INITIAL STUDY
ENVIRONMENTAL CHECKLIST FORM
For ER # 120-13 (SCH 2006011051)

1. Project title:

Vesting Tentative Tract Map #2353 (Revised)

2. Lead agency name and address:

City of San Luis Obispo
990 Palm Street
San Luis Obispo, CA 93401

3. Contact Person and phone number:

Pam Ricci, Senior Planner
City of San Luis Obispo
(805) 781-7168

Gary Kaiser, Senior Environmental Project Manager
Rincon Consultants, San Luis Obispo

4. Project location:

The project site is a 30-acre property, located at 408 Prado Road in the City of San Luis Obispo. The project is located in the Margarita Area Specific Plan (MASP), and is identified as part of the "Western Enclave" of residential development envisioned by the Plan. Figure 1 shows the project within the local context.

5. Project sponsor's name and address:

Mangano Company LTD
1005 N. Demaree
Visalia, California 93281

6. General Plan designation:

The Margarita Area Specific Plan (MASP) designates the site for:

- *Business Park Office*
- *Low-Density Residential*
- *Medium-Density Residential*
- *Medium-High Density Residential*
- *Greenway*
- *Open Space – Riparian*

7. Zoning:

The site contains multiple zoning districts to implement the MASP land use designations, as follows:

- *O-SP (Office-Specific Plan Overlay)*
- *R-1-SP (Low-Density Residential-Specific Plan Overlay)*
- *R-2-SP (Medium Density Residential-Specific Plan Overlay)*
- *R-3-SP (Medium High Density Res.-Specific Plan Overlay)*
- *C/OS-SP (Conservation/Open Space-Specific Plan Overlay)*

8. Description of the Previously Approved Project:

VTM #2353 was previously approved in 2007. This approval was for a 133-lot subdivision, which was designed and processed in coordination with the two adjacent developments, described below, in order to better achieve the objectives and requirements of the MASP:

- *VTM #2342 (Rescal/Mangano Homes) 67 lots on approximately 15 acres; located immediately south of the existing El Camino Estates residential subdivision along Margarita Avenue and east of the Rancho San Luis Mobile Home Park, generally northeast of the current easterly terminus of the City maintained portion of Prado Road, east of South Higuera Street.*

- *VTM #2428 (Moresco) 178 lots on approximately 99 acres; located immediately north of the existing El Camino Estates residential subdivision along Margarita Avenue, and east of the existing Chumash Village Mobile Home Park (accessed from South Higuera). This site is also generally situated along the lower lying slopes of the South Hills between South Higuera Street and Broad Street.*

Collectively these three tract maps are referred to as the "Western Enclave" (of the MASP).

Vesting Tentative Map (VTM) #2353, as currently approved, contains a total of 133 lots designated as follows in accordance with the MASP:

- *109 lots designated for single family residential use; 83 at low density in the R-1-SP zone, 26 at medium density in the R-2-SP zone;*

- *12 lots designated for "mixed use" with integrated single family and business park-office uses on each lot in the O-SP zone;*

- *6 lots for exclusive business park-office use in the O-SP zone;*

- *1 lot designated for medium-high density residential development in the R-2-SP zone to be developed by the Housing Authority or other appropriate entity (satisfying the required Affordable Housing Program for VTM #2342 & 2428);*

- *3 lots for "greenway" park use in the R-1- and R-2-SP zones (within PG&E easement) for common ownership by a Home Owners Association; and*

- *2 lots for "open space-riparian" use in the C/OS-SP zone (drainage way) for common ownership by a Home Owners Association*

With an approved vesting tentative map, the applicant now has a "vested right" to develop in substantial compliance with the ordinances, policies and standards in effect when the application was determined complete on November 14, 2005, per Chapter 16.34 (Vesting Tentative Maps) of the City's Municipal Code and Sections 66474.2 and 66498.1 of the California Government Code (Subdivision Map Act).

9. Proposed Amendments to VTM #2353:

The applicant proposes revisions to the Conditions of Approval relative to the construction of Prado Road. The applicant also proposes revisions to the previously approved tentative tract map that would add one (1) residential lot and convert an open space lot for drainage purposes to a residential lot, increasing the number of single-family residential lots from 121 to 123, and overall number of lots from 133 to 134.

Prado Road Improvements

A key provision of the MASP is to extend Prado Road from its current easterly terminus, which is approximately one-quarter mile east of its junction with South Higuera Street, east to Broad Street. Further, the MASP seeks to establish this east-west connection of Prado Road between Broad Street and South Higuera Street at the earliest possible stage of development. Because the three "Western Enclave" tract maps represent the first phase of proposed development in the MASP area, they were required to design and construct this full extension of Prado Road. The MASP does provide one option to finance this full extension of Prado Road, and that is that the City may credit (or pro-rate) the design and construction costs against all future Margarita Area impact fees until the amount of fees equals the amount of construction costs. If the costs of the roadway exceed fee amounts, another financing mechanism, such as a facilities financing district, could be used to complete the project.

The MASP includes three residential tracts in the westerly portion of the MASP area that all lie on the north side of the planned extension of Prado Road to Higuera Street. When the MASP was adopted in 2004, it was assumed that all three of these westerly tracts (known collectively as the "Western Enclave") would move forward concurrently, sharing the burden of completing Prado Road improvements. Except for project-specific conditions, all conditions of approval related to requirements and triggers for extension of Prado Road were identical for the 3 residential tracts: TR 2342 (56 units), TR 2353 (145 units), and TR2428 (197 units).

The initial studies for each project, discusses the importance of Prado Road as follows:

"The primary self-mitigating\traffic feature of the MASP is the Plan's requirement that Prado Road be extended easterly, from its current terminus just east of South Higuera Street, all the way to Broad Street, thus providing a major new divided 4-lane east-west cross town arterial connector in the southerly area of San Luis Obispo. Conditions of approval are recommended that would require improvements to Prado Road as stipulated by the MASP and MASP/AASP EIR. The project will be conditioned to provide build-out of Prado Road commensurate with the development of the subject site together with the other two developments within the Western Enclave, as required by the MASP and as recommended by the City Public Works Dept."

In the MASP, the Prado Road Extension (PRE) along the frontage of the Western Enclave (WE) tracts is referred to as the "PRE-WE" segment, and the remaining portion east to Broad Street is called "PRE-MB" (from "M" Street to "Broad Street). Triggers for constructing the road were based on residential unit occupancy as follows:

- *Prior to occupancy of the 50th unit: Extend Prado Road to "M" Street (PRE-WE) from the westerly terminus at TR 2342;*
- *Prior to occupancy of 100th unit: Submit complete Plans, Specifications and Estimates for "M" to Broad Street;*
- *Prior to occupancy of 200th unit: Initiate construction of eastern segment from "M" Street to Broad Street (PRE-MB)*
- *Prior to occupancy of 300th unit: Complete construction of Prado Road connection to Broad Street.*

The City had anticipated that Prado Road right-of-way (ROW) dedications would be made as soon as the MASP was approved, but the Western Enclave alliance of owners disintegrated under the stresses of the 2008 economic collapse. The subsequent adverse housing market conditions delayed permitting efforts and resulted in changes of ownership on all of the Western Enclave properties. At this time, the easternmost property (Damon-Garcia) over which the Prado Road connection to Broad Street lies (the PRE-MB segment) is not moving forward with subdivision and may not for some time. The City currently does not have right-of-way dedication across the Damon-Garcia property for the PRE-MB segment. Acquisition of the needed right-of-way would require successful negotiations with the property owners or the use of eminent domain or other public acquisition process.

In 2011, the Planning Commission determined that the affordable housing units in VTM #2353 will not be counted towards the 200-unit construction trigger for Prado from "M" to Broad Street. In July 2012, the 2004 MASP was amended to reduce the park impact fees required per unit.

In February 2013, the City approved revised conditions of approval for VTM #2342 allowing phased improvements with a modified road section along with other adjustments to Tract conditions. The applicant identified a funding methodology and proposed construction responsibility for completing Prado Road in a manner that was more consistent with typical subdivision development and could be completed within financial constraints. Revised conditions allowed the PRE-WE portion of Prado Road to be constructed in segments along each tract's frontage as they develop, beginning with VTM #2342. Revised Prado Road improvements for VTM #2342 include full frontage improvements on the north side abutting the tract. These improvements, which are currently being constructed, accommodate a minimum of two lanes of Prado Road, bike lanes, sidewalk on the north side, a median, and a roundabout. The frontage improvements on the south side of Prado Road would then be completed at a later time with the development of the adjacent approved 20–acre Business Park site.

As anticipated, the applicant for VTM #2353 is requesting revisions to the conditions of approval consistent with those that were approved for the adjacent VTM #2342. The applicant proposes to construct the portion of Prado Road fronting VTM #2353 similar to the portion that was approved and that is currently being built for VTM #2342 except these improvements will be done in two phases. Phase 1 would occur during construction of the first 82 lots of VTM #2353, and Phase 2 would occur during construction of the remaining 52 lots of VTM #2353, as shown on the revised tentative tract map.

Finally, the applicant proposes to modify the lot configurations for Lots 43-49 in order to add area to the riparian corridor, more closely align the corridor to the swale's flow centerline, and orient the lots in a way that complements the remainder of the neighborhood. In addition, the applicant proposes to reconfigure Lots 38, 39 and 40 and convert Lot 39 from an open space lot (for drainage purposes) to a residential lot. This allows the applicant to capture runoff into a storm drain rather than convey the runoff onto downstream residential lots. These two lot reconfigurations would add one lot to the previously approved 133-lot tract, making it a 134-lot tract, and convert one of the open space lots to a residential lot, increasing the number of single-family residential lots from 121 to 123.

10. Surrounding land uses and setting:

The project site, 408 Prado Road, is located in the southern part of San Luis Obispo, within the MASP area. The site is situated on the north side of Prado Road, east of what is currently the easterly terminus of Prado Road. The intervening property is the approved VTM #2342, which is currently under construction per the MASP. To the north of the subject property is the approved VTM #2428; to the east are lands owned by the Damon and Garcia families; and to the south are lands owned by L.J. and A.P. Martinelli. The property owned by A.P. Martinelli has some long-standing commercial development, while the other properties to the east and south are primarily undeveloped or used agriculturally, but they are also within the MASP area and will eventually be developed pursuant to the MASP.

The site is comprised of the lower lying slopes of the South Hills in an area characterized as perennial grassland with patches of Valley Needlegrass grassland. Historically, a portion of the site was in agricultural production and another portion was a home site but the site is currently vacant. The site conveys runoff through a natural swale across the north easterly corner of the site (extending out of the proposed VTM #2428. This swale is well-enough defined as to be designated by the MASP as "Open Space-Riparian" and as such, is proposed for preservation in its natural state within the subdivision. This drainage also contains habitat suitable for special concern species, and is to be preserved in "open space" not only as a component of the Western Enclave biological mitigation program, but also to function as a component of the sub-regional drainage plan devised for the Western Enclave developments, in accordance with objectives of the MASP.

11. Project Entitlements Requested:

Approval of a Revised Vesting Tentative Map VTM #2353
Approval of Revised Conditions of Approval for VTM #2353

12. Other public agencies whose approval is required:

Air Pollution Control District (Permit to Construct, Permit to Operate)
Regional Water Quality Control Board (NPDES permit-including Phase II & SWPPP)
California Department of Fish and Game
U.S. Army Corps of Engineers
Board of Real Estate

13. Earlier Analyses:

On October 12, 2004, the San Luis Obispo City Council adopted the Airport Area and Margarita Area Specific Plans and Related Facilities Master Plan. Prior to taking such action, Council certified a Final Program Environmental Impact Report (EIR) prepared for the Plans. For the purposes of the current analysis, this document is referred to as the MASP EIR. In addition, a Tiered Mitigated Negative Declaration (Tiered MND) was prepared and adopted when VTM # 2353 was previously approved in 2007. These documents, incorporated herein by reference, are available for public review at the City of San Luis Obispo Community Development Department located at 919 Palm Street, San Luis Obispo, CA 93401.

The following excerpt from the MASP EIR is helpful in understanding its relationship to subsequent documents:

> *"The State CEQA Guidelines (Section 15168) encourage agencies to use a program EIR in certain circumstances involving the implementation of a series of related projects. Use of such a document allows the lead agency (in this case, the City of San Luis Obispo) to characterize the overall plan or program as the project being approved at the time and to consider broad policy alternatives and program-wide mitigation measures early in the plan development and facilities planning effort. This approach also avoids duplicative consideration of policies when future portions of the project are evaluated.*
>
> *This EIR contains analysis, at a program level, of the basic issues that will be used in conjunction with subsequent tiered environmental documents for specific projects related to the proposed Airport Area Specific Plan, the Margarita Area Specific Plan, and related facilities master plans. Once these plans are adopted by the City of San Luis Obispo (City), the basic policy issues will not need to be revisited by subsequent (second-tier) documents. However, in many cases, actual development of these plans will involve subsequent CEQA review."*

Section 15152 of the State CEQA Guidelines provides for tiering, as follows:

> *"Tiering refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project."*

Further, Subsection 15152(d) states:

> *"Where an EIR has been prepared and certified for a program, plan, policy, or ordinance consistent with the requirements of this section, any lead agency for a later project pursuant to or consistent with the program, plan, policy, or ordinance should limit the EIR or negative declaration on the later project to effects which:*
>
> *Were not examined as significant effects on the environment in the prior EIR; or*
>
> *Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means."*

Accordingly, this document focuses on proposed changes to the project and any new information that has become available that may alter environmental impact conclusions that were previously reached.

This Initial Study/Mitigated Negative Declaration takes into account and accepts the environmental conclusions of the prior CEQA documents, where circumstances remain the same. As such, mitigation measures adopted as part of the MASP EIR and Subsequent Tiered MND that are applicable to the proposed project are carried forward and applied to the proposed project to effectively mitigate the impacts that were previously identified. Some of these mitigation measures are applied verbatim from prior CEQA documents, while others have been refined to more specifically apply to the proposed project either as mitigation measures or as Conditions of Approval required for consistency with the MASP. Note that many of the mitigation measures identified in the MASP EIR have been incorporated by the applicant into the project design, making the project "self-mitigating" in these instances. Finally, new impacts and mitigation measure were identified in recent traffic and air quality studies prepared in support of this Initial Study/Mitigated Negative Declaration. With all of these prior, recent and new mitigation measures, the proposed revisions to VTM #2353 would not have a significant adverse impact on the environment, as demonstrated throughout this IS-MND.

Where circumstances do not remain the same, because project changes are proposed or because new information is available, this Initial Study/Mitigated Negative Declaration updates the record and supersedes earlier conclusions.

Figure 1 – Vicinity Map

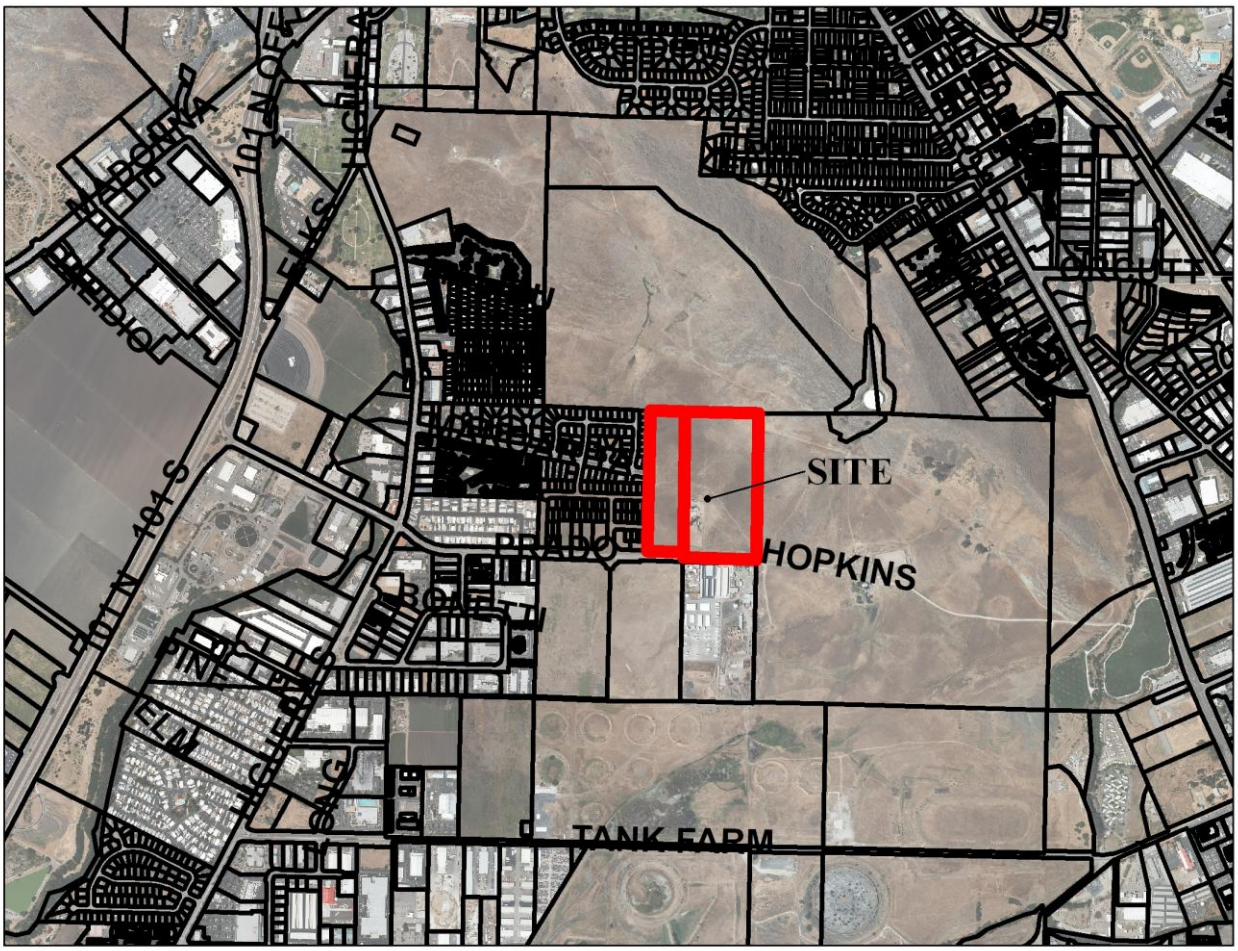
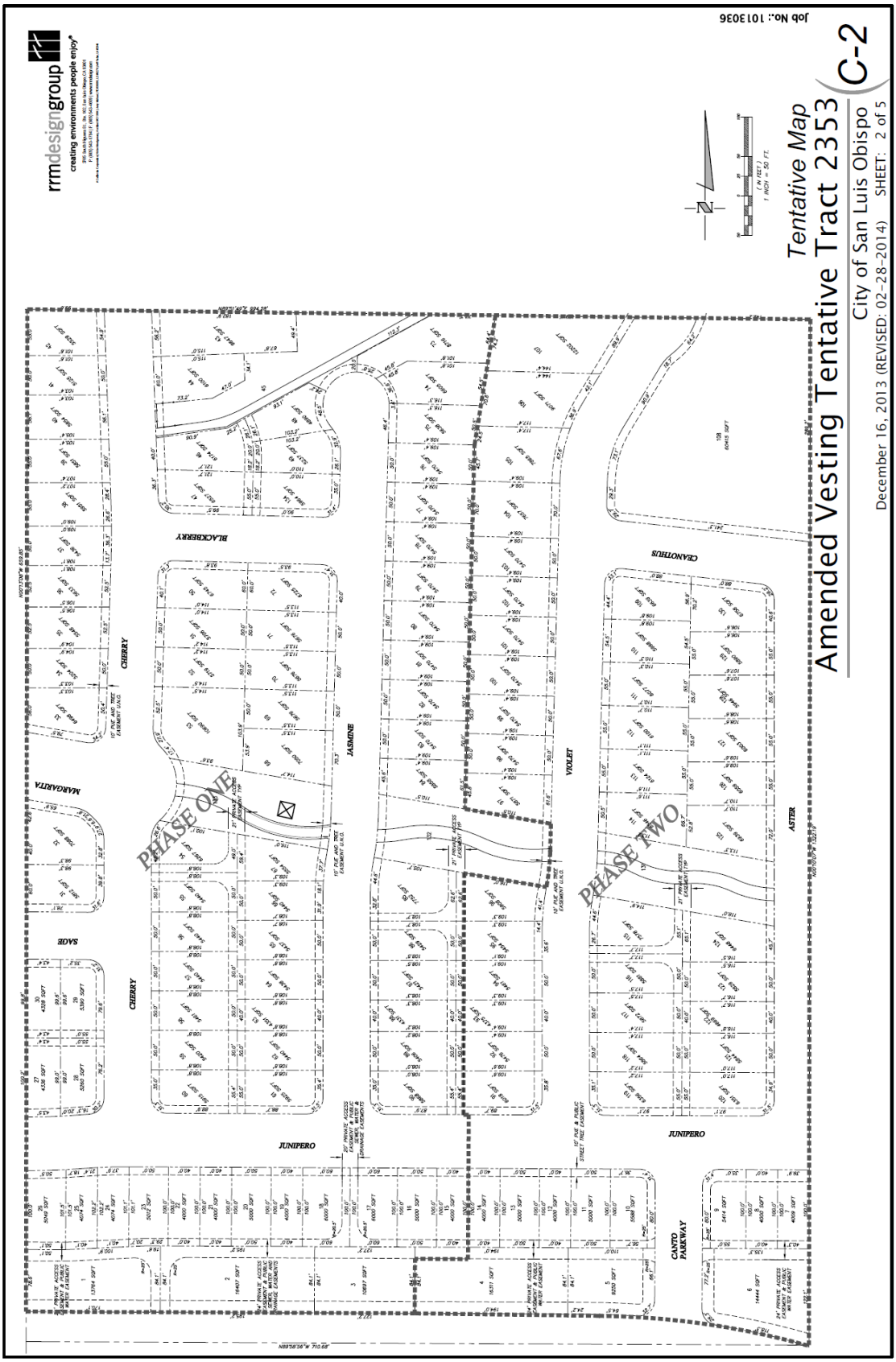


Figure 2 - Revised Tentative Tract Map



ENVIRONMENTAL FACTORS AFFECTED

The environmental factors checked below would be potentially affected by this project, 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	☐ Agriculture and Forest Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Geology/Soils
☐ Greenhouse Gas Emissions	☒ Hazards & Hazardous Materials	☐ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☐ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☒ Transportation/Traffic	☐ Utilities/Service Systems	☐ Mandatory Findings of Significance

FISH AND GAME FEES

	There is no evidence before the Department that the project will have any potential adverse effects on fish and wildlife resources or the habitat upon which the wildlife depends. As such, the project qualifies for a de minimis waiver with regards to the filing of Fish and Game Fees.
X	The project has potential to impact fish and wildlife resources and shall be subject to the payment of Fish and Game fees pursuant to Section 711.4 of the California Fish and Game Code. This initial study has been circulated to the California Department of Fish and Wildlife for review and comment.

STATE CLEARINGHOUSE

X	This environmental document must be submitted to the State Clearinghouse for review by one or more State agencies (e.g. Cal Trans, California Department of Fish and Wildlife, Department of Housing and Community Development). The public review period shall not be less than 30 days (CEQA Guidelines 15073(a)).

DETERMINATION:

On the basis of this initial evaluation:

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

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

☐ I find that the proposed project MAY have a "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 proposed 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 proposed project, nothing further is required.

Doug Davidson
Signature

3-3-14
Date

Doug Davidson, Deputy Director
Community Development Department
City of San Luis Obispo

ENVIRONMENTAL CHECKLIST

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
I. AESTHETICS – Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within 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 which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

Setting

The MASP EIR and Subsequent Tiered MND describe the physical and regulatory setting of the MASP area and surrounding areas. Since adoption of the MASP, the project site remains undeveloped; however, the adjoining property to the west (Tract 2342) is currently under construction. Also since adoption of the MASP, the property to the north of the subject property (Tract 2428) has been approved for a total of 165 lots, some for single family residential development and some for condominium development. The currently proposed project (Tract 2353) contains similar uses and densities.

Discussion

(a-d) Build-out of the MASP area will have a significant and unavoidable impact on visual resources, and the currently proposed project will contribute to the impact. The City's General Plan Land Use Element, Conservation and Open Space Element, Circulation Element, Community Design Guidelines, and Zoning Ordinance contain policies and development standards that will apply to the proposed project, all of which effectively serve to protect public views.

To be approved, the Tract 2353 must be found consistent with the uses and densities that are prescribed by the MASP and it must comply with applicable policies and standards relative to visual resources. Such findings of consistency were made when Tract 2353 was previously approved in 2007. The focus of review for the current request (Revised Tract 2353) is the new information that was not previously known, in particular: the reconfiguration of lots; the addition of two (2) more residential lots; and the revised phasing plan for improvements to Prado Road.

The lot reconfigurations and two (2) additional residential lots are interior changes within the project and do not have the potential to substantially alter public views of the project, or change any of the conclusions that were previously reached. The proposed Prado Road improvements would reduce visual impacts compared to the previously required road improvements because the revised roadway would result in less disturbance, at least in the short-term. Regardless, the MASP EIR concluded that individual tracts within the MASP have the potential for significant adverse impacts related to light and glare. Thus, MASP EIR Mitigation Measure LU-7.1 requires that individual tracts include project-specific lighting plans. Potential impacts are *less than significant with mitigation,*

and the project's contribution to the aesthetic impact of the MASP would not be significant, with implementation of the same mitigation measure that was imposed when the VTM was originally approved:

Mitigation Measure

VIS-01 Reduction of Light and Glare. In order for MASP/AASP EIR Mitigation Measure LU-7.1 as implemented by the MASP to be carried through to lot-specific development stage, applicants, at the time of building permit application, shall submit for review by the City Community Development Department, a lighting plan that demonstrates compliance with Community Design Section 3.3 Lighting requirements of the MASP shall be submitted with other required plans for both the residential and commercial components of the project to the review and approval of the Architectural Review Commission (ARC). The lighting plan shall propose specific measures to limit the amount of light trespass associated with development within the project area including shielding and/or directional lighting methods to ensure that spillover light does not exceed 0.5 foot-candles at adjacent property lines.

