     --------    ---------
Compressor (air)       No     40           77.7        50.0         0.0

                        Results
                        -------
                                      Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                            ---------------------------------------------    ---------------------------------------------
```

```
                 Calculated (dBA)      Day         Evening        Night           Day          Evening        Night
                 ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------    ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Compressor (air)        77.7    73.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
          Total     77.7    73.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                      **** Receptor #3 ****

                            Baselines (dBA)
Description                 Land Use       Daytime    Evening    Night
-----------               --------       -------    -------    -----
Receptor - Monterey Street    Residential       56.0       45.0     45.0

                        Equipment
                        ---------
                        Spec    Actual    Receptor    Estimated
              Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Compressor (air)       No     40           77.7        25.0         0.0

                        Results
                        -------
                                     Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                            ---------------------------------------------    ---------------------------------------------
                 Calculated (dBA)      Day         Evening        Night           Day          Evening        Night
                 ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------    ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Compressor (air)        83.7    79.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
          Total     83.7    79.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:         09/20/2017
Case Description:       Palm Nipomo - Construction

                      **** Receptor #1 ****

                              Baselines (dBA)
Description                   Land Use        Daytime    Evening    Night
-----------                 --------       -------    -------    -----
Receptor - Reis Family Mortuary    Residential       64.7       45.0     45.0

                          Equipment
                          ---------
                          Spec    Actual    Receptor    Estimated
              Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)     (feet)      (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Crane              No     16           80.6        50.0         0.0
Generator             No     50           80.6        50.0         0.0
Tractor            No     40    84.0               50.0         0.0
Front End Loader       No     40           79.1        50.0         0.0
Backhoe             No     40           77.6        50.0         0.0
Welder / Torch         No     40           74.0        50.0         0.0

                          Results
                          -------
                                        Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                              ------------------------------------------    ------------------------------------------
                Calculated (dBA)       Day          Evening         Night             Day          Evening         Night
                ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment             Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Crane               80.6    72.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Generator             80.6    77.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor             84.0    80.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         79.1    75.1       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe             77.6    73.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Welder / Torch          74.0    70.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
         Total     84.0    83.8       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                      **** Receptor #2 ****

                              Baselines (dBA)
Description                   Land Use        Daytime    Evening    Night
```

```
-----------                  --------      -------    -------    -----
Receptor - Palm View Apartments    Residential       60.4      45.0     45.0

                         Equipment
                         ---------
                         Spec    Actual    Receptor    Estimated
              Impact  Usage    Lmax    Lmax     Distance    Shielding
Description       Device   (%)     (dBA)   (dBA)     (feet)      (dBA)
-----------       ------  -----    -----   -----     --------    ---------
Crane               No     16           80.6        25.0         0.0
Generator             No     50           80.6        25.0         0.0
Tractor             No     40    84.0              25.0         0.0
Front End Loader       No     40           79.1        25.0         0.0
Backhoe               No     40           77.6        25.0         0.0
Welder / Torch         No     40           74.0        25.0         0.0

                         Results
                         -------
                                    Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                             --------------------------------------------    --------------------------------------------
                 Calculated (dBA)       Day         Evening        Night            Day         Evening        Night
                 ----------------   --------------   -------------  --------------     --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Crane                86.6    78.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Generator              86.7    83.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor              90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Welder / Torch           80.0    76.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
         Total     90.0    89.9       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                      **** Receptor #3 ****

                             Baselines (dBA)
Description                Land Use       Daytime    Evening    Night
-----------               --------       -------    -------    -----
Receptor - Monterey Street    Residential       56.0      45.0     45.0

                         Equipment
                         ---------
                         Spec    Actual    Receptor    Estimated
              Impact  Usage    Lmax    Lmax     Distance    Shielding
Description       Device   (%)     (dBA)   (dBA)     (feet)      (dBA)
-----------       ------  -----    -----   -----     --------    ---------
Crane               No     16           80.6        25.0         0.0
```

```
Generator              No     50            80.6         25.0          0.0
Tractor               No     40     84.0               25.0          0.0
Front End Loader        No     40            79.1         25.0          0.0
Backhoe                No     40            77.6         25.0          0.0
Welder / Torch          No     40            74.0         25.0          0.0

                               Results
                               -------
                                                Noise Limits (dBA)                 Noise Limit Exceedance (dBA)
                                ----------------------------------------------    ----------------------------------------------
                  Calculated (dBA)        Day          Evening        Night            Day          Evening         Night
                  ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq    Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Crane                  86.6    78.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Generator                86.7    83.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor                 90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader          85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                  83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Welder / Torch            80.0    76.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
           Total     90.0    89.9       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          09/20/2017
Case Description:       Nipomo Palm - Demolition

                    **** Receptor #1 ****

                          Baselines (dBA)
Description                 Land Use       Daytime   Evening   Night
-----------              --------      -------   -------   -----
Receptor - Reis Family Mortuary    Residential       64.7      45.0     45.0

                       Equipment
                       ---------
                       Spec    Actual    Receptor    Estimated
             Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Concrete Saw          No     20           89.6        50.0         0.0
Dozer              No     40           81.7        50.0         0.0
Tractor            No     40    84.0              50.0         0.0
Front End Loader       No     40           79.1        50.0         0.0
Backhoe             No     40           77.6        50.0         0.0

                       Results
                       -------
                                    Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                          ---------------------------------------------    ---------------------------------------------
               Calculated (dBA)        Day          Evening         Night            Day          Evening          Night
               ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment               Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Saw           89.6    82.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Dozer                81.7    77.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor              84.0    80.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         79.1    75.1       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe               77.6    73.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
          Total      89.6    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                    **** Receptor #2 ****

                          Baselines (dBA)
Description                 Land Use       Daytime   Evening   Night
-----------              --------      -------   -------   -----
Receptor - Palm View Apartments    Residential       60.4      45.0     45.0
```

```
                              Equipment
                              ---------
                              Spec    Actual    Receptor    Estimated
               Impact  Usage    Lmax    Lmax     Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------        ------  -----    -----   -----     --------     ---------
Concrete Saw           No     20           89.6        0.0         0.0
Dozer               No     40           81.7         0.0         0.0
Tractor             No     40    84.0               0.0         0.0
Front End Loader       No     40           79.1         0.0         0.0
Backhoe             No     40           77.6         0.0         0.0

                              Results
                              -------
                                             Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                                   ---------------------------------------------    ---------------------------------------------
                  Calculated (dBA)       Day          Evening        Night            Day          Evening         Night
                  ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment               Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Saw                  -7.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Dozer                      -4.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A     N/A
Tractor                    -4.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A     N/A
Front End Loader              -4.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                     -4.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
          Total      0.0     2.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A     N/A

                           **** Receptor #3 ****

                                 Baselines (dBA)
Description                  Land Use       Daytime    Evening    Night
-----------                 --------       -------    -------    -----
Receptor - Monterey Street    Residential       56.0       45.0     45.0

                              Equipment
                              ---------
                              Spec    Actual    Receptor    Estimated
               Impact  Usage    Lmax    Lmax     Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------        ------  -----    -----   -----     --------     ---------
Concrete Saw           No     20           89.6       25.0         0.0
Dozer               No     40           81.7        25.0         0.0
Tractor             No     40    84.0              25.0         0.0
Front End Loader       No     40           79.1        25.0         0.0
Backhoe             No     40           77.6        25.0         0.0

                              Results
                              -------
                                             Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                                   ---------------------------------------------    ---------------------------------------------
```

```
                    Calculated (dBA)      Day        Evening       Night          Day        Evening       Night
                    ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Saw            95.6    88.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Dozer                 87.7    83.7      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor               90.0    86.0      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader        85.1    81.2      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                 83.6    79.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
           Total      95.6    92.0      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          09/20/2017
Case Description:       Palm Nipomo - Grading

                     **** Receptor #1 ****

                           Baselines (dBA)
Description                    Land Use       Daytime    Evening    Night
-----------                 --------       -------    -------    -----
Receptor - Reis Family Mortuary    Residential       64.7       45.0     45.0

                        Equipment
                        ---------
                          Spec    Actual    Receptor    Estimated
                Impact  Usage    Lmax    Lmax      Distance    Shielding
Description          Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------          ------  -----    -----   -----     --------    ---------
Concrete Mixer Truck       No     40           78.8        50.0         0.0
Paver                No     50           77.2        50.0         0.0
Pavement Scarafier        No     20           89.5        50.0         0.0
Front End Loader          No     40           79.1        50.0         0.0
Backhoe                No     40           77.6        50.0         0.0
Tractor                No     40     84.0              50.0         0.0
Roller                No     20           80.0        50.0         0.0
Auger Drill Rig          No     20           84.4        50.0         0.0

                        Results
                        -------
                                   Noise Limits (dBA)                 Noise Limit Exceedance (dBA)
                            ---------------------------------------------    ---------------------------------------------
                Calculated (dBA)        Day         Evening         Night            Day         Evening         Night
                ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------    ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Mixer Truck      78.8    74.8       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A
N/A     N/A
Paver              77.2    74.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Pavement Scarafier       89.5    82.5       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         79.1    75.1       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe              77.6    73.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor              84.0    80.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Roller              80.0    73.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Auger Drill Rig          84.4    77.4       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
           Total      89.5    86.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
```

```
N/A

                    **** Receptor #2 ****

                         Baselines (dBA)
Description                   Land Use     Daytime   Evening   Night
-----------                 --------     -------   -------   -----
Receptor - Palm View Apartments   Residential      60.4      45.0    45.0

                        Equipment
                        ---------
                          Spec   Actual   Receptor   Estimated
               Impact  Usage   Lmax   Lmax     Distance   Shielding
Description          Device  (%)    (dBA)  (dBA)     (feet)      (dBA)
-----------          ------  -----   -----   -----    --------    ---------
Concrete Mixer Truck       No    40          78.8       25.0        0.0
Paver                  No    50          77.2       25.0        0.0
Pavement Scarafier        No    20          89.5       25.0        0.0
Front End Loader         No    40          79.1       25.0        0.0
Backhoe                 No    40          77.6       25.0        0.0
Tractor                 No    40    84.0             25.0        0.0
Roller                  No    20          80.0       25.0        0.0
Auger Drill Rig           No    20          84.4       25.0        0.0

                        Results
                        -------
                                   Noise Limits (dBA)                 Noise Limit Exceedance (dBA)
                        ---------------------------------------------    ---------------------------------------------
               Calculated (dBA)       Day        Evening       Night           Day        Evening       Night
               ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq    Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------     ------  ------  ------  ------  ------  ------
Concrete Mixer Truck       84.8    80.8       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A
N/A     N/A
Paver                  83.2    80.2       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Pavement Scarafier       95.5    88.5       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                 83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Tractor                 90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Roller                  86.0    79.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Auger Drill Rig           90.4    83.4       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
         Total     95.5    92.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A

                    **** Receptor #3 ****
```

```
                              Baselines (dBA)
Description               Land Use       Daytime    Evening    Night
-----------               --------       -------    -------    -----
Receptor - Monterey Street    Residential       56.0       45.0     45.0

                          Equipment
                          ---------
                            Spec    Actual    Receptor    Estimated
                 Impact  Usage    Lmax    Lmax      Distance    Shielding
Description            Device   (%)    (dBA)   (dBA)     (feet)       (dBA)
-----------          ------  -----    -----   -----     --------    ---------
Concrete Mixer Truck       No     40           78.8        25.0         0.0
Paver                No     50           77.2        25.0         0.0
Pavement Scarafier         No     20           89.5        25.0         0.0
Front End Loader          No     40           79.1        25.0         0.0
Backhoe                No     40           77.6        25.0         0.0
Tractor                No     40    84.0              25.0         0.0
Roller                No     20           80.0        25.0         0.0
Auger Drill Rig           No     20           84.4         0.0         0.0

                          Results
                          -------
                                         Noise Limits (dBA)                   Noise Limit Exceedance (dBA)
                              ---------------------------------------------    ---------------------------------------------
                 Calculated (dBA)        Day          Evening         Night            Day          Evening         Night
                 ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                 Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Mixer Truck      84.8    80.8       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A
N/A     N/A
Paver               83.2    80.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Pavement Scarafier        95.5    88.5       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe               83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor              90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Roller              86.0    79.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Auger Drill Rig                 -7.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
            Total      95.5    92.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          09/20/2017
Case Description:       Nipomo Palm - Paving

                     **** Receptor #1 ****

                           Baselines (dBA)
Description                Land Use       Daytime    Evening    Night
-----------              --------      -------    -------    -----
Receptor - Reis Family Mortuary    Residential       64.7       45.0     45.0

                        Equipment
                        ---------
                          Spec    Actual    Receptor    Estimated
                Impact  Usage    Lmax    Lmax      Distance    Shielding
Description           Device   (%)     (dBA)   (dBA)     (feet)      (dBA)
-----------           ------  -----    -----   -----     --------    ---------
Concrete Mixer Truck       No     40           78.8        50.0         0.0
Paver                 No     50           77.2        50.0         0.0
Tractor               No     40     84.0               50.0         0.0
Front End Loader          No     40           79.1        50.0         0.0
Backhoe                 No     40           77.6        50.0         0.0
Roller                No     20           80.0        50.0         0.0

                        Results
                        -------
                                     Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                           ---------------------------------------------    ---------------------------------------------
                Calculated (dBA)        Day          Evening         Night             Day          Evening          Night
                ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq      Lmax    Leq      Lmax    Leq       Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Mixer Truck       78.8    74.8       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A
N/A     N/A
Paver               77.2    74.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor              84.0    80.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader          79.1    75.1       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                77.6    73.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Roller              80.0    73.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
          Total      84.0    83.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                     **** Receptor #2 ****

                           Baselines (dBA)
Description                Land Use       Daytime    Evening    Night
```

```
-----------                    --------       -------    -------    -----
Receptor - Palm View Apartments    Residential       60.4      45.0     45.0

                              Equipment
                              ---------
                                 Spec    Actual    Receptor    Estimated
                  Impact  Usage    Lmax    Lmax      Distance    Shielding
Description            Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------          ------  -----    -----   -----     --------     ---------
Concrete Mixer Truck       No     40            78.8         25.0          0.0
Paver                    No     50            77.2         25.0          0.0
Tractor                  No     40     84.0               25.0          0.0
Front End Loader          No     40            79.1         25.0          0.0
Backhoe                  No     40            77.6         25.0          0.0
Roller                   No     20            80.0         25.0          0.0

                              Results
                              -------
                                       Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                                   -------------------------------------------    -------------------------------------------
                  Calculated (dBA)        Day         Evening        Night            Day         Evening         Night
                  ----------------    --------------   -------------  --------------    --------------  --------------  --------------
Equipment                 Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------     ------  ------  ------  ------  ------  ------
Concrete Mixer Truck      84.8    80.8       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A
N/A     N/A
Paver                 83.2    80.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor               90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                 83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Roller                86.0    79.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
           Total      90.0    89.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                           **** Receptor #3 ****

                                  Baselines (dBA)
Description                  Land Use       Daytime    Evening    Night
-----------                 --------       -------    -------    -----
Receptor - Monterey Street    Residential       56.0       45.0     45.0

                              Equipment
                              ---------
                                 Spec    Actual    Receptor    Estimated
                  Impact  Usage    Lmax    Lmax      Distance    Shielding
Description            Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------          ------  -----    -----   -----     --------     ---------
Concrete Mixer Truck       No     40            78.8         25.0          0.0
```

```
Paver                    No     50            77.2         25.0          0.0
Tractor                   No     40     84.0               25.0          0.0
Front End Loader          No     40            79.1         25.0          0.0
Backhoe                    No     40            77.6         25.0          0.0
Roller                   No     20            80.0          0.0          0.0