Monitoring Program: The ARC will review development plans for both the residential and commercial components of the project. City staff, including Planning and other departments, will review plans to assure that all of the ARC's requirements related to lighting and compliant with the MASP provisions have been incorporated into working drawings. City building inspectors will be responsible for assuring that all lighting is installed pursuant to the approved lighting plan.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
II. 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, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project:				
a) Convert Prime Farmland, Unique Farmland, 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) Conflict with existing zoning for agricultural use,	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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 could result in conversion of Farmland, to non-agricultural use?	☐	☐	☒	☐

Setting

The MASP EIR and Subsequent Tiered MND describe the physical and regulatory setting of the MASP area and surrounding areas. Since adoption of the MASP, the project site remains undeveloped; however, the adjoining property to the west (Tract 2342) is currently under construction. Also since adoption of the MASP, the property to the north of the subject property (Tract 2428) has been approved for development.

A large portion of the greater San Luis Obispo area is designated for agriculture. Almost the entire area surrounding the City limits is designated by the County for agricultural use. The continued viability of agricultural activities is essential to the economic base of San Luis Obispo and to the county as a whole.

Thresholds of Significance

Pursuant to the State CEQA Guidelines, a significant impact may occur if the project would:

- *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to nonagricultural use;*
- *Conflict with existing zoning for agricultural use, or a Williamson Act contract; and/or*
- *Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland, to nonagricultural use.*

Discussion

(a-e) According to the MASP EIR and the most recent (2010) Important Farmland Maps, the Margarita Area (including the Western Enclave area) does not contain any lands in the stated categories as shown on the maps pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. In addition, there is no agricultural zoning or Williamson Act Contract in effect on the subject site, and the site does not contain forest lands. However, the MASP area was historically farmed (and grazed) and its conversion to urban uses would preclude future agricultural use. The impacts of conversion of these lands to non-agricultural uses have already been evaluated both in the environmental documents for the City's Land Use and Circulation Elements and the MASP EIR as significant, irreversible, adverse impacts that could not be mitigated and the necessary Statement of

Overriding Considerations was adopted (Resolution No. 9615 (2004 Series) pursuant to CEQA. Nevertheless, the MASP includes provisions that ensure the preservation of significant open space areas, much of which would remain in a natural state. To this extent, developments that comply with the MASP are "self-mitigating."

The proposed revisions to Tract 2353 occur within the "footprint" that was previously considered for development and would not alter the project's impact on agricultural resources nor have the potential to change any of the conclusions previously reached. No impacts or mitigation measures were deemed necessary when the Tract 2353 was originally approved in 2007 and there have been no changes in circumstances. Potential impacts are *less than significant*.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
III. AIR QUALITY -- Would the project:				
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 Air Pollution Control District (SLOAPCD). San Luis Obispo is located within the South Central Coast Air Basin. SLOAPCD monitors air pollutant levels in the South Central Coast Air Basin to ensure that air quality standards are met, and if they are not met, to develop strategies to meet the standards. SLOAPCD has developed quantitative emissions thresholds that apply to projects within the South Central Coast Air Basin.

SLOAPCD has established the following significance thresholds for construction activities in the South Central Coast Air Basin:

ROG and NOX Emissions

- Daily: For construction projects expected to be completed in less than one quarter (90 days), exceedance of the 137 lbs/day threshold requires Standard Mitigation Measures;

- Quarterly – Tier 1: For construction projects lasting more than one quarter, exceedance of the 2.5 ton/qtr 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 ton/qtr threshold requires Standard Mitigation Measures, BACT, implementation of a Construction Activity Management Plan (CAMP), and off-site mitigation.

Diesel Particulate Matter (DPM) Emissions

- Daily: For construction projects expected to be completed in less than one quarter, exceedance of the 7 lb/day threshold requires Standard Mitigation Measures;

- Quarterly - Tier 1: For construction projects lasting more than one quarter, exceedance of the 0.13 tons/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/qtr 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 ton/qtr threshold requires Fugitive PM10 Mitigation Measures and may require the implementation of a CAMP.

SLOAPCD has also established the following significance thresholds for project operations in the South Central Coast Air Basin:

- 55 pounds per day of ROG
- 55 pounds per day of NOX
- 550 pounds per day of CO
- 150 pounds per day of SOX
- 150 pounds per day of PM10
- 55 pounds per day of PM2.5

Discussion

(a) According to the SLOAPCD CEQA Handbook (2012), a consistency analysis with the Clean Air Plan is required for a Program Level environmental review, and may be necessary for a Project Level environmental review, depending on the project being considered. Project-Level environmental reviews which 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. The consistency analysis should evaluate whether the proposed project is consistent with the land use and transportation control measures and strategies outlined in the Clean Air Plan. If the project is consistent with these measures, the project would be considered consistent with the Clean Air Plan.

The proposed project is located adjacent to existing development with access to existing transit and is planned development under the MASP. The MASP includes provisions for pedestrian trails, bike lanes and several bus stops, including a potential bus stop location within the boundaries of Tract 2353. Furthermore, and as noted in the responses to items b) and c) below, the proposed project would not result in operational emissions that would exceed SLOAPCD's significance thresholds for criteria air pollutants. For these reasons, the proposed project would not conflict with or obstruct continued implementation of the CAP. This impact would be less than significant.

(b, c) *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 SLO County nonattainment status for ozone and PM10. Sensitive receptors near the project site include adjacent single family residences to the west. Table 1 summarizes the estimated project emissions generated from construction activities.

Table 1
Tract 2353 Construction Emissions

Pollutant of Concern	Criteria		
	Emissions[1]	Threshold	Threshold Exceeded?
ROG and NO_X (combined)	1.30 tons/quarter	2.5 tons/quarter (Tier 1)	No
Fugitive PM_{10} (dust)	0.09 tons/quarter	2.5 tons/quarter (Tier 1)	No
DPM	0.10 tons/quarter	0.13 tons/quarter (Tier 1)	No

1. Quarterly emissions were calculated by dividing maximum annual construction emissions by 4, since construction activities would extend for a duration of exceeding 90 days, as recommended by SLOAPCD.
2. The DPM estimations were derived from the "PM_{10} 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 Attachment 5 for CalEEMod software program output.

The proposed project is expected to generate 1.30 tons/quarter of ozone procurers, 0.09 tons/quarter of fugitive PM10, and 0.10 tons/quarter of DPM as a result of construction emissions. As shown in Table 1, the proposed project would not exceed SLOAPCD quarterly construction emissions for ROG, NOX, PM10, or DPM.

While the estimated construction emissions are below the SLOAPCD thresholds, in accordance with the standards of the SLOPACD CEQA Handbook, standard mitigation measures are required because sensitive receptors (existing residential units) are located within 1,000 feet of the project site and because the air basin is in non-attainment for PM10. Accordingly, Mitigation Measures AQ-1 and AQ-2 below would be required to reduce fugitive dust, ozone precursors, and diesel particulate matter emissions.

According to the SLOAPCD Naturally Occurring Asbestos Map for San Luis Obispo County, the project site is located in an area that is known to contain naturally occurring asbestos. Naturally occurring asbestos has been identified by the State Air Resources Board as a toxic air contaminant. Serpentine and ultramafic rocks are very common in the City of San Luis Obispo and may contain naturally occurring asbestos. The proposed project would result in substantial excavation and grading and therefore may encounter naturally occurring asbestos. Under the State Air Resources Board Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, prior to any construction or grading activities at the site, the applicant must comply with all applicable requirements outlined in the Asbestos ATCM.

These requirements may include but are not limited to 1) an Asbestos Dust Mitigation Plan which must be approved by the City before construction begins, and 2) an Asbestos Health and Safety Program will also be required for some projects, subject to the approval of SLOAPCD. SLOAPCD monitors State air quality requirements and would be sent project plans submitted for building permits to insure compliance with all standards and requirements. SLOAPCD also responds in the field during construction on a complaint basis. The ACTM has different requirements for projects depending on the area of disturbance. For a project that would disturb more than one acre of land, the ACTM requires an Asbestos Dust Mitigation Plan. Therefore, Mitigation Measure AQ-3 below would be required to reduce impacts to a less than significant level.

Operational Impacts. As shown in Table 2, area source and operational emissions of the proposed project would not exceed SLOAPCD thresholds for ROG, NOX, CO, SOX, PM10, and PM2.5. Therefore, the proposed project would not violate air quality standards or contribute to an existing air quality violation.

Table 2
Tract 2428 Operational Emissions

Emission Source	ROG
Area Source and Operational (lbs/day)	14.6
Threshold Total lbs/day	*55*
Threshold Exceeded?	*No*

See Appendix 5 for CalEEMod software program output.

Because the proposed project would not violate air quality standards or contribute to an existing air quality violation, impacts would be less than significant.

(d) While the estimated construction emissions are below the SLOAPCD thresholds, in accordance with the standards of the SLOAPCD CEQA Handbook (December 2009), standard mitigation measures are required because sensitive receptors are located within 1,000 feet of the project site, as discussed above. Accordingly, Mitigation Measures AQ-1 and AQ-2 would be required to reduce fugitive dust, ozone precursors, and diesel particulate matter emissions.

(e) The proposed project is a residential development and would not generate objectionable odors. Surrounding land uses would not be expected to generate odors that would affect project residents. Therefore, no impacts would result.

Mitigation Measures

AQ-1 Fugitive Dust Control Measures. The proposed project shall implement the following dust control measures so as to reduce PM10 emissions in accordance with SLOAPCD requirements.

a) Reduce the amount of the disturbed area where possible;
b) Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible;
c) All dirt stock pile areas should be sprayed daily as needed;
d) Permanent dust control measures identified in the approved project re-vegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;
e) Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;
f) All disturbed soil areas not subject to re-vegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD;
g) All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible after grading unless seeding or soil binders are used;
h) Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
i) All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114;
j) Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site;
k) Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible;
l) All of these fugitive dust mitigation measures shall be shown on grading and building plans; and

m) 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 APCD Compliance Division prior to the start of any grading, earthwork or demolition.

AQ-2 Construction Equipment. The proposed project shall implement the following emissions control measures so as to reduce diesel particulate matter in accordance with SLOAPCD requirements.

- 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 (CNG), liquefied natural gas (LNG), propane or biodiesel.

AQ-3 Asbestos Dust Mitigation Plan. The applicant shall prepare an Asbestos Dust Mitigation Plan in accordance with the requirements set for by ACTM to ensure that asbestos does not create a significant health risk to construction workers and sensitive receptors. The Asbestos Dust Mitigation Plan shall be implemented at the beginning and maintained throughout the duration of the construction or grading activity. The Asbestos Dust Mitigation Plan must specify dust mitigation practices which are sufficient to ensure that no equipment or operation emits dust that is visible crossing the property line, and must include one or more provisions addressing each of the following topics.

A. Track-out prevention and control measures which shall include:
   1. Removal of any visible track-out from a paved public road at any location where vehicles exit the work site; this shall be accomplished using wet sweeping or a HEPA filter equipped vacuum device at the end of the work day or at least one time per day; and
   2. Installation of one or more of the following track-out prevention measures:
      i. A gravel pad designed using good engineering practices to clean the tires of exiting vehicles;
      ii. A tire shaker;
      iii. A wheel wash system;
      iv. Pavement extending for not less than fifty (50) consecutive feet from the intersection with the paved public road; or
      v. Any other measure as effective as the measures listed above.
B. Keeping active storage piles adequately wetted or covered with tarps.
C. Control for disturbed surface areas and storage piles that will remain inactive for more than seven (7) days, which shall include one or more of the following:
   1. Keep the surface adequately wetted;

2. Establishment and maintenance of surface crusting sufficient to satisfy the test in subsection (h)(6);
3. Application of chemical dust suppressants or chemical stabilizers according to the manufacturers' recommendations;
4. Covering with tarp(s) or vegetative cover;
5. Installation of wind barriers of fifty (50) percent porosity around three (3) sides of a storage pile;
6. Installation of wind barriers across open areas; or
7. Any other measure as effective as the measures listed above.

D. Control for traffic on on-site unpaved roads, parking lots, and staging areas which shall include
1. A maximum vehicle speed limit of fifteen (15) miles per hour or less; and
2. One or more of the following:
   i. Watering every two hours of active operations or sufficiently often to keep the area adequately wetted;
   ii. Applying chemical dust suppressants consistent with manufacturer's directions;
   iii. Maintaining a gravel cover with a silt content that is less than five (5) percent and asbestos content that is less than 0.25 percent, as determined using an approved asbestos bulk test method, to a depth of three (3) inches on the surface being used for travel; or
   iv. Any other measure as effective as the measures listed above.

E. Control for earthmoving activities which shall include one or more of the following:
1. Pre-wetting the ground to the depth of anticipated cuts;
2. Suspending grading operations when wind speeds are high enough to result in dust emissions crossing the property line, despite the application of dust mitigation measures;
3. Application of water prior to any land clearing; or
4. Any other measure as effective as the measures listed above.

F. Control for Off-Site Transport. The owner / operator shall ensure that no trucks are allowed to transport excavated material off-site unless:
1. Trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments; and
2. Loads are adequately wetted and either:
   i. Covered with tarps; or
   ii. Loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than six inches from the top and that no point of the load extends above the top of the cargo compartment.

G. Post Construction Stabilization of Disturbed Areas. Upon completion of the project, disturbed surfaces shall be stabilized using one or more of the following methods:
1. Establishment of a vegetative cover;
2. Placement of at least three (3.0) inches of non-asbestos-containing material;
3. Any other measure deemed sufficient to prevent wind speeds of ten (10) miles per hour or greater from causing visible dust emissions.

H. Air Monitoring for Asbestos (If Required by the SLOAPCD).
1. If required by SLOAPCD, the plan must include an air-monitoring component.
2. The air monitoring component shall specify the following:
   i. Type of air sampling device(s)
   ii. Siting of air sampling device(s);
   iii. Sampling duration and frequency; and
   iv. Analytical method.

I. Frequency of Reporting: The plan shall state how often the items specified in subsection (e)(5)(B), and any other items identified in the plan, will be reported to the district.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and 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

The MASP EIR and Subsequent Tiered MND describe the physical and regulatory setting of the MASP area and surrounding areas. Since adoption of the MASP, the project site remains undeveloped; however, the adjoining property to the west (Tract 2342) is now under construction and the property to the north of the subject property (Tract 2428) has been approved for development.

There have been no substantial changes in species composition in the area since the earlier surveys were conducted, as evidenced by review of sensitive habitat and species records for the project site and vicinity with the California Department of Fish and Wildlife Natural Diversity Database (accessed on January 9, 2014).

Discussion

(a-f) The proposed revisions to Tract 2353 occur within the "footprint" that was previously considered for development and would not alter the project's impact on biological resources nor have the potential to change any of the conclusions previously reached. To recap, the MASP EIR conducted extensive biological resource impact analyses, including site-specific surveys for the Western Enclave properties during the winter, spring, and summer of 2005. As a result of these surveys, performance standards to avoid, minimize, or compensate for the impacts are set forth in Mitigation Measure BIO-6.1.

Mitigation Measures

BIO-6.1 (from MASP EIR). Avoid and Minimize Impacts on Wetland Habitat. To avoid and minimize impacts to freshwater marsh and other wetland habitats, the project proponent will do all of the following:

- obtain a qualified wetland ecologist to conduct a delineation of waters of the United States, including wetlands, at the project site;
- obtain verification of the delineation from the Corps;
- avoid identified waters of the United States and wetlands during project design to the extent possible and establish a buffer zone around jurisdictional features to be preserved;
- obtain a permit from the Corps for any unavoidable "fill" of wetlands or other waters of the United States; and
- develop and implement a mitigation and monitoring plan in coordination with the agencies to compensate for losses and to ensure no net loss of wetland habitat functions and values.

In compliance with this mitigation, an approved "Comprehensive Mitigation Program" is now in place for the Western Enclave properties. The Plan involves the construction of drainage basins in the southwest portion of Tract 2342, and on a 5.6-acre portion of a 20-acre site located on the south side of Prado Road (Prado Basin). The basins, owned and maintained by a Homeowners Association (HOA), will be vegetated with suitable grasses and other native plant materials, including wetlands. As impacts to biological resources occur within the Western Enclave Tracts, the basins are planted and expanded accordingly. The area that is available for mitigation in these two locations exceeds the mitigation requirement, because it assumed that the entire wetland area on Tract 2353 (530 linear feet, or 0.03 acres) would be impacted when in fact the majority of the wetlands on Tract 2353 will be retained. The current proposal would impact a 104-foot long segment, yet mitigation is occurring based on removal of 530 feet.

According to a recent biological survey of the swale by Althouse and Meade (attached), the proposed conversion of a drainage segment on Lot 39 yard would impact approximately 260 square feet of "potential non-wetland waters of the U.S. and waters of the state." This minor increase in impacts to non-wetland waters (0.006 acres) is substantially less than that which is already being mitigated for in the comprehensive mitigation plan (0.03 acres). No further mitigation is required. The impact of the proposed project revisions is *less than significant* because required mitigation measures are already required and being implemented.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
V. CULTURAL RESOURCES -- Would the project:				
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 formal cemeteries?	☐	☐	☐	☒

Setting

The MASP EIR and Subsequent Tiered MND describe the physical and regulatory setting of the MASP area and surrounding areas. The cultural resource analysis was based on (1) a Phase I (surface) survey for archaeological resources conducted by Heritage Discoveries, Inc. of San Luis Obispo, CA for the entire Western Enclave area (report dated May 31, 2005) and (2) a Historical Evaluation of the small farm house at the subject site, the only structures within the Western Enclave area, performed by Bertrando & Bertrando Research Consultants (report dated April 2005).

Discussion

(a-b) The proposed revisions to Tract 2353 occur within the "footprint" that was previously considered for development and would not alter the project's impact on cultural resources nor have the potential to change any of the conclusions previously reached. The 2005 Historical Evaluation concluded that the research conducted on the property revealed no evidence of historical significance, and therefore there would be no significant impact resulting from the removal of the house (which has since been removed). The cultural resources report, however, recommended further testing to determine the extent and significance of a site located on Tract 2353. A recent records search revealed that no additional sites have been recorded on the site or in the project area since the earlier report was prepared.

The archaeological report, however, found and completed a site record for, a small archaeological site of unspecified significance within the subject project site area. The report recommends that a Phase II subsurface test be performed to complete the required mitigation, but the City previously determined that such survey will not affect the project and therefore does not impact the subject project going forward. If the Phase II survey determines significance criteria for a unique resource (as defined in CEQA) or evidence of a qualifying historical site per NRHP have been met and avoidance of the resource is not possible, then the impact to the resource shall be mitigated in consultation with the lead agency and any or all of the following measures may be needed:

Mitigation Measure

CR-1. Phase II Testing (from prior MND ER 66-05). In order to achieve complete mitigation for the archaeological resource found on the subject site, this survey is required if the site cannot be avoided. The Phase II survey is to determine if significance criteria of CEQA and/or NRHP are met.

The survey must be completed and results submitted to City for determination whether mitigation measures below, as specified in EIR, are needed.

1.) A data recovery program consisting of archaeological excavation to retrieve the important data from the archaeological site;
2.) Development and implementation of public interpretation plans for both prehistoric and historic sites;
3.) Preservation, rehabilitation, restoration, or reconstruction of historic structures according to the Secretary of Interior Standards for Treatment of Historic Properties;
4.) Construction of new structures in a manner consistent with the historic character of the region; and
5.) Treatment of historic landscapes according to the Secretary of Interior Standards for Treatment of Historic Landscapes.

With this carry-over mitigation measure from the previously Mitigated Negative Declaration that was adopted when the project was originally approved, the impact is *less than significant with mitigation*.

c-d) The project site is located in an area that does not contain any unique geological feature and possesses no known unique paleontological resources. The project area has been part of two general cultural resource field surveys. As a result of these field surveys, there are no known historical or archaeological resources that are associated with the project site. Therefore there is no impact.

d) There is no evidence available that suggests human remains are known to exist within the project boundaries. Therefore, there is no impact.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VI. GEOLOGY AND SOILS – Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) 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?	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VI. GEOLOGY AND SOILS – Would the project:				
c) 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) 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?	☐	☐	☐	☒

Setting

The MASP EIR and Subsequent Tiered MND describe the physical and regulatory setting of the MASP area and surrounding areas. Since adoption of the MASP, the project site remains undeveloped; however, the adjoining property to the west (Tract 2342) is now under construction and the property to the north of the subject property (Tract 2428) has been approved for development. There have, however, been no changes to the geology and soils of the area.

Discussion

(a–d) The proposed revisions to Tract 2353 occur within the "footprint" that was previously considered for development and would not alter the project's impact on geologic resources nor have the potential to change any of the conclusions previously reached. To recap, the initial study prepared prior to the MASP EIR determined that the MASP did not have the potential for significance effects and therefore the MASP EIR conducted no further evaluations. There is no new evidence to suggest there would be any site specific impacts that were not adequately anticipated or evaluated in the prior environmental documents, nor is there evidence that the revisions that are currently being proposed would have potentially significant impacts. The final grading plan prepared for the subdivision will be reviewed for consistency with City code and it will have to be in accordance with the Geotechnical Engineer's recommendations and the California Building Code. Therefore, potential impacts are *less than significant*.

(e) Public sewer is available to the project area and Tract 2353 will be served by public sewer. Therefore, no impacts related to septic systems would result.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS - Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Setting

In 2008, the City of San Luis Obispo conducted a baseline emissions inventory. In August 2012, the City of San Luis Obispo adopted a Climate Action Plan (2012 CAP) for reducing greenhouse gas emissions. The 2012 CAP is a strategic document, based on the concept that local governments are well positioned to develop and implement locally effective strategies to reduce GHG emissions. The CAP includes a GHG emissions reduction target and emissions reduction strategies designed to help the City achieve that target. The adopted target is a reduction of communitywide emissions to 1990 levels by 2020, consistent with AB 32.

The City of San Luis Obispo has not yet adopted GHG emissions thresholds for use in CEQA documents. In March 2012, the SLOAPCD adopted CEQA thresholds for GHG emissions in order to achieve goals outlined in the County's EnergyWise Plan. This document includes three thresholds that can be used to evaluate the level of significance of GHG emissions impacts for residential and commercial projects. The three thresholds are described below:

- *Qualified GHG Reductions Strategies. A project would have a significant impact if it is not consistent with a qualified GHG reduction strategy that meets the requirements of the State CEQA Guidelines. If a project is consistent with a qualified GHG reduction strategy, it would not have a significant impact; OR,*
- *Bright-Line Threshold. A project would have a significant impact if it exceeds the "bright-line threshold" of 1,150 metric tons CO_2E/year; OR,*
- *Efficiency Threshold. A project would have a significant impact if the efficiency threshold exceeds 4.9 metric tons of CO_2E/service population/year. The service population is defined as the number of residents plus employees for a given project.*

Discussion

Questions A and B:
GHG reduction strategies in the 2012 CAP that apply to future residential construction include new construction energy conservation (BLD 2), renewable energy implementation (RE 2), land use diversity and density (TLA 5), reduce the need for commuting (TLU 8), and water conservation: new development (WTR 2). The proposed project implements CAP strategies, such as including a mixed-use component which reduces the need for commuting, and is consistent with a Qualified GHG Reduction Strategy by incorporation of the following features in the project:

1. Solar is provided on 100% of all residential units, more than three times the rate recommended by City Open Space/Conservation policies. This may change as vendors change their pricing and is dependent on utility incentives. The panel sizes are designed to meet 50% of the electrical energy requirements.

2. Fewer than 25% of the homes are Serra Meadows are equipped with air conditioning. It is not a standard feature because the units are designed for passive cooling.

3. The building package has been rated, on average as providing energy efficiency 20% above CalGreen and Title 24.

4. The subdivision design accommodates future on-site bus stops per City requirements.

5. The project is a mixed use project with office uses integrated with the residential.

6. Substantial Class II and Class I bike paths are provided with connections to future retail services and to employment centers across Prado Road.

7. The proposed amendment seeks to increase the number of residential units and increase the "compactness" of the development.

8. The project integrates affordable housing per City requirements.

9. The project makes substantial use of recycled water for arterial parkways and greenways.

10. Roundabouts are part of the circulation plan which encourages more efficient traffic movement and less idling.

The applicant has also completed a CAP compliance checklist which outlines the many design features of the project that further document compliance with a qualified GHG reduction strategy. Therefore, the project is consistent with EIR guidance on reducing GHGs as well as the CAP; therefore, potential impacts are *less than significant*.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
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 ¼ mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which 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?	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
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 within the vicinity of a private airstrip, would the project 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?	☐	☐	☐	☒

Setting

The MASP EIR and Subsequent Tiered MND describe the physical and regulatory setting of the MASP area and surrounding areas. The project site is located on the north side of Prado Road and south and east of Margarita Avenue, on undeveloped, slightly sloped land within the urban boundary line and adjacent to residential uses. The adjoining property to the west (Tract 2342) is currently under construction.

Discussion

(a,b,d) The proposed revisions to Tract 2353 occur within the "footprint" that was previously considered for development and would not alter the project's impact related to hazards nor have the potential to change any of the conclusions previously reached. To recap, the MASP EIR and subsequent MND determined that historical agricultural activities and surrounding industrial activities of the Margarita Area may have released hazardous materials into the environment. Hazardous materials releases may have involved leaking underground or aboveground storage tanks, or similar events from other nearby properties that store or handle hazardous or toxic materials. Construction-related and ground disturbing activities may involve the use of materials that could contaminate nearby soils and water resources in the project area. Existence of such potential hazards could cause construction workers and other people to be exposed to dust or emissions containing such hazardous materials or to organic pesticides, herbicides, and other hazardous materials.

The project site is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment (Environmental Data Resources, Inc. Inquiry # 3827270.3, January 9, 2014). There are two potentially contaminated sites within 0.5 miles of the subject site. The nearest site is 985 feet away, within the westerly portion of Tract 2342. This site was impacted by a crude pipeline removed in the 1930's that used to transport oil to the former San Luis Obispo Tank Farm located to the south of the property. Site assessment work has been completed

and the Regional Water Quality Control Board has recommended closure but limited remnant hydrocarbons still occur at depths between 5 and 15 feet, which presents a low risk to groundwater quality. The other site is 2,491 feet away at 277 Granada Drive, where minor spills of hazardous waste have occurred. Both of these sites are at a lower elevation than Tract 2353 and do not pose a risk to the subject property.

The prior documents further determined that impacts related to development of allowed business park land uses could result in operations-related exposures to hazardous materials and short-term surface water quality degradation from accidental release of hazardous materials during construction. The prior MASP EIR and subsequent MND required the following mitigation measures that would reduce such impacts to *less than significant with mitigation*:

Mitigation Measures (from prior MND ER 66-05)

HAZ-1.1: Implement a construction-related hazardous materials management plan.

HAZ-1.2: If presence of hazardous materials is suspected or encountered during construction-related activities, conduct a Phase I and possibly Phase II Environmental Site Assessment to determine soil or groundwater contamination.

HAZ-2.1: Implement an operations-related hazardous materials management plan.

As stipulated in the MASP/AASP EIR, this would be a plan identifying, when they are known, site/development-specific construction activities that will involve the hazardous materials. The plan shall be prepared before construction activities begin that involve hazardous materials and shall discuss proper handling and disposal of materials used or produced onsite, such as petroleum products, concrete, and sanitary waste. The plan will also outline a specific protocol to identify health risks associated with the presence of chemical compounds in the soil and/or groundwater and identify specific protective measures to be followed by the workers entering the work area. If the presence of hazardous materials is suspected or encountered during construction-related activities, the project proponent will cause Mitigation Measure HAZ-1.2 to be activated. Mitigation Measure HAZ-1.2 states:

"*The project proponent will complete a Phase I environmental site assessment for each proposed public facility (e.g. streets and buried infrastructure). If Phase I site assessments indicate a potential for soil and/or groundwater contamination within or adjacent to the road or utility alignments, a Phase II site assessment will be completed. The following Phase II environmental site assessments will be prepared specific to soil and/or groundwater contamination.*

a. Soil Contamination. *For soil contamination, the Phase II site assessment will include soil sampling and analysis for anticipated contaminating substances. If soil contamination is exposed during construction, the San Luis Obispo Fire Department (SLOFD) will be notified and a work plan to characterize and possibly remove contaminated soil will be prepared, submitted and approved.*

b. Groundwater Contamination. *For groundwater contamination, the Phase II assessment may include monitoring well installation, groundwater sampling, and analysis for anticipated contaminating substances. If groundwater contaminated by potentially hazardous materials is expected to be extracted during dewatering, the SLOFD and the Central Coast RWQCB will be notified. A contingency plan to dispose of contaminated groundwater will be developed in agreement with the SLOFD and Central Coast RWQCB.*

- Monitoring Program:

The "Construction-Related Hazardous Materials Management Plan" will be required to be submitted to the City Community Development Department and Fire Department for review prior to commencement of any site preparation or construction work involving hazardous materials. No site preparation or construction work may commence before said plan has been approved by the City. Any site work commenced without

City approval of said Plan will be subject to "Stop Work" (cease and desist) orders as may be issued under the authority of The City Fire Department.

As stipulated in the MASP/AASP EIR, this would be a plan prepared by a project proponent identifying hazardous materials management practices as might be required by state and local laws and regulations regarding delivery, use, manufacture, and storage of any such regulated materials might be present on site for any operations-related activities. This plan would identify the proper handling and disposal of materials uses or produced onsite, such as petroleum products, concrete, and sanitary waste. By the filing of said Plan, the City Fire Department will be on notice to provide regular and routine fire and life-safety inspections to determine compliance with applicable health and safety codes.

- Monitoring Program:

The "Operations-Related Hazardous Materials Management Plan" will be required to be submitted by a project proponent to the City Community Development Department and City Fire Department for review prior to the establishment of any operations-related activities.

(c) The project site is not located within a one-quarter mile of an existing or proposed school. Therefore, there is no potential impact.

(e) The project site is located in the vicinity of the San Luis Obispo County Regional Airport, and is subject to the County Airport Land Use Plan (ALUP). In its adoption of the MASP, the City Council already found the MASP to be consistent with the ALUP. It follows, therefore, that because the subject project and proposed residential uses and densities are compliant with the MASP, the project is also compatible with the policies and objectives of the Airport Land Use Plan. Therefore, there is *no potential impact* in terms of emergency response. The project does not

(f) The project is not located within then vicinity of a private airstrip. Therefore, there is *no potential impact*.

(g) A recent traffic study and recent consultations with the police and fire departments regarding the proposed tentative tract map revisions, including the proposal to defer the full extension of Prado Road to Broad Street, concluded that impacts would be less than significant. The project will be reviewed by the Fire Marshall who may have recommended conditions of approval which will assure compliance with adopted fire/emergency-related codes. The Fire Marshall has provided no expert evidence that the project will impair implementation of, or physically interfere with, the adopted emergency response plan or emergency evacuation plans of the City. Therefore, potential *impacts are less than significant*.

(h) The MASP EIR and subsequent MND concluded that the project site is not located in an area subject to wildland fire hazards. The most recent adopted (2007) and recommended (2009) CalFire Hazard Maps were reviewed and the site is still not located in a high fire hazard area (http://www.calfireslo.org/FHSZ.html). Therefore, there is no potential impact.

	Potentially Significant Impact	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
IX. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY – Would the project:				
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 which 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 which 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 alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Setting

The MASP EIR and Subsequent Tiered MND describe the physical and regulatory setting of the MASP area and surrounding areas. 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. The watershed generally drains to the south- southwest via San Luis Obispo Creek where it meets the Pacific Ocean at Avila Beach.

Discussion

(a-j) The proposed revisions to Tract 2353 occur within the "footprint" that was previously considered for development and would not alter the project's impact on hydrology and water quality nor have the potential to change any of the conclusions previously reached. To recap, the MASP EIR and subsequent MND analyzed the project site and determined that impacts were less than significant. The project is not located in a flood zone or area subject to seiches, tsunamis or mudflows. Potential impacts associated with proposed revisions would also be less than significant. The reconfiguration that converts Lot 39 from open space to residential is a beneficial change from a drainage standpoint. Whereas the originally approved tentative tract map would have conveyed runoff towards the existing development to the west, the revised map would capture the runoff and convey it into a new storm drain system. Maintaining historic flows is generally preferred but in this case historic flows are undesired and may cause damage to downstream development. Moreover, the proposed drainage plan would divert runoff into the project detention basins and therefore help support the creation of wetland habitats, as discussed in Section 4 above. Potential impacts associated with proposed revisions are therefore *less than significant*.

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
X.	**LAND USE AND PLANNING** -- Would the proposal:				
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 MASP EIR and Subsequent Tiered MND describe the physical and regulatory setting of the MASP area and surrounding areas.

Discussion

(a-c) To be approved, the project must be found consistent with the MASP. If consistent, the project would serve to implement the MASP. As noted above, there are several MASP Land Use designations on the subject property, including Business Park (which allows mixed-use), Single Family Residential and Multi-family residential. The lot

sizes, densities and uses that are proposed are consistent with those designations and the applicant proposes to comply with all applicable development standards and design standards. Therefore, the project would not divide a community or conflict with adopted plans. The applicant proposes revisions to the project that was previously approved but the proposed revisions also do not divide the community or conflict with adopted plans, policies or regulations.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XI. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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

The MASP EIR and Subsequent Tiered MND describe the physical and regulatory setting of the MASP area and surrounding areas. According to the City's Conservation and Open Space Element (2006), 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,b) There are no known mineral resources on the project site that would be of value to the region and the residents of the State. The project would have *no impact*.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XII. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
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 levels existing without the project?	☐	☐	☒	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XII. NOISE – Would the project result in:				
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Setting

The MASP EIR and Subsequent Tiered MND describe the physical and regulatory setting of the MASP area and surrounding areas. Community noise is usually measured using an index called the Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a 5-decibel (dBA) penalty for noise occurring from 7 p.m. to 10 p.m. and a 10 dBA penalty for noise occurring from 10 p.m. to 7 a.m. Standards for new projects affected by or including stationary noise sources (City of SLO,1996) are:

- *Daytime (7 a.m. to 10 p. m.) hourly Leq: 50 dB*
- *Nighttime (10 p.m. to 7 a.m.) hourly Leq: 45 dB*
- *Daytime (7 a.m. to 10 p. m.) maximum Leq: 70 dB*
- *Nighttime (10 p.m. to 7 a.m.) maximum Leq: 65 dB*

Sensitive receptors near the project site include adjacent single family residences to the west.

Discussion

(a-c) The prior MND concluded that the project would not have significant impacts related to noise provided that all of the mitigation measures identified in the MASP EIR were included. According to the MASP EIR, the proposed project is located in an area zoned for residential and business land uses that are predicted to be exposed to traffic noise levels that exceed the Noise Element standard of 60 decibels (dB). This is particularly true for lots adjacent to Prado Road which will function, when fully built, as a major east-west arterial, connecting South Higuera and Broad Street and will carry relatively large volumes of traffic. Consequently, the MASP established a setback for residential uses of 157 feet measured from the centerline of Prado Road, the projected location of the 60 dB noise contour.

Although the MASP would otherwise allow mixed use office and residential within the BP-O zone, the 157-foot noise contour discussed in the preceding paragraph would effectively preclude a residential component. However, a condition amendment was approved by the Planning Commission in September of 2011 which allowed work/live units within the 157-foot noise contour. The amendment was supported by the Commission based on data included in a noise study prepared by David Lord, PhD which demonstrated that standard the interior noise level of 45 decibels can be achieved through construction techniques, and outdoor use areas on the second floor of buildings oriented

toward the alley would comply with the 60-decibel standard. Specific building designs have not been proposed for Business Park-Office lots. However, potential developers will have the option for a residential component even for Lots 1-6 fronting on Prado Road if the residential use is developed in compliance with all of the requirements of the Sound Level Assessment from David Lord of 45dB dated 9-14-11. In this regard the project proposal and design is self-mitigating.

According to the MASP EIR, the proposed project is located in an area zoned for residential land uses that are predicted to be exposed to traffic noise levels resulting from new roadways within the development. Such traffic-related noise levels are expected to exceed the maximum exterior noise planning standard of 60 Ldn/CNEL (day-night average sound level; or 24-hour average community noise equivalent level, in decibels). However, the EIR concludes that this impact is less-than-significant since in order for a subdivision map to be approved it must be fully compliant with the entirety of the City's General Plan. As such, the project is required to be consistent with the Specific Plan standards for road noise mitigation and outdoor noise reduction as well as subject to mitigation measures listed and already adopted in the City's General Plan Noise Element

In summary, the proposed two (2) additional residential units are within the "footprint" of the development area that was previously analyzed and would therefore not be exposed to (or generate) noise levels that are substantially different than the levels previously analyzed. The applicant proposes modifications with respect to the timing Prado Road improvements, but the applicant is not proposing modifications with respect to its location or capacity that would increase noise generation. The deferred extension of Prado Road to Broad Street would temporarily shift all traffic associated with the project to the west, as quantified in the recent Traffic Study (Attachment 5). However, the traffic volumes associated with the project, and the entire Western Enclave, are less than the volumes associated with full buildout of the Margarita and Airport Specific Plans which, even with the full extension of Prado Road, would exceed the temporary shift in traffic patterns caused by the deferment of the Prado Road extension to Broad Street. Noise impacts caused by the proposed revisions would not differ or exceed the noise impacts that were previously analyzed and found to be less than significant.

d) The project is located in the vicinity of the San Luis Obispo County Regional Airport, and is subject to the County Airport Land Use Plan, although the subject property is not within the 60 or 65 dBA contour. However, due to projected future aircraft over flight, the project is required to implement design features to ensure compatibility with the Airport and thereby control indoor noise levels to not exceed 45 dB.

The proposed revisions would not alter the project's noise impacts. Impacts would still be within the MASP buildout scenario that was previously analyzed. Therefore, the project would have impacts which are with *less than significant*.

	Potentially Significant Impact	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
XIII. <u>POPULATION AND HOUSING</u> — Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people,	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIII. POPULATION AND HOUSING — Would the project:				
necessitating the construction of replacement housing elsewhere?				

Setting

The MASP EIR and Subsequent Tiered MND describe the physical and regulatory setting of the MASP area and surrounding areas. The Regional Housing Needs Plan (RHNP) prepared by the San Luis Obispo Council of Governments (SLOCOG) identified a future housing need in the City of 1,589 new dwelling units for the period of 2007 to 2015 (SLOCOG, 2008). The City's General Plan is required to provide adequate sites for the 1,589 units to be in compliance with state law. The City's updated 2010 *Housing Element* reflects the RHNP goals for housing needs. Build-out of the residential component of the MASP serves to implement the City's housing goals and Needs Plan.

Discussion

(a-c) The project occurs on land that is currently vacant. Therefore, the project would not displace housing or people. Proposed revisions would result in the creation of only two (2) additional single family residences compared to the previously approved project, increasing the total number of residential units from 145 to 147. According to the Department of Finance, there is an average of 2.3 persons per household in San Luis Obispo. As a result of the proposed revisions, the total population of the project would increase from 333.5 to 338.1, which represents an increase of less than 1.5%. Such an increase in population within the project is *less than significant*.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☒	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIV. PUBLIC SERVICES				
iv) Parks?	☐	☐	☒	☐
v) Other public facilities?	☐	☐	☒	☐

Setting

The MASP EIR and Subsequent Tiered MND describe the physical and regulatory setting of the MASP area and surrounding areas. The City provides police, fire, parks and recreation, schools, sewage treatment, storm drains, water supply, and solid waste disposal services funded in part by impact fees that will be paid by new development, including the proposed project. Police, fire, roads, and utilities staff were contacted to confirm that adequate facilities are in place to serve the project and that proposed revisions, including deferral of the full extension of Prado Road to Broad Street, would not result in substandard response times, or inadequate access. Therefore, impacts are *less than significant*.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XV. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
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 MASP EIR and Subsequent Tiered MND describe the physical and regulatory setting of the MASP area and surrounding areas. The City of San Luis Obispo Parks & Recreation Department is responsible for managing and maintaining the City's six mini parks, ten neighborhood parks, and seven community parks. A wide variety of recreational activities can be conducted at these facilities, including baseball, softball, football, tennis, jogging, swimming, skateboarding, disc golf and other passive recreational sports. Upon build-out of the MASP, additional open space areas, trails, sports fields, parks and playgrounds will be available to the public.

Discussion

(a,b) The project is consistent with the MASP and will contribute to the construction of public park facilities through the payment of City-, as well as, MASP-adopted Park Improvement Fees to offset costs associated with increases in demand and services as it relates to maintaining City-wide public park areas. The two additional residential lots would increase park demand, but would increase these fees proportionately. The fees would be used to fund parks planned within the MASP, the environmental effects of which were described in the MASP EIR. Therefore, the project will have a *less than significant impact* on parks or other recreational facilities.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVI. TRANSPORTATION / TRAFFIC -- Would the project:				
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 MASP EIR and Subsequent Tiered MND describe the physical and regulatory setting of the MASP area and surrounding areas. Automobiles are the primary form of non-commercial regional transportation serving San Luis Obispo. U.S. Highway 101 is the region's principal access corridor, linking San Luis Obispo with the metropolitan areas of Los Angeles and San Francisco. In addition, State Routes 1 and 227 are routes of regional importance, which connect San Luis Obispo with other destinations in the county, including Arroyo Grande and Morro Bay.

Discussion

(a-b) The proposed revisions in Tract 2353 would incrementally add traffic associated with the proposed two (2) single family homes to streets that serve as entry/exit routes to the project site. These streets can accommodate the added vehicular traffic. It is primarily the surrounding streets and intersection that are of concern.

The MASP EIR concluded that the project will increase traffic in the area, but that it would not exceed the established acceptable level of service (LOS) threshold (adopted at LOS "D" by the City General Plan). However, when the Airport Area Specific Plan was adopted by the City Council, almost a year after the adoption of the MASP, it was determined that the Level of Service (LOS) at the intersection of Prado Road and South Higuera Street could decline from LOS "D" to LOS "E". As a result, City Council Resolution No. 9726 (2005 Series) required additional mitigation (Mitigation Measure T-2.1) to lessen impacts at this intersection. This mitigation lowered the threshold for Transportation Demand Management (TDM) requirements to apply to employers with 25 or more employees. Commercial development within the MASP area would be subject to this reduced threshold.

Finally, the MASP EIR assumed that Prado Road would be extended to Broad Street upon build-out, and it relied on that assumption in order to make conclusions about traffic impacts. Considering that the current request would defer the full extension of Prado Road, a new traffic study was prepared to focus on the potential impacts of such a deferment. The new traffic study was performed by Central Coast Transportation Consulting dated January 6, 2014 (attached), to consider the potential impacts of this deferment from both a project-specific perspective and cumulative perspective. Scenario A, the project-specific analysis, evaluates potential impacts when Western Enclave traffic is added to existing traffic volumes. Scenario B, the cumulative analysis, also factors in other approved/pending/reasonably foreseeable development in the area.

Table 4
Projected Increases in Traffic Volumes

Segment	Existing	Scenario A	Scenario B
Margarita Avenue	1,190	2,900	2,900
Prado Road	3,302	6,100	7,500
South Street	14,854	15,300	17,300
Tank Farm Road	19,576	20,100	23,700

The study then analyzes the impact that this additional traffic would have on South Higuera Street intersections (at South Street, Madonna, Margarita, Prado and Tank Farm), since a portion of the project-generated traffic would no longer be diverted to Broad Street. Although traffic volumes would increase at these intersection (especially under Scenario B), the intersections would all still function at an acceptable Level of Service (except Prado and South Higuera as discussed above). South Street would exceed its daily volume threshold by approximately 15 percent, but this not expected to result in a breakdown in flow, but rather there would be fewer gaps for turning traffic and pedestrians crossing South Street between Broad Street and South Higuera Street.

Although the conclusions of the recent traffic study are similar to the conclusions of earlier studies, additional infrastructure deficiencies were identified. The recent study therefore concludes that all mitigation measures previously identified in the MASP/AASP should be carried forward and applied to this project (except for the requirement that Prado Road be extended to Broad Street). In addition, the recent study recommends that the City amend traffic impacts fees to include the cost of rectifying the additional deficiencies identified, and that western enclave projects pay the amended traffic impact fees. Following are the additional traffic recommendations from the recent traffic study:

- **South Higuera Street/South Street:** the City should implement the planned westbound left turn lane extension and associated left turn prohibition to/from Parker Street.
- **South Higuera Street/Madonna Avenue:** the City should monitor traffic operations at this location and evaluate the need and feasibility of converting a northbound through lane to a second northbound left turn lane.

- **South Higuera Street/Prado Road:** the City should amend the Traffic Impact Fee to include the second northbound left turn lane and associated bridge widening at this location. The City should enter into a cost sharing agreement with the Western Enclave applicants to re-stripe the southbound left turn lane and install pedestrian countdown heads at this intersection.
- **South Higuera Street/Tank Farm Road:** the City should amend the Traffic Impact Fee to include the second southbound left turn lane at this location.
- **The Western Enclave projects** shall pay the amended Traffic Impact Fee as their fair share contribution to the deficiencies identified in this report. If at the time of building permit issuance the City's TIF has not been amended to accommodate these projects, or Prado Road has not been connected to Broad Street, the Western Enclave project applicants will be responsible for paying a pro rata share of said improvements subject to approval of the City's Public Work Director.
- **Margarita Neighborhood:** the previously adopted Condition of Approval requiring monitoring of traffic conditions or a one-time Neighborhood Traffic Management contribution should be included in the revised Conditions of Approval.

Therefore, the project will have a *potentially significant impact unless mitigation is incorporated* on traffic and circulation. Mitigation measures listed below will mitigate potential impacts to a less than significant level. Mitigation Measures T-01, T-02, & T-03 are new recommended mitigation measures, while Mitigation Measure T-04 is from prior MND ER 66-05.

Mitigation Measures

T-01 Impact Fees. The applicant shall pay traffic impact fees that are in effect at the time of building permit issuance. If at the time of building permit issuance the City's TIF has not been amended to accommodate the improvements to the South Higuera/Prado and South Higuera/Tank Farm intersections as identified in the traffic study performed by Central Coast Transportation Consulting dated January 6, 2014, or Prado Road has not been connected to Broad Street, the applicant will be responsible for paying a pro rata share of said improvements subject to approval of the City's Public Work Director.

T-02 Traffic Mitigation. The subdivider shall re-stripe the southbound left turn lane and install pedestrian countdown heads at the South Higuera/Prado intersection as identified in the traffic study performed by Central Coast Transportation Consulting dated January 6, 2014.

T-03 Margarita Neighborhood. Pursuant to the Margarita Area Specific Plan, traffic volume and speeds shall be monitored after development. Prior to final map recordation, the Subdivider shall deposit a faithful performance security in the amount of $130,000 to retain a qualified traffic consultant to conduct traffic counts and speed measurements on Margarita Avenue and on streets within and in the vicinity of the subdivision. The counts and measurements will be conducted one-year after final occupancy of complete build-out of the subdivision or acceptance of public improvements, whichever occurs later. The locations of the counts and measurements shall be approved by the Public Works Director. If the traffic volumes or speeds exceed City standards, the $130,000 security will be retained by the City to guarantee that Subdivider installs additional City-approved traffic calming measures to reduce volume and speeds to comply with City standards.

T-04 Preparation and Implementation of "Traffic Reduction Program." In order for MASP/AASP EIR Mitigation Measure T-2.1 adopted with the certification of the MASP/AASP EIR in conjunction with the approval of the AASP in August, 2005 (Ref. City Council Resolution No. 9726, 2005 Series) to be brought forward to this site specific project stage, a transportation demand management program that demonstrates reduction of peak period travel by single-occupant vehicles shall be required of any employer within the subdivision with 25 or more employees. Said program shall incorporate all reasonably feasible measures or techniques, including those listed in the MASP/AASP EIR/General Plan Circulation, that encourage alternate modes other than single-occupant vehicles as the primary mode of transportation to the workplace and to travel during non-peak times.

• Monitoring Program:

Each business owner, upon employment of 25 or more employees, shall immediately prepare and submit, obtain approval from the City Public Works Director and implement the provisions of a Traffic Reduction Plan which demonstrates reduction of peak period travel consistent with requirements of the City General Plan Circulation Element Policies and Programs. City Staff shall periodically inspect the business to observe and assure that reduction techniques approved by the City are in place and adhered to by the business. Staff shall take any corrective or enforcement actions authorized by law to achieve compliance.

With incorporation of Mitigation Measures T-01 to T-04, the project's traffic impacts would be reduced to a less than significant level.

Finally, the project incorporates and complies with MASP provisions for internal bikeways and pedestrian facilities that connect to existing neighborhoods west of the project location. Deleting the condition to extend Prado Road east of the site also removes the connection of the Class I bikeway from the project location to Broad Street, the adjacent Damon Garcia Sports Complex as well as neighborhood commercial sites at the Marigold Shopping Center.

Based upon the anticipated project building schedules for Tract 2353 and Tract 2428, along with the existing condition thresholds that have been established for each project (see Discussion Section), Tract 2353 would likely **not** have been required to begin construction of Prado Road east of the tract location since it would not exceed the 200 unit threshold. Therefore deleting this portion of the condition for Tract 2353 would likely not change bicycle and pedestrian inconveniences or connectivity to adjacent recreational and commercial areas. However, it is important to note that because the MASP neighborhood recreational park is on the Damon Garcia property and not likely to be built soon, residents in Tract 2353 will need to access other recreational areas of the city that are distant and bicycle and pedestrian mobility to these locations will be limited for quite some time.

Proposed Prado Road modifications along tract frontages would retain the bike lane and sidewalk as envisioned in the MASP document. Internal streets within Tract 2353 also include sidewalks and the open space lots that traverse the proposed project would include trails. Therefore, the lack of a bicycle connection to Broad Street is not considered a new significant environmental impact, but the possibility of creating a linkage through conditions of approval will be discussed in project staff reports.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS Would the project:				
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?	☐	☐	☒	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS Would the project:				
d) Have insufficient 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 inadequate 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

The MASP EIR and Subsequent Tiered MND describe the physical and regulatory setting of the MASP area and surrounding areas. The City's wastewater collection system and Water Reclamation Facility (WRF) is managed by the Utilities Department, and the City Utilities Department provides water service throughout the City. 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. In this case, runoff will be conveyed to compensatory mitigation basins wherein wetlands will be created and maintained by a Homeowners Association. 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 Pacific Gas & Electric Company (PG&E) supplies electricity to consumers in the vicinity of the project area, and natural gas is supplied to City residents by the Southern California Edison Gas Company.

Discussion

(a-g) The MASP/AASP EIR determined that implementation and build out of the MASP will not result in any significant impacts related to water supply, wastewater collection or treatment, or storm water drainage/retention and concluded mitigation was deemed unnecessary. The two (2) additional single family residences that are now being proposed would not change these conclusions. Therefore, impacts are *less than significant*.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE —				
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?	☐	☐	☒	☐

Discussion

Based upon the analysis throughout this Initial Study, which relies heavily on the analysis in the MASP EIR and subsequent tiered MND that was prepared for the project when it was originally approved, the proposed project 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. There is no significant evidence of historical importance or prior Native American occupancy. However, the biological elements analyzed in this Initial Study indicate the presence of a special status plant species, Cambria morning-glory. In addition, the proposed project would result in impacts to purple needlegrass grassland habitat, which is a sensitive natural community, and would impact the number and diversity of plant materials on-site. Mitigation Measures BIO-1 through BIO-4 would reduce these impacts to a less than significant level. In addition, the project site may contain previously unidentified buried archaeological resources. Mitigation Measure CR-1 would reduce this impact to a less than significant level. The cumulative effects of the project, in combination with other planned projects in the vicinity, were evaluated in the MASP EIR.