                              Results
                              -------
                                       Noise Limits (dBA)                Noise Limit Exceedance (dBA)
                            ---------------------------------------------    ---------------------------------------------
                 Calculated (dBA)       Day          Evening        Night            Day          Evening         Night
                 ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Mixer Truck      84.8    80.8       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A
N/A     N/A
Paver                 83.2    80.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor               90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                 83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Roller                        -7.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A     N/A
            Total     90.0    89.3       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

```
               Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          09/20/2017
Case Description:       Palm Nipomo - Site Preparation

                    **** Receptor #1 ****

                          Baselines (dBA)
Description                      Land Use       Daytime    Evening    Night
-----------                    --------       -------    -------    -----
Receptor - Reis Family Mortuary    Residential       64.7       45.0     45.0

                       Equipment
                       ---------
                       Spec    Actual    Receptor    Estimated
              Impact  Usage    Lmax    Lmax      Distance    Shielding
Description       Device   (%)     (dBA)   (dBA)     (feet)      (dBA)
-----------       ------  -----    -----   -----     --------    ---------
Grader              No     40     85.0              50.0         0.0
Dozer               No     40           81.7        50.0         0.0
Tractor             No     40     84.0              50.0         0.0
Front End Loader       No     40           79.1        50.0         0.0
Backhoe             No     40           77.6        50.0         0.0

                       Results
                       -------
                                    Noise Limits (dBA)                Noise Limit Exceedance (dBA)
                          ---------------------------------------------    ---------------------------------------------
                Calculated (dBA)        Day          Evening         Night            Day          Evening          Night
                ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                 Lmax    Leq       Lmax    Leq     Lmax     Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------    ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Grader                 85.0    81.0      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Dozer                  81.7    77.7      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor                84.0    80.0      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         79.1    75.1      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                  77.6    73.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
          Total      85.0    85.3      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                    **** Receptor #2 ****

                          Baselines (dBA)
Description                      Land Use       Daytime    Evening    Night
-----------                    --------       -------    -------    -----
Receptor - Palm View Apartments    Residential       60.4       45.0     45.0
```

```
                        Equipment
                        ---------
                        Spec    Actual    Receptor    Estimated
           Impact  Usage    Lmax    Lmax     Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)     (feet)      (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Grader              No     40    85.0              25.0        0.0
Dozer               No     40           81.7        25.0        0.0
Tractor             No     40    84.0              25.0        0.0
Front End Loader       No     40           79.1        25.0        0.0
Backhoe             No     40           77.6        25.0        0.0

                        Results
                        -------
                                  Noise Limits (dBA)                Noise Limit Exceedance (dBA)
                            ------------------------------------------    ------------------------------------------
                Calculated (dBA)        Day         Evening        Night            Day         Evening        Night
                ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq    Lmax    Leq    Lmax    Leq      Lmax    Leq    Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Grader                91.0    87.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Dozer                 87.7    83.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Tractor               90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
         Total      91.0    91.3       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A

                     **** Receptor #3 ****

                            Baselines (dBA)
Description                  Land Use       Daytime    Evening    Night
-----------                 --------       -------    -------    -----
Receptor - Monterey Street    Residential       56.0       45.0     45.0

                        Equipment
                        ---------
                        Spec    Actual    Receptor    Estimated
           Impact  Usage    Lmax    Lmax     Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)     (feet)      (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Grader              No     40    85.0              25.0        0.0
Dozer               No     40           81.7        25.0        0.0
Tractor             No     40    84.0              25.0        0.0
Front End Loader       No     40           79.1        25.0        0.0
Backhoe             No     40           77.6        25.0        0.0

                        Results
```

```
                              -------
                                             Noise Limits (dBA)              Noise Limit Exceedance (dBA)
                                   ---------------------------------------------   ---------------------------------------------
                  Calculated (dBA)       Day          Evening        Night            Day          Evening        Night
                  ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                 Lmax    Leq        Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Grader                  91.0    87.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Dozer                   87.7    83.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Tractor                 90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                  83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
           Total     91.0    91.3       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
```

```
                    Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          09/20/2017
Case Description:       Nipomo Palm - Arch Coating

                         **** Receptor #1 ****

                                Baselines (dBA)
Description                    Land Use       Daytime    Evening    Night
-----------                  --------       -------    -------    -----
Receptor - Reis Family Mortuary    Residential       64.7       45.0     45.0

                           Equipment
                           ---------
                           Spec    Actual    Receptor    Estimated
              Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Compressor (air)       No     40            77.7       100.0         0.0

                           Results
                           -------
                                         Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                               ----------------------------------------------    ----------------------------------------------
                    Calculated (dBA)        Day          Evening        Night             Day          Evening        Night
                    ----------------   --------------   -------------  --------------     --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------     ------  ------  ------  ------  ------  ------
Compressor (air)         71.6    67.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
          Total      71.6    67.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A

                         **** Receptor #2 ****

                                Baselines (dBA)
Description                    Land Use       Daytime    Evening    Night
-----------                  --------       -------    -------    -----
Receptor - Palm View Apartments    Residential       60.4       45.0     45.0

                           Equipment
                           ---------
                           Spec    Actual    Receptor    Estimated
              Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Compressor (air)       No     40            77.7        50.0         0.0

                           Results
                           -------
                                         Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                               ----------------------------------------------    ----------------------------------------------
```

```
                  Calculated (dBA)       Day          Evening         Night            Day          Evening         Night
                  ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Compressor (air)         77.7    73.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
           Total     77.7    73.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A

                           **** Receptor #3 ****

                                  Baselines (dBA)
Description                  Land Use       Daytime    Evening    Night
-----------                 --------       -------    -------    -----
Receptor - Monterey Street    Residential       56.0       45.0     45.0

                              Equipment
                              ---------
                              Spec    Actual    Receptor    Estimated
               Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Compressor (air)       No     40            77.7        25.0         0.0

                              Results
                              -------
                                           Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                                  ---------------------------------------------    ---------------------------------------------
                  Calculated (dBA)       Day          Evening         Night            Day          Evening         Night
                  ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Compressor (air)         83.7    79.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
           Total     83.7    79.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
```

```
               Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          09/20/2017
Case Description:      Palm Nipomo - Construction

                      **** Receptor #1 ****

                            Baselines (dBA)
Description                 Land Use       Daytime    Evening    Night
-----------              --------       -------    -------    -----
Receptor - Reis Family Mortuary    Residential       64.7       45.0     45.0

                        Equipment
                        ---------
                        Spec    Actual    Receptor    Estimated
             Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Crane               No     16           80.6       100.0         0.0
Generator            No     50           80.6       100.0         0.0
Tractor             No     40    84.0             100.0         0.0
Front End Loader       No     40           79.1       100.0         0.0
Backhoe              No     40           77.6       100.0         0.0
Welder / Torch         No     40           74.0       100.0         0.0

                        Results
                        -------
                                      Noise Limits (dBA)                    Noise Limit Exceedance (dBA)
                            -------------------------------------------   -------------------------------------------
               Calculated (dBA)       Day         Evening        Night            Day         Evening        Night
               ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                 Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Crane                74.5    66.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Generator              74.6    71.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor              78.0    74.0      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         73.1    69.1      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe              71.5    67.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Welder / Torch          68.0    64.0      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
         Total      78.0    77.8      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                      **** Receptor #2 ****

                            Baselines (dBA)
Description                 Land Use       Daytime    Evening    Night
```

```
-----------                  --------      -------    -------    -----
Receptor - Palm View Apartments    Residential       60.4      45.0     45.0

                        Equipment
                        ---------
                        Spec    Actual    Receptor    Estimated
             Impact  Usage    Lmax    Lmax     Distance    Shielding
Description       Device   (%)     (dBA)   (dBA)     (feet)      (dBA)
-----------       ------  -----    -----   -----     --------    ---------
Crane                No     16           80.6        25.0         0.0
Generator             No     50           80.6        25.0         0.0
Tractor              No     40    84.0              25.0         0.0
Front End Loader       No     40           79.1        25.0         0.0
Backhoe               No     40           77.6        25.0         0.0
Welder / Torch        No     40           74.0        25.0         0.0

                        Results
                        -------
                                        Noise Limits (dBA)                Noise Limit Exceedance (dBA)
                            --------------------------------------------    --------------------------------------------
                Calculated (dBA)       Day         Evening        Night           Day         Evening        Night
                ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq      Lmax    Leq    Lmax    Leq    Lmax    Leq     Lmax    Leq    Lmax    Leq
Lmax    Leq
---------------------  ------  ------    ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Crane                86.6    78.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Generator             86.7    83.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor              90.0    86.0      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader        85.1    81.2      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe               83.6    79.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Welder / Torch         80.0    76.0      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
         Total     90.0    89.9      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                     **** Receptor #3 ****

                            Baselines (dBA)
Description                 Land Use       Daytime    Evening    Night
-----------                 --------       -------    -------    -----
Receptor - Monterey Street    Residential       56.0       45.0     45.0

                        Equipment
                        ---------
                        Spec    Actual    Receptor    Estimated
             Impact  Usage    Lmax    Lmax     Distance    Shielding
Description       Device   (%)     (dBA)   (dBA)     (feet)      (dBA)
-----------       ------  -----    -----   -----     --------    ---------
Crane                No     16           80.6        25.0         0.0
```

```
Generator            No    50          80.6        25.0         0.0
Tractor            No    40    84.0             25.0         0.0
Front End Loader       No    40          79.1        25.0         0.0
Backhoe            No    40          77.6        25.0         0.0
Welder / Torch        No    40          74.0        25.0         0.0

                           Results
                           -------
                                        Noise Limits (dBA)              Noise Limit Exceedance (dBA)
                               ---------------------------------------------   ---------------------------------------------
                  Calculated (dBA)       Day        Evening       Night           Day        Evening       Night
                  ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment            Lmax    Leq      Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Crane               86.6    78.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Generator            86.7    83.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor             90.0    86.0      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader        85.1    81.2      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe             83.6    79.6      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Welder / Torch          80.0    76.0      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
           Total     90.0    89.9      N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          09/20/2017
Case Description:       Nipomo Palm - Demolition

                    **** Receptor #1 ****

                          Baselines (dBA)
Description                 Land Use      Daytime   Evening   Night
-----------               --------      -------   -------   -----
Receptor - Reis Family Mortuary    Residential       64.7      45.0     45.0

                       Equipment
                       ---------
                       Spec    Actual    Receptor    Estimated
             Impact  Usage    Lmax    Lmax      Distance    Shielding
Description       Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------       ------  -----    -----   -----     --------    ---------
Concrete Saw          No     20           89.6       100.0         0.0
Dozer              No     40           81.7       100.0         0.0
Tractor            No     40    84.0             100.0         0.0
Front End Loader       No     40           79.1       100.0         0.0
Backhoe             No     40           77.6       100.0         0.0

                       Results
                       -------
                                    Noise Limits (dBA)                 Noise Limit Exceedance (dBA)
                          -------------------------------------------    -------------------------------------------
                Calculated (dBA)       Day         Evening        Night            Day         Evening         Night
                ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment             Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------    ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Saw           83.6    76.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Dozer               75.6    71.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor             78.0    74.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader        73.1    69.1       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe              71.5    67.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
         Total      83.6    80.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                    **** Receptor #2 ****

                          Baselines (dBA)
Description                 Land Use      Daytime   Evening   Night
-----------               --------      -------   -------   -----
Receptor - Palm View Apartments    Residential       60.4      45.0     45.0
```

```
                              Equipment
                              ---------
                              Spec    Actual    Receptor    Estimated
               Impact  Usage    Lmax    Lmax     Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------        ------  -----    -----   -----     --------     ---------
Concrete Saw           No     20            89.6         0.0          0.0
Dozer              No     40            81.7         0.0          0.0
Tractor            No     40    84.0                 0.0          0.0
Front End Loader       No     40            79.1         0.0          0.0
Backhoe              No     40            77.6         0.0          0.0

                              Results
                              -------
                                           Noise Limits (dBA)                Noise Limit Exceedance (dBA)
                                   ---------------------------------------------    ---------------------------------------------
                   Calculated (dBA)        Day          Evening        Night            Day          Evening         Night
                   ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------    ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Saw                 -7.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Dozer                    -4.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A     N/A
Tractor                  -4.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A     N/A
Front End Loader             -4.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                    -4.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
           Total      0.0     2.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A     N/A

                         **** Receptor #3 ****

                                  Baselines (dBA)
Description                 Land Use       Daytime    Evening    Night
-----------                 --------       -------    -------    -----
Receptor - Monterey Street    Residential       56.0       45.0     45.0

                              Equipment
                              ---------
                              Spec    Actual    Receptor    Estimated
               Impact  Usage    Lmax    Lmax     Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)      (dBA)
-----------        ------  -----    -----   -----     --------     ---------
Concrete Saw           No     20            89.6        25.0          0.0
Dozer              No     40            81.7        25.0          0.0
Tractor            No     40    84.0                25.0          0.0
Front End Loader       No     40            79.1        25.0          0.0
Backhoe              No     40            77.6        25.0          0.0

                              Results
                              -------
                                           Noise Limits (dBA)                Noise Limit Exceedance (dBA)
                                   ---------------------------------------------    ---------------------------------------------
```

```
                   Calculated (dBA)       Day        Evening        Night           Day        Evening        Night
                   ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment            Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Saw           95.6    88.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Dozer               87.7    83.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor             90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe              83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
            Total     95.6    92.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:         09/20/2017
Case Description:       Palm Nipomo - Grading

                    **** Receptor #1 ****

                         Baselines (dBA)
Description                    Land Use       Daytime    Evening    Night
-----------                 --------       -------    -------    -----
Receptor - Reis Family Mortuary    Residential       64.7       45.0     45.0

                      Equipment
                      ---------
                        Spec    Actual    Receptor    Estimated
               Impact  Usage    Lmax    Lmax      Distance    Shielding
Description           Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------          ------  -----    -----   -----     --------     ---------
Concrete Mixer Truck       No     40           78.8       100.0         0.0
Paver                No     50           77.2       100.0         0.0
Pavement Scarafier         No     20           89.5       100.0         0.0
Front End Loader          No     40           79.1       100.0         0.0
Backhoe                No     40           77.6       100.0         0.0
Tractor                No     40     84.0              100.0         0.0
Roller                No     20           80.0       100.0         0.0
Auger Drill Rig           No     20           84.4       100.0         0.0

                      Results
                      -------
                                   Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                         ---------------------------------------------    ---------------------------------------------
               Calculated (dBA)        Day         Evening         Night            Day         Evening         Night
               ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment             Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq    Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Mixer Truck      72.8    68.8       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A
N/A     N/A
Paver                71.2    68.2       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Pavement Scarafier        83.5    76.5       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         73.1    69.1       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                71.5    67.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Tractor               78.0    74.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Roller                74.0    67.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Auger Drill Rig           78.3    71.3       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
          Total      83.5    80.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
```

```
N/A

                    **** Receptor #2 ****

                              Baselines (dBA)
Description                   Land Use       Daytime    Evening    Night
-----------                 --------       -------    -------    -----
Receptor - Palm View Apartments    Residential       60.4       45.0     45.0

                           Equipment
                           ---------
                              Spec    Actual    Receptor    Estimated
                  Impact  Usage    Lmax    Lmax     Distance    Shielding
Description            Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------            ------  -----    -----   -----     --------     ---------
Concrete Mixer Truck       No     40            78.8         25.0          0.0
Paver                  No     50            77.2         25.0          0.0
Pavement Scarafier         No     20            89.5         25.0          0.0
Front End Loader          No     40            79.1         25.0          0.0
Backhoe                  No     40            77.6         25.0          0.0
Tractor                 No     40     84.0              25.0          0.0
Roller                  No     20            80.0         25.0          0.0
Auger Drill Rig            No     20            84.4         25.0          0.0

                           Results
                           -------
                                          Noise Limits (dBA)                    Noise Limit Exceedance (dBA)
                              ---------------------------------------------    ---------------------------------------------
                  Calculated (dBA)        Day          Evening         Night             Day          Evening         Night
                  ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment               Lmax    Leq       Lmax    Leq      Lmax    Leq      Lmax    Leq       Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------     ------  ------  ------  ------  ------  ------
Concrete Mixer Truck       84.8    80.8       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A
N/A     N/A
Paver                  83.2    80.2       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Pavement Scarafier        95.5    88.5       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                 83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Tractor                 90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Roller                  86.0    79.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Auger Drill Rig            90.4    83.4       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
         Total      95.5    92.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A

                    **** Receptor #3 ****
```

```
                              Baselines (dBA)
Description              Land Use      Daytime   Evening   Night
-----------              --------      -------   -------   -----
Receptor - Monterey Street   Residential      56.0      45.0     45.0

                           Equipment
                           ---------
                              Spec    Actual    Receptor    Estimated
                  Impact  Usage    Lmax    Lmax      Distance    Shielding
Description            Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------            ------  -----    -----   -----     --------     ---------
Concrete Mixer Truck       No     40           78.8         25.0          0.0
Paver                No     50           77.2        25.0         0.0
Pavement Scarafier        No     20           89.5        25.0         0.0
Front End Loader          No     40           79.1        25.0         0.0
Backhoe                  No     40           77.6        25.0         0.0
Tractor                 No     40     84.0                25.0         0.0
Roller                 No     20           80.0        25.0         0.0
Auger Drill Rig           No     20           84.4         0.0          0.0

                           Results
                           -------
                                          Noise Limits (dBA)                    Noise Limit Exceedance (dBA)
                               ---------------------------------------------    ---------------------------------------------
                  Calculated (dBA)       Day         Evening        Night            Day         Evening         Night
                  ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Mixer Truck       84.8    80.8       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A
N/A     N/A
Paver                83.2    80.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Pavement Scarafier       95.5    88.5       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                 83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor                90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Roller                86.0    79.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Auger Drill Rig                -7.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
           Total     95.5    92.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          09/20/2017
Case Description:      Nipomo Palm - Paving

                    **** Receptor #1 ****

                          Baselines (dBA)
Description                    Land Use      Daytime   Evening   Night
-----------                    --------      -------   -------   -----
Receptor - Reis Family Mortuary   Residential      64.7      45.0     45.0

                       Equipment
                       ---------
                         Spec    Actual   Receptor   Estimated
                Impact  Usage    Lmax    Lmax      Distance    Shielding
Description           Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------          ------  -----    -----   -----     --------    ---------
Concrete Mixer Truck      No     40           78.8       100.0         0.0
Paver                   No     50           77.2       100.0         0.0
Tractor                 No     40    84.0              100.0         0.0
Front End Loader         No     40           79.1       100.0         0.0
Backhoe                  No     40           77.6       100.0         0.0
Roller                  No     20           80.0       100.0         0.0

                       Results
                       -------
                                   Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                          ---------------------------------------------    ---------------------------------------------
                Calculated (dBA)       Day         Evening        Night            Day         Evening        Night
                ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment              Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Mixer Truck      72.8    68.8       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A
N/A     N/A
Paver                71.2    68.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor              78.0    74.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         73.1    69.1       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe               71.5    67.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Roller               74.0    67.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
           Total     78.0    77.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                    **** Receptor #2 ****

                          Baselines (dBA)
Description                    Land Use      Daytime   Evening   Night
```

```
-----------                    --------       -------    -------    -----
Receptor - Palm View Apartments    Residential       60.4       45.0     45.0

                              Equipment
                              ---------
                                 Spec    Actual    Receptor    Estimated
                   Impact  Usage    Lmax    Lmax      Distance    Shielding
Description            Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------           ------  -----    -----   -----     --------     ---------
Concrete Mixer Truck        No     40            78.8         25.0          0.0
Paver                    No     50            77.2         25.0          0.0
Tractor                  No     40     84.0                25.0          0.0
Front End Loader           No     40            79.1         25.0          0.0
Backhoe                   No     40            77.6         25.0          0.0
Roller                   No     20            80.0         25.0          0.0

                              Results
                              -------
                                             Noise Limits (dBA)                    Noise Limit Exceedance (dBA)
                                    ---------------------------------------------    ---------------------------------------------
                   Calculated (dBA)        Day         Evening        Night            Day         Evening        Night
                   ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                 Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
---------------------  ------  ------    ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Mixer Truck      84.8    80.8       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A
N/A     N/A
Paver                  83.2    80.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor                90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader          85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                 83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Roller                 86.0    79.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
           Total      90.0    89.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                         **** Receptor #3 ****

                                 Baselines (dBA)
Description                   Land Use       Daytime    Evening    Night
-----------                --------       -------    -------    -----
Receptor - Monterey Street    Residential       56.0       45.0     45.0

                              Equipment
                              ---------
                                 Spec    Actual    Receptor    Estimated
                   Impact  Usage    Lmax    Lmax      Distance    Shielding
Description            Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------           ------  -----    -----   -----     --------     ---------
Concrete Mixer Truck        No     40            78.8         25.0          0.0
```

```
Paver                    No     50            77.2         25.0          0.0
Tractor                   No     40     84.0               25.0          0.0
Front End Loader           No     40            79.1         25.0          0.0
Backhoe                    No     40            77.6         25.0          0.0
Roller                   No     20            80.0          0.0          0.0

                                  Results
                                  -------
                                                   Noise Limits (dBA)                Noise Limit Exceedance (dBA)
                                       ----------------------------------------------    ----------------------------------------------
                     Calculated (dBA)        Day          Evening         Night             Day          Evening         Night
                     ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                Lmax    Leq        Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Concrete Mixer Truck      84.8    80.8       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A
N/A     N/A
Paver                  83.2    80.2       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Tractor                 90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader          85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                  83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Roller                          -7.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A     N/A
            Total     90.0    89.3       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
```

```
                Roadway Construction Noise Model (RCNM),Version 1.1

Report date:          09/20/2017
Case Description:       Palm Nipomo - Site Preparation

                         **** Receptor #1 ****

                               Baselines (dBA)
Description                    Land Use       Daytime    Evening    Night
-----------                 --------      -------    -------    -----
Receptor - Reis Family Mortuary    Residential       64.7       45.0     45.0

                           Equipment
                           ---------
                           Spec    Actual    Receptor    Estimated
              Impact  Usage    Lmax    Lmax      Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)      (feet)       (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Grader              No     40     85.0             100.0         0.0
Dozer               No     40           81.7       100.0         0.0
Tractor             No     40    84.0              100.0         0.0
Front End Loader       No     40           79.1       100.0         0.0
Backhoe              No     40           77.6       100.0         0.0

                           Results
                           -------
                                       Noise Limits (dBA)                  Noise Limit Exceedance (dBA)
                               ---------------------------------------------    ---------------------------------------------
                Calculated (dBA)        Day          Evening         Night            Day          Evening         Night
                ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment               Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Grader                79.0    75.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Dozer                 75.6    71.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Tractor               78.0    74.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         73.1    69.1       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                71.5    67.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
          Total      79.0    79.3       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A

                         **** Receptor #2 ****

                               Baselines (dBA)
Description                    Land Use       Daytime    Evening    Night
-----------                 --------      -------    -------    -----
Receptor - Palm View Apartments    Residential       60.4       45.0     45.0
```

```
                             Equipment
                             ---------
                             Spec    Actual   Receptor   Estimated
                 Impact  Usage    Lmax    Lmax     Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)     (feet)      (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Grader               No     40     85.0              25.0         0.0
Dozer                No     40            81.7       25.0         0.0
Tractor              No     40    84.0               25.0         0.0
Front End Loader       No     40            79.1       25.0         0.0
Backhoe               No     40           77.6       25.0         0.0

                             Results
                             -------
                                             Noise Limits (dBA)                   Noise Limit Exceedance (dBA)
                                 ---------------------------------------------    ---------------------------------------------
                    Calculated (dBA)        Day          Evening        Night            Day         Evening        Night
                    ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Grader                91.0    87.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Dozer                 87.7    83.7       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Tractor               90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader         85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                 83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A
           Total      91.0    91.3       N/A     N/A     N/A     N/A     N/A     N/A      N/A     N/A     N/A     N/A     N/A
N/A

                         **** Receptor #3 ****

                                 Baselines (dBA)
Description                  Land Use       Daytime    Evening    Night
-----------                 --------       -------    -------    -----
Receptor - Monterey Street    Residential       56.0       45.0     45.0

                             Equipment
                             ---------
                             Spec    Actual   Receptor   Estimated
                 Impact  Usage    Lmax    Lmax     Distance    Shielding
Description        Device   (%)     (dBA)   (dBA)     (feet)      (dBA)
-----------        ------  -----    -----   -----     --------    ---------
Grader               No     40     85.0              25.0         0.0
Dozer                No     40            81.7       25.0         0.0
Tractor              No     40    84.0               25.0         0.0
Front End Loader       No     40            79.1       25.0         0.0
Backhoe               No     40           77.6       25.0         0.0

                             Results
```

```
                        -------
                                   Noise Limits (dBA)              Noise Limit Exceedance (dBA)
                            ---------------------------------------------    ---------------------------------------------
                Calculated (dBA)       Day          Evening        Night            Day          Evening         Night
                ----------------   --------------   -------------  --------------    --------------  --------------  --------------
Equipment                 Lmax    Leq       Lmax    Leq     Lmax    Leq     Lmax    Leq      Lmax    Leq     Lmax    Leq
Lmax    Leq
----------------------  ------  ------     ------  ------  ------  ------  ------  ------    ------  ------  ------  ------  ------  ------
Grader                  91.0    87.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Dozer                   87.7    83.7       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Tractor                 90.0    86.0       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Front End Loader        85.1    81.2       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
Backhoe                  83.6    79.6       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
          Total      91.0    91.3       N/A     N/A     N/A     N/A     N/A     N/A       N/A     N/A     N/A     N/A     N/A
N/A
```

DNL Calculator

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- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	
Record Date	mm/dd/yyyy
User's Name	

Road # 1 Name:	**Palm Street-Nipomo to Broad (Existing)**

Road #1

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		

Average Speed	25		
Average Daily Trips (ADT)	2238		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	59.4		
Calculate Road #1 DNL	59.4	Reset	

Road # 2 Name: **Nipomo Street-Palm to Monterey (Existing)**

Road #2

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	4954		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	62.8		
Calculate Road #2 DNL	62.8	Reset	

Road # 3 Name: **Broad Street-Palm to Monterey (Existing)**

Road #3

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance	25		
Distance to Stop Sign			

Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	2676		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	60.2		
Calculate Road #3 DNL	60.2	Reset	

Road # 4 Name:	**Monterey Street-Nipomo to Broad (Existing)**

Road #4

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	1197		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	56.7		
Calculate Road #4 DNL	56.7	Reset	

Road # 5 Name:	

Road #5

Vehicle Type	**Cars** ☐	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance			

Effective Distance			
Distance to Stop Sign			
Average Speed			
Average Daily Trips (ADT)			
Night Fraction of ADT			
Road Gradient (%)			
Vehicle DNL			
Calculate Road #5 DNL		Reset	

Add Road Source Add Rail Source

Airport Noise Level	
Loud Impulse Sounds?	○**Yes** ○**No**
Combined DNL for all Road and Rail sources	**0**
Combined DNL including Airport	
Site DNL with Loud Impulse Sound	

Calculate

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative**: Cancel the project at this location
- **Other Reasonable Alternatives**: Choose an alternate site
- **Mitigation**

  - **Contact your Field or Regional Environmental Officer (/programs/environmental-review/hud-environmental-staff-contacts/)**
  - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
  - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
  - Incorporate natural or man-made barriers. See ***The Noise Guidebook (/resource/313/hud-noise-guidebook/)***
  - Construct noise barrier. See the **Barrier Performance Module (/programs/environmental-review/bpm-calculator/)**

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (/resource/3822/day-night-noise-level-assessment-tool-user-guide/)

Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-level-assessment-tool-flowcharts/)

Home (/) > **Programs (/programs/)** > **Environmental Review (/programs/environmental-review/)** > DNL Calculator

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- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	
Record Date	mm/dd/yyyy
User's Name	

Road # 1 Name:	**Palm Street-Nipomo to Broad (Existing Plus Project)**

Road #1

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	2794		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	60.4		
Calculate Road #1 DNL	60.4	Reset	

Road # 2 Name:	**Nipomo Street-Palm to Monterey (Existing plus Project)**

Road #2

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance	25		

Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	5722		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	63.5		
Calculate Road #2 DNL	63.5	Reset	

Road # 3 Name: **Broad Street-Palm to Monterey (Existing plus Project)**

Road #3

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	2676		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	60.2		
Calculate Road #3 DNL	60.2	Reset	

Road # 4 Name: **Monterey Street-Nipomo to Broad (Existing Plus Project)**

Road #4

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	1223		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	56.8		
Calculate Road #4 DNL	56.8	Reset	

Vehicles with a Gross Vehicle Weight (GVW) of more than 26,000 pounds and three or more axles. Buses that can carry more than 15 seated passengers count as heavy trucks, as well as semi-trucks (18 wheelers), Class A recreational vehicles, dump trucks, and heavy duty commercial vehicles following the definition previously stated.

Calculate Road #4 DNL 56.8 Reset

Add Road Source Add Rail Source

Airport Noise Level	
Loud Impulse Sounds?	○**Yes** ○**No**
Combined DNL for all Road and Rail sources	**0**
Combined DNL including Airport	
Site DNL with Loud Impulse Sound	

Calculate

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative**: Cancel the project at this location
- **Other Reasonable Alternatives**: Choose an alternate site
- **Mitigation**
  - **Contact your Field or Regional Environmental Officer (/programs/environmental-review/hud-environmental-staff-contacts/)**
  - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
  - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
  - Incorporate natural or man-made barriers. See ***The Noise Guidebook (/resource/313/hud-noise-guidebook/)***
  - Construct noise barrier. See the **Barrier Performance Module (/programs/environmental-review/bpm-calculator/)**

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (/resource/3822/day-night-noise-level-assessment-tool-user-guide/)

Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-level-assessment-tool-flowcharts/)

Home (/) > **Programs (/programs/)** > **Environmental Review (/programs/environmental-review/)** > DNL Calculator

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- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	
Record Date	mm/dd/yyyy ▼
User's Name	

Road # 1 Name:	**Palm Street-Nipomo to Broad (Cumulative)**

Road #1

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		

Average Speed	25		
Average Daily Trips (ADT)	2565		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	60		
Calculate Road #1 DNL	60	Reset	

Road # 2 Name:	**Nipomo Street-Palm to Monterey (Cumulative)**

Road #2

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	6418		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	64		
Calculate Road #2 DNL	64	Reset	

Road # 3 Name:	**Broad Street-Palm to Monterey (Cumulative)**

Road #3

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance	25		
Distance to Stop Sign			

Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	3159		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	60.9		
Calculate Road #3 DNL	60.9	Reset	

Road # 4 Name: **Monterey Street-Nipomo to Broad (Cumulative)**

Road #4

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	1421		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	57.4		
Calculate Road #4 DNL	57.4	Reset	

Add Road Source Add Rail Source

Airport Noise Level

Loud Impulse Sounds? ○Yes ○No

Combined DNL for all Road and Rail sources	**0**
Combined DNL including Airport	
Site DNL with Loud Impulse Sound	

Calculate

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative**: Cancel the project at this location
- **Other Reasonable Alternatives**: Choose an alternate site
- **Mitigation**
    - **Contact your Field or Regional Environmental Officer (/programs/environmental-review/hud-environmental-staff-contacts/)**
    - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
    - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
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- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	
Record Date	mm/dd/yyyy
User's Name	

Road # 1 Name: **Palm Street-Nipomo to Broad (Cumulative Plus Project)**

Road #1

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		

Average Speed	25		
Average Daily Trips (ADT)	3121		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	60.8		
Calculate Road #1 DNL	60.8	Reset	

Road # 2 Name: **Nipomo Street-Palm to Monterey (Cumulative Plus Project)**

Road #2

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	7186		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	64.5		
Calculate Road #2 DNL	64.5	Reset	

Road # 3 Name: **Broad Street-Palm to Monterey (Cumulative plus Project)**

Road #3

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance	25		
Distance to Stop Sign			

Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	3159		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	60.9		
Calculate Road #3 DNL	60.9	Reset	

Road # 4 Name: **Monterey Street-Nipomo to Broad (Cumulative Plus Project)**

Road #4

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☐
Effective Distance	25		
Distance to Stop Sign			
Average Speed	25		
Average Daily Trips (ADT)	1447		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	57.5		
Calculate Road #4 DNL	57.5	Reset	

Add Road Source Add Rail Source

Airport Noise Level

Loud Impulse Sounds? ○Yes ○No

Combined DNL for all Road and Rail sources	**0**
Combined DNL including Airport	
Site DNL with Loud Impulse Sound	

Calculate

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative**: Cancel the project at this location
- **Other Reasonable Alternatives**: Choose an alternate site
- **Mitigation**
    - **Contact your Field or Regional Environmental Officer (/programs/environmental-review/hud-environmental-staff-contacts/)**
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Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-level-assessment-tool-flowcharts/)

Appendix D

Transportation Impact Study

Palm/Nipomo Parking Structure Project

Transportation Impact Study

Prepared For: City of San Luis Obispo

Central Coast Transportation Consulting
895 Napa Avenue, Suite A-6
Morro Bay, CA 93442
(805) 316-0101

September 2017

Central Coast Transportation Consulting
Traffic Engineering & Transportation Planning

Executive Summary

This study evaluates the potential transportation impacts of the Palm/Nipomo parking structure project located in the City of San Luis Obispo. The project consists of the development of a new 445-space parking structure, 5,000 square feet of commercial space, and the relocation of the San Luis Obispo Little Theatre on the southeastern corner of Nipomo Street and Palm Street. The structure would replace an existing 77-space surface parking lot. This study also evaluates the Mission Plaza expansion, which has the potential to change travel patterns in the study area.

Conclusion #1: All of the study intersections and segments operate acceptably for bicycles, transit, and autos under Existing and Existing Plus Project Conditions. The addition of project trips has an insignificant effect on vehicle queues at the study intersections.

We recommend the following frontage improvements to support convenient pedestrian travel:

- Recommendation #1: Install a high visibility crosswalk with directional curb ramps across Nipomo Street from the northwest corner of Dana Street/Nipomo Street to the southwest corner of the parking structure.
- Recommendation #2: Install high visibility crosswalk with directional curb ramps from the southeast corner of Monterey Street/Nipomo Street across Nipomo Street.
- Recommendation #3: Install standard crosswalks with directional curb ramps across Monterey Street and Dana Street where they intersect with Nipomo Street.
- Recommendation #4: Reduce the curb radii on the southwest corner of Dana Street/Nipomo Street and northeast corner of Monterey Street/Nipomo Street.

Nipomo Street is classified as a local street in the City's Circulation Element, with an average daily traffic (ADT) threshold of 5,000 vehicles. The 2016 traffic count collected by the City shows an ADT of 4,954 vehicles.

Conclusion #2: The addition of project traffic would exceed the 5,000 vehicle threshold, as would the Mission Plaza expansion if it closed or partially closed.

- Recommendation #5: The City should consider reclassifying Nipomo Street to be a commercial sollector, a designation that is more consistent with its current and future use.

Suggested for Consideration: It may be necessary to amend the Bicycle Transportation Plan to accommodate the Mission Plaza Expansion. It may be desirable to focus bicycle traffic to the Broad Street 'dogleg' instead of Nipomo Street, where vehicular traffic will increase due to the proposed parking structure.

Conclusion #3: All study intersections have lower collision rates than the state average and none are flagged in the City's recent Traffic Safety Reports.

Conclusion #4: All mitigation measures required are reflected in Existing Plus Project recommendations, there are no additional recommendations for Cumulative Plus Project Conditions.

Contents

Introduction and Background

This study evaluates the potential transportation impacts of the Palm/Nipomo Parking structure project located in the City of San Luis Obispo. The project consists of the development of a new 445-space parking structure, 5,000 square feet of commercial space, and the relocation of the San Luis Obispo Little Theatre on the southeastern corner of Nipomo Street and Palm Street. The structure would replace an existing 77-space surface parking lot. This analysis will also include an evaluation of the Mission Plaza expansion, which has the potential to change travel patterns in the study area.

The project's location and study intersections are shown on **Figure 1**, while **Figure 2** depicts the project's site plan. Study intersections were identified in consultation with City staff. The following intersections were analyzed during the weekday evening (4-6 PM) time period:

1. Palm Street/Nipomo Street
2. Palm Street/Project Driveway
3. Project Driveway/Nipomo Street
4. Monterey Street/Nipomo Street

Vehicular, pedestrian, and bicycle levels of service are reported for each study intersection consistent with the City's Multimodal Transportation Impact Guidelines. The study segments were identified in consultation with City staff consistent with City policies. Four roadway segments were analyzed for bicycle, pedestrian, transit, and auto level of service during the PM peak hour:

1. Palm Street (Nipomo to Broad)
2. Nipomo Street (Palm to Monterey)
3. Broad Street (Palm to Monterey)
4. Monterey Street (Nipomo to Broad)

The study locations were evaluated under these scenarios:

1. **Existing Conditions** reflects 2016 traffic counts and the existing transportation network.
2. **Existing Plus Project** adds Project generated traffic to Existing Conditions volumes.
3. **Cumulative Conditions** represents future traffic conditions reflective of the buildout of land uses in the area, not including the proposed Project.
4. **Cumulative Plus Project** represents future traffic conditions reflective of the buildout of land uses in the area, including the proposed Project.

Each scenario is described in more detail in the appropriate chapter.

BACKGROUND

The proposed parking structure and the Mission Plaza expansion have been studied extensively. This section briefly summarizes the past studies and their conclusions.

Transportation Impact Studies

The *City of San Luis Obispo Mission Plaza Dogleg Project Technical Memorandum* (Kimley-Horn and Associates, 2001) evaluated the impact of a full closure of the Mission Plaza dogleg. The study noted that no major operational impacts would result to studied intersections, which all operated at LOS B or better with the full Mission Plaza dogleg closure. The study notes that the closure would result in a loss of driveway access to one residential property, reduce the on-street parking supply by 20 spaces, and potentially create 'dead ends' in the circulation pattern.

The *Palm/Nipomo Parking Structure Transportation Impact Analysis Draft Report* (Draft TIA, Fehr & Peers, 2012) evaluated the transportation impacts of constructing a new 450-space parking structure and 5,000 square feet of commercial or office uses. The Draft TIA studied six intersections and the two parking structure entrances and concludes that all would operate acceptably at LOS B or better with acceptable queueing. This study was based on traffic counts collected in 2010.

Both of the above studies were conducted under the City's 1994 Circulation Element, which relied on vehicular level of service to describe transportation conditions. The City's 2014 Circulation Element describes transportation operating conditions in terms of level of service for autos, pedestrians, bicycles, and transit riders.

Traffic Volume Changes

The traffic counts used in the past studies described above were compared to more recent counts collected by the City where overlapping data is available. Table 1 summarizes traffic volume changes from 2001, 2010, 2014, and 2016.

Table 1: Intersection & Segment Comparsion

Intersection	**PM Peak Hour Entering Volume**			
	2001	***2010***	***2014***	***2016***
Palm/Chorro	1,219	895	759	836
Segment	**Average Daily Traffic**			
	2001		***2014***	***2016***
Palm between Nipomo and Broad	2,825		2,159	2,238
Chorro between Monterey and Palm	7,993		4,794	5,335

Table 1 shows a substantial decrease in traffic volumes from 2001 to 2016 at the locations where counts are available. This indicates that the prior studies' vehicular LOS analysis and conclusions would also apply to 2016 conditions.

Parking Studies

The *Parking Services Organizational Assessment* (Walker Parking Consultants, 2014) included the following near-term recommendation:

Reevaluate the City's goals – and plans for additional development in the downtown – to determine at what point and under what scenarios the Palm/Nipomo Parking Structure as currently envisioned might exceed (a baseline of) 60% capacity on a design day in order to determine:

- If or when the parking structure should be built;

- The number of spaces that are necessary to be provided within the new (Palm/Nipomo) Parking Structure; and
- The extent to which more cost effective alternatives could be used, such as investments in parking guidance systems or other technology, to accommodate parking demand more effectively than building more parking spaces at the proposed location.

The *Palm/Nipomo Parking Structure Memorandum of Findings* (Walker Parking Consultants, January 5, 2016) also estimated the future demand for the proposed Palm/Nipomo Parking Structure. Two planning horizons were evaluated: Phase I included approved projects, and Phase II included potential future projects that have not been proposed. The new structure would have a surplus of 205 parking spaces under Phase I and a surplus of 45 parking spaces in Phase II.

The memorandum offers the following considerations:

- The planned inventory of 445 spaces is significantly more than necessary to accommodate Phase I conditions which include demand from existing and approved projects.
- The projects included in the Phase II estimates assume that significant development would occur within walking distance of the new structure and that these new developments would be built with little to no parking on site. If the projected Phase II development were not to occur as envisioned, the structure could be underutilized.

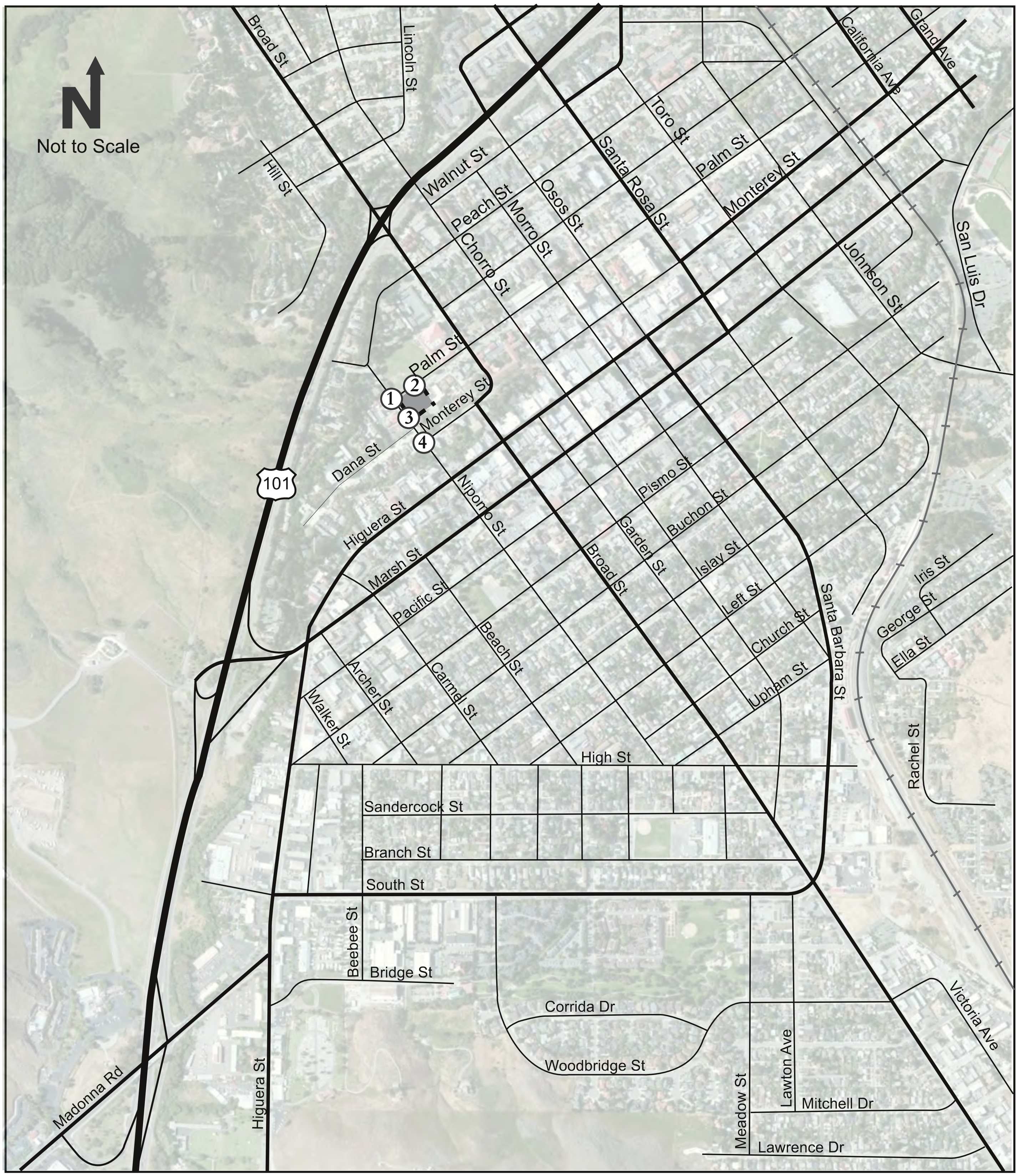
Current Mission Plaza Concepts

Two concepts are under consideration for the Mission Plaza dogleg. One concept would create a woonerf, which would slow vehicle traffic while maintaining two-way vehicular flow. A woonerf typically eliminates curbs and sidewalks and creates a linear plaza shared by pedestrians, bicycles, and vehicles. This option would likely reduce vehicle volumes as drivers shift to faster routes. Based on the prior studies and recent traffic counts the shifted vehicular volumes are not expected to significantly impact nearby roadways. Conditions for pedestrians and bicyclists would improve due to slower vehicle speeds, lower volumes, improved streetscape quality, and additional circulating space.

The second concept would provide one-way southbound flow (into downtown) with diagonal parking on one side. The one-way option would result in less dramatic changes to traffic patterns compared to the full closure evaluated in 2001, and is therefore not expected to adversely impact vehicular LOS. Conditions for pedestrians would be improved, while some cyclists would have to change routes.

Currently 10 bicycles use the dogleg segment during the PM peak hour, with six northbound and four southbound. Conversion to one-way southbound traffic would shift the northbound bicycle trips to a parallel route. Both Chorro Street and Nipomo Street are identified as Class III bike routes in the City's Bicycle Transportation Plan (BTP). The BTP includes a planned bicycle boulevard on the segment of Broad Street adjacent to Mission Plaza, as a part of the project that includes a grade-separated bike crossing of US 101. The BTP would have to be amended if the dogleg is converted to one-way traffic unless provisions are made for two-way bicycle flow.