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Attachments

Attachment 1:	Mitigated Negative Declaration ER 66-05
Attachment 2:	Revised Vesting Tentative Tract Map No. 2353
Attachment 3:	Comprehensive Wetland Mitigation and Monitoring Plan, Althouse and Meade, August 2007.
Attachment 4:	Tract 2353 Swale – Brief Biological Resource Review, Althouse and Meade, January 17, 2014.
Attachment 5:	Traffic Study, Central Coast Transportation Consulting, January 6, 2014.
Attachment 6:	CalEEMod software program output (available in project file upon request)

REQUIRED MITIGATIONS AND MONITORING PROGRAMS

(Note: Most of the following mitigation measures are carry-over measures from the Mitigated Negative Declaration that was adopted when the project was originally approved. Mitigation Measures T-01, T-02, & T-03 are new recommended mitigation measures, while Mitigation Measure T-04 is from prior MND ER 66-05.

1. **VIS-01 Reduction of Light and Glare. I**n order for MASP/AASP EIR Mitigation Measure LU-7.1 as implemented by the MASP to be carried through to lot-specific development stage, applicants, at the time of building permit application, shall submit for review by the City Community Development Department, a lighting plan that demonstrates compliance with Community Design Section 3.3 Lighting requirements of the MASP shall be submitted with other required plans for both the residential and commercial components of the project to the review and approval of the Architectural Review Commission (ARC). The lighting

plan shall propose specific measures to limit the amount of light trespass associated with development within the project area including shielding and/or directional lighting methods to ensure that spillover light does not exceed 0.5 foot-candles at adjacent property lines.

- Monitoring Program:

The ARC will review development plans for both the residential and commercial components of the project. City staff, including Planning and other departments, will review plans to assure that all of the ARC's requirements related to lighting and compliant with the MASP provisions have been incorporated into working drawings. City building inspectors will be responsible for assuring that all lighting is installed pursuant to the approved lighting plan.

2. **AQ-1 Fugitive Dust Control Measures.** The proposed project shall implement the following dust control measures so as to reduce PM10 emissions in accordance with SLOAPCD requirements.

   a) Reduce the amount of the disturbed area where possible;
   b) Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible;
   c) All dirt stock pile areas should be sprayed daily as needed;
   d) Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;
   e) Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;
   f) All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD;
   g) All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible after grading unless seeding or soil binders are used;
   h) Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
   i) All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114;
   j) Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site;
   k) Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible;
   l) All of these fugitive dust mitigation measures shall be shown on grading and building plans; and
   m) 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 APCD Compliance Division prior to the start of any grading, earthwork or demolition.

3. **AQ-2 Construction Equipment.** The proposed project shall implement the following emissions control measures so as to reduce diesel particulate matter in accordance with SLOAPCD requirements.

   - 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 (CNG), liquefied natural gas (LNG), propane or biodiesel.

4. **AQ-3 Asbestos Dust Mitigation Plan.** The applicant shall prepare an Asbestos Dust Mitigation Plan in accordance with the requirements set for by ACTM to ensure that asbestos does not create a significant health risk to construction workers and sensitive receptors. The Asbestos Dust Mitigation Plan shall be implemented at the beginning and maintained throughout the duration of the construction or grading activity. The Asbestos Dust Mitigation Plan must specify dust mitigation practices which are sufficient to ensure that no equipment or operation emits dust that is visible crossing the property line, and must include one or more provisions addressing each of the following topics.

   A. Track-out prevention and control measures which shall include:
      a. Removal of any visible track-out from a paved public road at any location where vehicles exit the work site; this shall be accomplished using wet sweeping or a HEPA filter equipped vacuum device at the end of the work day or at least one time per day; and
      b. Installation of one or more of the following track-out prevention measures:
         i. A gravel pad designed using good engineering practices to clean the tires of exiting vehicles;
         ii. A tire shaker;
         iii. A wheel wash system;
         iv. Pavement extending for not less than fifty (50) consecutive feet from the intersection with the paved public road; or
         v. Any other measure as effective as the measures listed above.
   B. Keeping active storage piles adequately wetted or covered with tarps.
   C. Control for disturbed surface areas and storage piles that will remain inactive for more than seven (7) days, which shall include one or more of the following:
      a. Keep the surface adequately wetted;
      b. Establishment and maintenance of surface crusting sufficient to satisfy the test in subsection (h)(6);
      c. Application of chemical dust suppressants or chemical stabilizers according to the manufacturers' recommendations;
      d. Covering with tarp(s) or vegetative cover;
      e. Installation of wind barriers of fifty (50) percent porosity around three (3) sides of a storage pile;
      f. Installation of wind barriers across open areas; or
      g. Any other measure as effective as the measures listed above.
   D. Control for traffic on on-site unpaved roads, parking lots, and staging areas which shall include
      a. A maximum vehicle speed limit of fifteen (15) miles per hour or less; and
      b. One or more of the following:
         i. Watering every two hours of active operations or sufficiently often to keep the area adequately wetted;

ii. Applying chemical dust suppressants consistent with manufacturer's directions;
iii. Maintaining a gravel cover with a silt content that is less than five (5) percent and asbestos content that is less than 0.25 percent, as determined using an approved asbestos bulk test method, to a depth of three (3) inches on the surface being used for travel; or
iv. Any other measure as effective as the measures listed above.

E. Control for earthmoving activities which shall include one or more of the following:
   a. Pre-wetting the ground to the depth of anticipated cuts;
   b. Suspending grading operations when wind speeds are high enough to result in dust emissions crossing the property line, despite the application of dust mitigation measures;
   c. Application of water prior to any land clearing; or
   d. Any other measure as effective as the measures listed above.

F. Control for Off-Site Transport. The owner / operator shall ensure that no trucks are allowed to transport excavated material off-site unless:
   a. Trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments; and
   b. Loads are adequately wetted and either:
      i. Covered with tarps; or
      ii. Loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than six inches from the top and that no point of the load extends above the top of the cargo compartment.

G. Post Construction Stabilization of Disturbed Areas. Upon completion of the project, disturbed surfaces shall be stabilized using one or more of the following methods:
   a. Establishment of a vegetative cover;
   b. Placement of at least three (3.0) inches of non-asbestos-containing material;
   c. Any other measure deemed sufficient to prevent wind speeds of ten (10) miles per hour or greater from causing visible dust emissions.

H. Air Monitoring for Asbestos (If Required by the SLOAPCD).
   a. If required by SLOAPCD, the plan must include an air-monitoring component.
   b. The air monitoring component shall specify the following:
      i. Type of air sampling device(s)
      ii. Siting of air sampling device(s);
      iii. Sampling duration and frequency; and
      iv. Analytical method.

I. Frequency of Reporting: The plan shall state how often the items specified in subsection (e)(5)(B), and any other items identified in the plan, will be reported to the district.

5. BIO-6.1 (from MASP EIR). Avoid and Minimize Impacts on Wetland Habitat. To avoid and minimize impacts to freshwater marsh and other wetland habitats, the project proponent will do all of the following:

- obtain a qualified wetland ecologist to conduct a delineation of waters of the United States, including wetlands, at the project site;
- obtain verification of the delineation from the Corps;
- avoid identified waters of the United States and wetlands during project design to the extent possible and establish a buffer zone around jurisdictional features to be preserved;
- obtain a permit from the Corps for any unavoidable "fill" of wetlands or other waters of the United States; and
- develop and implement a mitigation and monitoring plan in coordination with the agencies to compensate for losses and to ensure no net loss of wetland habitat functions and values.

Preparation and Implementation of "Comprehensive Biological Mitigation Program"

Mitigation for wetland impacts. Mitigation for wetland impacts will be through a combination of on- and off-site mitigation, approved by the City, the DFW and the Corps. Further, in compliance with the MASP/AASP EIR, Lot 64 of VTM #2342 includes an area designated by the MASP for "Open Space-Riparian" for the express purposes of achieving some of the necessary wetlands replacement mitigation area, as well as preservation of related biological habitat benefits.

Mitigation for Impacts to Sensitive Species. None of these species are expected to be difficult to establish. City staff will work with the project sponsors in developing the details of the effort.

Congdon Tarplant. Create compensating habitat in a suitable off-site location approved by the City.

Mitigation for Impacts to Other Nesting Birds. Undertake surveys prior to initiation of construction activities; avoid construction activities within 100 feet of active nest sites until after young have fledged.

Off Site Mitigation for Wetland Impacts. A further component of the biological mitigation program is the applicant's proposal to acquire (by fee, easement, or eminent domain) lands outside the bounds of the Western Enclave (designated by the MASP as "Open Space-Riparian" lands). The targeted property (lying south of Prado Road and owned by Unocal) is a low lying area that already naturally collects some area run-off and provides valuable habitat for certain special concern and R-T-E (rare, threatened, and endangered) species, and thus is beneficial to retain in its natural state. Pre-development run-off has resulted in seasonal flooding of Prado Road due to they currently deficient collection/distribution system to this natural drainage area south of Prado Road. The Western Enclave applicants propose to acquire this off-site property designated for open space use by the MASP and utilize it beneficially for biological mitigation as well as a detention basin for pre- and post-Western Enclave development generated run-off. It is proposed that this basin be enhanced to accommodate the greater project-generated and pre-project run-off flows, and to increase its habitat value in the long term. The basin is proposed to be held and maintained by a Master Home Owners Association (MHOA) established initially for the Western Enclave area, and perhaps ultimately for the entire MASP as stipulated be done by the MASP.

- Monitoring Program:

Prior to approval of the final map, the applicant shall contact the City Natural Resource Manager for review and approval of the final lot and street design to assure that on-site natural resources are protected and preserved to the greatest extent required by the mitigation measures and consistent with requirements of the MASP and MASP/AASP EIR. Said design shall also be consistent with approvals required subsequent to this Tentative Map from State Dept. of Fish and Game and Army Corps of Engineers. Prior to any site preparation or construction activities, the applicant shall also initiate and complete for approval by the City pre-construction surveys for nesting birds and adhere to performance standard specified in the mitigation. Provisions for required off-site mitigation shall be coordinated with and approved by the City Natural Resource Manager prior to recordation of the Final Map. Periodic field inspections by City Staff during construction will be necessary to assure site development conforms to mitigation measures and conditions of approval.

6. **CR-1. Phase II Testing (from prior MND ER 66-05).** In order to achieve complete mitigation for the archaeological resource found on the subject site, this survey is required if the site cannot be avoided. The Phase II survey is to determine if significance criteria of CEQA and/or NRHP are met. The survey must be completed and results submitted to City for determination whether mitigation measures below, as specified in EIR, are needed.

1.) A data recovery program consisting of archaeological excavation to retrieve the important data from the archaeological site;
2.) Development and implementation of public interpretation plans for both prehistoric and historic sites;

3.) Preservation, rehabilitation, restoration, or reconstruction of historic structures according to the Secretary of Interior Standards for Treatment of Historic Properties;
4.) Construction of new structures in a manner consistent with the historic character of the region; and
5.) Treatment of historic landscapes according to the Secretary of Interior Standards for Treatment of Historic Landscapes.

If the project involves a federal agency, and is therefore subject to a MOA, the inventory, evaluation, and treatment processes will be coordinated with that federal agency to ensure that the work conducted will also comply with Section 106 of the National Historic Preservation Act.

- Monitoring Program:

If the survey results reveal that the archaeological resource does meet the significance criteria set forth in CEQA or NRHP, then no further mitigation is required. However if the significance criteria is met, then the lead agency in coordination with the agency with jurisdiction over the resources shall jointly determine which of the above stated mitigation are appropriate for the resource status. The applicant shall provide evidence to the City that the mitigation has been achieved prior to recordation of the final subdivision map.

7. Hazardous Materials (from prior MND ER 66-05).

HAZ-1.1: Implement a construction-related hazardous materials management plan.

HAZ-1.2: If presence of hazardous materials is suspected or encountered during construction-related activities, conduct a Phase I and possibly Phase II Environmental Site Assessment to determine soil or groundwater contamination.

HAZ-2.1: Implement an operations-related hazardous materials management plan.

5. Preparation and Implementation of a "Construction-Related Hazardous Materials Management Plan"

As stipulated in the MASP/AASP EIR, this would be a plan identifying, when they are known, site/development-specific construction activities that will involve the hazardous materials. The plan shall be prepared before construction activities begin that involve hazardous materials and shall discuss proper handling and disposal of materials used or produced onsite, such as petroleum products, concrete, and sanitary waste. The plan will also outline a specific protocol to identify health risks associated with the presence of chemical compounds in the soil and/or groundwater and identify specific protective measures to be followed by the workers entering the work area. If the presence of hazardous materials is suspected or encountered during construction-related activities, the project proponent will cause Mitigation Measure HAZ-1.2 to be activated. Mitigation Measure HAZ-1.2 states:

"*The project proponent will complete a Phase I environmental site assessment for each proposed public facility (e.g. streets and buried infrastructure). If Phase I site assessments indicate a potential for soil and/or groundwater contamination within or adjacent to the road or utility alignments, a Phase II site assessment will be completed. The following Phase II environmental site assessments will be prepared specific to soil and/or groundwater contamination.*

c. Soil Contamination. *For soil contamination, the Phase II site assessment will include soil sampling and analysis for anticipated contaminating substances. If soil contamination is exposed during construction, the San Luis Obispo Fire Department (SLOFD) will be notified and a work plan to characterize and possibly remove contaminated soil will be prepared, submitted and approved.*

d. Groundwater Contamination. *For groundwater contamination, the Phase II assessment may include monitoring well installation, groundwater sampling, and analysis for anticipated contaminating substances. If groundwater contaminated by potentially hazardous materials is*

expected to be extracted during dewatering, the SLOFD and the Central Coast RWQCB will be notified. A contingency plan to dispose of contaminated groundwater will be developed in agreement with the SLOFD and Central Coast RWQCB.

- Monitoring Program:

The "Construction-Related Hazardous Materials Management Plan" will be required to be submitted to the City Community Development Department and Fire Department for review prior to commencement of any site preparation or construction work involving hazardous materials. No site preparation or construction work may commence before said plan has been approved by the City. Any site work commenced without City approval of said Plan will be subject to "Stop Work" (cease and desist) orders as may be issued under the authority of The City Fire Department.

As stipulated in the MASP/AASP EIR, this would be a plan prepared by a project proponent identifying hazardous materials management practices as might be required by state and local laws and regulations regarding delivery, use, manufacture, and storage of any such regulated materials might be present on site for any operations-related activities. This plan would identify the proper handling and disposal of materials uses or produced onsite, such as petroleum products, concrete, and sanitary waste. By the filing of said Plan, the City Fire Department will be on notice to provide regular and routine fire and life-safety inspections to determine compliance with applicable health and safety codes.

- Monitoring Program:

The "Operations-Related Hazardous Materials Management Plan" will be required to be submitted by a project proponent to the City Community Development Department and City Fire Department for review prior to the establishment of any operations-related activities.

8. **T-01 Impact Fees.** The applicant shall pay traffic impact fees that are in effect at the time of building permit issuance.

9. **T-02 Traffic Mitigation.** The subdivider shall re-stripe the southbound left turn lane and install pedestrian countdown heads at the South Higuera/Prado intersection as identified in the traffic study performed by Central Coast Transportation Consulting dated January 6, 2014.

10. **T-03 Margarita Neighborhood.** Pursuant to the Margarita Area Specific Plan, traffic volume and speeds shall be monitored after development. Prior to final map recordation, the Subdivider shall deposit a faithful performance security in the amount of $130,000 to retain a qualified traffic consultant to conduct traffic counts and speed measurements on Margarita Avenue and on streets within and in the vicinity of the subdivision. The counts and measurements will be conducted one-year after final occupancy of complete build-out of the subdivision or acceptance of public improvements, whichever occurs later. The locations of the counts and measurements shall be approved by the Public Works Director. If the traffic volumes or speeds exceed City standards, the $130,000 security will be retained by the City to guarantee that Subdivider installs additional City-approved traffic calming measures to reduce volume and speeds to comply with City standards.

- Monitoring Program:

Community Development and Public Works staff will oversee impact fee payments, traffic consultant counts and measurements, and review required restriping plans.

11. **T-04 Preparation and Implementation of "Traffic Reduction Program."** In order for MASP/AASP EIR Mitigation Measure T-2.1 adopted with the certification of the MASP/AASP EIR in conjunction with the approval of the AASP in August, 2005 (Ref. City Council Resolution No. 9726, 2005 Series) to be brought forward to this site specific project stage, a transportation demand management program that demonstrates reduction of peak period travel by single-occupant vehicles shall be required of any employer within the

subdivision with 25 or more employees. Said program shall incorporate all reasonably feasible measures or techniques, including those listed in the MASP/AASP EIR/General Plan Circulation, that encourage alternate modes other than single-occupant vehicles as the primary mode of transportation to the workplace and to travel during non-peak times.

- Monitoring Program:

Each business owner, upon employment of 25 or more employees, shall immediately prepare and submit, obtain approval from the City Public Works Director and implement the provisions of a Traffic Reduction Plan which demonstrates reduction of peak period travel consistent with requirements of the City General Plan Circulation Element Policies and Programs. City Staff shall periodically inspect the business to observe and assure that reduction techniques approved by the City are in place and adhered to by the business. Staff shall take any corrective or enforcement actions authorized by law to achieve compliance.

Attachment 1

Mitigated Negative Declaration ER 66-05

INITIAL STUDY
ENVIRONMENTAL CHECKLIST FORM
For ER #66-05

1. Project Title:

   Vesting Tentative Map #2353 (Sierra Gardens/DeBlauw)

2. Lead Agency Name and Address:
   City of San Luis Obispo
   990 Palm Street
   San Luis Obispo, CA 93401-3249

3. Contact Person and Phone Number:
   Pam Ricci, Senior Planner
   City of San Luis Obispo
   805-781-7168

   Mary Beatie, Senior Planner (Contract Planner)
   TPG Consulting, Inc.
   222 N. Garden Street, Suite #100
   Visalia, CA 93291
   559-739-8072

4. Project Location:

   The project site address is 408 Prado Road; consisting of approximately 30 acres. (Please refer to Attachment 1"Western Enclave Projects Vicinity Map".)

5. Project Sponsor's Name and Address:

   Owner: *Sierra Gardens of SLO, LTD.*
   411 El Camino Real
   Arroyo Grande, CA 93420

   Applicants: *Richard & Duane DeBlauw*

6. General Plan Designation:
   <u>The Land Use Element</u> of the City General Plan designates the site for:

   Low Density Residential, Medium Density Residential, Medium-High Density Residential Business Park, and Open Space

   <u>The Margarita Area Specific Plan</u> (MASP), which implements the City General Plan, designates the site for:

   Business Park Office
   Low Density Residential
   Medium Density Residential

Medium High Density Residential
Greenway
Open Space – Riparian

7. Zoning:

The site contains multiple zoning districts to implement the MASP land use designations, as follows:

Land Use Designation	Zoning	Applies to VTM Lot #s
Business Park Office	*O-SP (Office-Specific Plan Overlay)*	*1-18*
Low Density Residential	*R-1-SP (Low-Density Residential-Specific Plan Overlay)*	*23-30, 32-36*
Medium Density Residential	*R-2-SP (Medium Density Residential-Specific Plan Overlay)*	*19-22,37,68-70, 101-104, 117-130*
Medium High Density Res.	*R-3-SP (Medium High Density Res.-Specific Plan Overlay)*	*105*
Greenway	*R-1-SP (Low-Density Residential-Specific Plan Overlay)*	*131-133*
Open Space-Riparian	*C/OS-SP (Conservation/Open Space-Specific Plan Overlay)*	*31, 38*

8. Description of the Project:

Proposed VTM #2353, a 133-lot subdivision, has been designed and is being processed in coordination with the processing of two adjacent developments, described below, in order to better achieve the objectives and requirements of the MASP:

- *VTM #2342 (Cowan/French) proposing 67 lots on approximately 15 acres; located immediately south of the existing El Camino Estates residential subdivision along Margarita Avenue and east of the Rancho San Luis Mobile Home Park, generally northeast of the current easterly terminus of the City maintained portion of Prado Road, east of South Higuera Street.*
- *VTM #2428 (King) proposing 148 lots on approximately 99 acres; located immediately north the existing El Camino Estates residential subdivision along Margarita, and east of the existing Chumash Village Mobile Home Park (accessed from South Higuera.) This site is also generally situated along the lower lying slopes of the South Hills between South Higuera Street and Broad Street.*

Collectively these three tract map proposals are referred to as the "Western Enclave" (of the MASP.)

Vesting Tentative Map VTM #2353 proposes a total of 133 lots designated as follows in accordance with the MASP:

- *109 lots designated for single family residential use; 83 at low density in the R-1-SP zone, 26 at medium density in the R-2-SP zone*
- *12 lots designated for "mixed use" with integrated single family and business park-office*

uses on each lot in the O-SP zone

- *6 lots for exclusive business park-office use in the O-SP zone*
  1 lot designated for condominium medium-high density residential development in the R-2-SP zone (a portion of the required Affordable Housing Program; the other portion is proposed in VTM #2428 (King) to be developed by the Housing Authority or other appropriate entity
- *3 lots for "greenway" park use in the R-1- and R-2-SP zones (within PG&E easement) for common ownership by a Home Owners Association*
- *2 lots for "open space-riparian" use in the C/OS-SP zone (drainage way) for common ownership by a Home Owners Association*

Approval of a vesting tentative map confers a "vested right" to develop in substantial compliance with the ordinances, policies and standards in effect when the application was determined complete on November 14, 2005, per Chapter 16.34 (Vesting Tentative Maps) of the City's Municipal Code and Sections 66474.2 and 66498.1 of the California Government Code (Subdivision Map Act).

In order to obtain public road access, and as required by the MASP, Prado Road needs to be extended from its current easterly terminus (as a public roadway) from approximately the southeast corner of Rancho San Luis Mobile Home Park, east to Broad Street. A priority goal of the MASP is to establish the east-west connection of Prado Road between Broad Street and South Higuera Street at the earliest possible stage of development. Because the three proposed tract maps represent the first phase of proposed development in the MASP area, they are required to design and construct Prado Road to a minimum cross-section as agreed upon by the City Public Works Director, to provide the desired connection. According to the MASP, one option to finance the connection is that the City will credit (or pro-rate) the design and construction costs of the agreed-upon minimum cross section against all Margarita Area impact fees to be collected with each respective development until the amount of fees equals the amount of construction costs. If the costs of the roadway exceed fee amounts, another financing mechanism, such as a facilities financing district, may be necessary to complete the project.

The location of site access and internal circulation for VTM 2353 is in accordance with the Circulation Plan of the MASP. VTM #2353 map proposes primary access initially from South Higuera Street to the site from the planned extension of Prado Road to the east along the entire frontage of the Western Enclave development area, and then ultimately farther east to Broad Street, all in accordance with the requirements of the MASP. The main access will initially be from Prado Road along proposed interim "D" Street, a proposed Residential Collector street. In the long run this will be an interim access and "M" Street, farther to the east will become the primary permanent access. The internal street layout for this map interconnects to the two other adjacent Western Enclave developments (via "C" Street to VTM #2342/Cowan and via "D" and "F" Streets to VTM #2428/King). The location of these accesses to the site as well as the other proposed streets to complete circulation internal to the subject VTM #2428, are all located in accordance with the Circulation Plan of the MASP). Although not specifically called for in the MASP, this subdivision does propose a second primary access into Western Enclave area through this site, which has been deemed suitable and desirable by the Public Works Department. See Part 15 below for further analysis of this aspect of the proposal.

Also proposed is a 12' Class I shared pedestrian/bicycle path within Greenway Lots 131, 132, & 133 extending from the roundabout proposed at the terminus of Margarita Avenue at the west edge of the site connecting to proposed "L" Street along the easterly edge of the site. Open Space Lots 31 and 38 are sized to accommodate protection of or avoidance of interference with special concern species and habitat, in accordance with biological resource protection objectives of the MASP.

As specified in the MASP, the Affordable Housing objectives of the plan are to be achieved by two separate parcels within the Western Enclave in order to provide a total of 47 units; Lot 105 of the subject map is proposed to provide 23 of the units. Lot 105 is being created for dedication to the San Luis Obispo County Housing Authority or equivalent entity once the units are built. Lot 147 of proposed VTM #2428 (King) will accommodate the other 24 units in similar fashion, on a lot to be dedicated to the Housing Authority or equivalent once the units are built.

9. Surrounding Land Uses and Settings:

The project site, 408 Prado Road, is located generally in the southern part of San Luis Obispo. The site is situated on the north side of Prado Road east and immediately adjacent to the site for proposed VTM #2342, and east of the existing residential subdivision along Margarita Avenue, and south of the site proposed for VTM #2428 (King). Lands to the east (owned by Damon and Garcia families) and south (owned by L.J. and A.P. Martinelli) are primarily undeveloped lands or used agriculturally. The MASP/AASP EIR describes the site as lying, generally at the lower lying slopes of the toe of South Hills in an area characterized as Perennial Grassland with patches of Valley Needlegrass Grassland surrounding a small area of previously active agricultural field and a related home site. The site transmits area runoff through a natural channel or swale across the north easterly corner of the site (extending out of the proposed VTM # 2428 (King) subdivision). This swale is well-enough defined as to be designated by the MASP as "Open Space-Riparian" and as such, is proposed for preservation in its natural state within the subdivision. This drainage way also contains habitat suitable for special concern species, and is to be preserved in "open space" not only as a component of the Western Enclave biological mitigation program, but also to function as a component of the sub-regional drainage plan devised for the Western Enclave developments, in accordance with objectives of the MASP. Lands to the east and south also lie within the MASP and aer currently used agriculturally or are vacant or undeveloped.

10. Project Entitlements Requested:
Approval of Vesting Tentative Map VTM #2353

11. Other public agencies whose approval is required:
Air Pollution Control District (Permit to Construct, Permit to Operate)
Water Quality Control Board (NPDES permit-including Phase II & SWPPP)
California Department of Fish and Game
U.S. Army Corps of Engineers

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

X	Aesthetics		Geology/Soils		Public Services
	Agricultural Resources	X	Hazards & Hazardous Materials		Recreation
	Air Quality		Hydrology/Water Quality	X	Transportation & Traffic
X	Biological Resources		Land Use and Planning		Utilities and Service Systems
X	Cultural Resources		Noise		Mandatory Findings of Significance
	Energy and Mineral Resources		Population and Housing		

FISH AND GAME FEES

	There is no evidence before the Department that the project will have any potential adverse effects on fish and wildlife resources or the habitat upon which the wildlife depends. As such, the project qualifies for a de minimis waiver with regards to the filing of Fish and Game Fees.
X	The project has potential to impact fish and wildlife resources and shall be subject to the payment of Fish and Game fees pursuant to Section 711.4 of the California Fish and Game Code. This initial study has been circulated to the California Department of Fish and Game for review and comment.