Figure 1: Project and Study Locations



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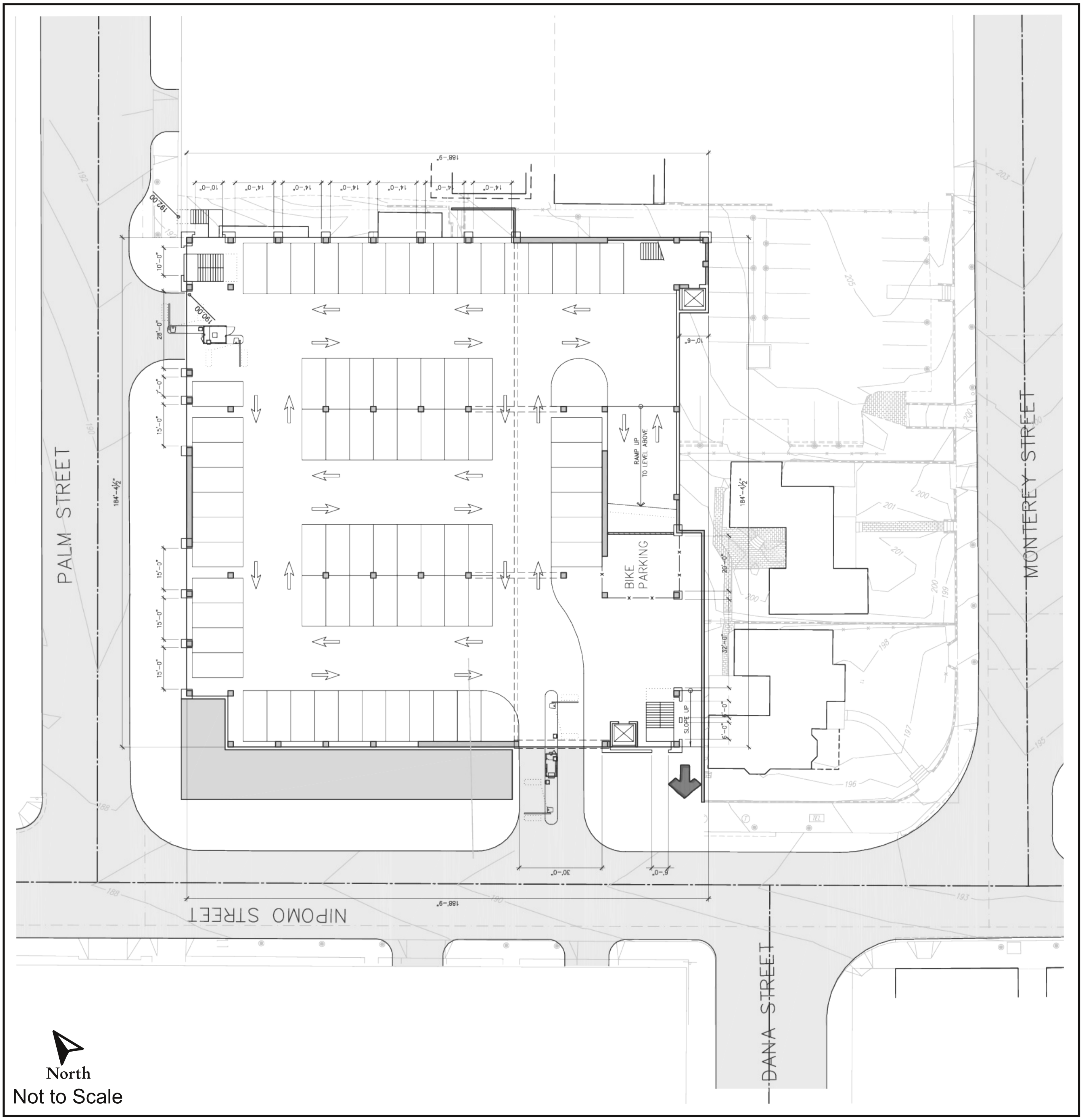
Legend:

▨ - Project Site ⑦ - Study Intersection

Figure 2: Site Plan



Not to Scale

Source: Watry Design

Analysis Methods

The analysis approach was developed based on the City of San Luis Obispo's standards and policies. Facilities operated by the City of San Luis Obispo were evaluated using thresholds identified in the 2014 Circulation Element. Table 2 of the Circulation Element specifies that level of service (LOS) D or better operations shall be maintained for bicycle and transit modes in the study area, and LOS E or better operations shall be maintained for vehicles in the downtown area. The minimum LOS standard is LOS C for pedestrians. The Circulation Element establishes priorities of each mode as presented in Table 1. Project impacts are considered significant if the project degrades a higher priority mode.

Table 1: Modal Priorities for Level of Service[1]

Priority	Residential Corridors & Neighborhoods	Commercial Corridors & Areas	Regional Arterial and Highway Corridors
1	Pedestrians	Vehicles	Vehicles
2	Bicycles	Bicycles	Transit
3	Vehicle	Transit	Bicycles
4	Transit	Pedestrians	Pedestrians

1. Source: Table 3 City of San Luis Obispo TIS Guidelines

Intersection Analysis

The level of service thresholds for intersections and the pedestrian, bicycle, and transit modes based on the 2010 Highway Capacity Manual (HCM) are presented in Table 2.

Table 2: Intersection Level of Service Thresholds

Signalized Intersections[1]		Stop Sign Controlled Intersections[2]		Two-Way Stop Sign Controlled[3]		Pedestrian, Bicycle, and Transit Modes[4]	
Control Delay (seconds/vehicle)	**Level of Service**	**Control Delay (seconds/vehicle)**	**Level of Service**	**Control Delay (seconds/vehicle)**	**Level of Service**	**LOS Score**	**Level of Service**
≤ 10	A	≤ 10	A	≤ 5	A	≤ 2.00	A
> 10 - 20	B	> 10 - 15	B	> 5 - 10	B	> 2.00-2.75	B
> 20 - 35	C	> 15 - 25	C	> 10 - 20	C	> 2.75-3.50	C
> 35 - 55	D	> 25 - 35	D	> 20 - 30	D	> 3.50-4.25	D
> 55 - 80	E	> 35 - 50	E	> 30 - 45	E	> 4.25-5.00	E
> 80	F	> 50	F	> 45	F	> 5.00	F

1. Source: Exhibit 18-4 of the 2010 *Highway Capacity Manual.*
2. Source: Exhibits 19-1 and 20-2 of the 2010 Highway Capacity Manual.
3. Source: Exhibits 19-2 of the 2010 Highway Capacity Manual.
4. Source: Exhibit 16-5 and 16-6 of the 2010 Highway Capacity Manual, assuming 60 ft^2/p for pedestrian mode.

The study intersections were analyzed with the Synchro 9 software package applying the 2010 HCM methods.

Segment Analysis

The study roadway segments were evaluated for auto, pedestrians, and bicycles using the LOS+ software which applies the 2010 HCM methods. The City of San Luis Obispo Circulation Element describes street classification standards in terms of average daily traffic (ADT). The thresholds for each study segment is shown in Table 3. Local roadways have a 5,000 ADT maximum threshold.

Table 3: Segment ADT Thresholds

Segment	Classification[1]	Lanes	Maximum ADT[2]
Palm Street - Nipomo to Broad	Local Commercial	2	5,000
Nipomo Street - Palm to Monterey	Local Commercial	2	5,000
Broad Street - Palm to Monterey	Local Commercial	2	5,000
Monterey Street - Nipomo to Broad	Local Commercial	2	5,000

1. Source: City of San Luis Obispo Circulation Element: Figure 1 - San Luis Obispo Street Classification Diagram, City of San Luis Obispo (2015).

2. Source: City of San Luis Obispo Circulation Element: Table 4 - Street Classification Descriptions and Standards, City of San Luis Obispo (2015).

Thresholds of Significance

Significant impacts to transportation facilities are identified under the following circumstances:

Unsignalized intersections:

Project traffic causes an intersection operating at LOS A, B, C, or D to degrade to unacceptable traffic conditions of LOS E or F; and the volume-demand-to-capacity ratio (V/C), which compares roadway demand (vehicle volumes) with roadway supply (roadway capacity), is increased by .01 or more and signal warrants are met; or the project buildout causes or exacerbates 95th percentile turning movement queues exceeding available turn pocket capacity.

Segments:

Project traffic causes segment operation level of service degradation as follows:

- For bicycles, a segment operating at LOS A, B, C, or D to degrade to LOS E or F.
- For pedestrians, a segment operating at LOS A, B, or C to degrade to LOS D, E, or F.
- For vehicles, segments operating at LOS A, B, C, D, or E to degrade to LOS F and an increase of the V/C ratio by .01 or more.

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

Nipomo Street is a north-south, two-way local road with one lane in each direction and a speed limit of 25 mph in the study area. Nipomo Street operates perpendicular to Higuera and Marsh Streets. The road mainly serves as a connection between the residential areas and the downtown core.

Broad Street is a north-south, two-way arterial with one lane in each direction and a speed limit of 25 mph in the study area. Broad Street operates parallel to Nipomo Street. The roadway serves the retail, commercial, and residential areas within the downtown core.

Monterey Street is an east-west, two-way local collector with one lane in each direction and a speed limit of 25 mph in the study area. Monterey Street serves the retail and commercial areas within the downtown core, providing access to two of the three downtown parking structures.

Palm Street is an east-west, two-way local collector with one lane in each direction and a speed limit of 25 mph in the study area. Palm Street serves the retail and commercial areas within the downtown core.

EXISTING PEDESTRIAN AND BICYCLE FACILITIES

Pedestrian facilities include sidewalks, crosswalks, and pedestrian signals at signalized intersections. All study segments have paved sidewalks on both sides of the street.

The intersection of Broad Street/Palm Street, with all-way stop sign control, has striped crosswalks on three of the four legs. The intersection of Nipomo Street/Palm Street has one striped crosswalk across Palm Street. The intersection of Nipomo Street/Monterey Street does not have any striped crosswalks. The intersection of Broad Street/Monterey Street has a striped crosswalk only on the uncontrolled leg. A striped crosswalk is also provided near the Mission Plaza Dogleg where Broad Street becomes Monterey Street.

Bicycle facilities in the study area consist of on-street shared bike lanes (Class III). Some Class III bike routes are designated as Bicycle Boulevards, which often parallel arterial streets and are designed to minimize vehicle traffic levels and speeds. Within the study area, Nipomo Street is classified as a Neighborhood Bike Route.

EXISTING TRANSIT SERVICE

The San Luis Obispo Regional Transit Authority (RTA) and the City of San Luis Obispo Transit Division (SLO Transit) provide fixed route transit service to the study area. RTA Route 10 and SLO Transit Routes 1 and 2 serve the study area.

RTA Route 10 serves Nipomo Street within the study area, providing service from San Luis Obispo to Santa Maria. Along Nipomo Street, southbound Route 10 stops at Higuera Street. The nearest northbound Route 10 stop is on Marsh Street at Broad Street. Weekday service has one hour headways, Saturday service has near 3 hour headways, and Sunday service has near 4 hour headways.

SLO Transit Route 1 passes through the study area as it travels southbound from the Downtown Transit Center to the Orcutt Road/Johnson Avenue area, with a stop on Nipomo Street at Higuera Street. Route 1 runs only on weekdays with hourly headways.

SLO Transit Route 2 provides service from downtown San Luis Obispo to Suburban Road, with a southbound stop on Nipomo Street at Higuera Street. The nearest northbound stop is on Marsh Street at Broad Street. Route 2 provides service with 40 minute-headways, as well as service with one hour headways on weekday evenings from Labor Day to mid-June.

EXISTING TRANSPORTATION CONDITIONS

This section is divided into the following subsections: 1) automobile operations, 2) pedestrian and bicycle operations, and 3) transit operations.

1. Automobile Mode

Traffic counts for weekday PM peak hour conditions were collected at the study intersections in 2016 Traffic count sheets are provided in Appendix A.

Figure 3 shows the Existing and Existing Plus Project peak hour traffic volumes. Table 4 presents the LOS for the study intersections and Table 5 shows the study segment LOS, with detailed calculation sheets included in Appendix B.

Table 4: Existing Intersection Auto Levels of Service

Intersection	Peak Hour	V/C[1]	Delay[2] (sec/veh)	LOS
1. Palm Street/ Nipomo Street	PM	0.30	5.0 (12.3)	- (B)
2. Palm Street/ Project Driveway	PM	N/A		
3. Project Driveway/ Nipomo	PM	N/A		
4. Monterey Street/ Nipomo	PM	0.24	2.8 (13.3)	- (B)

1. Volume to capacity ratio reported for worst movement.

2. HCM 2010 average control delay in seconds per vehicle. For side-street-stop controlled intersections the worst approach's delay is reported in parentheses next to the overall intersection delay.

Note: Unacceptable operations shown in bold text.

Table 5: Existing PM Segment Auto Levels of Service

Segment	Direction	PM Peak Hour Volume	V/C Ratio	LOS Score[1]	LOS[1]
Palm Street - Nipomo to Broad	EB	80	0.03	2.34	B
	WB	173	0.00	2.34	B
Nipomo Street - Palm to Monterey	NB	204	0.09	2.34	B
	SB	236	0.17	2.34	B
Broad Street - Palm to Monterey	NB	140	0.04	2.42	B
	SB	76	0.00	2.41	B
Monterey Street - Nipomo to Broad	EB	45	0.00	2.34	B
	WB	115	0.00	2.34	B

1. HCM 2010 Automobile Traveler Perception Score and LOS

The study intersections and segments operate acceptably at LOS B for automobiles.

Table 6 presents the existing queues for the study intersections.

Table 6: Existing PM Queues

Intersection	Movement	95th Percentile Queues (ft)[1]
1. Palm Street/Nipomo Street	WBL SBL	33 0
2. Palm Street/Project Driveway	NBL WBL	N/A N/A
3. Project Driveway/Nipomo Street	SBL WBL	N/A N/A
4. Monterey Street/Nipomo Street	WBL SBL	23 0

1. Queue length that would not be exceeded 95 percent of the time.
Note: No turn pockets are provided

The 95th percentile queues are less than two vehicles long and would not block adjacent intersections.

2. Pedestrian and Bicycle Modes

Table 7 shows the pedestrian intersection operations under Existing Conditions for the study intersections. Bicycle intersection operations are not reported as the HCM does not establish LOS standards for bicycles at stop-controlled intersections.

Table 7: Existing PM Intersection Pedestrian LOS

Intersection	Direction	Approach Delay[1]	LOS
1. Palm Street/ Nipomo Street	NB/SB	4.8	A
2. Palm Street/ Project Driveway	All	N/A	
3. Project Driveway/ Nipomo Street	All	N/A	
4. Monterey Street/ Nipomo Street	NB/SB	9.3	B

1. HCM 2010 reports pedestrian LOS at two-way stop controlled intersections in delay (seconds).

The study intersections operate at an acceptable service level for pedestrians.

Table 8 presents the existing pedestrian and bicycle LOS for the study segments.

Table 8: Existing PM Segment Pedestrian & Bicycle Levels of Service

		Pedestrian		Bicycle	
Segment	**Direction**	**LOS**	**LOS**[1]	**LOS**	**LOS**[1]
Palm Street - Nipomo to Broad	EB	1.09	A	2.88	C
	WB	1.58	A	3.56	D
Nipomo Street - Palm to Monterey	NB	1.57	A	3.78	D
	SB	1.60	A	3.93	D
Broad Street - Palm to Monterey	NB	1.09	A	2.80	C
	SB	1.11	A	2.92	C
Monterey Street - Nipomo to Broad	EB	1.02	A	2.18	B
	WB	1.19	A	3.30	C

1. HCM 2010 pedestrian/bicycle score and LOS

All pedestrian study segments operate acceptably at LOS A. Westbound bicycle traffic on Palm Street between Nipomo Street and Broad Street and bicycle traffic on Nipomo between Palm and Monterey in both directions operate acceptably at LOS D. The remaining segments operate at LOS C or better for bicycles.

Bicycle segment LOS is reliant the presence of a bicycle lane and the volume of automobiles on the roadway. All study segments lack bicycle lanes thus segments with more auto traffic experience worse service levels. The nearest north/south parallel bike route is along Broad Street, designated as a Class III bicycle route.

3. Transit Mode

The project is located in the downtown core and is served by multiple transit routes. The downtown transit center is approximately ½ mile from the project site. The project is not expected to generate substantial demand for transit service.

An acceptable transit LOS is primarily predicated on the presence of shelters and benches at bus stops, as well as the frequency and on-time performance of each route.

Route 1 and Route 10 currently operate with a frequency of one bus per hour, while Route 2 operates at one bus every 40 minutes. All three transit routes provide an unsheltered stop with benches within one block of the project:

- A stop at the Nipomo Street/Higuera Street intersection is served by SLO Transit's Route 1 and Route 2.
- A stop at the Marsh Street/Broad Street intersection serves Routes 1, 2, and RTA Route 10.

Routes are shown in the image below.

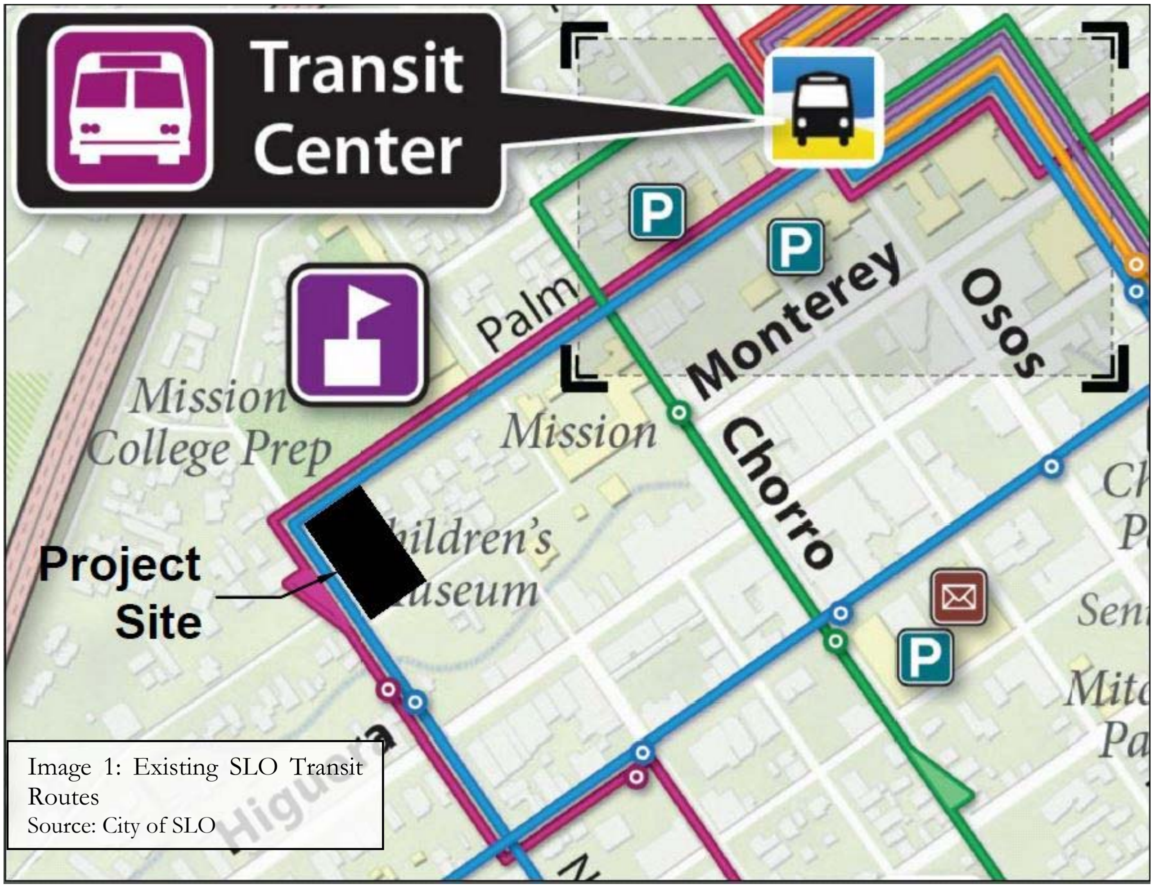


Image 1: Existing SLO Transit Routes
Source: City of SLO

The City's Short Range Transit Plan (SRTP) provides transit ridership data from 2013, summarized below.

- SLO Transit's Route 1 and Route 2 operate with acceptable loading levels, and do not exceed the 45 passenger capacity at any time. Route 1's maximum load occurs near 7:15 AM, with 26 passengers on a single bus. Route 2's maximum load occurs near 2:25 PM, with 31 passengers on a single bus.
- At the Nipomo Street/Higuera Street stop, Route 1 averages 5 loading passengers, with a peak of 10 passengers, and Route 2 has an average passenger loading of 7 passengers with a peak of 19 passengers. Combined, there is a reported total of 16 daily boardings and alightings.

Table 9 presents the existing transit LOS for the study segments.

Table 9: Existing PM Segment Transit Levels of Service

Segment	Direction	LOS Score[1]	LOS[1]
Palm Street - Nipomo to Broad	EB	N/A	
	WB	1.67	A
Nipomo Street - Palm to Monterey	NB	N/A	
	SB	1.68	A
Broad Street - Palm to Monterey	NB	N/A	
	SB	N/A	
Monterey Street - Nipomo to Broad	EB	N/A	
	WB	N/A	

1. HCM 2010 pedestrian/bicycle/transit score and LOS

2. LOS is not established for segments without a directional transit route.

Both study segments served by transit stops operate acceptably.

4. Collision Analysis

The City of San Luis Obispo maintains collision information within the study area. The three most recent years of Annual Traffic Safety Reports (2013, 2014, 2015) were reviewed for study intersection collision reports; the study intersections were not discussed. Collision rates were calculated from the most recent 3 years of collision information using the Statewide Integrated Traffic Records System (SWITRS), as well as average daily traffic entering the intersection. These rates were compared to the state average by surrounding area, geometric layout, and control type. The results are shown in Table 10 with detailed results in Appendix E.

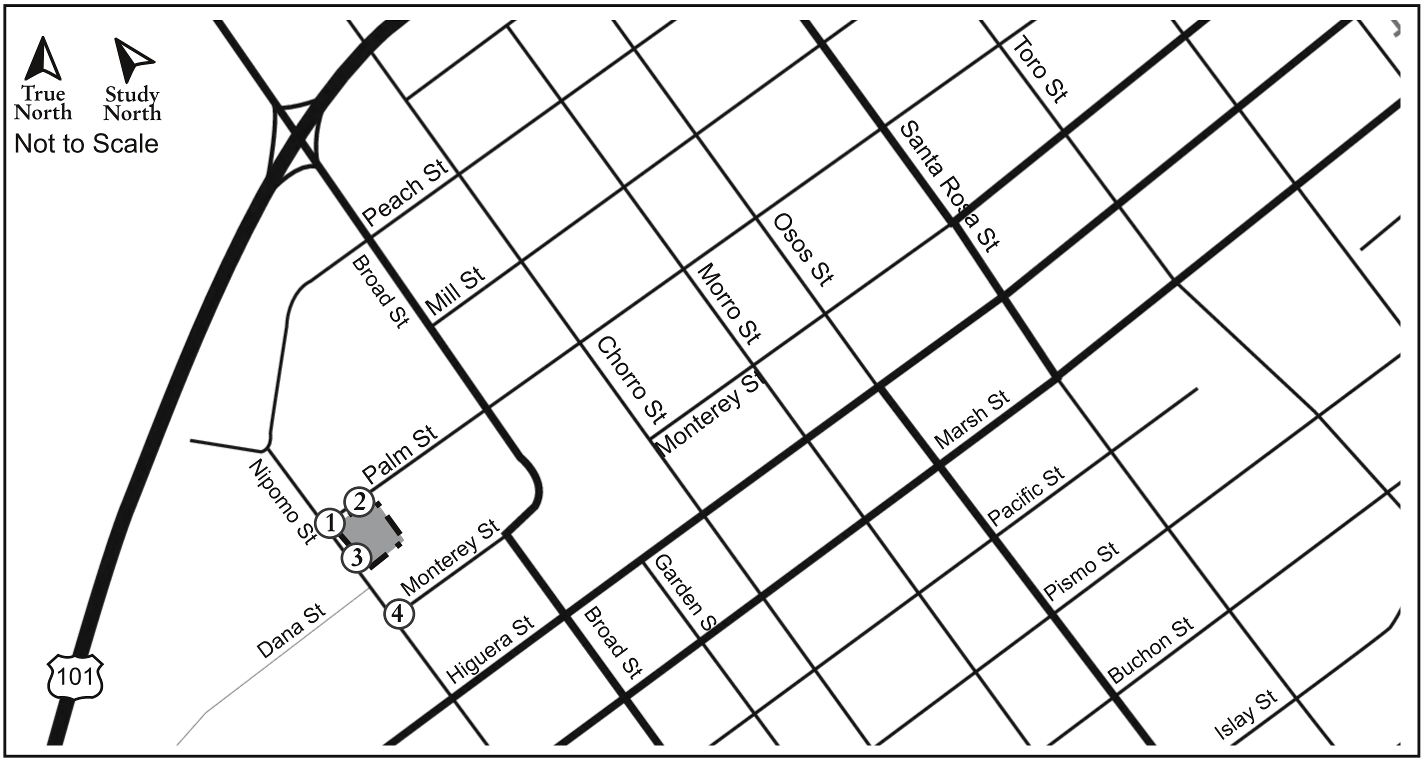
Table 10: Collision Summary

Intersection	ADT[1]	Collisions[2]	Collision	Average
1. Palm Street/Nipomo Street	7,192	1	0.13	0.15
2. Palm Street/Project Driveway	2,238	0	0.00	0.15
3. Project Driveway/Nipomo Street	4,954	0	0.00	0.15
4. Monterey Street/Nipomo Street	6,229	0	0.00	0.15

1. Average daily traffic entering the intersection.
2. Based on SWITRS data from January 1, 2013 to December 31, 2015.
3. Average collision rate based on 2009 Collision Data on California State Highways.
Note: Bold indicates intersection collision rate higher than state average.

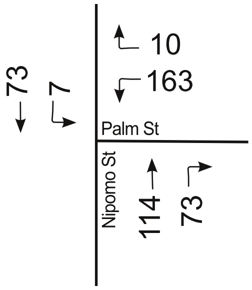
All study intersections have lower collision rates than the state average.

Figure 3: Existing and Existing Plus Project Volumes



Existing Peak Hour

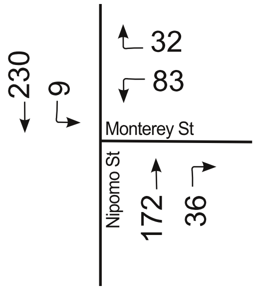
1.



2\. Does Not Exist

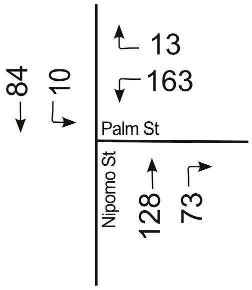
3\. Does Not Exist

4.

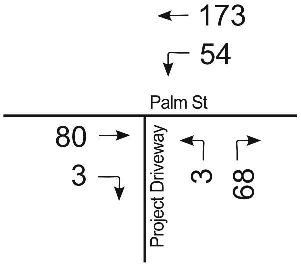


Existing Plus Project Volumes

1.



2.



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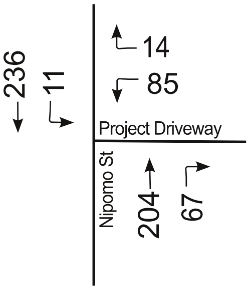

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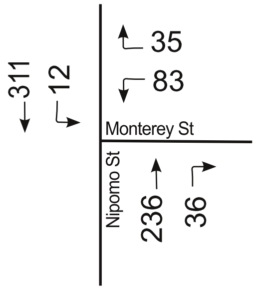

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Legend:

⑦	- Study Area Intersection
xx	- PM Peak Hour Traffic Volumes

January 2017

Palm/Nipomo Parking Structure

Existing Plus Project Conditions

This section evaluates the impacts of the proposed project on the surrounding transportation network.

PROJECT TRAFFIC ESTIMATES

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

Specific land uses -not parking- generate travel demand. Absent the travel demand associated with land use there would be no parking demand. The usage of the proposed parking structure will be driven by nearby existing and future land uses. The parking structure itself will generate few new trips, and will instead support existing and future land uses. This analysis conservatively assumes that the trips from the proposed parking structure are new trips, instead of trips shifted from other parking locations.

Trip generation rates are estimated using the average mid-week hourly entries and exits at the 919 Palm Street parking structure. The PM peak hour rates are calculated by dividing hourly entries and exists by the total number of parking spaces available to the public. These derived rates are multiplied by the anticipated number of project parking spaces to estimate vehicle trip generation.

The existing 77-space surface parking lot would be replaced by the new structure. Accordingly, the net new parking spaces are used to estimate trip generation. Existing parking structure counts and vehicle trip generation rate estimates are provided in Appendix D. Table 11 summarizes the trip generation estimates.

Table 11: Weekday PM Peak Hour Vehicle Trip Generation

			In	Out	Total
Parking Structure[1]	368	sp.	118	147	265
Commercial Space	5,000	s.f.	1	7	8
SLO Little Theatre[3]	Box Office and Staff		15	15	30
		Total Trips	**134**	**169**	**303**

1. Rates per space derived from counts at 919 Palm parking structure; average of Tuesday and Wednesday. Estimate reflects net new spaces (445 new-77 existing=368 net new).
2. ITE *Trip Generation Manual*, Land Use Code 710, General Office Building. Average rate used for Peak Hour trips.
3. Estimate based on information provided by Little Theater staff.

Source: City of San Luis Obispo, 2016; CCTC, 2016

The project trip generation estimate shows 303 net new PM peak hour trips, 134 in and 169 out, added to adjacent streets.

Trip Distribution and Assignment

Trip distribution and assignment for the project trips were estimated based on the location of complementary land uses and existing traffic counts.

Planned Improvements

The project would reconstruct sidewalk sections along its frontage on Palm Street and Nipomo Street. Parking structure access would be provided via two driveways on Nipomo Street and Palm Street. These improvements are discussed in detail in the Site Access and Circulation section of this report.

EXISTING PLUS PROJECT IMPACT ANALYSIS

1. Automobile Mode

Tables 12 and 13 summarizes the auto operating conditions at intersections and segments under Existing and Existing Plus Project Conditions.

Table 12: Existing and Existing Plus Project Intersection Levels of Service

		Existing			**Existing + Project**			
Intersection	**Peak Hour**	**V/C[1]**	**Delay[2] (sec/veh)**	**LOS**	**V/C[1]**	**V/C Delta**	**Delay[2] (sec/veh)**	**LOS**
1. Palm Street/ Nipomo Street	PM	0.30	5.0 (12.3)	- (B)	0.32	0.02	5.0 (12.9)	- (B)
2. Palm Street/ Project Driveway	PM	N/A			0.08	0.08	2.8 (9.2)	- (A)
3. Project Driveway/ Nipomo Street	PM	N/A			0.21	0.21	2.3 (13.6)	- (B)
4. Monterey Street/ Nipomo Street	PM	0.24	2.8 (13.3)	- (B)	0.30	0.06	2.8 (16.2)	- (C)

1. Volume to capacity ratio reported for worst movement.
2. HCM 2010 average control delay in seconds per vehicle. For side-street-stop controlled intersections the worst approach's delay is reported in parentheses next to the overall intersection delay.
Note: Unacceptable operations shown in bold text.

Table 13: Existing Plus Project PM Segment Auto Levels of Service

Segment	**Direction**	**PM Peak Hour Volume**	**V/C Ratio**	**LOS Score[1]**	**LOS[1]**
Palm Street - Nipomo to Broad	EB	83	0.03	2.34	B
	WB	176	0.00	2.34	B
Nipomo Street - Palm to Monterey	NB	271	0.12	2.34	B
	SB	247	0.18	2.34	B
Broad Street - Palm to Monterey	NB	140	0.04	2.42	B
	SB	76	0.00	2.41	B
Monterey Street - Nipomo to Broad	EB	48	0.00	2.34	B
	WB	118	0.00	2.34	B

1. HCM 2010 Automobile Traveler Perception Score and LOS

All study intersections and segments operate acceptably at LOS C or better for vehicles.

Table 14 shows the 95th percentile queues for key movements at the study intersections. Detailed queuing information is provided in Appendix B.

Table 14: Existing Plus Project PM Queues

Intersection	Movement	95th Percentile Queues (ft)[1] Existing	Existing + Project
1. Palm Street/Nipomo Street	WBL	33	35
	SBL	0	0
2. Palm Street/Project Driveway	NBL	N/A	8
	WBL	N/A	3
3. Project Driveway/Nipomo Street	SBL	N/A	0
	WBL	N/A	20
4. Monterey Street/Nipomo Street	WBL	23	33
	SBL	0	0

1. Queue length that would not be exceeded 95 percent of the time.
Note: No turn pockets are provided

The 95th percentile queues remain under two vehicles with the addition of project traffic and would not block adjacent intersections.

Vehicle Miles Traveled (VMT)

The City's 2014 Circulation Element includes a goal to reduce car use, and sets a mode split objective where 50% of City resident trips are made by motor vehicles (presumably single occupant), with the remainder made by transit, bicycles, walking, car pools, and other forms of transportation.

The proposed project has the potential to conflict with these goals if parking is provided at a subsidized rate by effectively encouraging driving over other modes. Research has shown that increased parking supply correlates with reduced transit usage, and recent studies have documented a causal relationship where increased parking supply results in increased automobile mode share.

Conversely, research shows that where the parking supply is limited a substantial portion (30 percent by some estimates) of circulating traffic is searching for a parking spot. This increases VMT and congestion. Providing a single, consolidated parking location reduces the search time for parking, thereby reducing VMT. It also supports denser urban form and infill development where individual properties don't have to provide on-site parking, which supports travel by walking, biking, and transit.

The proposed project does not add roadway capacity that would induce travel and does not generate new travel demand as a land use. Therefore it would have a negligible impact on VMT under the following circumstances:

- The City continues to pursue policies, programs, and investments encouraging non-auto modes of travel.
- The City continues to manage parking to minimize cruising for parking and manage parking demand. This includes policies allowing payment of in-lieu parking fees to increase density and provide centralized parking for new development.

2. Pedestrian and Bicycle Modes

Tables 15 summarizes the pedestrian intersection operations under Existing Plus Project Conditions. All intersections operate at or above the desired service level. Detailed LOS calculation sheets are provided in Appendix B.

Table 15: Existing Plus Project PM Intersection Pedestrian LOS

		Existing		Existing + Project	
Intersection	**Direction**	**Approach Delay[1]**	**LOS[1]**	**Approach Delay[1]**	**LOS[1]**
1. Palm Street/ Nipomo Street	NB/SB	4.8	A	5.7	B
2. Palm Street/ Project Driveway	EB/WB	N/A		7.0	B
3. Project Driveway/ Nipomo Street	NB/SB	N/A		15.8	C
4. Monterey Street/ Nipomo Street	NB/SB	9.3	B	14.2	C

1. HCM 2010 reports pedestrian LOS at two-way stop controlled intersections in delay (seconds).

The pedestrian intersection service level is acceptable at LOS C or better for all study locations.

Pedestrian and Bicycle Segment Analysis

Table 16 summarizes the pedestrian segment analysis, with detailed results provided in Appendix C. All roadway segments operate at or above the pedestrian threshold level under Existing Plus Project Conditions.

Table 16: Existing Plus Project Segment Pedestrian Levels of Service

Segment	Direction	Existing		Existing + Project	
		LOS Score[1]	LOS[1]	LOS Score[1]	LOS[1]
Palm Street - Nipomo to Broad	EB	1.09	A	1.10	A
	WB	1.58	A	1.59	A
Nipomo Street - Palm to Monterey	NB	1.57	A	1.73	A
	SB	1.60	A	1.62	A
Broad Street - Palm to Monterey	NB	1.09	A	1.09	A
	SB	1.11	A	1.11	A
Monterey Street - Nipomo to Broad	EB	1.02	A	1.03	A
	WB	1.19	A	1.20	A

1. HCM 2010 pedestrian score and LOS.

Table 17 summarizes the bicycle segment analysis, with detailed results provided in Appendix C. All study segments operate at an acceptable level of service for bicycles.

Table 17: Existing Plus Project Segment Bicycle Levels of Service

Segment	Direction	Existing		Existing + Project	
		LOS Score[1]	LOS[1]	LOS Score[1]	LOS[1]
Palm Street - Nipomo to Broad	EB	2.88	C	2.92	C
	WB	3.56	D	3.57	D
Nipomo Street - Palm to Monterey	NB	3.78	D	3.92	D
	SB	3.93	D	3.95	D
Broad Street - Palm to Monterey	NB	2.80	C	2.80	C
	SB	2.92	C	2.92	C
Monterey Street - Nipomo to Broad	EB	2.18	B	2.26	B
	WB	3.30	C	3.33	C

1. HCM 2010 bicycle score and LOS.

3. Transit Mode

An acceptable transit LOS is primarily predicated on the presence of shelters and benches at bus stops, as well as the frequency and on-time performance of each route.

The City is currently updating their Short Range Transit Plan in coordination with the Regional Transit Authority. The adopted SRTP notes that bus stops should be spaced every 5 to 7 blocks per mile (every other block) in the downtown core, and 4 to 5 per mile as needed on the fringe.

Transit stop spacing in the vicinity of the project conforms to these service standards.

Table 18: Existing Plus Project Segment Transit Levels of Service

Segment	Direction	Existing LOS Score[1]	Existing LOS[1]	Existing + Project LOS Score[1]	Existing + Project LOS[1]
Palm Street - Nipomo to Broad	EB	N/A		N/A	
	WB	1.67	A	1.67	A
Nipomo Street - Palm to Monterey	NB	N/A		N/A	
	SB	1.68	A	1.68	A
Broad Street - Palm to Monterey	NB	N/A		N/A	
	SB	N/A		N/A	
Monterey Street - Nipomo to Broad	EB	N/A		N/A	
	WB	N/A		N/A	

1. HCM 2010 transit score and LOS.

2. LOS is not established for segments without a directional transit route.

The addition of the project does not change the transit score of any segment, and is not expected to result in a noticeable degradation to transit service along project segments.

SITE ACCESS AND ON-SITE CIRCULATION

This section discusses issues related to site access and on-site circulation. On-site circulation deficiencies would occur if project designs fail to meet appropriate standards, fail to provide adequate truck access, or would result in hazardous conditions. The site plan was updated to reflect recommendations made in the internal review process.

The site plan is shown on **Figure 2.**

Vehicle Access and Circulation

As proposed, vehicle access into and out of the parking structure would be provided via driveways on Palm Street and Nipomo Street, with one lane for ingress and one lane for egress at each driveway. This configuration is adequate for a structure of this size.

The parking structure exits are designed to ensure that exiting vehicles have adequate sight distance.

Bicycle Access and Parking

Preliminary plans show a bicycle parking area near the structure's Nipomo Street entrance. It is served by a 10 foot wide entrance to accommodate both pedestrians and cyclists. This width is adequate to allow cyclists a clear path of travel into the bicycle parking area. Bicycle parking should be provided in accordance with the ratios required in the City's zoning code. For office zoning this corresponds to 15 percent of the auto parking, or 67 bicycle spaces for a 445-space structure. Of these, at least 10 percent should be short term spaces and 80 percent should be long term.

Pedestrian Access

Detailed frontage designs are not available at this time. We recommend the following improvements be considered to serve the added pedestrian demand associated with a new parking structure:

- High visibility crosswalk with directional curb ramps across Nipomo Street from the northwest corner of Dana Street/Nipomo Street to the southwest corner of the parking structure.
- High visibility crosswalk with directional curb ramps from the southeast corner of Monterey Street/Nipomo Street across Nipomo Street.

- Standard crosswalks with directional curb ramps across Monterey Street and Dana Street where they intersect with Nipomo Street.
- Reduced curb radii on the southwest corner of Dana Street/Nipomo Street and northeast corner of Monterey Street/Nipomo Street.

These enhancements would improve pedestrian access from the struture to nearby destinations.

Nipomo Street is classified as a local street in the City's Circulation Element, with an average daily traffic (ADT) threshold of 5,000 vehicles. The 2016 traffic count collected by the City shows an ADT of 4,954 vehicles. The addition of project traffic would exceed the 5,000 vehicle threshold, as would the Mission Plaza expansion if it closed or partially closed the 'dog leg.' We recommend that the City consider reclassifying Nipomo Street to be a commercial collector, a designation that is more consistent with its current and future use. Refer to Appendix F for a summary of ADTs for the study segments.

Cumulative Conditions

Cumulative Conditions represent build-out of the land uses in the region.

CUMULATIVE VOLUME FORECASTS

The City is in the process of updating the Mission Plaza Plan, which may result in changes to the Broad Street 'dog leg' as described in the Background section of this report. Cumulative forecasts were developed assuming no changes to vehicle access in the vicinity of Mission Plaza. The modifications under considerations as a part of the Mission Plaza Plan would not substantially change the findings in this section. No other roadway network changes affecting the study locations were assumed to be in place under Cumulative Conditions.

Cumulative and Cumulative Plus Project traffic volume forecasts, shown on **Figure 4**, were developed using the City's Travel Demand Model, which includes planned network and land use changes expected upon buildout of the City's General Plan.

CUMULATIVE TRANSPORTATION CONDITIONS

1. Automobile Mode

Table 19 summarizes the intersection LOS for autos under Cumulative and Cumulative Plus Project Conditions. All intersections perform at acceptable levels.

Table 19: Cumulative and Cumulative Plus Project Intersection Auto Levels of Service

		Cumulative			Cumulative + Project			
Intersection	Peak Hour	V/C[1]	Delay[2] (sec/veh)	LOS	V/C[1]	V/C Delta	Delay[2] (sec/veh)	LOS
1. Palm Street/ Nipomo Street	PM	0.37	4.8 (14.8)	- (B)	0.40	0.03	4.9 (15.6)	- (C)
2. Palm Street/ Project Driveway	PM	N/A			0.09	0.09	2.5 (9.4)	- (A)
3. Project Driveway/ Nipomo Street	PM	N/A			0.25	0.25	2.2 (15.9)	- (C)
4. Monterey Street/ Nipomo Street	PM	0.35	3.7 (16.0)	- (C)	0.45	0.10	4.0 (20.7)	- (C)

1. Volume to capacity ratio reported for worst movement.
2. HCM 2010 average control delay in seconds per vehicle. For side-street-stop controlled intersections the worst approach's delay is reported in parentheses next to the overall intersection delay.

Note: Unacceptable operations shown in bold text.

Table 20 summarizes auto segment performance in the study area under Cumulative Conditions, Table 21 Cumulative Plus Project. Both the Cumulative and Cumulative Plus Project Conditions are forecast to operate acceptably.