STATE CLEARINGHOUSE

X	This environmental document must be submitted to the State Clearinghouse for review by one or more State agencies (e.g. Cal Trans, California Department of Fish and Game, Department of Housing and Community Development). The public review period shall not be less than 30 days (CEQA Guidelines 15073(a)).

DETERMINATION:

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made, or the mitigation measures described on an attached sheet(s) have been added and agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	X
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a "potentially significant" impact(s) or "potentially significant unless mitigated" impact(s) on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (1) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (2) have been avoided or mitigated pursuant to that earlier EIR of NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

Signature

Date

Ron Whisenand, Deputy Director
Printed Name

For: John Mandeville,
Community Development Director

EVALUATION OF ENVIRONMENTAL IMPACTS:

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

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. The explanation of each issue should identify the significance criteria or threshold, if any, used to evaluate each question.

3. "Potentially Significant Impact' is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures listed below), "Earlier Analysis," may be cross-referenced.

5. Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration (Section 15063 (c) (3) (D) of the California Code of Regulations.) Earlier analyses are discussed in Section 18 at the end of the checklist.

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

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion. In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

Issues, Discussion and Supporting Information Sources ER # 66-05	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
1. AESTHETICS. Would the project:					
a) Have a substantial adverse effect on a scenic vista?	1, 2, 3, 8, 9			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, open space, and historic buildings within a local or state scenic highway?	1, 2, 3, 8, 9			X	
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	1, 2, 3, 8, 9			X	
d) Create a new source of substantial light or glare which would adversely effect day or nighttime views in the area?	1, 2, 3, 8, 9		X		

Evaluation

a) The primary scenic value from within and around the Western Enclave area is the view to the north and northeast of the South Hills. The prior MASP/AASP EIR determined that the implementation of the Specific Plan would result inevitably in a change of character of the plan areas from a generally semi-rural to an urban developed setting. Urban development will cause irreversible changes in the visual character from that of undeveloped and low density semi-rural area to a more intensely developed, suburban area. The project site is situated alongside the lower slopes of the toe of the South Hills, the upper elevations of which, together with the natural drainage ways out of the hills, are designated for "Open Space" by the MASP in order to protect these more significant visual (and associated biological) resources. The project complies with aesthetic-related stipulations of the MASP affecting scenic resources by designating Lots 31 and 38 as Open Space lots alongside the natural drainage way transmitting area run-off out of the South Hills. The subject site does not contain any of the "Open Space-Hills" designation, is proposed to be developed in accordance with land use designations of the MASP, and therefore will not impinge on the visual resource that is the South Hills. Thus, the project will result in no impact to the view of the South Hills.

b) See discussion a) above. There are no historic buildings within a local or state scenic highway in the project vicinity that will be impacted by the proposed development. Thus, this impact is less than significant.

c) The existing visual character or quality of the site will change from semi-rural to urban developed as a result of urbanization of the area pursuant to and consistent with the objectives of the MASP. The VTM project is required to be consistent with the lay-out and distribution of land uses and design standards stated in the MASP to ensure that the appearance of the development is acceptable and that no new buildings block scenic views. Therefore, the project as proposed, together with conditions of approval, is consistent with the MASP. Through conditions of approval the project will be further required to comply with City codes and standards some of which impact aesthetics. Ultimately the design of both proposed housing and commercial buildings will require the review and approval of the Architectural Review Commission (ARC) to ensure consistency with the City's Community Design Guidelines as well as the MASP. Impacts resulting from the project will be less than significant.

d) The prior MASP/AASP EIR acknowledges that future development pursuant to the MASP will introduce new sources of light, glare and nighttime illumination, as is typical with residential and commercial development. However, the MASP/AASP EIR determined that such light and glare impacts (LU-7) can be mitigated to less than significant at the site specific project stage through compliance with lighting design standards set forth in the MASP and with other adopted standards as may be applicable by other City regulations. The new light source subject to mitigation will not adversely affect day or nighttime views in the urbanized area. Therefore impacts from new sources of light or glare will be less than significant with mitigation LU-7.1 as specified in the MASP/AASP EIR to be implemented through compliance with the MASP Community Design standard of Section 3.3-Lighting and accompanying conditions of approval. Building and parking lot lighting for the commercial portions of the project would also be reviewed and approved by the ARC.

Issues, Discussion and Supporting Information Sources ER # 66-05	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
2. AGRICULTURE RESOURCES. Would the project:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	11				X
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	6				X
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	1, 2, 6			X	

Evaluation:

a) According to the prior MASP/AASP EIR, the Margarita Area (including the Western Enclave area) does not contain any lands in the stated categories as shown on the maps pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, consequently, the project can not result in conversion of such lands to non-agricultural uses. Therefore, there is no impact.

b) There is no agricultural zoning or Williamson Act Contract in effect on the subject site. Therefore there is no impact..

c) No lands within the Western Enclave (and thereby within the subject site), have been actively farmed recently, so this project will not result in any direct loss of productive farmland. Other lands in the vicinity of the project site are either already developed or if within the Margarita Area Specific Plan and in agricultural use (farmland/grazing or open space), are already slated by the Plan for eventual non-agricultural use whether this project proceeds or not; therefore there is no direct correlation from this project to any further planned conversions of farmland to non-agricultural uses. The impacts of conversion of these lands to non-agricultural uses have already been evaluated both in the environmental documents for the City's Land Use and Circulation Elements and the MASP as significant, irreversible, adverse impacts that could not be mitigated and the necessary Statement of Overriding Considerations adopted (Resolution No. 9615 (2004 Series) pursuant to CEQA. Nonetheless, policies of the Land Use Element were adopted to help compensate for, and thereby reduce the impacts from, productivity lost as a result of the conversions to non-agricultural uses. Specifically, city policy requires direct dedication of open space areas or payment of in-lieu fees. As noted above, the subject project proposes Lots 31 and 38 as open space to be owned and maintained by a Master Home Owners Association as permanent open space pursuant to the requirements of the MASP. Therefore, the project is self-mitigating and thus, the project impact is less than significant.

3. AIR QUALITY. Would the project:					
a) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	1, 3			X	
b) Conflict with or obstruct implementation of the applicable air quality plan?	1, 3			X	
c) Expose sensitive receptors to substantial pollutant concentrations?	1, 3			X	
d) Create objectionable odors affecting a substantial number of people?	1, 3			X	
e) 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 qualitative thresholds for ozone precursors)?	1, 3			X	

Evaluation

a-e) According to the prior MASP/AASP EIR, project construction will generate short-term emissions of air pollutants.

Construction-related emissions would primarily be dust (particulates) generated from soil disturbance and combustion emissions generated by construction equipment. Such dust generation was determined to be a potentially short-term significant impact on air quality that could lead to exceedances of established state and federal thresholds for regional or local air quality or otherwise conflict with City and County air quality plans or program. In addition, the project site is situated near existing residential units thereby potentially exposing sensitive receptors to substantial pollutant concentrations. The MASP/AASP EIR also noted long-term ("operation") air quality impacts would result from on-going emissions generated by the project-related vehicular trips and development resulting in additional natural gas combustion for space and water heating and additional fuel combustion at power plants for electricity consumption.

The MASP/AASP EIR concluded that implementation of the Plan, with mitigation measures AIR-1.1, 1.2, 1.3 and 2.1set forth in the EIR brought forward to apply to individual projects, is consistent with the local Clean Air Plan. The EIR also determined that with adoption of the MASP and its accompanying EIR mitigation measures, further delays in attainment of state and federal air quality standards would not be expected and thus, air quality impacts resulting from build-out of the Plan were insignificant. The mitigation measures set forth in the prior MASP/AASP EIR were determined to reduce all the following impact areas to less than significant: 1) short-term construction-related vehicle emissions and fugitive dust (PM_{10}), and 2.) long-term operation emissions, including increased vehicle trips resulting from new residential and commercial development in the MASP..

During Early Consultation for the subject VTM project, the Air Pollution Control District of San Luis Obispo County commented in a letter dated August 2, 2005 that they support the in-fill nature of the proposed development noting that such development makes walking, bicycling and public transportation more viable, decreasing dependence on driving and therefore reducing emissions from motor vehicles. The letter states further that such development is consistent with the land use goals and policies of the District's Clean Air Plan, consistent with the finding of the MASP/AASP EIR.

The SLO County APCD reiterated in its letter the site mitigations as set forth in MASP/AASP EIR for dust control, construction vehicle emission control, construction activity pollution controls, and on-gong project operation emission controls, and noted these measures be incorporated into the project in order to maintain project-related impacts to less than significant. These requirements will be enforced by the APCD through required Permit to Construct and Permit to Operate permits and by recommended conditions of approval.

The proposed project is self-mitigating in these regards because the applicant has asserted his commitment by way of notation on the preliminary grading plans submitted for the project which states: *"All requirements of the APCD letter dated 8/02/05 shall be complied with and incorporated into project improvement plans."* This component of the applicant's project description/proposal together with Conditions of Approval assure mitigation measures set forth in the prior EIR are brought forward to this project. Thus, the project is self-mitigating and the impact is less than significant.

4. BIOLOGICAL RESOURCES. Would the project:						
a)	Have a substantial adverse effect, either directly or indirectly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	1, 3, 12, 13			X	
b)	Have a substantial adverse effect, on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	1, 3, 12, 13			X	
c)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (e.g. Heritage Trees)?	1, 3, 12, 13				X
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native	1, 3, 12, 13			X	

resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?					
e) Conflict with the provisions of an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	1, 3, 12, 13				X
f) Have a substantial adverse effect on Federally protected wetlands as defined in Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, etc.) through direct removal, filling, hydrological interruption, or other means?	1, 3, 12, 13			X	

Evaluation:

c) There are no significant specimen or heritage trees on the property. Thus there is no impact from this project.

d) The Margarita Area does not contain any waterways known to be important of viable fisheries, therefore there is not expected to be any effect on fish species. Due to the relatively poor soils, simple vegetation type (grassland), and general lack of vegetation diversity, the Western Enclave developments of MASP are not rich in wildlife species and do not form any kind of nursery or refugium for wildlife species. Therefore it is not expected that the development would interfere substantially with the movement of any native wildlife species.

e) The City does not have an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan established in the City of San Luis Obispo. Thus there is no impact from this project.

a)-b), f) The prior EIR prepared for the MASP & AASP conducted extensive biological resource impact analyses and determined 19 areas of potential significant impact. Of these 19 impacts, 6 (BIO- 3, 4, 10, 15, 18, & 19) were determined to not be significant and thereby, not requiring mitigation. BIO-9 was ruled out as an impact for the MASP territory, and therefore is not an impact for the three Western Enclave project sites. The balance of 12 Impacts (BIO-1, 2, 5, 6, 7, 8, 11, 12, 13, 14, 16 & 17) were subject to MASP/AASP EIR mitigation requiring further site specific surveys and mapping to determine if the specie of concern identified in the respective enumerated impacts might occur on the site. Mitigation Measure BIO-1.1 stated the performance criteria that if such specie was not found to exist then no further mitigation would be necessary, but if the specie was found or determined to exist then Mitigation Measure BIO-6.1 outlining the performance criteria to avoid, minimize, or compensate for significant impacts on those resources as specified by the site specific biological surveys would be required for affected projects.

The MASP/AASP EIR-required site specific surveys were conducted for the Western Enclave properties during the winter, spring, and summer of 2005. As a result of these surveys, EIR Impacts BIO-1, 14, & 16 were determined to not be significant impacts requiring mitigation for the Western Enclave properties. The remaining impacts (BIO-2, 5, 6, 7, 11, 12, 13, & 17) were determined to be applicable to the Western Enclave properties, and in particular, with respect to the subject VTM #2428, that upper portion of the site lying along the toe of the South Hills and the three drainage ways traversing the site. Consequently the site is subject to the performance standards to avoid, minimize, or compensate for the impact as set forth in Mitigation Measure BIO-6.1.

In compliance with one of the performance standards of this mitigation, the Western Enclave applicants have already prepared and submitted as part of their project proposal a "Comprehensive Mitigation Program" that is applicable to all three of the Western Enclave sites (as opposed to three individual plans). By integrating all three projects as if they were one, impacts were able to be addressed by selectively applying mitigation where a beneficial habitat exists naturally and could thereby be dealt with on one site to the benefit of the other two, garnering a more holistic, rather than piecemeal, solution. The applicants propose to retain all existing natural drainage ways in their current locations and in their natural state, as required by the MASP. In addition, the applicants are already in communication with the agencies of jurisdiction (California Department of Fish and Game, US Fish & Wildlife Service, US Army Corps of Engineers) regarding acquiring

necessary permits for mitigation of impacts to jurisdictional wetlands, (Section 404, etc.) and conditions of approval are recommended to assure compliance. The wetlands and drainages are afforded further protection as stipulated by the EIR performance criteria, by providing necessary buffer zones around the features to be protected/preserved.

The findings and recommendations of the "Comprehensive Mitigation Program" as reviewed and modified by City staff are summarized below:

Biological impacts fall into several categories: wetland impacts; impacts to other sensitive habitats, and impacts to sensitive species. These are discussed in more detail below for the site specific to the subject map:

Wetland Impacts. All three subdivisions have some impacts to wetlands. Efforts have been made, especially in the King subdivision, to minimize these through redesign of the lot layout, but there will still be impacts that cannot be avoided if the project is to proceed as called for in the Margarita Area Specific Plan. The DeBlauw and Cowan subdivisions also have wetland impacts but these appear to be of a different nature, impacting wetlands that have resulted from grade and drainage changes caused by human activities in the past. The developers are working on a mitigation program for wetland impacts that would utilize a nearby property and would meet City, State, and federal mitigation requirements.

Impacts to Sensitive Species. Several species of concern will be impacted by the project: these are mostly plant species, but also include one potentially affected animal species. These are discussed individually below.

Congdon Tarplant (Hemizonia parryi ssp congdoni). Up to several hundred individuals have been observed in disturbed, wet ground paralleling Prado Road on the Cowan and DeBlauw properties. This species is concentrated in the San Luis Obispo area in vernally wet areas that are routinely disturbed, such as by agricultural operations or livestock activities, and in vernal pools.

Impacts to Other Nesting Birds. It is possible that construction activities during the nesting season could impact nesting birds, including inadvertent harassment of nesting pairs and destruction of nests

Mitigation Program.

Mitigation for wetland impacts. Mitigation for wetland impacts will be through a combination of on- and off-site mitigation, approved by the City, the DFG and the Corps. Further, in compliance with the MASP/AASP EIR, the subject VTM #2342 (Cowan) proposes the creation of Lot Z in an area designated by the MASP for "Open Space-Riparian" for the express purposes of achieving some of the necessary wetlands replacement mitigation area, as well as preservation of related biological habitat benefits.

Mitigation for Impacts to Sensitive Species. None of these species are expected to be difficult to establish. City staff will work with the project sponsors in developing the details of the effort.

Congdon Tarplant. Create compensating habitat in a suitable off-site location approved by the City.

Mitigation for Impacts to Other Nesting Birds. Undertake surveys prior to initiation of construction activities; avoid construction activities within 100 feet of active nest sites until after young have fledged.

Off Site Mitigation for Wetland Impacts. A further component of the biological mitigation program is the applicant's proposal to acquire (by fee, easement, or eminent domain) lands outside the bounds of the Western Enclave (designated by the MASP as "Open Space-Riparian" lands). The targeted property (lying south of Prado Road and owned by Unocal) is a low lying area that already naturally collects some area run-off and provides valuable habitat for certain special concern and R-T-E (rare, threatened, and endangered) species, and thus is beneficial to retain in its natural state. Pre-development run-off has resulted in seasonal flooding of Prado Road due to they currently deficient collection/distribution system to this natural drainage area south of Prado Road.. The Western Enclave applicants propose to acquire this off-site property

designated for open space use by the MASP and utilize it beneficially for biological mitigation as well as a detention basin for pre- and post-Western Enclave development generated run-off. It is proposed that this basin be enhanced to accommodate the greater project-generated and pre-project run-off flows, and to increase its habitat value in the long term. The basin is proposed to be held and maintained by a Master Home Owners Association (MHOA) established initially for the Western Enclave area, and perhaps ultimately for the entire MASP as stipulated be done by the MASP.

As noted, the developments have been designed so as to avoid any disturbance to the natural drainage channels. In order to accommodate this, a storm drainage system is proposed to capture all surface flow from the improvements and convey it on through the watershed. Naturally occurring drainage from the upper reaches of the watershed will be allowed to continue to flow through the developments via the existing natural drainage channels [proposed to be preserved in Open Space, particularly Lots 142-146 & 148 in the subject maps. However, development-generated run-off will be conveyed via separate installed infrastructure & treatment facilities required for the subdivisions, and transported to the proposed off-site sub-regional drainage basin.]

The proposed off-site detention basin and drainages (preserved in common by a MHOA as open channels) will be vegetated with local native, suitable grasses and other plant material, and with the assistance of composite turf reinforcement fabric, will allow for the formation of additional seasonal wetlands. As the channels and basin are lined with the turf reinforcement fabric, any additional bank stabilization that will be needed should be achieved. Additionally, outlets into the basin will have substantial energy dissipation structures, as required to remove any erosion and sedimentation potential. Once the wetlands within the channels and basin have been allowed to fully establish themselves, it is anticipated that some of the wildlife, which will take seasonal refuge within these wetlands, will assist with keeping growth of the vegetation under control.

Inclusion of the above mitigations reduce the impacts to a level of less than significant.

5. CULTURAL RESOURCES. Would the project:

a) Cause a substantial adverse change in the significance of a historic resource? (See CEQA Guidelines 15064.5)	1, 3, 10, 19, 20		X		
b) Cause a substantial adverse change in the significance of an archaeological resource? (See CEQA Guidelines 15064.5)	1, 3, 10, 19, 20		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	1, 3, 10, 19, 20				X
d) Disturb any human remains, including those interred outside of formal cemeteries?	1, 3, 10, 19, 20				X

Evaluation

(a-b) The MASP and MASP/AASP EIR determined, by way of Mitigation Measure CR-1.1 that further on-site surface surveys be done in conjunction with each site specific development proposal and that if resources are found that cannot be avoided should be evaluated through additional research and test excavations to determine whether the resources found meet CEQA or National Register of Historic Places (NRHP) significance criteria. The first part of this mitigation has been satisfied for this property in two ways: 1.) The required Phase I (surface) survey for archaeological resources was conducted by Heritage Discoveries, Inc. of San Luis Obispo, CA for the entire Western Enclave area and a written report, dated May 31, 2005, was submitted to the City, and 2.) A Historical Evaluation of the small farm house at the subject site, the only structures within the Western Enclave area, was also performed by Bertrando & Bertrando Research Consultants of San Luis Obispo, CA and a written report dated April 2005 submitted to the City. This latter report concluded that the research conducted on the property revealed no evidence of historical significance, and therefore there will be no significant impact resulting from the removal of the house.

The archaeological report however, found and completed a site record for, a small archaeological site of unspecified significance within the subject project site area. The report recommends that a Phase II subsurface test is now required at this recorded site to complete the required mitigation, but such survey will not affect and therefore does not impact the subject project going forward, unless the Phase II survey determines significance criteria for a unique resource (as defined in CEQA) or evidence of a qualifying historical site per NRHP has been met. In this instance Mitigation Measure CR-1.1 states that if avoidance of the resource is not possible, then the impact to the resource shall be mitigated in consultation with the lead agency and any or all of the following measures may be needed:

1.) A data recovery program consisting of archaeological excavation to retrieve the important data from the archaeological site;
2.) Development and implementation of public interpretation plans for both prehistoric and historic sites;
3.) Preservation, rehabilitation, restoration, or reconstruction of historic structures according to the Secretary of Interior Standards for Treatment of Historic Properties;
4.) Construction of new structures in a manner consistent with the historic character of the region; and
5.) Treatment of historic landscapes according to the Secretary of Interior Standards for Treatment of Historic Landscapes.

If the project involves a federal agency, and is therefore subject to a MOA, the inventory, evaluation, and treatment processes will be coordinated with that federal agency to ensure that the work conducted will also comply with Section 106 of the National Historic Preservation Act.

Thus, the project impact is potentially significant without mitigation of a Phase II subsurface survey.

c-d) The project site is located in an area that does not contain any unique geological feature and possesses no known unique paleontological resources. The project area has been part of two general cultural resource field surveys. As a result of these field surveys, there are no known historical or archaeological resources that are associated with the project site. Therefore there is no impact.

d) There is no evidence available that suggests human remains are known to exist within the project boundaries. Therefore, there is no impact.

6. ENERGY AND MINERAL RESOURCES. Would the project:					
a) Conflict with adopted energy conservation plans?	1, 2, 3			X	
b) Use non-renewable resources in a wasteful and inefficient manner?	1, 2, 3			X	
c) 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?	1, 2, 3				X

Evaluation:

a) b) The project will not conflict with adopted energy conservation plans nor will it promote the use of non-renewable resources in a wasteful and inefficient manner. The future development of the site must comply with the policies contained in the General Plan Energy Element that states: "New development will be encouraged to minimize the use of conventional energy for space heating and cooling, water heating, and illumination by means of proper design and orientation, including the provision and protection of solar exposure." The project will also be subject to Architectural Review that will ensure consistency with City energy conservation goals and policies, and regulations. This impact is less than significant.

c) There are no known mineral resources on the project site that would be of value to the region and the residents of the State.

7. GEOLOGY AND SOILS. Would the project:

Issues, Discussion and Supporting Information Sources ER # 66-05	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including risk of loss, injury or death involving:	1, 2, 3, 5, 7, 17			X	
I. Rupture of a known earthquake fault, as delineated in the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area, or based on other substantial evidence of a known fault?	1, 2, 3, 5, 7, 17			X	
II. Strong seismic ground shaking?	1, 2, 3, 5, 7, 17			X	
III. Seismic-related ground failure, including liquefaction?	1, 2, 3, 5, 7, 17			X	
IV. Landslides or mudflows?	1, 2, 3, 5, 7, 17			X	
b) Result in substantial soil erosion or the loss of topsoil?	1, 2, 3, 5, 7, 17			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off site landslides, lateral spreading, subsidence, liquefaction, or collapse?	1, 2, 3, 5, 7, 17			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	1, 2, 3, 5, 7, 17			X	
Evaluation: a)-d): The initial study prepared for the MASP/AASP projects found that all the above-stated effects from implementation of both plans would be less than significant and therefore the MASP/AASP EIR conducted no further evaluations. There is no new evidence to suggest there would be any site specific impacts that were not adequately anticipated or evaluated in the prior environmental documents. The preliminary grading plan prepared for the subdivision is consistent with City code. The final grading plan of the proposed subdivision will be in accordance with the Geotechnical Engineer's recommendations and the California Building Code adopted by the City and modified by City regulations. Thus, the project impact is less than significant.					
8. HAZARDS AND HAZARDOUS MATERIALS. Would the project:					
a) Create a significant hazard to the public or the environment through the routine use, transport or disposal of hazardous materials?	1, 3, 14		X		
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	1, 3, 14		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	1, 3, 14				X
d) Expose people or structures to existing sources of hazardous emissions or hazardous or acutely hazardous materials, substances, or waste?	1, 3, 14		X		
e) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, it would create a significant hazard to the public or the environment?	1, 3, 14				X
f) For a project located within an airport land use plan, or within	1, 2,				X

	two miles of a public airport, would the project result in a safety hazard for the people residing or working in the project area?	3, 14				
g)	Impair implementation of, or physically interfere with, the adopted emergency response plan or emergency evacuation plan?	1, 2, 3, 14			X	
h)	Expose people or structures to a significant risk of lose, injury, or death, involving wildland fires, including where wildlands are adjacent to urbanized areas or where residents are intermixed with wildlands?	1, 2, 3, 14				X

Evaluation:

a), b), d): The prior EIR determined that historical agricultural activities and surrounding industrial activities of the Margarita Area may have released hazardous materials into the environment. Hazardous materials releases may have involved leaking underground or aboveground storage tanks, or similar events from other nearby properties that store or handle hazardous or toxic materials. Construction-related and ground disturbing activities may involve the use of materials that could contaminate nearby soils and water resources in the project area. Existence of such potential hazards could cause construction workers and other people to be exposed to dust or emissions containing such hazardous materials or to organic pesticides, herbicides, and other hazardous materials. The prior MASP/AASP EIR further determined impacts related to development of allowed business park land uses could result in operations-related exposures to hazardous materials and short-term surface water quality degradation from accidental release of hazardous materials during construction; areas of concern within the Margarita Area included mention of Acacia Creek. The prior MASP/AASP EIR required the following mitigation measures that would reduce such impacts to less than significant:

HAZ-1.1: Implement a construction-related hazardous materials management plan
HAZ-1.2: If presence of hazardous materials is suspected or encountered during construction-related activities,
conduct a Phase I and possibly Phase II Environmental Site Assessment to determine soil or groundwater contamination.
HAZ-2.1: Implement an operations-related hazardous materials management plan.

With respect to required mitigation measure HAZ-1.1, the applicant already prepared and submitted the results of Phase I ESA for the subject site, as required by City application submittal requirements. Said Assessment, dated June 30, 2005, was prepared by Geo-Solutions, Inc., a firm qualified to prepare such assessments. The Assessment found that there are no recognized environmental conditions at the site or in connection with the site that could be affected by roadway or utility alignments, and in the author's expert judgment, no further inquiry regarding potential or recognized environmental conditions is required for past uses of the site (No Phase II ESA, required.) The site investigation revealed the presence of a residential structure, older vehicles, vehicle parts, miscellaneous furniture around the structure. North of the structure two 55-gallon barrels, empty fuel tanks, car batteries, used plaster, automobiles, and scrap wood were observed. The report acknowledges the presence of potential historical off-site contamination concerns to the west of the site involving the site of proposed VTM #2342 (please refer to Initial Study for that project for further information), but notes the corrective action plans achieved in regard to that contamination together with the 500-foot separation between that site and the subject site, groundwater gradient direction (away from the subject site) and current below threshold concentration levels, this effects to the subject site are considered low. The report conclusion recommended that the two 55-gallon barrels, fuel tanks, automobile parts, and household trash be removed from the site and properly disposed of at an approved landfill site. This can all be accomplished in conjunction with demolition/removal of the existing structures during site preparation activities for construction of the subdivision. The conclusions of this professionally prepared Phase I assessment confirms there is no impact with regard to any existing known conditions at the site. However, as a further precaution, as noted by MASP/AASP EIR Mitigation HAZ-1.1, if during construction activities suspected or actual hazardous materials are encountered, then the mitigation stipulated by HAZ-1.2 is required. This impact is therefore less than significant with mitigation.

Since the subject project involves development of business park-office uses there is, as stated in the MASP/AASP EIR potential for impacts related to business park office development or uses that would involve the handling or disposal of materials used onsite, or the delivery, use, manufacture and/or storage of various chemicals necessary to perform manufacturing and business park activities. Therefore, Mitigation Measure HAZ-2.1 above is applicable to the subject project and therefore is required to be brought forward as a condition of approval. Thus, this impact is less than significant with mitigation.

Although Acacia Creek does not lie within the Western Enclave area of the MASP, there are other natural drainage ways within this and the two other related Western Enclave development sites that contain biological resource values required by the MASP to be protected and preserved. Therefore, there is still potential for on-site construction of roadways, infrastructure and building sites to involve handling and disposal of materials used or produced onsite, such as petroleum products, concrete, and sanitary waste that have the potential to adversely impact these drainages if proper precautions are not implemented. Therefore, Mitigation Measure HAZ-1.1 above is applicable to the subject site and is therefore required to be brought forward as a condition of approval. According to the MASP/AASP EIR, said Construction-Related Hazardous Materials Management Plan is required to outline specific protocol to identify health risks associated with presence and handling of chemical compounds and identify specific protective measures to be followed by the workers in the work area to prevent or avoid improper release or accidental disposals that would result in soil and/or groundwater contamination. By incorporating the stated mitigation HAZ-1.1 above as condition of approval this impact will remain less than significant with mitigation.

c) The project site is not located within a one-quarter mile of an existing or proposed school. Thus, there is no impact.

e) The project site is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment. Thus, there is no impact.

f) The project site is located in the vicinity of the San Luis Obispo County Regional Airport, and is subject to the County Airport Land Use Plan (ALUP). In its adoption of the MASP, the City Council already found the MASP to be consistent with the ALUP. It follows, therefore, that because the subject project and proposed residential uses and densities are compliant with the MASP, the project is also compatible with the policies and objectives of the Airport Land Use Plan. Thus there is no impact.

g) The project and its proposed circulation and land use plan has been reviewed by the Fire Marshall who has recommended conditions of approval which will assure compliance with adopted fire/emergency-related codes. The Fire Marshall has provided no expert evidence that said proposal will impair implementation of, or physically interfere with, the adopted emergency response plan or emergency evacuation plans of the City. Thus, the impact is less than significant.

h) The project site is not in an area identified as subject to wildland fire hazards. Thus there is no impact.

9. HYDROLOGY AND WATER QUALITY. Would the project:					
a) Violate any water quality standards or waste discharge requirements?	1, 2, 3, 16			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. The production rate of pre-existing nearby wells would drop to a level which would not support existing land uses for which permits have been granted)?	1, 2, 3, 16				X
c) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide additional sources of runoff into surface waters	1, 2, 3, 16			X	

	(including, but not limited to, wetlands, riparian areas, ponds, springs, creeks, streams, rivers, lakes, estuaries, tidal areas, bays, ocean, etc.)?					
d)	Substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation onsite or offsite?	1, 2, 3, 16			X	
e)	Substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial flooding onsite or offsite?	1, 2, 3, 16			X	
f)	Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	1, 2, 3, 16				X
g)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	1, 2, 3, 16				X
h)	Will the project introduce typical storm water pollutants into ground or surface waters?	1, 2, 3, 16			X	
i)	Will the project alter ground water or surface water quality, temperature, dissolved oxygen, or turbidity?	1, 2, 3, 16			X	

Evaluation:

a) The project will not violate any water quality standards or waste discharge requirements. According to the prior MASP/AASP EIR, development associated with the project will require issuance of an NPDES general construction activity storm water permit by the Central Coast RWQCB. Completion of this project would ensure that construction-related discharges are limited or adequately accommodated by properly engineered infrastructure design. Thus, the impact is considered less than significant.

b) The project will be served by the City's sewer and water systems and will not use or deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level .

c), e) According to the prior MASP/AASP EIR, construction of the proposed project as part of the urbanization of the Western Enclave Area would result in an increase of impervious surfaces that would cause the timing and amount of surface water runoff to increase. However, the project is subject to the revised City Storm Drain Master Plan/Waterways Management Plan that discusses the necessary improvements that would ensure adequate transmission and detention of storm water flow created by any new development and thus potential impacts resulting from increased development-related run-off was determined by the MASP/AASP EIR to be less than significant, and no mitigation required. To ensure that runoff levels will be equal to or less than existing levels, all storm water runoff will be contained in detention basins and drained at a rate not to exceed the 2-year undeveloped flow rate. In addition, according to the MASP a series of basins will be constructed to detain storm water runoff within the area. In this instance the Western Enclave developers propose one off-site detention basin to accept development-generated run-off from all three subdivisions, together with existing area run-off that historically creates flooding at the concrete box culvert under Prado Road that is insufficient to accept and transmit existing area run-off. The design, location, and maintenance of the detention basins will be subject to the approval of the City Engineer. In the event such off-site basin cannot be achieved, then, alternately, each subdivision will be responsible for providing its own on-site basin to the approval of the City Engineer as stipulated in the MASP. Thus, the impact of the project is less than significant.

f), g) The project does not place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map nor will it impede or redirect water flows that will cause a flood hazard to surrounding areas. Thus, there is no impact.

h), i) According to the prior MASP/AASP EIR, the project could potentially introduce typical storm water pollutants into

ground or surface waters during construction activities and as a result of ongoing use of the project area. As a result, the development would require issuance of an NPDES general construction activity permit by the Central Coast RWQCB. Completion of this permit process would ensure that construction-related discharges were limited. Because ongoing use of the project area for residential and commercial uses would also increase the potential for discharge of chemicals, oils and fuels, and waste into projected waterways; the requirement for the implementation of Best Management Practices (BMPs) must be established to greatly reduce the potential for unwanted runoff. Therefore, implementation of the BMPs on the project will reduce impact to less than significant level.

10. LAND USE AND PLANNING. Would the project:

a) Conflict with applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?	1, 2, 3				X
b) Physically divide an established community?	1, 2, 3				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plans?	1, 2, 3				X

Evaluation:

a) The project is located in an area designated by the MASP for low density residential, medium density residential, medium high density & business park office uses. The City's Open Space Element requires developments to include buffer areas next to wetlands and creeks to protect riparian habitat. The project is providing the minimum required setback for the small creek located along the northeast corner of the project site. The subdivision of the property residential uses and business park office uses does not conflict with any plan or policy adopted for the purpose of avoiding or mitigating an environmental effect. Thus there is no impact. (See related discussion above under Part 4. Biological Resources.)

b) The project will not physically divide an established community, because the project is a logical and orderly extension of the planned land uses and development that are already established and planned for within the surrounding area. The project area will result in business park offices along Prado Road and low-density residential alongside existing residential units on the northern end of the project site, all as specified by the MASP. Thus, there is no impact.

c) The project site is not located within a habitat conservation plan or natural community conservation plan. Thus, there is no impact. (See related discussion above under Part 4. Biological Resources.)

11. NOISE. Would the project result in:

a) Exposure of people to or generation of "unacceptable" noise levels as defined by the San Luis Obispo General Plan Noise Element, or general noise levels in excess of standards established in the Noise Ordinance?	1, 2, 3			X	
b) A substantial temporary, periodic, or permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	1, 2, 3				X
c) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	1, 2, 3				X
d) For a project located within an airport land use plan, or 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?	1, 2, 3			X	

Evaluation:

a) According to the previous MASP/AASP EIR, the proposed project is located in an area zoned for residential and

business land uses that are predicted to be exposed to traffic noise levels that exceed the Noise Element standard of 60 decibels (dB). This is particularly true for lots adjacent to Prado Road which will function, when fully built, as a major east-west arterial, connecting South Higuera and Broad Street and will carry large volumes of traffic. Consequently, to avoid the effects of such traffic related noise to sensitive residential receptors, the MASP established a setback for residential uses of 157 feet measured from the centerline of Prado Road, the projected location of the 60 dB CNEL noise level contour, considered the acceptable threshold for residential uses by the City Noise Element. Consequently, although the MASP would otherwise allow mixed use office and residential within the BP-O zone, the site specific project proposes no residential uses mixed with business park-office uses in the lots 1-6 fronting on Prado Road, as nearly all portions of these lots lie within the 157 foot setback. The remaining Lots 7-18 will be able to contain the desired mix of residential and office uses as they have suitable building areas that lie outside the required 157-foot setback that can be utilized for the residential uses. In this regard the project proposal and design is self-mitigating. Thus there is no impact.

According to the MASP/AASP EIR, the proposed project is located in an area zoned for residential land uses that are predicted to be exposed to traffic noise levels resulting from new roadways within the development. Such traffic-related noise levels are expected to exceed the maximum exterior noise planning standard of 60 L_{dn}/CNEL dB (day-night average sound level; or 24-hour average community noise equivalent level, in decibels) or to exceed allowable thresholds of stationary noise sources as set forth in Table 2 of the Noise Element. However, the EIR concludes that this impact is less-than-significant since in order for a subdivision map to be approved it must be fully compliant with the entirety of the City's General Plan. As such, the project is required to be consistent with the Specific Plan standards for road noise mitigation and outdoor noise reduction as well as subject to mitigation measures listed and already adopted in the City's General Plan Noise Element. The applicable mitigation measures are any or all of those listed in Policy 8 of the Noise Element which, based upon the conclusions of a site specific noise measurement, are shown by a qualified expert performing said study are necessary to achieve the 60 L_{dn}/CNEL dB standard within the outdoor activity exposure area. Conditions of approval require that measures contained in the City's Noise Guidebook and as deemed necessary by the qualified acoustic consultant shall be incorporated into the design of the buildings to ensure that noise impacts are reduced to achieve the performance thresholds set forth herein and in the City Noise Element. . Implementation of this condition will assure the impact remains less-than-significant.

b) Site development will result in increases in ambient noise levels, but not to significant levels, since by operation of mitigation requirements set forth in a) above, noise increases that would affect ambient levels are to be reduced to thresholds determined to be acceptable in residential areas. Therefore, impacts to permanent ambient noise levels are less than significant.

Project construction or other temporary or periodic noise generation may result in temporary increases (spikes) inn ambient noise levels. Since there is no way to predict the origin or duration of these types of noise sources for this development, it can only be regulated if found to be a nuisance by the City's Noise Ordinance. If noise levels exceed the Noise Ordinance thresholds, the property owner would be subject to possible citations and corrective actions to eliminate or reduce such noise to non-nuisance levels. The significance of this impact is too speculative to determine; compliance with the Noise Ordinance is presumed to adequately abate potential periodic nuisance noise. Thus, there is no impact.

c) The project will not expose people to the generation of excessive groundborne noise levels or vibrations. Thus, there is no impact.

d) The project is located in the vicinity of the San Luis Obispo County Regional Airport, and is subject to the County Airport Land Use Plan. According to the prior MASP/AASP EIR, the project is not within the 60 or 65 dBA-CNEL contour line. However, due to projected future aircraft over flight, the project is required by the MASP/AASP EIR and MASP to implement design features to ensure compatibility with the Airport and thereby control indoor noise levels. Design features must control for indoor noise to not exceed 45 dB Community Noise Equivalent Level, and a 60 dB maximum for aircraft single events. Implementation of mitigation as specified in the MASP/AASP EIR and Plan will result in the impact being less-than-significant.

Issues, Discussion and Supporting Information Sources ER # 66-05	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
12. POPULATION AND HOUSING. Would the project:					
a) Induce substantial population growth in an area, either directly (for example by proposing new homes or businesses) or indirectly (for example, through extension of roads or other infrastructure)?	1, 2, 3			X	
b) Displace substantial numbers of existing housing or people necessitating the construction of replacement housing elsewhere?	1, 2, 3				X

Evaluation:

a) The added population growth caused by this project is within the General Plan's projection and will not result in population exceeding local and regional growth projections. Therefore, the impact of inducing substantial population growth to the planning area would be less than significant.

b) The project site is currently vacant and undeveloped land; therefore, housing or people will not be displaced as a result of the project. Thus, there is no impact.

13. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision, or need, of new or physically altered government 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:					
a) Fire protection?	1, 2, 3			X	
b) Police protection?	1, 2, 3			X	
c) Schools?	1, 2, 3			X	
d) Parks?	1, 2, 3			X	
e) Roads and other transportation infrastructure?	1, 2, 3			X	
f) Other public facilities?	1, 2, 3			X	

Evaluation:

a), b), d), e), & f) The MASP/AASP EIR determined that implementation and build out of the MASP will not result in any significant impacts related to any of the above-listed services due to the ability to off-set service needs through the City's Development Impact Fee program established via the City General Plan and augmented by the development fee program in the MASP and concluded that no mitigation was necessary. There is no new evidence that the subject project, proposed to carry out the development intended by the MASP as evaluated by the MASP/AASP EIR will result in any adverse impacts to these services. And further, the project will not result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered government facilities, the construction of which might have the potential to cause significant environmental impacts. In accordance with the MASP, the project is subject to City and MASP established Development Impact Fees that are charged in conjunction with approval of development projects to offset costs associated with increases in demand of public services. Thus, the impact is less than significant.

c) The school districts in the state have the authority to collect fees at the time of building permits to offset the costs to finance school site acquisition and school construction, and said fees, when collected by local school districts, are deemed by State law constitute adequate mitigation for all school facility requirements.. Section 65955 of the Government Code prohibits the City from denying a subdivision or collecting any fees beyond those required by the school district to mitigate effects associated with inadequate school facilities. Any increases in demand on school facilities caused by the project are considered to be mitigated by the district's collection of adopted fees at the time of building permit issuance for each residential and commercial building. Thus, there is no impact.

14. RECREATION. Would the project:					
a) Increase the use of existing neighborhood or regional parks or					X

other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?					
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?					X

Evaluation:

a) & b) The build-out of the project will add to the demand for parks and other recreational facilities. The MASP has anticipated this demand by designating certain lands within the Plan area for "Sports Fields" (already built) and "Neighborhood Park" for active recreational use and other areas for "Open Space-Hills" or "Open Space-Riparian" for more passive recreation/aesthetic amenities (e.g. walking or bicycling paths and trails) intended more for use by adjacent or nearby residents. No portions of the subject site are designated by the MASP for either of the active recreation land use designations. The project is consistent with MASP insofar as said plan does designate a portion of the subject site for "Open Space-Riparian" which the proposal meets by designating that area (proposed Lot 31 & 38) for open space use. The MASP/AASP EIR determined that while build-out of the MASP will generate increased demand for recreational facilities, the impact is less than significant due to the adoption through the MASP of 533 acres of additional parks and open space land use designations (lying outside the Western Enclave development area.)

The MASP also specifies that developers will contribute to the construction of public park facilities through the payment of City-, as well as, MASP-adopted Park Improvement Fees to offset costs associated with increases in demand and services as it relates to maintaining City-wide public park areas. Thus, the construction of the project will have a less than significant impact on parks or other recreational facilities.

15. TRANSPORTATION/TRAFFIC. Would the project:					
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?	1, 2, 3, 4		X		
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads and highways?	1, 2, 3, 4			X	
c) Substantially increase hazards due to design features (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	1, 2, 3, 4				X
d) Result in inadequate emergency access?	1, 2, 3				X
e) Result in inadequate parking capacity onsite or offsite?	1, 2, 3				X
f) Conflict with adopted policies supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	1, 2, 3			X	
g) Conflict with the with San Luis Obispo County Airport Land Use Plan resulting in substantial safety risks from hazards, noise, or a change in air traffic patterns?	1, 2, 3				X

Evaluation:

a), b) The subject project proposed in accordance to the MASP and AASP and the City General Plan will increase traffic in the area, but not in relation to load and capacity of project area streets, existing or as projected currently, nor will increased traffic exceed established acceptable level of service (LOS) threshold (adopted at LOS "D" by the City General Plan) for San Luis Obispo as discussed in the MASP/AASP EIR, except for the Prado Road/South Higuera Street intersection. The Circulation Plan of the MASP (as well as the Circulation Plan of the AASP and Circulation Element of the City General Plan) identifies the essential primary road system that will be needed to accommodate development within the plan area and surrounding growth areas of the City at this threshold. The MASP/AASP EIR determined that the circulation plans of these planning documents are for the most part self-mitigating in that 1.) Roadway alignments, road extensions, and new intersections are designed and will be built in response to traffic projected at build-out and, 2.) Development projects in the Airport and Margarita Specific Plan areas will also contribute their fair share either through adopted Traffic Impact Fees,

MASP development impact fees, assessments or dedications to specified roadway improvements (EIR page 3D-29). The primary self-mitigating traffic feature of the MASP is the Plan's requirement that Prado Road be extended easterly, from its current terminus just east of South Higuera Street, all the way to Broad Street, thus providing a major new divided 4-lane east-west cross town arterial connector in the southerly area of San Luis Obispo. Conditions of approval are recommended that would require improvements to Prado Road as stipulated by the MASP and MASP/AASP EIR. The project will be conditioned to provide build-out of Prado Road commensurate with the development of the subject site together with the other two developments within the Western Enclave, as required by the MASP and as recommended by the City Public Works Dept. In addition, the subject proposal's proposed street system internal to the subdivision conforms to the MASP Circulation Plan.

The extension of Prado Road, as a designated "highway/regional route", together with AASP required roadway improvements (particularly Tank Farm Road) will accommodate cumulative traffic increases in the area and will mostly maintain at the acceptable LOS of "D" or better, except as noted above regarding the intersection of Prado Road and South Higuera Street. At the time of adoption of the Airport Area Specific Plan (Ref. Resolution 9726-2205 Series) adopted by the City Council August 23, 2005, almost a year after the adoption of the MASP, it was determined potential and proposed development circumstances had changed sufficiently in the Airport Area since the adoption of the MASP, such that Level of Service (LOS) at the intersection of Prado Road and South Higuera Street would decline from LOS "D" (as found in the MASP/AASP EIR) to LOS "E". As a result, the City Council Resolution No. 9726 (2005 Series) found that additional mitigation T-2.1 was necessary to lessen the effects of the significant impact at this intersection. This mitigation requires that the threshold for Transportation Demand Management (TDM) requirements shall be reduced to apply to employers with 25 or more employees. It is appropriate, therefore, that this mitigation measure applies to commercial development within the MASP to cumulatively contribute to the mitigation.

In summary, the proposed project would add vehicular trips to streets that serve as entry/exit routes to the project site. These streets with the given improvements specified in the City's adopted planning documents and with the addition of new TDM requirements will serve to accommodate the added vehicular traffic. Thus, the impact from this project is less than significant.

c) d) The Margarita Area Specific Plan will require that the project provides roadways that are designed and developed in accordance with adopted city standards thereby assuring predetermined standards necessary to limit safety hazards and provide adequate emergency access. Thus, there is no impact as result of the project.

e) The project is subject to the City's parking requirements as it is outlined in the Margarita Area Specific Plan for each varying land use. The project build-out is required to fulfill all necessary parking requirements and therefore there is no evidence of inability to comply with onsite or offsite parking standards. Thus, there is no impact.

f) The MASP/AASP EIR identified certain secondary impacts to pedestrians and bicyclists that could result from road improvements needed to achieve vehicular flow at intersections noted in Table 3D-10 (namely, with respect to the Western Enclave developments, the intersections of Prado Road/South Higuera Street and Prado Road/Broad Street). Such secondary impacts relate to increased crossing distances from road widening at intersections and introducing conflicts at intersections with multiple turning lanes. The MASP/AASP EIR notes such impacts can be adequately avoided by implementation of Mitigations Measures T-1.1 Design Features which, in summary, incorporate the following:

1. Sidewalks along both sides of all newly constructed streets and reconstructed streets,
2. Crosswalks (pursuant to the City's adopted "Pedestrian Crosswalk Guidelines-2000") at new and reconstructed intersections,
3. Pedestrian signals at all new and reconstructed signalized intersections, and
4. Class II bike lanes on all new and reconstructed streets per the City Bicycle Transportation Plan and MASP.

The three Western Enclave development projects are not directly responsible for the construction of the above described off-site intersections except through payment of City adopted Traffic and Development Impact Fees which contribute their respective calculated fair share of the cost. This funding source will contribute to the construction of said intersection at a

later time to be determined by the City. Thus, this impact is less than significant.

g) The MASP has already been found to not conflict with the San Luis Obispo County Airport Land Use Plan (ALUP). Therefore, as the subject project complies with the pertinent requirements of the MASP regarding allowed land uses and development densities and standards, the project is not in conflict with the ALUP. Thus, there is no impact from this project

16. UTILITIES AND SERVICE SYSTEMS. Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	1, 2, 3				X
b) Require or result in the construction or expansion of new water treatment, waste water treatment, water quality control, or storm drainage facilities, the construction of which could cause significant environmental effects?	1, 2, 3				X
c) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new and expanded water resources needed?	1, 2, 3			X	
d) 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 commitment?	1, 2, 3				X
e) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	1, 2, 3				X
f) Comply with federal, state, and local statutes and regulations related to solid waste?	1, 2, 3				X

Evaluation:

a) b) The MASP/AASP EIR determined that implementation and build out of the MASP will not result in any significant impacts related to delivery of domestic water, wastewater collection or treatment, or storm water drainage/retention and concluded that such impacts related to build-out of the MASP were less than significant and no mitigation was deemed necessary. The build-out under the MASP will be similar to that anticipated and projected in the City General Plan. The subject project proposes to provide all water, sewer and storm drain facilities necessary to adequately serve the subject project, including distribution, collection and other infrastructure capacity as required by the MASP facility master plan and the City's Storm Drain Master Plan. There is no new evidence that the subject project, as intended by the MASP will result in any adverse impacts to these service systems nor result in any exceedances of RWQCB wastewater treatment requirements. In addition to the on-site utility service infrastructure required with the development, the project is subject to City and MASP established Development Impact Fees that are charged in conjunction with approval of development projects to offset costs associated with off-site city-wide utility system impacts related to needed periodic maintenance and upgrades. Thus, there is no impact.

c) Provisions in the City General Plan and MASP ensure that an adequate quantity of water will exist before any development is allowed. Moreover, the City has adopted the Water Allocation Regulations to insure that increased water use by new development will not cause inadequate water service to existing and future customers. Section 17.89.030 of the Water Allocation Regulation states that a water allocation shall be required to obtain a connection to the city water system for a structure or facility not previously connected. This project is also subject to water impact fees which were adopted to ensure that new development pays its share of constructing additional infrastructure needed to support additional facilities. More specifically, the project is subject to both the citywide water impact fees and the MASP-specific water add-on fees. Thus, compliance with the City and State standards and requirements will assure that impacts related to water supplies are less than significant.

d) The City wastewater treatment plant and existing and proposed ewer lines in the vicinity and within the project site have

sufficient capacity to serve the project site. The developer will be required to construct on-site sewer facilities according to the Uniform Plumbing Code standards. Impact fees are also collected when building permits are issued to pay for capacity at the City's Water Reclamation Facility. The fees are set to offset potential impacts associated with increases in demand and use by each new residential unit in the project. Thus, there is no impact.

e) Solid waste collection within the City will be provided by a private operator under a City franchise and disposal is expected to continue at Cold Canyon Landfill until 2018. The project must be consistent with the City's Source Reduction and Recycling Element which requires that recycling facilities be accommodated on the project site and a solid waste reduction plan for recycling discarded construction materials must be submitted with the building permit application The project is also required by the ordinance to include facilities for recycling to reduce the waste stream generated by the project. Thus, there is no impact.

f) The project will fully comply with existing federal, state, and local statutes and regulations related to solid waste. Thus, there is no impact.

17. MANDATORY FINDINGS OF SIGNIFICANCE.

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	1, 2, 3, 12, 13				X
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects)	1, 2, 3, 4				X
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	1, 2, 3, 4				X

18. EARLIER ANALYSES.

Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or Negative Declaration. Section 15063 (c) (3) (D). In this case a discussion should identify the following items:

a) Earlier analysis used. Identify earlier analyses and state where they are available for review.

In 2004 the City of San Luis Obispo certified an Environmental Impact Report for the Margarita Area Specific Plan (MASP), the Airport Area Specific Plan (AASP) and the related Facilities Master Plan. The subject proposed VTM #2353 property lies within the boundaries of the MASP. Therefore, this prior MASP/AASP EIR evaluation considered impacts and mitigation related generally to potential development of the subject site and others pursuant to the MASP and related Facilities Master Plan. The prior EIR, certified by the City Council along with the adoption of the MASP, AASP, and Facilities Master Plan on October 12, 2004, by Resolution No. 9615 (2004 Series) contained a variety of mitigation measures to be incorporated as discrete components of the MASP or as policies or development standards to be implemented through site specific development proposals. Further on August 23, 2005, by Resolution No. 9726 (2005 Series), the City Council re-certified, with additional mitigation, the MASP/AASP EIR for the Airport Area Specific Plan (AASP), and adopted the Plan.

The California Environmental Quality Act (CEQA) allows Lead Agencies (the City) to use the analysis of general matters contained in a broader EIR, such as for a general or specific plan, with later EIRs or Negative Declarations on narrower projects; incorporating by reference the general discussions from the broader EIR, and concentrating the later EIR or Negative Declaration solely on the issues specific to the later project. The environmental assessment approach is refereed to as "tiering".