Table 20: Cumulative PM Segment Auto Levels of Service					
Segment	**Direction**	**PM Peak Hour Volume**	**V/C Ratio**	**LOS Score[1]**	**LOS[1]**
Palm Street - Nipomo to Broad	EB	110	0.04	2.34	B
	WB	180	0.00	2.34	B
Nipomo Street - Palm to Monterey	NB	270	0.12	2.34	B
	SB	300	0.22	2.34	B
Broad Street - Palm to Monterey	NB	156	0.05	2.42	B
	SB	99	0.00	2.41	B
Monterey Street - Nipomo to Broad	EB	50	0.00	2.34	B
	WB	140	0.00	2.34	B
1. HCM 2010 Automobile Traveler Perception Score and LOS					

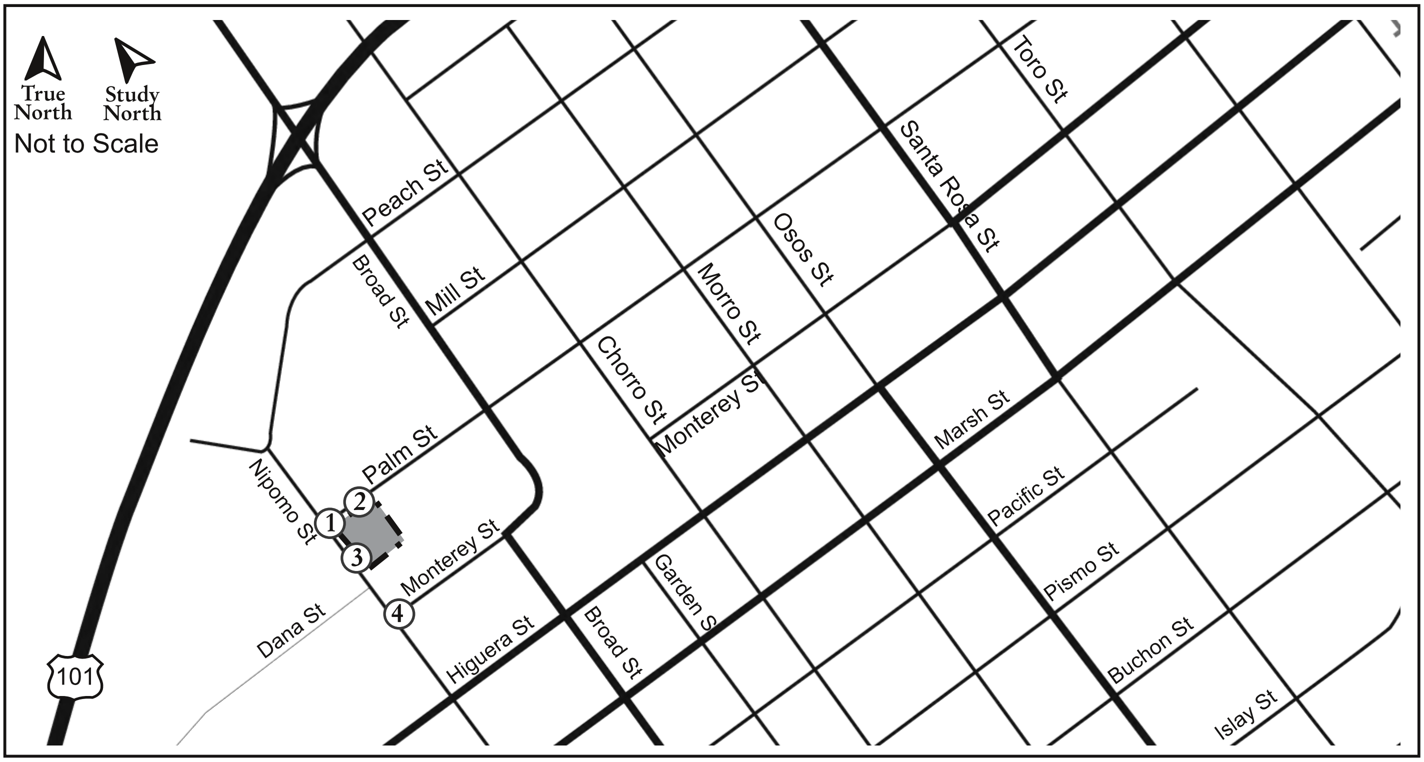
Table 21: Cumulative Plus Project PM Segment Auto Levels of Service					
Segment	**Direction**	**PM Peak Hour Volume**	**V/C Ratio**	**LOS Score[1]**	**LOS[1]**
Palm Street - Nipomo to Broad	EB	113	0.05	2.34	B
	WB	183	0.00	2.34	B
Nipomo Street - Palm to Monterey	NB	337	0.15	2.34	B
	SB	311	0.23	2.34	B
Broad Street - Palm to Monterey	NB	156	0.05	2.42	B
	SB	99	0.00	2.41	B
Monterey Street - Nipomo to Broad	EB	53	0.00	2.34	B
	WB	143	0.00	2.34	B
1. HCM 2010 Automobile Traveler Perception Score and LOS					

Table 22 summarizes the peak hour queues under Cumulative and Cumulative Plus Project Conditions.

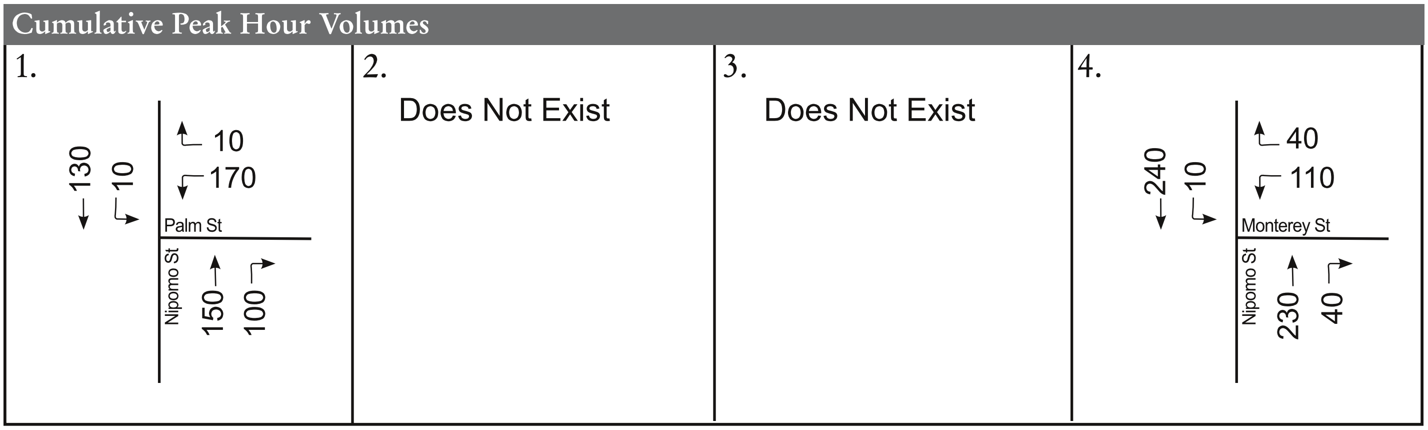
Table 22: Cumulative and Cumulative Plus Project PM Queues			
		95th Percentile Queues (ft)[1]	
Intersection	**Movement**	**Cumulative**	**Cumulative + Project**
1. Palm Street/Nipomo Street	WBL	43	48
	SBL	0	0
2. Palm Street/Project Driveway	NBL	N/A	8
	WBL	N/A	3
3. Project Driveway/Nipomo Street	SBL	N/A	0
	WBL	N/A	25
4. Monterey Street/Nipomo Street	WBL	40	55
	SBL	0	0
1. Queue length that would not be exceeded 95 percent of the time. Note: No turn pockets are provided			

None of the 95th percentile queues are long enough to block adjacent intersections.

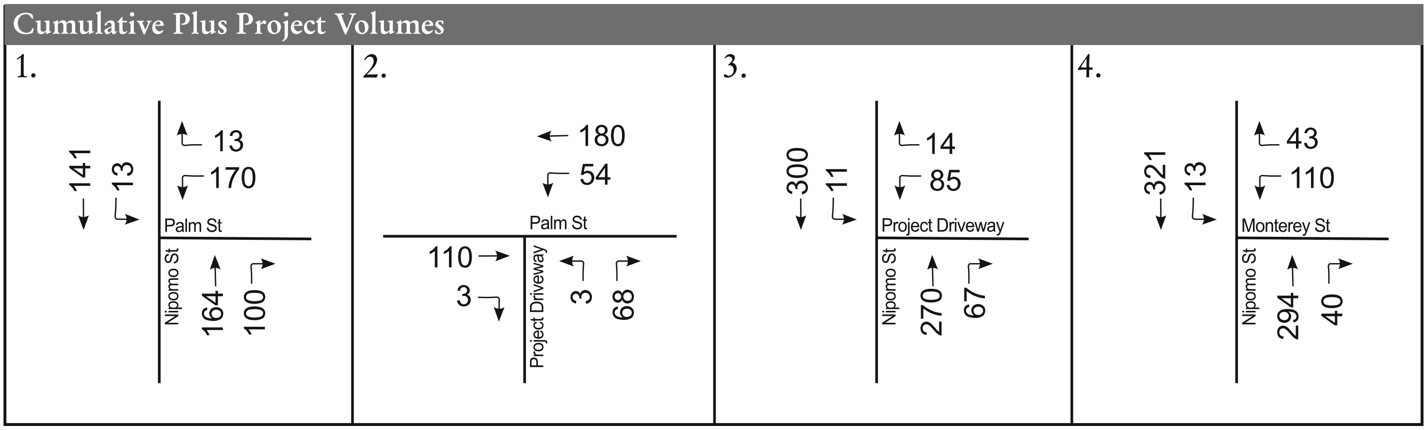
Figure 4: Cumulative and Cumulative Plus Project Volumes



Cumulative Peak Hour Volumes



Cumulative Plus Project Volumes



Central Coast Transportation Consulting
Traffic Engineering & Transportation Planning

Legend:

⑦ - Study Area Intersection

xx - PM Peak Hour Traffic Volumes

2. Pedestrian and Bicycle Modes

Tables 23 summarizes the pedestrian intersection operations under Cumulative and Cumulative Plus Project Conditions. The pedestrian LOS at the Project Driveway /Nipomo Street and Nipomo Street /Monterey Street is LOS D with the completion of the project.

Detailed LOS calculation sheets are provided in Appendix B.

Table 23: Cumulative Plus Project PM Intersection Pedestrian LOS

		Cumulative		Cumulative + Project	
Intersection	**Direction**	**Approach Delay[1]**	**LOS[1]**	**Approach Delay[1]**	**LOS[1]**
1. Palm Street/ Nipomo Street	NB/SB	8.1	B	9.1	B
2. Palm Street/ Project Driveway	EB/WB	N/A		8.5	B
3. Project Driveway/ Nipomo Street	NB/SB	N/A		24.7	**D**
4. Monterey Street/ Nipomo Street	NB/SB	12.2	C	19.5	C

1. HCM 2010 reports pedestrian LOS at two-way stop controlled intersections in delay (seconds).

The intersection of the Project Driveway/Nipomo operates unacceptably at LOS D with the addition of project traffic. We recommend providing a pedestrian crossing at Dana Street/Nipomo Street instead of adjacent to the Project driveway, which would provide acceptable operations.

Pedestrian and Bicycle Segment Analysis

Table 24 summarizes the pedestrian segment analysis. All of the study segments operate at an acceptable service level for pedestrians.

Table 24: Cumulative Plus Project Segment Pedestrian Levels of Service

		Cumulative		Cumulative + Project	
Segment	**Direction**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
Palm Street - Nipomo to Broad	EB	1.18	A	1.19	A
	WB	1.60	A	1.60	A
Nipomo Street - Palm to Monterey	NB	1.72	A	1.88	A
	SB	1.74	A	1.77	A
Broad Street - Palm to Monterey	NB	1.34	A	1.34	A
	SB	1.16	A	1.16	A
Monterey Street - Nipomo to Broad	EB	1.04	A	1.05	A
	WB	1.30	A	1.31	A

1. HCM 2010 pedestrian score and LOS.

Table 25 summarizes the bicycle segment analysis. All segment operate acceptably at LOS D or better for bicycles during the PM peak hour both with and without the project.

Table 25: Cumulative Plus Project Segment Bicycle Levels of Service

Segment	Direction	Cumulative		Cumulative + Project	
		LOS Score	LOS	LOS Score	LOS
Palm Street - Nipomo to Broad	EB	3.22	C	3.25	C
	WB	3.58	D	3.59	D
Nipomo Street - Palm to Monterey	NB	3.92	D	4.03	D
	SB	4.05	D	4.07	D
Broad Street - Palm to Monterey	NB	3.61	D	3.61	D
	SB	3.08	C	3.08	C
Monterey Street - Nipomo to Broad	EB	2.28	B	2.33	B
	WB	3.60	D	3.63	D

1. HCM 2010 bicycle score and LOS.

3. Transit Mode

Under Cumulative conditions transit services were assumed to remain the same within the study area. Table 26 summarizes the transit segment analysis.

Table 26: Cumulative Plus Project Segment Transit of Service

Segment	Direction	Cumulative		Cumulative + Project	
		LOS Score	LOS	LOS Score	LOS
Palm Street - Nipomo to Broad	EB	N/A		N/A	
	WB	1.68	A	1.68	A
Nipomo Street - Palm to Monterey	NB	N/A		N/A	
	SB	1.70	A	1.70	A
Broad Street - Palm to Monterey	NB	N/A		N/A	
	SB	N/A		N/A	
Monterey Street - Nipomo to Broad	EB	N/A		N/A	
	WB	N/A		N/A	

1. HCM 2010 bicycle score and LOS.

2. LOS is not established for segments without a directional transit route.

Table 26 indicates acceptable transit LOS under Cumulative and Cumulative Plus Project Conditions.

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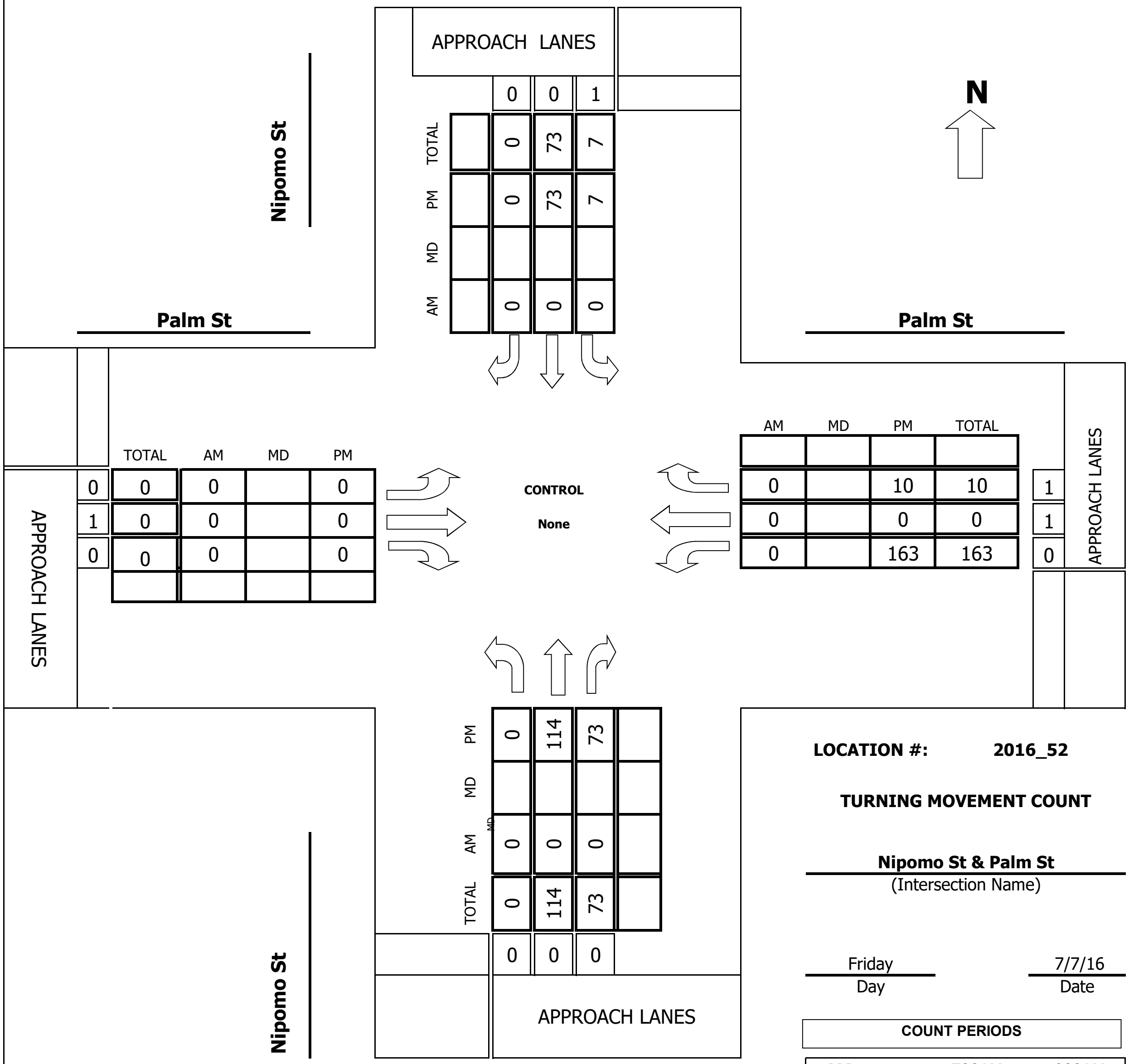
Appendix A: Traffic Counts

Intersection Turning Movement
Prepared by:

Field Data Services of Arizona, Inc.
520.316.6745

Project #: 2016_52

TMC SUMMARY OF Nipomo St & Palm St



Nipomo St (north approach)

APPROACH LANES	0	0	1
TOTAL	0	73	7
PM	0	73	7
MD			
AM	0	0	0

Palm St (west approach)

APPROACH LANES	TOTAL	AM	MD	PM
0	0	0		0
1	0	0		0
0	0	0		0

Palm St (east approach)

AM	MD	PM	TOTAL	APPROACH LANES
0		10	10	1
0		0	0	1
0		163	163	0

Nipomo St (south approach)

PM	0	114	73
MD			
AM	0	0	0
TOTAL	0	114	73
APPROACH LANES	0	0	0

LOCATION #: 2016_52

TURNING MOVEMENT COUNT

Nipomo St & Palm St
(Intersection Name)

Friday
Day

7/7/16
Date

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 0 AM

NOON PEAK HOUR

PM PEAK HOUR 500 PM

Intersection Turning Movement
Prepared by:

Field Data Services of Arizona, Inc.
520.316.6745

Project #: 2016_52

TMC SUMMARY OF Nipomo St & Monterey St

Nipomo St

Monterey St

APPROACH LANES

		0	0	1
TOTAL		0	230	9
PM		0	230	9
MD				
AM		0	0	0

N

Monterey St

APPROACH LANES

	TOTAL	AM	MD	PM
0	0	0		0
1	0	0		0
0	0	0		0

CONTROL

None

AM	MD	PM	TOTAL	
0		32	32	1
0		0	0	1
0		83	83	0

APPROACH LANES

PM	0	172	36	
MD				
AM	0	0	0	
TOTAL	0	172	36	
	0	0	0	

APPROACH LANES

Nipomo St

LOCATION #: 2016_52

TURNING MOVEMENT COUNT

Nipomo St & Monterey St
(Intersection Name)

Friday
Day

7/7/16
Date

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 0 AM

NOON PEAK HOUR

PM PEAK HOUR 500 PM

Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Report Prepared For:

County of San Luis Obispo
1087 Santa Rosa Street
San Luis Obispo, CA 93408

(805) 781-5200

2 Day Volume Count Report

Location No. 130

Road Name Broad Street

Nearest Cross St Broad St. and Monterey Street

Survey Date 7/6/16 thru 7/12/16

Latitude

Longitude

Peak Day

Number of Lanes 2

Comments

PM Peak Hour Average		
Hour	Eastbound	Westbound
4:00 PM	115	86
5:00 PM	**140**	**76**
6:00 PM	98.5	50

	Wednesday, July 06, 2016										
	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	**Total**	1st	2nd	3rd	4th	**Total**	**Totals**
12:00 AM	9	6	6	6	**27**	1	1	0	0	**2**	**29**
1:00 AM	4	2	5	3	**14**	0	0	2	1	**3**	**17**
2:00 AM	4	1	2	0	**7**	0	1	0	0	**1**	**8**
3:00 AM	0	0	0	0	**0**	0	0	0	0	**0**	**0**
4:00 AM	0	0	1	1	**2**	0	1	1	1	**3**	**5**
5:00 AM	3	0	2	0	**5**	0	2	1	3	**6**	**11**
6:00 AM	2	4	5	8	**19**	1	4	3	7	**15**	**34**
7:00 AM	13	9	8	14	**44**	8	6	8	12	**34**	**78**
8:00 AM	12	19	12	17	**60**	12	12	10	21	**55**	**115**
9:00 AM	17	9	23	25	**74**	8	12	18	6	**44**	**118**
10:00 AM	14	23	23	23	**83**	18	13	13	18	**62**	**145**
11:00 AM	20	31	30	34	**115**	20	22	13	13	**68**	**183**
12:00 PM	32	33	33	41	**139**	17	19	25	24	**85**	**224**
1:00 PM	35	36	33	41	**145**	24	20	21	22	**87**	**232**
2:00 PM	29	25	37	33	**124**	20	23	15	16	**74**	**198**
3:00 PM	25	31	40	32	**128**	19	17	15	30	**81**	**209**
4:00 PM	27	27	35	19	**108**	25	19	19	29	**92**	**200**
5:00 PM	35	43	40	29	**147**	27	19	16	17	**79**	**226**
6:00 PM	32	24	24	16	**96**	13	14	9	12	**48**	**144**
7:00 PM	34	19	13	27	**93**	10	13	15	8	**46**	**139**
8:00 PM	18	19	10	16	**63**	8	7	10	4	**29**	**92**
9:00 PM	23	11	10	11	**55**	6	5	5	3	**19**	**74**
10:00 PM	8	7	6	8	**29**	4	2	1	2	**9**	**38**
11:00 PM	6	6	5	6	**23**	2	2	1	2	**7**	**30**
Total		2			**1600**					**949**	
					2549						