The environmental analyses above for VTM #2353 take into account the environmental conclusions of the prior EIR as they are applicable to the proposed site specific project. As such, mitigation measures adopted in the prior EIR that are applicable to the subject site-specific project, and therefore must be incorporated into the proposed project to effectively mitigate the prior identified impacts, are listed below. Some of these mitigation measures are verbatim from the prior EIR, others have been refined to more specifically clarify how they are applicable to the site specific project by way of Conditions of Approval, in order to be properly implemented. Lastly many of the applicable mitigation measures required by provisions of the MASP have been incorporated by the applicant into the actual project subdivision design, making the project "self-mitigating" in these instances.

The Airport Area and Margarita Area Specific Plans and Related Facilities Master Plan Final Program EIR is available for review at the City of San Luis Obispo Community Development Department, City Hall, 990 Palm Street, San Luis Obispo, CA 93402-3249.

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

The MASP/AASP EIR (prior EIR), (which included the sites of the three proposed subdivisions within the Western Enclave area,) was certified by the City Council on October 12, 2004, thereby determining that the EIR adequately analyzed the impacts listed in Column No. 1 and that mitigation was required for certain identified impacts, as noted. (If a potential impact was found by the MASP to not be significant, or has been found by the above-stated analyses to not be significant for the subject project, it is noted with strikethrough text. One impact/mitigation originating from the Certified EIR for the AASP—Impact T-2 regarding Transportation Demand Management for exceeding LOS "D", is also applicable to the MASP. Column No. 2 indicates whether mitigations were required due to the impact being significant. Column No. 3 indicates status of impact after mitigation specified in the prior EIR. Column No. 4 indicates if there is a specific provision of the MASP that serves to implement or achieve the required mitigation. Column No. 5 reflects whether the site specific VTM, as designed or proposed, complies with the MASP mitigation ("complies") or whether a Condition of Approval ("COA") is required to bring a required mitigation forward through the project approval or subsequent permits:

MASP/AASP EIR-Identified Areas of Potential Impact	Mitigation Required?	Impact after Mitigation	MASP Provision?	Site Specific?
1.) Land Use and Aesthetics				
- LU-6 Change in Views	"none feasible"	SU	Open Space & Parks	complies
- LU-7 Increased light & glare	yes	L-T-S	Lighting Stnd. 3.3	COA
2.) Hydrology and Water Quality				
- H-4 Changes in course or direction of water movement	"none feasible"	SU	Drainage 7.3	complies, COA
3.) Biological Resources				
- BIO-2 Valley Needlegrass	yes	L-T-S	Open Space & Parks	complies, COA
- BIO-5 Open Water Habitat	yes	L-T-S	Open Space & Parks	complies, COA
- BIO-6 Freshwater Marsh	yes	L-T-S	Open Space & Parks	complies, COA
- BIO-7 Seasonal Wetlands	yes	L-T-S	Open Space & Parks	complies, COA
- BIO-11 Special-Status Plants	yes	L-T-S	Open Space & Parks	complies, COA
- BIO-12 Non-listed Special-Status Wildlife	yes	L-T-S	Open Space & Parks	complies, COA
- BIO-13 Calif. red-legged frog	yes	L-T-S	Open Space & Parks	complies, COA
- BIO-17 Southwestern pond turtle	yes	L-T-S	Open Space & Parks	complies, COA
4.) Traffic and Circulation				
- T-1 Secondary Impacts: Peds/Cyclists	yes (MASP EIR)	L-T-S	off-site, not specified	COA
- T-2 LOS in Excess of LOS "D"	yes (AASP EIR)	SU	Chapter 6, new standard	COA
~~5.) Air Quality~~				
~~- AIR-1 Short-Term Constr'n Emiss.~~	~~yes~~	~~L-T-S~~	~~not specified~~	self-mitig., COA
~~- AIR-2 Long-Term Operation Emiss.~~	~~yes~~	~~L-T-S~~	~~not specified~~	self-mitig., COA
~~6.) Noise~~	~~no~~	~~L-T-S~~	~~Perf. Stnd. 4.2.E.~~	COA
7.) Hazardous Materials				
- HAZ-1 Construction Related	yes	L-T-S	not specified	COA
- HAZ-2 Operations Related	yes	L-T-S	not specified	COA
- HAZ-3 Accidental Releases	yes	L-T-S	not specified	COA
~~8.) Public Services and Utilities~~	~~no~~	~~L-T-S~~		COA
9.) Cultural Resources				
- CR-1 Phase II dig, if site unavoidable	yes	L-T-S	not specified	COA

Notes: SU=Significant, Unavoidable (Statement of Overriding Considerations adopted), L-T-S=Less than Significant

Each of these impacts listed is also relative to the subject project. No new impacts for the subject project have been identified and no new mitigation measures are needed.

19. SOURCE REFERENCES.	
1.	Margarita Area Specific Plan / Airport Area Specific Plan, and Final EIR
2.	The City of San Luis Obispo 2004 General Plan / EIR and all its adopted Elements
3.	City Council Resolution #9615, 2004 Series
4.	City Council Resolution #9726, 2005 Series
5.	SLO Municipal Code

6.	SLO Zoning Ordinance, 2004
7.	SLO Construction Codes, 2002
8.	SLO Community Design Guidelines, 2003
9.	SLO Subdivision Regulations, 1985, 1993
10.	SLO Archaeological Resources Preservation Guidelines, 1995
11.	Farmland Mapping and Monitoring Program of the California Resources Agency
12.	Biological Assessment for Sierra Gardens Vesting Tentative Tract Map No. 2353 APN: 076-341-010 & 076-341-011, City of San Luis Obispo, San Luis Obispo County, California, Althouse & Meade, Inc., July, 2005.
13.	Wetland Delineation for Sierra Gardens Vesting Tentative Tract Map No. 2353, APN: 076-341-010 & 076-341-011,City of San Luis Obispo, San Luis Obispo County, California, Althouse & Meade, Inc., July, 2005.
14.	Phase I Environmental Site assessment 408 Prado Road, APNs: 053-022-014 & 053-022-015 San Luis Obispo, California, Project No. SLO4922-1, GeoSolutions, Inc., June 30, 2005
15.	Affordable Housing Project; Margarita Annexation and Specific Plan Area, San Luis Obispo, California, Dave Watson, AICP, June, 2005
16.	Addendum and Update to Hydrologic and Hydraulic Analysis Report for the Margarita Area, San Luis Obispo County, TEC Civil Engineering Consultants, October, 2005
17.	Soils Engineering Report 408 Prado Road APNs 053-022-014 & 015, San Luis Obispo, California, project No. SLO 4922-1, GeoSolutions, Inc., July 12, 2005.
19.	An Archaeological Survey for the Margarita Area Specific Plan, Western Enclave Area, San Luis Obispo, San Luis Obispo County, California, Heritage Discoveries, Inc., May, 2005
20.	Historical Evaluation for a House at 408 Prado Road, City of San Luis Obispo, California, The Terra/DeBlauw Property, APN 076-341-011, Bertranado & Bertranado Research Consultants, April, 2005

Attachments:

Attachment 1: Vicinity Map
Attachment 2: Vesting Tentative Tract Map No. 2342 (City File No. TR 63-05)
Attachment 3: Biological Assessment for Sierra Gardens Vesting Tentative Tract Map No. 2353 APN: 076-341-010 & 076-341-011, City of San Luis Obispo, San Luis Obispo County, California, Althouse & Meade, Inc., July, 2005.
Attachment 4: Wetland Delineation for Sierra Gardens Vesting Tentative Tract Map No. 2353, APN: 076-341-010 & 076-341-011,City of San Luis Obispo, San Luis Obispo County, California, Althouse & Meade, Inc., July, 2005.
Attachment 5: Addendum and Update to Hydrologic and Hydraulic Analysis Report for the Margarita Area, San Luis Obispo County, TEC, Civil Engineering Consultants, October 20, 2005 *(Technical Appendices available for inspection at City Hall, Community Development Department, 990 Palm Street, San Luis Obispo, CA)*
Attachment 6: Historical Evaluation for a House at 408 Prado Road, City of San Luis Obispo, California, the Terra/DeBlauw Property, APN 076-341-011, Bertranado & Bertranado Research Consultants, April, 2005

Other source documents listed above which are not included as attachments are available upon request from or may be viewed at City Hall, Community Development Department, 990 Palm Street, San Luis Obispo, CA, 93401

REQUIRED MITIGATIONS AND MONITORING PROGRAMS

1. Reduction of Light and Glare

In order for MASP/AASP EIR Mitigation Measure LU-7.1 as implemented by the MASP to be carried through to lot-specific development stage, applicants, at the time of building permit application, shall submit for review by the

City Community Development Department, a lighting plan that demonstrates compliance with Community Design Section 3.3 Lighting requirements of the MASP shall be submitted with other required plans for both the residential and commercial components of the project to the review and approval of the Architectural Review Commission (ARC). The lighting plan shall propose specific measures to limit the amount of light trespass associated with development within the project area including shielding and/or directional lighting methods to ensure that spillover light does not exceed 0.5 foot-candles at adjacent property lines.

- Monitoring Program:

The ARC will review development plans for both the residential and commercial components of the project. City staff, including Planning and other departments, will review plans to assure that all of the ARC's requirements related to lighting and compliant with the MASP provisions have been incorporated into working drawings. City building inspectors will be responsible for assuring that all lighting is installed pursuant to the approved lighting plan.

2. Preparation and Implementation of "Comprehensive Biological Mitigation Program"

Mitigation for wetland impacts. Mitigation for wetland impacts will be through a combination of on- and off-site mitigation, approved by the City, the DFG and the Corps. Further, in compliance with the MASP/AASP EIR, the subject VTM #2342 (Cowan) proposes the creation of Lot Z in an area designated by the MASP for "Open Space-Riparian" for the express purposes of achieving some of the necessary wetlands replacement mitigation area, as well as preservation of related biological habitat benefits.

Mitigation for Impacts to Sensitive Species. None of these species are expected to be difficult to establish. City staff will work with the project sponsors in developing the details of the effort.

Congdon Tarplant. Create compensating habitat in a suitable off-site location approved by the City.

Mitigation for Impacts to Other Nesting Birds. Undertake surveys prior to initiation of construction activities; avoid construction activities within 100 feet of active nest sites until after young have fledged.

Off Site Mitigation for Wetland Impacts. A further component of the biological mitigation program is the applicant's proposal to acquire (by fee, easement, or eminent domain) lands outside the bounds of the Western Enclave (designated by the MASP as "Open Space-Riparian" lands). The targeted property (lying south of Prado Road and owned by Unocal) is a low lying area that already naturally collects some area run-off and provides valuable habitat for certain special concern and R-T-E (rare, threatened, and endangered) species, and thus is beneficial to retain in its natural state. Pre-development run-off has resulted in seasonal flooding of Prado Road due to they currently deficient collection/distribution system to this natural drainage area south of Prado Road.. The Western Enclave applicants propose to acquire this off-site property designated for open space use by the MASP and utilize it beneficially for biological mitigation as well as a detention basin for pre- and post-Western Enclave development generated run-off. It is proposed that this basin be enhanced to accommodate the greater project-generated and pre-project run-off flows, and to increase its habitat value in the long term. The basin is proposed to be held and maintained by a Master Home Owners Association (MHOA) established initially for the Western Enclave area, and perhaps ultimately for the entire MASP as stipulated be done by the MASP.

- Monitoring Program:

Prior to approval of the final map, the applicant shall contact the City Natural Resource Manager for review and approval of the final lot and street design to assure that on-site natural resources are protected and preserved to the greatest extent required by the mitigation measures and consistent with requirements of the MASP and MASP/AASP

EIR. Said design shall also be consistent with approvals required subsequent to this Tentative Map from State Dept. of Fish and Game and Army Corps of Engineers. Prior to any site preparation or construction activities, the applicant shall also initiate and complete for approval by the City pre-construction surveys for nesting birds and adhere to performance standard specified in the mitigation. Provisions for required off-site mitigation shall be coordinated with and approved by the City Natural Resource Manager prior to recordation of the Final Map. Periodic field inspections by City Staff during construction will be necessary to assure site development conforms to mitigation measures and conditions of approval.

3. Preparation and Implementation of "Traffic Reduction Program"

In order for MASP/AASP EIR Mitigation Measure T-2.1 adopted with the certification of the MASP/AASP EIR in conjunction with the approval of the AASP in August, 2005 (Ref. City Council Resolution No. 9726, 2005 Series) to be brought forward to this site specific project stage, a transportation demand management program that demonstrates reduction of peak period travel by single-occupant vehicles shall be required of any employer within the subdivision with 25 or more employees. Said program shall incorporate all reasonably feasible measures or techniques, including those listed in the MASP/AASP EIR/General Plan Circulation, that encourage alternate modes other than single-occupant vehicles as the primary mode of transportation to the workplace and to travel during non-peak times.

- Monitoring Program:

Each business owner, upon employment of 25 or more employees, shall immediately prepare and submit, obtain approval from the City Public Works Director and implement the provisions of a Traffic Reduction Plan which demonstrates reduction of peak period travel consistent with requirements of the City General Plan Circulation Element Policies and Programs. City Staff shall periodically inspect the business to observe and assure that reduction techniques approved by the City are in place and adhered to by the business. Staff shall take any corrective or enforcement actions authorized by law to achieve compliance.

4. Preparation of Phase II Archaeological Subsurface Survey

In order to achieve complete mitigation for the archaeological resource found on the subject site, this survey is required if the site cannot be avoided. The Phase II survey is to determine if significance criteria of CEQA and/or NRHP are met. The survey must be completed and results submitted to City for determination whether mitigation measures below, as specified in EIR, are needed.

1.) A data recovery program consisting of archaeological excavation to retrieve the important data from the archaeological site;
2.) Development and implementation of public interpretation plans for both prehistoric and historic sites;
3.) Preservation, rehabilitation, restoration, or reconstruction of historic structures according to the Secretary of Interior Standards for Treatment of Historic Properties;
4.) Construction of new structures in a manner consistent with the historic character of the region; and
5.) Treatment of historic landscapes according to the Secretary of Interior Standards for Treatment of Historic Landscapes.

If the project involves a federal agency, and is therefore subject to a MOA, the inventory, evaluation, and treatment processes will be coordinated with that federal agency to ensure that the work conducted will also comply with Section 106 of the National Historic Preservation Act.

- Monitoring Program:

If the survey results reveal that the archaeological resource does meet the significance criteria set forth in CEQA or NRHP, then no further mitigation is required. However if the significance criteria is met, then the lead agency in coordination with the agency with jurisdiction over the resources shall jointly determine which of the above stated mitigation are appropriate for the resource status. The applicant shall provide evidence to the City that the mitigation has been achieved prior to recordation of the final subdivision map.

5. Preparation and Implementation of a "Construction-Related Hazardous Materials Management Plan"

As stipulated in the MASP/AASP EIR, this would be a plan identifying, when they are known, site/development-specific construction activities that will involve the hazardous materials. The plan shall be prepared before construction activities begin that involve hazardous materials and shall discuss proper handling and disposal of materials used or produced onsite, such as petroleum products, concrete, and sanitary waste. The plan will also outline a specific protocol to identify health risks associated with the presence of chemical compounds in the soil and/or groundwater and identify specific protective measures to be followed by the workers entering the work area. If the presence of hazardous materials is suspected or encountered during construction-related activities, the project proponent will cause Mitigation Measure HAZ-1.2 to be activated. Mitigation Measure HAZ-1.2 states:

> "*The project proponent will complete a Phase I environmental site assessment for each proposed public facility (e.g. streets and buried infrastructure). If Phase I site assessments indicate a potential for soil and/or groundwater contamination within or adjacent to the road or utility alignments, a Phase II site assessment will be completed. The following Phase II environmental site assessments will be prepared specific to soil and/or groundwater contamination.*
>
> ***a. Soil Contamination.*** *For soil contamination, the Phase II site assessment will include soil sampling and analysis for anticipated contaminating substances. If soil contamination is exposed during construction, the San Luis Obispo Fire Department (SLOFD) will be notified and a work plan to characterize and possibly remove contaminated soil will be prepared, submitted and approved.*
>
> **b.** ***Groundwater Contamination.*** *For groundwater contamination, the Phase II assessment may include monitoring well installation, groundwater sampling, and analysis for anticipated contaminating substances. If groundwater contaminated by potentially hazardous materials is expected to be extracted during dewatering, the SLOFD and the Central Coast RWQCB will be notified. A contingency plan to dispose of contaminated groundwater will be developed in agreement with the SLOFD and Central Coast RWQCB.*

- Monitoring Program:

The "Construction-Related Hazardous Materials Management Plan" will be required to be submitted to the City Community Development Department and Fire Department for review prior to commencement of any site preparation or construction work involving hazardous materials. No site preparation or construction work may commence before said plan has been approved by the City. Any site work commenced without City approval of said Plan will be subject to "Stop Work" (cease and desist) orders as may be issued under the authority of The City Fire Department.

6. Preparation and Implementation of an "Operations-Related Hazardous Materials Management Plan"

As stipulated in the MASP/AASP EIR, this would be a plan prepared by a project proponent identifying hazardous materials management practices as might be required by state and local laws and regulations regarding delivery, use, manufacture, and storage of any such regulated materials might be present on site for any operations-related activities. This plan would identify the proper handling and disposal of materials uses or produced onsite, such as petroleum products, concrete, and sanitary waste. By the filing of said Plan, the City Fire Department will be on notice to provide regular and routine fire and life-safety inspections to determine compliance with applicable health and safety codes.

- Monitoring Program:

The "Operations-Related Hazardous Materials Management Plan" will be required to be submitted by a project proponent to the City Community Development Department and City Fire Department for review prior to the establishment of any operations-related activities.

Attachment 2

Revised Vesting Tentative Tract Map No. 2353

Amended Tentative Map No. 2353

MANGANO HOMES INC.

City of San Luis Obispo, California

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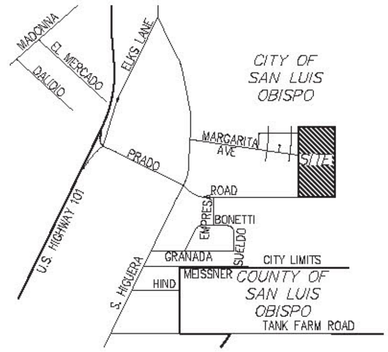
VICINITY MAP

N.T.S.



APPLICANT

MANGANO COMPANY LTD
STEPHEN J. PECK
1005 N. DEMAREE VISALIA, CA 93281

SHEET INDEX

HORIZONTAL & VERTICAL CONTROL

UCS&GS E-910 E'LY END OF THE NORTH SIDE OF THE BRIDGE ABUTMENT OF S.L.O. CREEK ON PRADO ROAD WEST OF SOUTH HIGUERA "CITY BM # 47" ELEVATION: 138.88 SLO BENCHMARK SYSTEM REV. JANUARY 2001 BASED ON NAVD 1988.

Temporary Benchmark (T.B.M.):

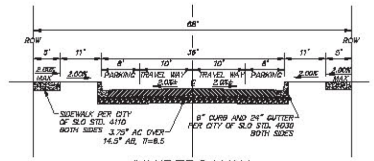
THE TEMPORARY BENCH,MARK FOR THIS PROJECT IS A FOUND CENTERLINE MONUMENT IN WELL AT THE SOUTHWESTERLY CORNER OF LOT 29 OF THE SUBURBAN TRACT IN THE CITY OF SAN LUIS OBISPO WITH AN ELEVATION OF 128.70 BASED ON THE CITY'S DATUM.

UTILITIES

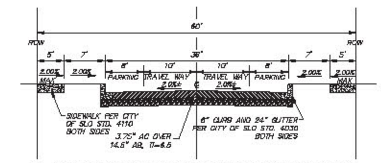
ELECTRIC...............PACIFIC GAS & ELECTRIC COMPANY
TELEPHONE...........A T & T
CABLE....................CHARTER COMMUNICATIONS
GAS.........................SOUTHERN CALIFORNIA GAS COMPANY
SEWER....................THE CITY OF SAN LUIS OBISPO
WATER....................THE CITY OF SAN LUIS OBISPO

TYPICAL STREET SECTIONS

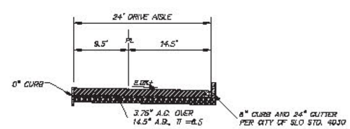
N.T.S.



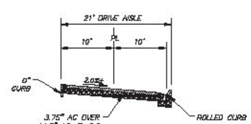
JUNIPERO WAY
N.T.S.



BLACKBERRY STREET, CANTO PARKWAY, CEANOTHUS LANE, CHERRY LANE, JASMINE STREET, MARGARITA AVENUE, VIOLET STREET
N.T.S.



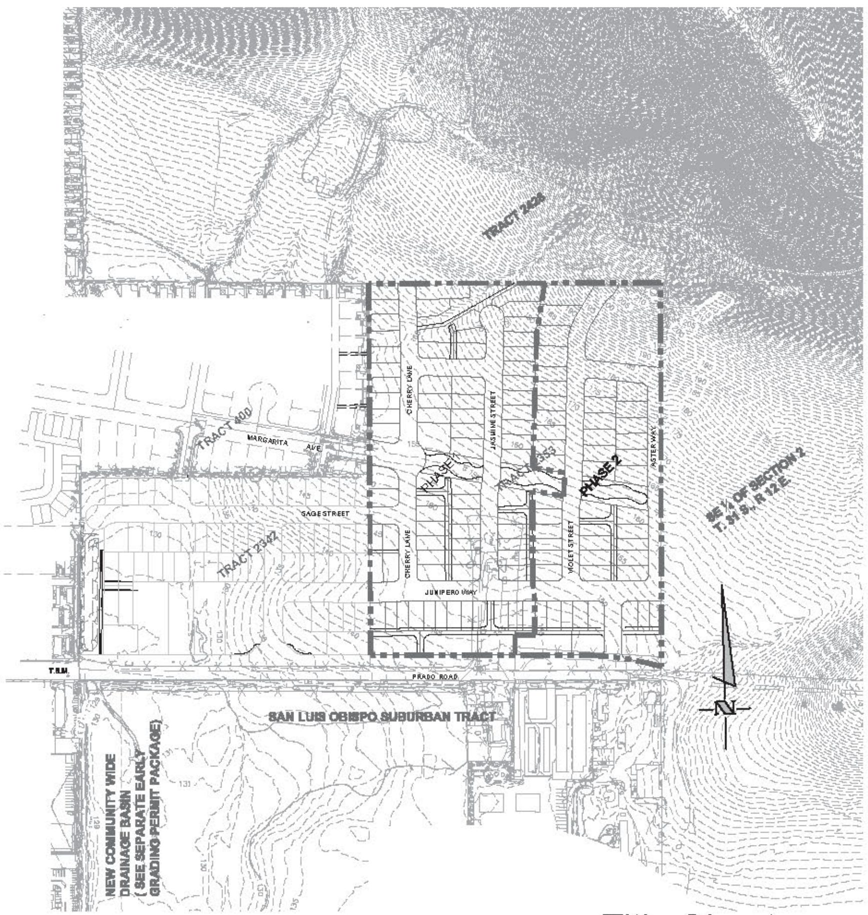
24' WIDE PRIVATE ALLY
N.T.S.



TYPICAL PRIVATE ALLY
N.T.S.

PROJECT SITE

N.T.S.



Job No.: 1013036

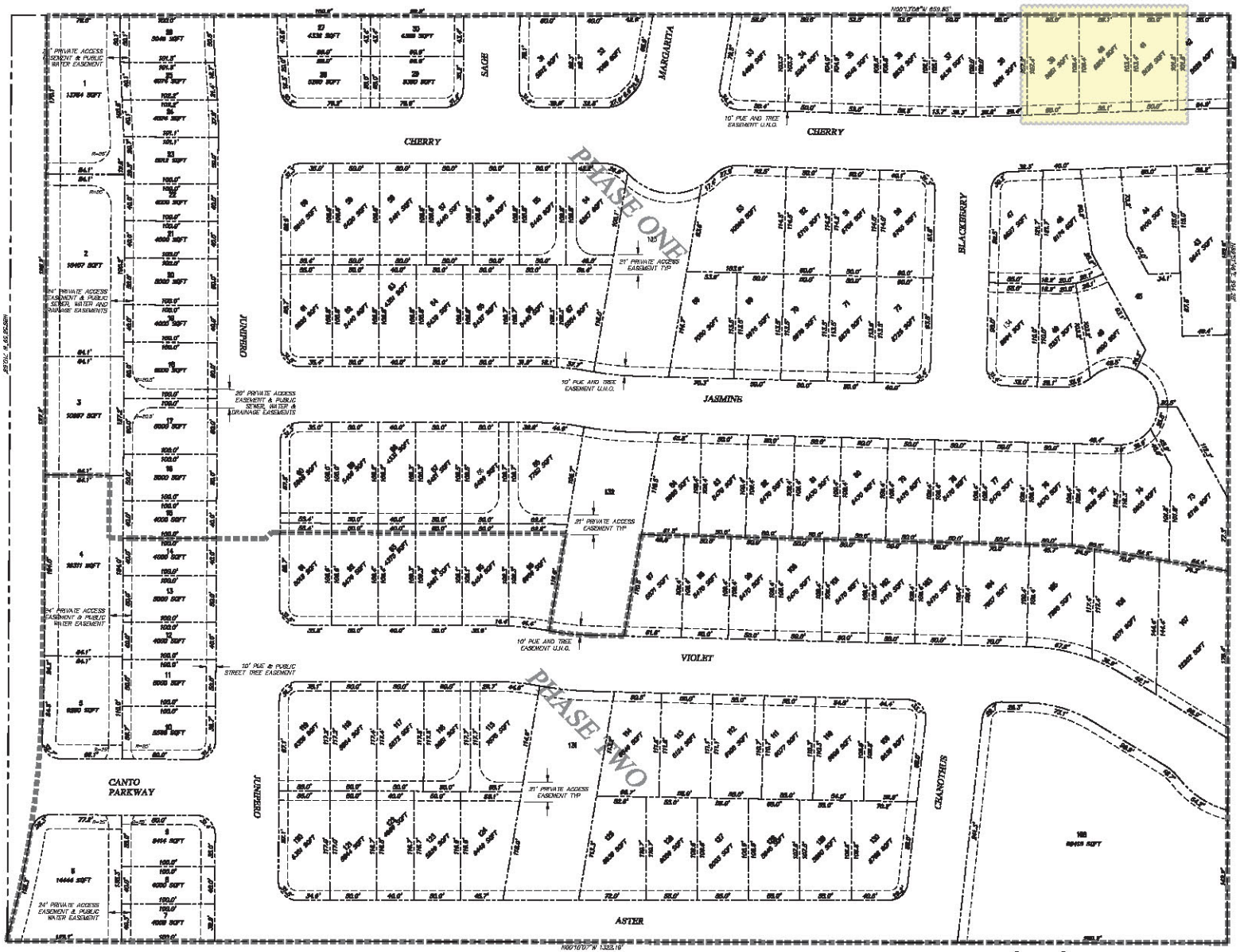
Title Sheet

Amended Tentative Tract 2353

City of San Luis Obispo

December 16, 2013 (REVISED: 01-15-2014) SHEET: 1 of 5

C-1



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(IN FEET)
1 INCH = 50 FT.