AM Peak Hr	**11:00 am to 12:00 pm**	**AM Peak**	**183**	**AM PHF**	**0.863**
PM Peak Hr	**1:00 pm to 2:00 pm**	**PM Peak**	**232**	**PM PHF**	**0.921**

	Tuesday, July 12, 2016										
	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	**Total**	1st	2nd	3rd	4th	**Total**	**Totals**
12:00 AM	2	3	1	3	**9**	0	1	2	0	**3**	**12**
1:00 AM	4	2	1	3	**10**	1	4	0	0	**5**	**15**
2:00 AM	3	1	2	2	**8**	0	0	1	0	**1**	**9**
3:00 AM	0	1	0	0	**1**	0	0	0	0	**0**	**1**
4:00 AM	1	0	0	3	**4**	1	1	2	0	**4**	**8**
5:00 AM	1	1	3	2	**7**	1	0	0	2	**3**	**10**
6:00 AM	1	3	4	10	**18**	1	1	3	2	**7**	**25**
7:00 AM	9	12	9	14	**44**	4	5	13	13	**35**	**79**
8:00 AM	1	15	16	34	**66**	15	8	14	25	**62**	**128**
9:00 AM	23	27	23	21	**94**	22	14	11	16	**63**	**157**
10:00 AM	23	24	24	23	**94**	17	13	20	20	**70**	**164**
11:00 AM	19	38	26	35	**118**	16	34	24	31	**105**	**223**
12:00 PM	45	46	25	28	**144**	44	25	23	22	**114**	**258**
1:00 PM	32	42	24	19	**117**	26	30	17	24	**97**	**214**
2:00 PM	23	25	30	23	**101**	17	19	23	18	**77**	**178**
3:00 PM	27	30	26	38	**121**	25	13	11	21	**70**	**191**
4:00 PM	37	31	22	32	**122**	19	21	20	20	**80**	**202**
5:00 PM	33	34	38	28	**133**	22	23	12	16	**73**	**206**
6:00 PM	25	29	24	23	**101**	8	18	15	11	**52**	**153**
7:00 PM	30	22	26	17	**95**	10	15	16	10	**51**	**146**
8:00 PM	23	18	9	19	**69**	13	7	14	5	**39**	**108**
9:00 PM	19	10	10	14	**53**	6	6	5	7	**24**	**77**
10:00 PM	16	9	20	15	**60**	5	3	3	4	**15**	**75**
11:00 PM	15	11	6	15	**47**	5	3	0	4	**12**	**59**
Total					**1636**					**1062**	
					2698						

AM Peak Hr	**11:00 am to 12:00 pm**	**AM Peak**	**223**	**AM PHF**	**0.774**
PM Peak Hr	**1:00 pm to 2:00 pm**	**PM Peak**	**214**	**PM PHF**	**1.244**

7 Day In/Out Parking Garage Report

Location: 919 Palm
Survey Date: 7/6/16

Wednesday, July 06, 2016

Hour	Entries	Exits	Spaces Occupied	Occupancy	Trips Per Hour
01:30	0	0	0	0%	0
02:30	0	0	0	0%	0
03:30	0	0	0	0%	0
04:30	0	0	0	0%	0
05:00	0	0	0	0%	0
06:00	0	0	0	0%	0
07:00	0	0	0	0%	0
08:00	13	0	13	7%	13
09:00	49	2	60	31%	51
10:00	47	24	83	43%	71
11:00	68	42	109	57%	110
12:00	68	63	114	59%	131
13:00	100	70	144	75%	170
14:00	69	81	132	69%	150
15:00	71	71	132	69%	142
16:00	73	74	131	68%	147
17:00	29	81	79	41%	110
18:00	33	65	47	24%	98
19:00	10	46	11	6%	56
20:00	0	11	0	0%	11
21:00	0	0	0	0%	0
22:00	0	0	0	0%	0
23:00	0	0	0	0%	0
23:59	0	0	0	0%	0
Total	**630**	**630**			
	1260				

Tuesday, July 12, 2016

Hour	Entries	Exits	Spaces Occupied	Occupancy	Trips Per Hour
01:30	0	0	0	0%	0
02:30	0	0	0	0%	0
03:30	0	0	0	0%	0
04:30	0	0	0	0%	0
05:00	0	0	0	0%	0
06:00	0	0	0	0%	0
07:00	1	0	1	1%	1
08:00	15	0	16	8%	15
09:00	81	0	97	51%	81
10:00	51	41	107	56%	92
11:00	60	46	121	63%	106
12:00	52	55	118	61%	107
13:00	74	68	124	65%	142
14:00	73	65	132	69%	138
15:00	58	67	123	64%	125
16:00	51	80	94	49%	131
17:00	44	69	69	36%	113
18:00	19	52	36	19%	71
19:00	17	38	15	8%	55
20:00	1	16	0	0%	17
21:00	0	0	0	0%	0
22:00	0	0	0	0%	0
23:00	0	0	0	0%	0
23:59	0	0	0	0%	0
Total	**597**	**597**			
	1194				

Tuesday and Wednesday Average

Hour	Entries	Exits	Spaces Occupied	Occupancy	Trips Per Hour
01:30	0	0	0	0%	0
02:30	0	0	0	0%	0
03:30	0	0	0	0%	0
04:30	0	0	0	0%	0
05:00	0	0	0	0%	0
06:00	0	0	0	0%	0
07:00	0.5	0	0.5	0%	0.5
08:00	14	0	14.5	8%	14
09:00	65	1	78.5	41%	66
10:00	49	32.5	95	49%	81.5
11:00	64	44	115	60%	108
12:00	60	59	116	60%	119
13:00	87	69	134	70%	156
14:00	71	73	132	69%	144
15:00	64.5	69	127.5	66%	133.5
16:00	62	77	112.5	59%	139
17:00	36.5	75	74	39%	111.5
18:00	26	58.5	41.5	22%	84.5
19:00	13.5	42	13	7%	55.5
20:00	0.5	13.5	0	0%	14
21:00	0	0	0	0%	0
22:00	0	0	0	0%	0
23:00	0	0	0	0%	0
23:59	0	0	0	0%	0
Total	**613.5**	**613.5**			
	1227				

Appendix B: Intersection LOS Calculation Sheets

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↱			↰
Traffic Vol, veh/h	163	10	114	73	7	73
Future Vol, veh/h	163	10	114	73	7	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	199	12	139	89	9	89

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	290	184	0	0	228	0
Stage 1	184	-	-	-	-	-
Stage 2	106	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	701	858	-	-	1340	-
Stage 1	848	-	-	-	-	-
Stage 2	918	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	696	858	-	-	1340	-
Mov Cap-2 Maneuver	696	-	-	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	912	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.3	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	704	1340	-
HCM Lane V/C Ratio	-	-	0.3	0.006	-
HCM Control Delay (s)	-	-	12.3	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.3	0	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	4.8
Level of Service	A

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	187
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.47
Prob of Blocked Lane	0.27
Delay for adq Gap	10.22
Avg Ped Delay (s)	4.78

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	4.8
Level of Service	A

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	187
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.47
Prob of Blocked Lane	0.27
Delay for adq Gap	10.22
Avg Ped Delay (s)	4.78

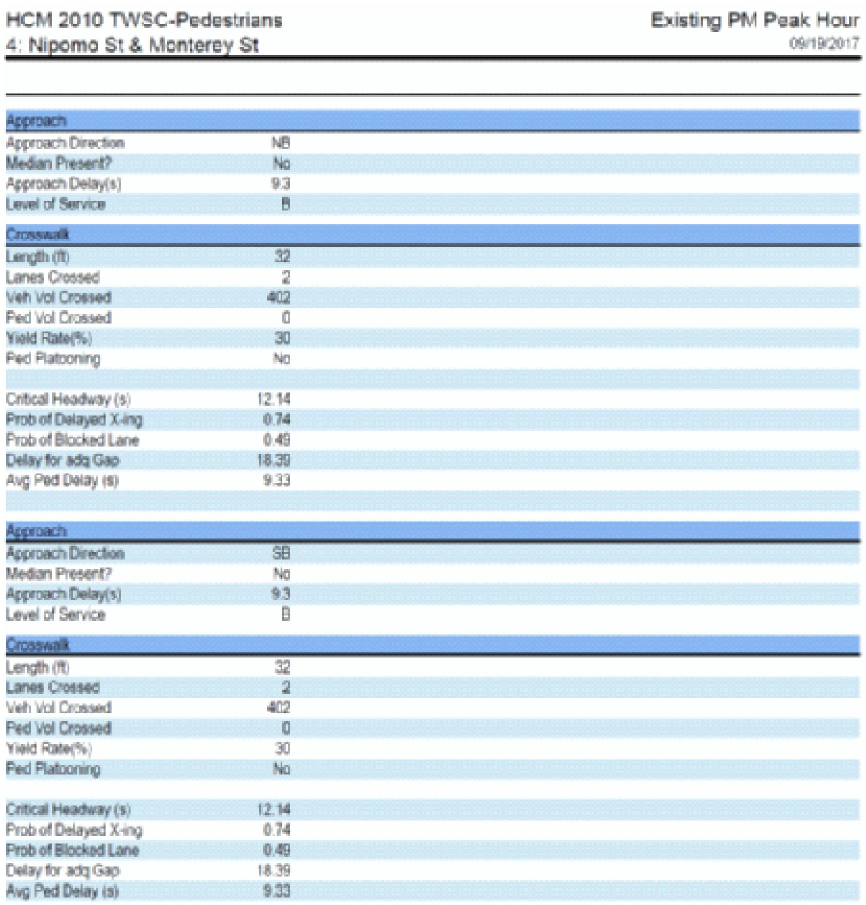
Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	83	32	172	36	9	230
Future Vol, veh/h	83	32	172	36	9	230
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	99	38	205	43	11	274

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	521	226	0	0	248	0
Stage 1	226	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	516	813	-	-	1318	-
Stage 1	812	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	511	813	-	-	1318	-
Mov Cap-2 Maneuver	511	-	-	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	747	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	570	1318	-
HCM Lane V/C Ratio	-	-	0.24	0.008	-
HCM Control Delay (s)	-	-	13.3	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0	-



HCM 2010 TWSC-Pedestrians
4: Nipomo St & Monterey St
Existing PM Peak Hour
09/19/2017

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	9.3
Level of Service	B

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	402
Ped Vol Crossed	0
Yield Rate(%)	30
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.74
Prob of Blocked Lane	0.49
Delay for adq Gap	18.39
Avg Ped Delay (s)	9.33

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	9.3
Level of Service	B

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	402
Ped Vol Crossed	0
Yield Rate(%)	30
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.74
Prob of Blocked Lane	0.49
Delay for adq Gap	18.39
Avg Ped Delay (s)	9.33

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↱		↱			↰
Traffic Vol, veh/h	163	13	128	73	10	84
Future Vol, veh/h	163	13	128	73	10	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	199	16	156	89	12	102

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	328	201	0	0	245	0
Stage 1	201	-	-	-	-	-
Stage 2	127	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	666	840	-	-	1321	-
Stage 1	833	-	-	-	-	-
Stage 2	899	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	659	840	-	-	1321	-
Mov Cap-2 Maneuver	659	-	-	-	-	-
Stage 1	833	-	-	-	-	-
Stage 2	890	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.9	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	670	1321	-
HCM Lane V/C Ratio	-	-	0.32	0.009	-
HCM Control Delay (s)	-	-	12.9	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.4	0	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	5.7
Level of Service	B

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	216
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.52
Prob of Blocked Lane	0.31
Delay for adq Gap	11.07
Avg Ped Delay (s)	5.73

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	5.7
Level of Service	B

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	216
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.52
Prob of Blocked Lane	0.31
Delay for adq Gap	11.07
Avg Ped Delay (s)	5.73

Intersection	
Int Delay, s/veh	2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰↱	
Traffic Vol, veh/h	80	3	54	173	3	68
Future Vol, veh/h	80	3	54	173	3	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	3	59	188	3	74

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	90	0	394	89
Stage 1	-	-	-	-	89	-
Stage 2	-	-	-	-	305	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1505	-	611	969
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	748	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1505	-	584	969
Mov Cap-2 Maneuver	-	-	-	-	584	-
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	715	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	943	-	-	1505	-
HCM Lane V/C Ratio	0.082	-	-	0.039	-
HCM Control Delay (s)	9.2	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Approach	
Approach Direction	EB
Median Present?	No
Approach Delay(s)	7
Level of Service	B

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	253
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.57
Prob of Blocked Lane	0.35
Delay for adq Gap	12.25
Avg Ped Delay (s)	7.03

Approach	
Approach Direction	WB
Median Present?	No
Approach Delay(s)	7
Level of Service	B

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	253
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.57
Prob of Blocked Lane	0.35
Delay for adq Gap	12.25
Avg Ped Delay (s)	7.03

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↱			↰
Traffic Vol, veh/h	85	14	204	67	11	236
Future Vol, veh/h	85	14	204	67	11	236
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	15	222	73	12	257

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	538	258	0	0	295	0
Stage 1	258	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	504	781	-	-	1266	-
Stage 1	785	-	-	-	-	-
Stage 2	767	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	498	781	-	-	1266	-
Mov Cap-2 Maneuver	498	-	-	-	-	-
Stage 1	785	-	-	-	-	-
Stage 2	759	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	525	1266	-
HCM Lane V/C Ratio	-	-	0.205	0.009	-
HCM Control Delay (s)	-	-	13.6	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	15.8
Level of Service	C

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	440
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.77
Prob of Blocked Lane	0.52
Delay for adq Gap	20.39
Avg Ped Delay (s)	15.77

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	15.8
Level of Service	C

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	440
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.77
Prob of Blocked Lane	0.52
Delay for adq Gap	20.39
Avg Ped Delay (s)	15.77

Intersection						
Int Delay, s/veh	2.8					

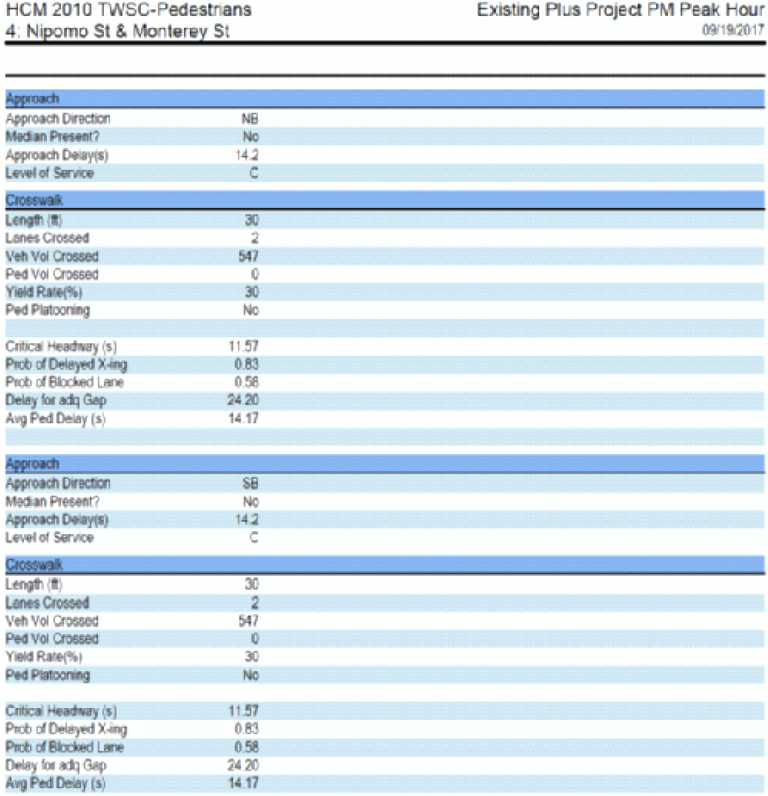
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↱		↱			↰
Traffic Vol, veh/h	83	35	236	36	12	311
Future Vol, veh/h	83	35	236	36	12	311
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	99	42	281	43	14	370

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	701	302	0	0	324	0
Stage 1	302	-	-	-	-	-
Stage 2	399	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	405	738	-	-	1236	-
Stage 1	750	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	399	738	-	-	1236	-
Mov Cap-2 Maneuver	399	-	-	-	-	-
Stage 1	750	-	-	-	-	-
Stage 2	669	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.2	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	462	1236	-
HCM Lane V/C Ratio	-	-	0.304	0.012	-
HCM Control Delay (s)	-	-	16.2	7.9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.3	0	-

Approach



HCM 2010 TWSC-Pedestrians
4: Nipomo St & Monterey St
Existing Plus Project PM Peak Hour
09/19/2017

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	14.2
Level of Service	C

Crosswalk	
Length (ft)	30
Lanes Crossed	2
Veh Vol Crossed	547
Ped Vol Crossed	0
Yield Rate(%)	30
Ped Platooning	No
Critical Headway (s)	11.57
Prob of Delayed X-ing	0.83
Prob of Blocked Lane	0.58
Delay for adq Gap	24.20
Avg Ped Delay (s)	14.17

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	14.2
Level of Service	C

Crosswalk	
Length (ft)	30
Lanes Crossed	2
Veh Vol Crossed	547
Ped Vol Crossed	0
Yield Rate(%)	30
Ped Platooning	No
Critical Headway (s)	11.57
Prob of Delayed X-ing	0.83
Prob of Blocked Lane	0.58
Delay for adq Gap	24.20
Avg Ped Delay (s)	14.17

Intersection	
Int Delay, s/veh	4.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↱		↑↱			↰↑
Traffic Vol, veh/h	170	10	150	100	10	130
Future Vol, veh/h	170	10	150	100	10	130
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	207	12	183	122	12	159

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	427	244	0	0	305	0
Stage 1	244	-	-	-	-	-
Stage 2	183	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	584	795	-	-	1256	-
Stage 1	797	-	-	-	-	-
Stage 2	848	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	578	795	-	-	1256	-
Mov Cap-2 Maneuver	578	-	-	-	-	-
Stage 1	797	-	-	-	-	-
Stage 2	840	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.8	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	587	1256	-
HCM Lane V/C Ratio	-	-	0.374	0.01	-
HCM Control Delay (s)	-	-	14.8	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.7	0	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	8.1
Level of Service	B

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	280
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.61
Prob of Blocked Lane	0.38
Delay for adq Gap	13.19
Avg Ped Delay (s)	8.06

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	8.1
Level of Service	B

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	280
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.61
Prob of Blocked Lane	0.38
Delay for adq Gap	13.19
Avg Ped Delay (s)	8.06

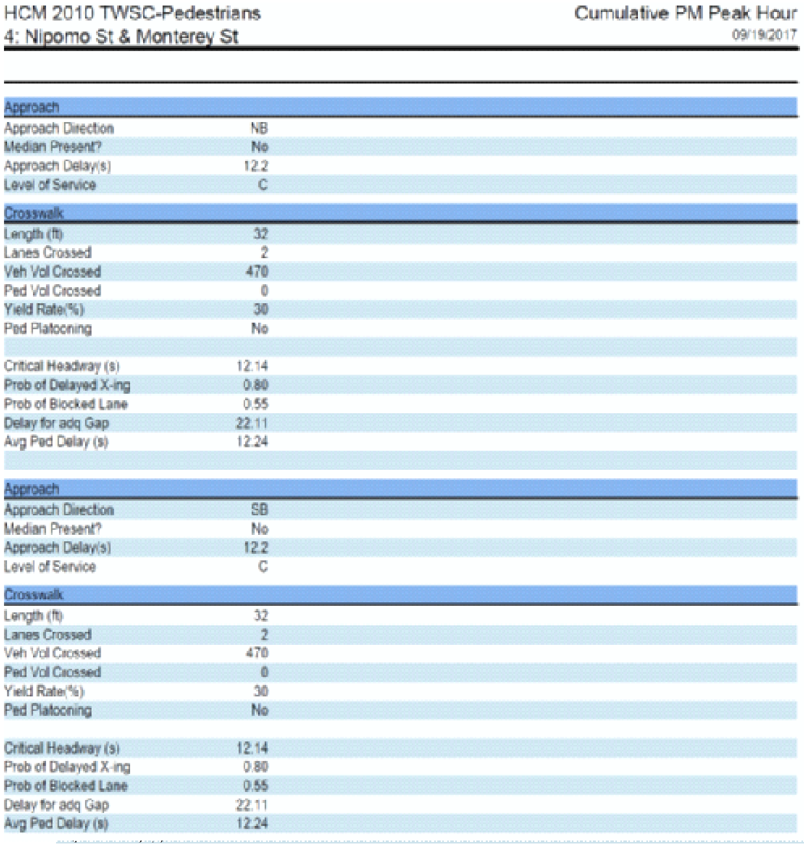
Intersection						
Int Delay, s/veh	3.7					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↱			↰
Traffic Vol, veh/h	110	40	230	40	10	240
Future Vol, veh/h	110	40	230	40	10	240
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	131	48	274	48	12	286

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	608	298	0	0	321	0
Stage 1	298	-	-	-	-	-
Stage 2	310	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	459	741	-	-	1239	-
Stage 1	753	-	-	-	-	-
Stage 2	744	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	453	741	-	-	1239	-
Mov Cap-2 Maneuver	453	-	-	-	-	-
Stage 1	753	-	-	-	-	-
Stage 2	735	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	505	1239	-
HCM Lane V/C Ratio	-	-	0.354	0.01	-
HCM Control Delay (s)	-	-	16	7.9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.6	0	-



HCM 2010 TWSC-Pedestrians
4: Nipomo St & Monterey St
Cumulative PM Peak Hour
09/19/2017

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	12.2
Level of Service	C

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	470
Ped Vol Crossed	0
Yield Rate(%)	30
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.80
Prob of Blocked Lane	0.55
Delay for adq Gap	22.11
Avg Ped Delay (s)	12.24

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	12.2
Level of Service	C

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	470
Ped Vol Crossed	0
Yield Rate(%)	30
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.80
Prob of Blocked Lane	0.55
Delay for adq Gap	22.11
Avg Ped Delay (s)	12.24

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↱			↰
Traffic Vol, veh/h	170	13	164	100	13	141
Future Vol, veh/h	170	13	164	100	13	141
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	207	16	200	122	16	172

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	465	261	0	0	322	0
Stage 1	261	-	-	-	-	-
Stage 2	204	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	556	778	-	-	1238	-
Stage 1	783	-	-	-	-	-
Stage 2	830	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	548	778	-	-	1238	-
Mov Cap-2 Maneuver	548	-	-	-	-	-
Stage 1	783	-	-	-	-	-
Stage 2	818	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.6	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	560	1238	-
HCM Lane V/C Ratio	-	-	0.399	0.013	-
HCM Control Delay (s)	-	-	15.6	7.9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.9	0	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	9.1
Level of Service	B

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	305
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.64
Prob of Blocked Lane	0.40
Delay for adq Gap	14.12
Avg Ped Delay (s)	9.08

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	9.1
Level of Service	B

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	305
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.64
Prob of Blocked Lane	0.40
Delay for adq Gap	14.12
Avg Ped Delay (s)	9.08

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↲↳	
Traffic Vol, veh/h	110	3	54	180	3	68
Future Vol, veh/h	110	3	54	180	3	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	120	3	59	196	3	74

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	123	0	434	121
Stage 1	-	-	-	-	121	-
Stage 2	-	-	-	-	313	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1464	-	579	930
Stage 1	-	-	-	-	904	-
Stage 2	-	-	-	-	741	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1464	-	553	930
Mov Cap-2 Maneuver	-	-	-	-	553	-
Stage 1	-	-	-	-	904	-
Stage 2	-	-	-	-	708	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	904	-	-	1464	-
HCM Lane V/C Ratio	0.085	-	-	0.04	-
HCM Control Delay (s)	9.4	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Approach	
Approach Direction	EB
Median Present?	No
Approach Delay(s)	8.5
Level of Service	B

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	290
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.62
Prob of Blocked Lane	0.39
Delay for adq Gap	13.56
Avg Ped Delay (s)	8.46

Approach	
Approach Direction	WB
Median Present?	No
Approach Delay(s)	8.5
Level of Service	B

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	290
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.62
Prob of Blocked Lane	0.39
Delay for adq Gap	13.56
Avg Ped Delay (s)	8.46

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↱		↱			↰
Traffic Vol, veh/h	85	14	270	67	11	300
Future Vol, veh/h	85	14	270	67	11	300
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	15	293	73	12	326

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	680	330	0	0	366	0
Stage 1	330	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	417	712	-	-	1193	-
Stage 1	728	-	-	-	-	-
Stage 2	713	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	412	712	-	-	1193	-
Mov Cap-2 Maneuver	412	-	-	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	704	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.9	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	438	1193	-
HCM Lane V/C Ratio	-	-	0.246	0.01	-
HCM Control Delay (s)	-	-	15.9	8	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1	0	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	24.7
Level of Service	D

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	570
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.85
Prob of Blocked Lane	0.62
Delay for adq Gap	28.97
Avg Ped Delay (s)	24.73

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	24.7
Level of Service	D

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	570
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.85
Prob of Blocked Lane	0.62
Delay for adq Gap	28.97
Avg Ped Delay (s)	24.73

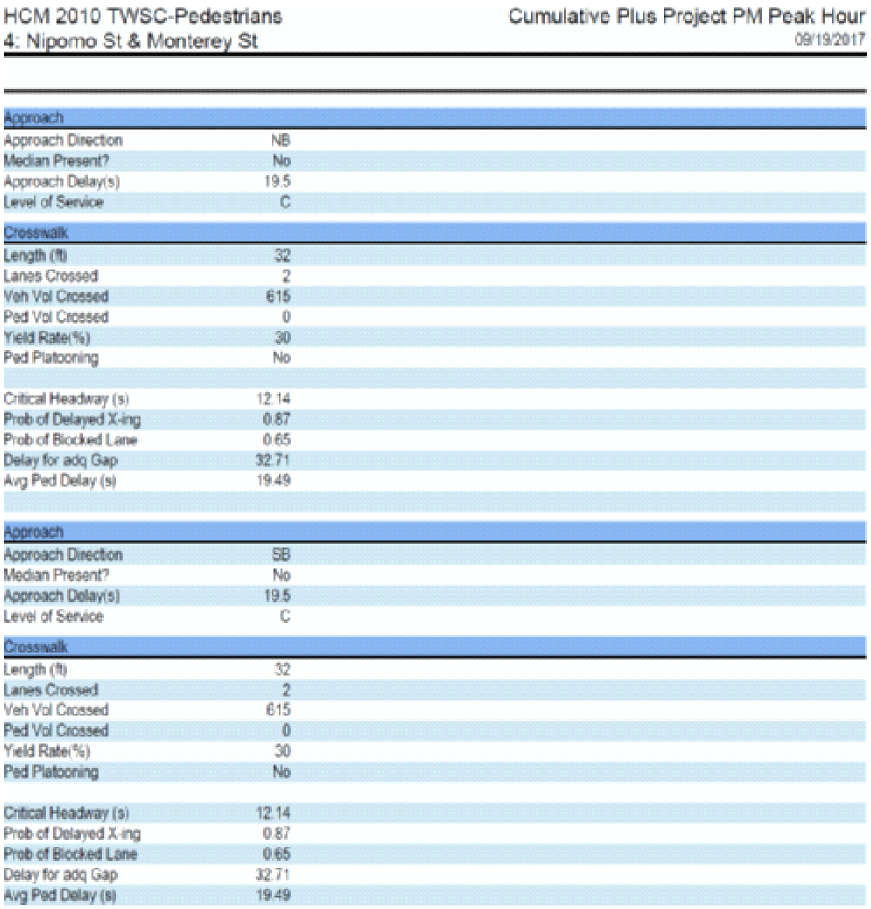
Intersection						
Int Delay, s/veh	4					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↱			↰
Traffic Vol, veh/h	110	43	294	40	13	321
Future Vol, veh/h	110	43	294	40	13	321
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	131	51	350	48	15	382

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	787	374	0	0	398	0
Stage 1	374	-	-	-	-	-
Stage 2	413	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	360	672	-	-	1161	-
Stage 1	696	-	-	-	-	-
Stage 2	668	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	354	672	-	-	1161	-
Mov Cap-2 Maneuver	354	-	-	-	-	-
Stage 1	696	-	-	-	-	-
Stage 2	657	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.7	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	408	1161	-
HCM Lane V/C Ratio	-	-	0.446	0.013	-
HCM Control Delay (s)	-	-	20.7	8.1	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.2	0	-



HCM 2010 TWSC-Pedestrians
4: Nipomo St & Monterey St
Cumulative Plus Project PM Peak Hour
09/19/2017

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	19.5
Level of Service	C

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	615
Ped Vol Crossed	0
Yield Rate(%)	30
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.87
Prob of Blocked Lane	0.65
Delay for adq Gap	32.71
Avg Ped Delay (s)	19.49

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	19.5
Level of Service	C

Crosswalk	
Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	615
Ped Vol Crossed	0
Yield Rate(%)	30
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.87
Prob of Blocked Lane	0.65
Delay for adq Gap	32.71
Avg Ped Delay (s)	19.49

Appendix C: Segment LOS Calculation Sheets

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing PM Palm Street

Direction Eastbound

Date 9/21/2016

Limits Nipomo to Broad

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space[1]**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Nipomo Street	Broad Street	0.03	2.34	B	64944.00	1.09	A	2.88	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing PM Palm Street

Direction Westbound

Date 9/21/2016

Limits Nipomo to Broad

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space[1]**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Nipomo Street	Broad Street	0.00	2.34	B	64944.00	1.58	A	3.56	D	1.67	A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing PM Nipomo Street

Direction Northbound

Date 9/21/2016

Limits Palm to Monterey

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space**[1]	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Palm Street	Monterey Street	0.09	2.34	B	55440.00	1.57	A	3.78	D	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing PM Nipomo Street

Direction Southbound

Date 9/21/2016

Limits Palm to Monterey

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space**[1]	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Palm Street	Monterey Street	0.17	2.34	B	55440.00	1.60	A	3.93	D	1.68	A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing PM Broad Street
Direction Northbound
Date 9/21/2016
Limits Palm to Monterey
Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space[1]**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Palm Street	Monterey Street	0.04	2.42	B	3167.98	1.29	A	3.48	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing PM Broad Street
Direction Southbound
Date 9/21/2016
Limits Palm to Monterey
Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space[1]**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Palm Street	Monterey Street	0.00	2.41	B	1727.97	1.09	A	2.80	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing PM Monterey Street

Direction Eastbound

Date 9/21/2016

Limits Broad to Nipomo

Analyst BR

Segment	**From**	**To**	**Auto Mode**			**Pedestrian Mode**			**Bicycle Mode**		**Transit Mode**	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space^1**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Broad Street	Nipomo Street	0.00	2.34	B	74448.00	1.02	A	2.18	B	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing PM Monterey Street

Direction Westbound

Date 9/21/2016

Limits Broad to Nipomo

Analyst BR

Segment	**From**	**To**	**Auto Mode**			**Pedestrian Mode**			**Bicycle Mode**		**Transit Mode**	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space^1**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Broad Street	Nipomo Street	0.00	2.34	B	74448.00	1.19	A	3.30	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing + Project PM Palm Street

Direction Eastbound

Date 12/13/2016

Limits Nipomo to Broad

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space[1]**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Nipomo Street	Broad Street	0.03	2.34	B	64944.00	1.10	A	2.92	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing + Project PM Palm Street

Direction Westbound

Date 12/13/2016

Limits Nipomo to Broad

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space[1]**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Nipomo Street	Broad Street	0.00	2.34	B	64944.00	1.59	A	3.57	D	1.67	A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing + Project PM Nipomo Street

Direction Northbound

Date 12/13/2016

Limits Palm to Monterey

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space**^{1}	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Palm Street	Monterey Street	0.12	2.34	B	55440.00	1.73	A	3.92	D	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing + Project PM Nipomo Street

Direction Southbound

Date 12/13/2016

Limits Palm to Monterey

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space**^{1}	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Palm Street	Monterey Street	0.18	2.34	B	55440.00	1.62	A	3.95	D	1.68	A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing + Project PM Broad Street
Direction Northbound
Date 12/13/2016
Limits Palm to Monterey
Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space^1**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Palm Street	Monterey Street	0.04	2.42	B	3167.98	1.29	A	3.48	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing + Project PM Broad Street
Direction Southbound
Date 12/13/2016
Limits Palm to Monterey
Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space^1**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Palm Street	Monterey Street	0.00	2.41	B	1727.97	1.09	A	2.80	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing + Project PM Monterey Street　Direction Eastbound　Date 12/13/2016

Limits Broad to Nipomo　Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space**^{1}	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Broad Street	Nipomo Street	0.00	2.34	B	74448.00	1.03	A	2.24	B	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Existing + Project PM Monterey Street　Direction Westbound　Date 12/13/2016

Limits Broad to Nipomo　Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space**^{1}	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Broad Street	Nipomo Street	0.00	2.34	B	74448.00	1.20	A	3.33	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative PM Palm Street
Direction Eastbound
Date 12/20/2016
Limits Nipomo to Broad
Analyst BR

Segment	**From**	**To**	**Auto Mode**			**Pedestrian Mode**			**Bicycle Mode**		**Transit Mode**	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space**[1]	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Nipomo Street	Broad Street	0.04	2.34	B	64944.00	1.18	A	3.22	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative PM Palm Street
Direction Westbound
Date 12/20/2016
Limits Nipomo to Broad
Analyst BR

Segment	**From**	**To**	**Auto Mode**			**Pedestrian Mode**			**Bicycle Mode**		**Transit Mode**	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space**[1]	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Nipomo Street	Broad Street	0.00	2.34	B	64944.00	1.60	A	3.58	D	1.68	A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative PM Nipomo Street
Direction Northbound
Date 12/20/2016

Limits Palm to Monterey
Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space[1]**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Palm Street	Monterey Street	0.12	2.34	B	55440.00	1.72	A	3.92	D	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative PM Nipomo Street
Direction Southbound
Date 12/13/2016

Limits Palm to Monterey
Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space[1]**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Palm Street	Monterey Street	0.22	2.34	B	55440.00	1.74	A	4.05	D	1.70	A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative PM Broad Street
Direction Northbound
Date 12/13/2016

Limits Palm to Monterey
Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space^1**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Palm Street	Monterey Street	0.05	2.42	B	3167.98	1.34	A	3.61	D	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative PM Broad Street
Direction Southbound
Date 12/13/2016

Limits Palm to Monterey
Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space^1**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Palm Street	Monterey Street	0.00	2.41	B	1727.97	1.16	A	3.08	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative PM Monterey Street

Direction Eastbound

Date 12/20/2016

Limits Broad to Nipomo

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space**[1]	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Broad Street	Nipomo Street	0.00	2.34	B	74448.00	1.04	A	2.28	B	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative PM Monterey Street

Direction Westbound

Date 12/20/2016

Limits Broad to Nipomo

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space**[1]	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Broad Street	Nipomo Street	0.00	2.34	B	74448.00	1.30	A	3.60	D	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative Plus Project PM Palm Street

Direction Eastbound

Date 12/20/2016

Limits Nipomo to Broad

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space[1]**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Nipomo Street	Broad Street	0.05	2.34	B	64944.00	1.19	A	3.25	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative Plus Project PM Palm Street

Direction Westbound

Date 12/20/2016

Limits Nipomo to Broad

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space[1]**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Nipomo Street	Broad Street	0.00	2.34	B	64944.00	1.60	A	3.59	D	1.68	A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative Plus Project PM Nipomo Street
Direction Northbound
Date 12/20/2016
Limits Palm to Monterey
Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space^1**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Palm Street	Monterey Street	0.15	2.34	B	55440.00	1.88	A	4.03	D	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative Plus Project PM Nipomo Street
Direction Southbound
Date 12/13/2016
Limits Palm to Monterey
Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space^1**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Palm Street	Monterey Street	0.23	2.34	B	55440.00	1.77	A	4.07	D	1.70	A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative Plus Project PM Broad Street

Direction Northbound

Date 12/13/2016

Limits Palm to Monterey

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space^1**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Palm Street	Monterey Street	0.05	2.42	B	3167.98	1.34	A	3.61	D	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative Plus Project PM Broad Street

Direction Southbound

Date 12/13/2016

Limits Palm to Monterey

Analyst BR

Segment	From	To	Auto Mode			Pedestrian Mode			Bicycle Mode		Transit Mode	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space^1**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Palm Street	Monterey Street	0.00	2.41	B	1727.97	1.16	A	3.08	C	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative Plus Project PM Monterey Street
Direction Eastbound
Date 12/20/2016
Limits Broad to Nipomo
Analyst BR

Segment	**From**	**To**	**Auto Mode**			**Pedestrian Mode**			**Bicycle Mode**		**Transit Mode**	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space^1**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Broad Street	Nipomo Street	0.00	2.34	B	74448.00	1.05	A	2.33	B	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

LOS+ Multimodal Level of Service for Urban Streets
Results Summary

Street Cumulative Plus Project PM Monterey Street
Direction Westbound
Date 12/20/2016
Limits Broad to Nipomo
Analyst BR

Segment	**From**	**To**	**Auto Mode**			**Pedestrian Mode**			**Bicycle Mode**		**Transit Mode**	
			V/C Ratio	**LOS Score**	**LOS**	**Ped Space^1**	**LOS Score**	**LOS**	**LOS Score**	**LOS**	**LOS Score**	**LOS**
1	Broad Street	Nipomo Street	0.00	2.34	B	74448.00	1.31	A	3.63	D	#DIV/0!	N/A
2												
3												
4												
5												

Note:

1. Pedestrian space is reported in square feet per pedestrian (ft^2/ped)

Source: NCHRP Project 3-70 Multimodal Level of Service For Urban Streets and Highway Capacity Manual 2010, Chapter 17

Appendix D: Trip Generation Calculations

Table 1: Vehicle Trip Generation Rates and Estimates

	Spaces in Structure[2]	PM[1]			
Parking Structure		In	Out	Total	Occupancy
919 Palm St.	192	62	77	139	69%
	Rates[3]	0.32	0.40	0.72	

1. Counts and rates derived from city; average of Tuesday and Wednesday.

2. Represents public spaces only, private spaces not included

3. Rates are reported in trips per parking space

Appendix E: Collision Information

Collision Summary

3 years data

1. Palm/Nipomo

Collisions 1

ADT 7192

Collision Rate **0.13**

Year	Collisions
1/1/2013-12/31/2013	1
1/1/2014-12/31/2014	0
1/1/2015-12/31/2015	0
Total	1

2009 Rates Tee, Stop & Yield Signs (EXC 4 Way), Urban

Basic Average A 0.15

Palm

AADT	Date
2238	2016 City ADT Counts

Nipomo

AADT	Date
4954	2016 City ADT Counts

2015 CCTC TMC

NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR

ADT Nipom	Nipomo SB	PM Ratio	Monterey	Monterey Est. ADT

Collision Summary

3 years data

2. Palm/Driveway

Collisions 0

ADT 2238

Collision Rate **0.00**

Year	Collisions
1/1/2013-12/31/2013	0
1/1/2014-12/31/2014	0
1/1/2015-12/31/2015	0
Total	0

2009 Rates Tee, Stop & Yield Signs (EXC 4 Way), Urban

Basic Average A 0.15

Palm

AADT	Date
2238	2016 City ADT Counts

Driveway

AADT	Date
0	

Collision Summary

3 years data

3. Driveway/Nipomo

Collisions 0

ADT 4954

Collision Rate **0.00**

Year	Collisions
1/1/2013-12/31/2013	0
1/1/2014-12/31/2014	0
1/1/2015-12/31/2015	0
Total	0

2009 Rates Tee, Stop & Yield Signs (EXC 4 Way), Urban

Basic Average A 0.15

Driveway

AADT	Date
0	

Nipomo

AADT	Date
4954	2016 City ADT Counts

2014 City TMC

NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR

Known AD	Known TM	PM Ratio	Other Roac	Other Road Est. ADT
0	0	#DIV/0!	0	#DIV/0!

Collision Summary

3 years data

4. Monterey/Nipomo

Collisions 0

ADT 6229

Collision Rate **0.00**

Year	Collisions
1/1/2013-12/31/2013	0
1/1/2014-12/31/2014	0
1/1/2015-12/31/2015	0
Total	0

2009 Rates Tee, Stop & Yield Signs (EXC 4 Way), Urban

Basic Average A 0.15

Monterey

AADT	Date
1275	2016 Derived

Nipomo

AADT	Date
4954	2016 City ADT Counts

2016 CCTC TMC

NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
0	172	36	9	230	0	0	0	0	83	0	32

Known AD	Known TM	PM Ratio	Other Roac	Other Road Est. ADT
4954	447	11.08277	115	1274.519

Appendix F: ADT Summary

Appendix F: ADT Summary				
Segment	Existing	Existing Plus Project	Cumulative	Cumulative Plus Project
Palm Street - Nipomo to Broad	2,238	2,794	2,565	3,121
Nipomo Street - Palm to Monterey	4,954	5,722	6,418	7,186
Broad Street - Palm to Monterey	2,676	2,676	3,159	3,159
Monterey Street - Nipomo to Broad	1,197	1,223	1,421	1,447