Tentative Map

Amended Tentative Tract 2353

City of San Luis Obispo

December 16, 2013 (REVISED: 01-15-2014) SHEET: 2 of 5

C-2

Job No.: 1013036

LOT	AREA	DEPTH (min)	WIDTH (min)	Use Code
1	13757.59	170.0	78.6	SF
2	16406.59	195.2	84.1	SF
3	10696.8	127.2	84.1	SF
4	16310.67	194.0	84.1	SF
5	9249.74	110.0	84.1	SF
6	14452.09	135.3	96.9	SF
7	4014.52	100.0	40.0	SF
8	4000	100.0	40.0	SF
9	5414.16	100.0	55.0	SF
10	5588.33	100.0	56.7	SF
11	5000	100.0	50.0	SF
12	4000	100.0	40.0	SF
13	5000	100.0	50.0	SF
14	4000	100.0	40.0	SF
15	4000	100.0	40.0	SF
16	5000	100.0	50.0	SF
17	6000	100.0	60.0	SF
18	6000	100.0	60.0	SF
19	4000	100.0	40.0	SF
20	5000	100.0	50.0	SF
21	4000	100.0	40.0	SF
22	4000	100.0	40.0	SF
23	5011.55	100.0	50.0	SF
24	4074.39	101.1	40.0	SF
25	4074.46	101.5	40.0	SF
26	5041.76	100.0	50.0	SF
27	4331.33	99.0	43.4	SF
28	5259.63	99.0	55.0	SF
29	5389.81	99.7	55.0	SF
30	4325.23	99.7	43.4	SF
31	5811.35	98.3	60.0	SF
32	7084.21	98.3	72.0	SF
33	6494.23	103.2	56.0	SF
34	5200.85	103.2	50.0	SF
35	5544.73	104.9	52.5	SF
36	5630.6	106.5	52.5	SF
37	5435.98	108.1	50.0	SF
38	5951.08	107.2	55.0	SF
39	5851.26	105.4	55.0	SF
40	5854.33	103.4	56.1	SF
41	5123.29	101.6	50.0	SF
42	5528.05	99.6	54.9	SF
43	9649.11	182.9	52.8	SF
44	6099.76	115.0	34.1	SF
45	18624.94			SF

LOT	AREA	DEPTH (min)	WIDTH (min)	Use Code
46	6174.08	121.7	40.0	SF
47	6526.78	119.5	55.0	SF
48	4889.92	103.2	31.3	SF
49	5236.67	103.2	38.2	SF
50	6745.18	113.7	60.0	SF
51	5705.87	114.0	50.0	SF
52	5718.79	114.3	50.0	SF
53	10690.39	114.5	90.5	SF
54	6267.43	108.8	49.1	SF
55	5440.22	108.8	50.0	SF
56	5440.22	108.8	50.0	SF
57	5440.22	108.8	50.0	SF
58	5440.22	108.8	50.0	SF
59	5440.22	108.8	50.0	SF
60	5915.06	108.8	55.4	SF
61	5924.81	108.8	55.0	SF
62	5439.73	108.8	50.0	SF
63	4351.19	108.8	50.0	SF
64	5438.24	108.8	50.0	SF
65	5437.42	108.8	50.0	SF
66	5439.89	108.8	50.0	SF
67	5553.58	109.4	40.1	SF
68	7050.47	113.5	53.9	SF
69	5676	113.5	50.0	SF
70	5676	113.5	50.0	SF
71	5676	113.5	50.0	SF
72	6725.36	113.5	60.0	SF
73	9135.88	142.0	36.5	SF
74	6185.85	116.3	36.6	SF
75	5638.11	109.4	46.4	SF
76	5469.51	109.4	50.0	SF
77	5469.51	109.4	50.0	SF
78	5469.51	109.4	50.0	SF
79	5469.51	109.4	50.0	SF
80	5469.51	109.4	50.0	SF
81	5469.51	109.4	50.0	SF
82	5469.51	109.4	50.0	SF
83	5469.51	109.4	50.0	SF
84	5858.04	109.4	45.6	SF
85	7751.81	108.7	62.6	SF
86	5429.38	108.5	50.0	SF
87	5420.92	108.3	50.0	SF
88	4330.65	108.2	40.0	SF
89	5405.7	108.0	50.0	SF
90	5868.23	107.8	55.4	SF

LOT	AREA	DEPTH (min)	WIDTH (min)	Use Code
91	6017.98	109.6	55.4	SF
92	5476.07	109.4	50.0	SF
93	4374.77	109.3	40.0	SF
94	5460.84	109.1	50.0	SF
95	5454.06	109.1	50.0	SF
96	5908.49	109.3	43.4	SF
97	5870.66	109.4	45.8	SF
98	5469.51	109.4	50.0	SF
99	5469.51	109.4	50.0	SF
100	5469.51	109.4	50.0	SF
101	5469.51	109.4	50.0	SF
102	5469.51	109.4	50.0	SF
103	5469.51	109.4	50.0	SF
104	7657.32	109.4	70.0	SF
105	7864.53	109.4	70.0	SF
106	9070.67	117.4	70.0	SF
107	12202.91	144.4	73.6	SF
108	60416.77			MF/Affordable
109	6639.22	109.4	56.9	SF
110	5998.11	109.9	54.5	SF
111	6076.53	110.3	55.0	SF
112	6100.03	110.7	55.0	SF
113	6123.52	111.1	55.0	SF
114	6545.83	111.6	50.5	SF
115	7577.99	116.2	55.1	SF
116	5880.82	117.5	50.0	SF
117	5872.35	117.4	50.0	SF
118	5863.89	117.2	50.0	SF
119	6355.58	117.0	55.0	SF
120	6351.41	117.0	55.0	SF
121	5843.99	116.8	50.0	SF
122	4669.1	116.7	40.0	SF
123	5828.77	116.5	50.0	SF
124	6448.43	116.3	45.7	SF
125	6938.62	110.7	52.8	SF
126	6058.62	109.7	55.0	SF
127	6002.55	108.6	55.0	SF
128	5946.48	107.6	55.0	SF
129	5890.4	106.6	55.0	SF
130	6758.4	105.8	60.5	SF
131	18283.22			OS
132	17704.37			OS
133	16263.94			OS
134	5964.16	110.0	55.0	SF

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Lot Tables

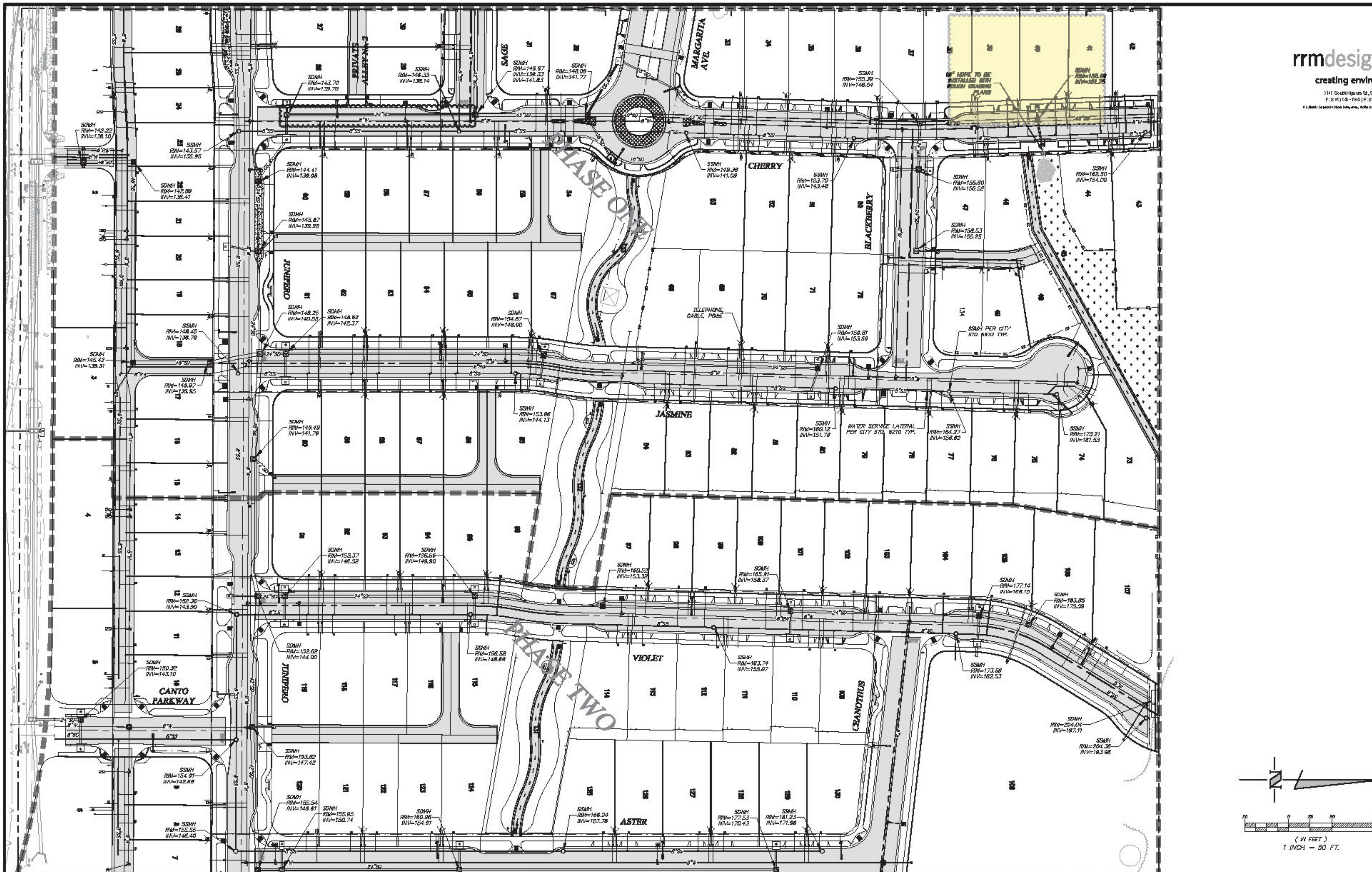
Amended Tentative Tract 2353

City of San Luis Obispo

December 16, 2013 (REVISED: 01-15-2014) SHEET: 3 of 5

C-3

Job No.: 1013036



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Preliminary Utilities

Amended Tentative Tract 2353

City of San Luis Obispo

December 16, 2013 (REVISED: 01-15-2014) SHEET: 4 of 5

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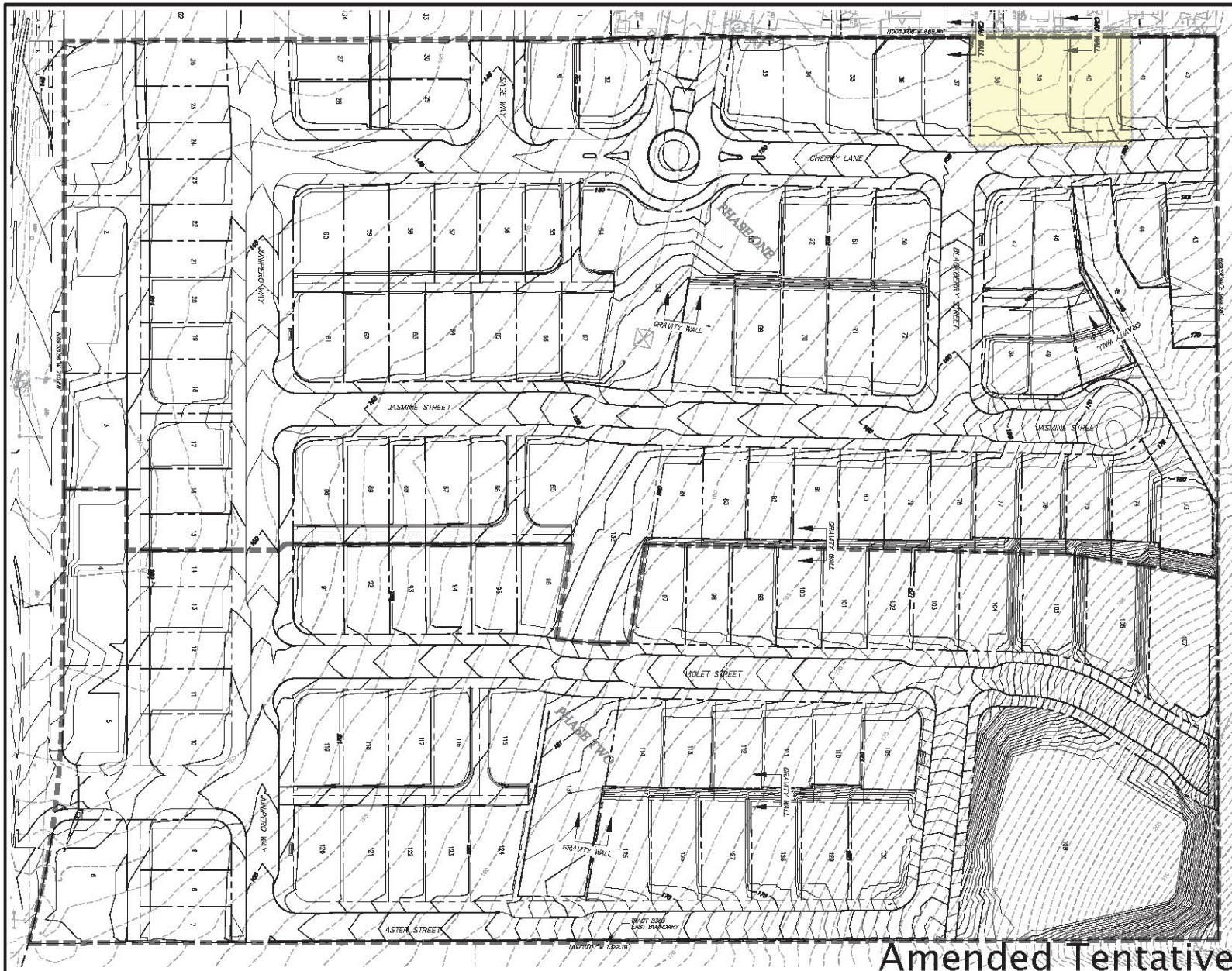

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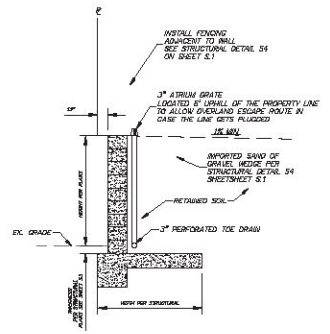

CMU WALL DETAIL

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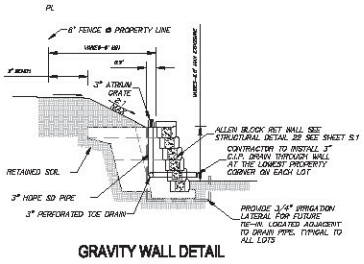

GRAVITY WALL DETAIL

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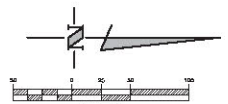


Preliminary Grading

Amended Tentative Tract 2353

City of San Luis Obispo

December 16, 2013 (REVISED: 01-15-2014) SHEET: 5 of 5

C-5

Job No.: 1013036

Attachment 3

Comprehensive Wetland Mitigation Plan

Comprehensive
Wetland Mitigation and Monitoring Plan

For

Vesting Tentative Tracts 2342, 2353, 2428, and Prado Park: Stormwater and Wetland Mitigation Basin

Existing Prado Road wetland on Prado Park parcel. View south.

Located in the

City of San Luis Obispo
San Luis Obispo County
California

Prepared by

ALTHOUSE AND MEADE, INC.
BIOLOGICAL AND ENVIRONMENTAL SERVICES
1875 Wellsona Road
Paso Robles, CA 93446
(805) 467-1041

August 2007

494.01

Table of Contents

List of Tables

I. Introduction

This comprehensive mitigation and monitoring plan addresses compensatory mitigation required for issuance of federal, state, and city permits to develop Tracts 2342, 2353, 2428, Prado Park commercial development, and a stormwater/wetland mitigation basin in the City of San Luis Obispo, San Luis Obispo County, California. Permits are required from the U.S. Army Corps of Engineers and the Regional Water Quality Control Board for impacts to Clean Water Act section 401 and 404 jurisdictional waters and wetlands. Permits from the California Department of Fish and Game (Code section 1600) are required for impacts to State wetlands and stream channels. No federal or state listed endangered or threatened species occur on the subject parcels.

This report was prepared for Prado Basin LLC, the owner and developer of the stormwater detention/wetland mitigation basin project. The wetland mitigation project provides mitigation for three mixed use developments and a commercial development planned for the Margarita Specific Planning Area. Tract 2342 and Tract 2353 are scheduled to begin construction in 2007.

Tract 2428 (King Ventures) and Prado Park LLC (Byron Davis) are not yet scheduled for development. These projects will participate in the mitigation project and remunerate the owners (Prado Basin LLC) as each project is permitted.

This plan has been prepared in accordance with the Corps of Los Angeles District Mitigation and Monitoring Guidelines, effective April 19, 2004.

II. Description of the Project/Impact Site

A. Responsible Parties and Contact Information

Project Owner – Tract 2342 Lot 67 (formerly Lot Z) Easement; North Mitigation Site (APN 053-022-013)
Prado Basin LLC
3580 Sacramento Dr.
San Luis Obispo, CA 93401
(805) 543-5717
Craig Cowan

Project Owner – Tract 2353 (APNs 054-022-014 and 054-022-015)
Sierra Gardens of SLO Limited
411 El Camino Real
Arroyo Grande, CA 93420
(805) 489-7448
Richard DeBlauw, G.P.

Project Owner – Stormwater/Mitigation (Prado Basin) Easement (APN 076-341-012)
Prado Basin LLC
3580 Sacramento Dr.
San Luis Obispo, CA 93401
(805) 543-5717
Craig Cowan

Project Owner – Prado Park Commercial Development (APN 076-341-012)
Prado Park LLC
925 Sheridan Road
Arroyo Grande, CA 93420
(805) 260-6008
Byron Davis

Project Owner – Tract 2428 (APN 053-022-016)
King Ventures
285 Bridge Street
San Luis Obispo, CA 93401
(805) 544-4444
David Watson

Design Engineers – Basin Design
Westland Engineering, Inc.
3480 S. Higuera, Suite 130
San Luis Obispo, CA 93401
(805)
Bill Rebik, engineer

Design Engineers – Hydrology
TEC Civil Engineering Consultants
4115 Broad Street
San Luis Obispo, CA 93401
(805) 541-2114
Cyle Coles, engineer

Lead Agency – Coordination
City of San Luis Obispo
990 Palm Street
San Luis Obispo, CA 93401
(805) 781-7100
Neil Havlik, Ph.D., Natural Resources Manager

Consulting Biologist
Althouse and Meade, Inc.
1875 Wellsona Road
Paso Robles, CA 93446
(805) 467-1041
LynneDee Althouse

B. Location of Projects

Three tracts, Tracts 2342 (Cowan), 2353 (Sierra Gardens), and 2428 (King Ventures) are contiguous properties located within the Margarita Specific Planning Area. A proposed commercial development, Prado Park, is located due south of Tract 2342 on the south side of Prado Road. The proposed stormwater facility and wetland mitigation site for these Margarita Specific Planning Area tracts includes a lot on Tract 2342 and an easement over the western portion of Prado Park, owned by Prado Park LLC. The easement is owned by Prado Basin LLC, and encompasses approximately 5 acres along the western boundary of the property. Figures 1 and 2 show locations of involved properties (Exhibit A). Elevations of the proposed projects vary from 250 feet (T2428) to 123 feet above sea level (Prado Basin).

Tract 2342, the Cowan Trust property, consists of a 15-acre rectangular shaped property located within the City of San Luis Obispo adjacent to the eastern boundary of Tract 2353. The property is east of South Higuera Street and north of Prado Road, at about 130 feet in elevation. Approximate coordinates for the property are N35° 15' 18" W120° 39' 43" in the San Luis Obispo USGS 7.5 minute quadrangle, San Luis Obispo County, California.

Tract 2353, the 30-acre Sierra Gardens property, is located on the north side of Prado Road in the City of San Luis Obispo. Approximate coordinates for the center of Sierra Garden property are N35° 15' 21" W120° 39' 32", in the San Luis Obispo USGS 7.5 minute quadrangle, San Luis Obispo County, California. The elevation is approximately 150 feet above sea level. The property includes APN 054-022-014 and 054-022-015.

Tract 2428, the 27-acre King Ventures development, is situated on a rocky south-facing slope of the South Hills in the City of San Luis Obispo. The proposed development is adjacent to existing residential development on Margarita Avenue and extends to the lower slope of the South Hills. Approximate coordinates for the center of the project site are N35° 15' 32" W120° 39' 44", in the San Luis Obispo USGS 7.5 minute quadrangle, San Luis Obispo County, California. The elevation ranges between 150 feet in the southwest corner to approximately 250 feet above sea level in the northeast corner. The area to be developed is approximately 27 acres of a 98 acre parcel (APN 053-022-016). Permanent open space is proposed for the remaining undeveloped portion of the parcel (71 acres, South Hills Open Space). Some mitigation (wetland enhancement) may occur within drainageways on Tract 2428 and within the open space area, as needed.

Prado Park consists of an approximately 20-acre parcel (APN 076-341-012) that contains a portion of the proposed wetland mitigation basin. A commercial development in keeping with the Margarita Area Specific Plan standards has been proposed east of the basin and north of a “no-development line” (airport building restrictions). The proposed stormwater basin/wetland mitigation area would include approximately five acres of the Prado Park property. An easement has been placed over the basin area; the basin easement is owned by Prado Basin LLC.

The proposed wetland mitigation site for the four projects above begins on Lot 67 of Tract 2342 (Cowan, APN 053-022-013) north of Prado Road and includes the Prado

Basin easement on the west side of Prado Park. The wetland mitigation area on Tract 2342 is approximately 0.25 acre; on the Prado Basin easement, the wetland mitigation area is approximately 3 acres. In addition, the mitigation site has room for riparian buffer vegetation, with 0.26 acre available on Tract 2342 and 1.33 acre available on the Prado Basin Site. Elevation of Tract 2342 Lot 67 basin varies from 126 to 132 feet; the Prado Basin portion ranges from 123 to 129 feet. Stormwater detention/wetland mitigation basin plans for Lot 67 and Prado Basin are included in Exhibit B.

C. Brief Summary of Overall Projects

Proposed Tract 2353, Tract 2428, and Tract 2342 are subdivisions designed to existing City standards for mixed use residential/commercial development. Proposed Prado Park commercial project is in the design phase; this project will meet City and Margarita Specific Planning Area standards for commercial development. Project activities include construction of streets, utilities, storm drains, residences, and fences. A stormwater detention/wetland mitigation basin is proposed on the south and west sides of the Prado Park property. An easement owned by Prado Basin LLC has been placed over the area proposed for the stormwater detention/wetland mitigation basin. Federal wetlands, waters, and/or state wetlands are present on properties as shown in Table 1. Mitigation for impacts to wetlands and waters of the U.S. will occur on Tract 2342 Lot 67 and the Prado Basin easement south of Prado Road (See Figures 1 and 2, Exhibit A).

TABLE 1. Summary of existing wetlands and waters on each property.

Project	State Wetland (acres)	Federal Wetland (acres)	Waters of the U.S. (non-wetland)
Tract 2342 Cowan	0	0.92	0
Tract 2353 Sierra Gardens DeBlauw	0	0.10	530 linear feet 1307 sq. ft. (0.03 acre)
Tract 2428 King Ventures	0.81	0.58	435 linear feet 1536 sq. ft. (0.035 acre)
Prado Park Property and Prado Basin Easement	0.01	2.56	580 linear feet 1742 sq. ft. (0.04 acre)
Total	0.82 acres	4.16 acres	1545 linear feet 4585 sq. ft. (0.11 acre)

D. Jurisdictional Areas to be Filled

Construction of proposed mixed use developments, commercial development, and the stormwater detention/wetland mitigation basin will result in unavoidable temporary and permanent impacts to federal and state wetland and non-wetland waters. A summary of impact type and area by project is provided in Table 2.

TABLE 2. Temporary and permanent impacts to federal and state wetlands and non-wetland waters.

Project Type and Location	**Impacts**			
	Federal Wetland–Permanent (acre)	Federal Wetland–Temporary (acre)	State wetland (acre)	Non-wetland Waters (linear ft.; acre)
Residential/Commercial, Tract 2342	0.92	0	0	0
Residential/Commercial, Tract 2353	0.10	0	0	530; 0.03
Residential/Commercial, Tract 2428	0.05	0	0.77	0.01
Prado Park LLC Commercial Development, APN 076-341-012	0.44	0	0.01	0.00
Prado Basin, APN 076-341-012	0.22	0.50	0	0.04
Total Impacts	**1.73**	**0.50**	**0.78**	**530; 0.08**

E. Type(s), Functions, and Values of the Jurisdictional Areas to be Directly and Indirectly Impacted.

The direct impact of the projects is to permanently fill 1.73 acres of moderate to low-function Clean Water Act section 404 wetland habitat, 0.08 acre of low-function section 404 non-wetland waters, and 0.78 acre of low-function state wetland habitat. Some of the state wetland was created by a leaky water line from a stock water system. An additional approximately 0.5 acre of low-function section 404 wetland will be temporarily disturbed during grading activities associated with creation of the basin. Wetlands on the subject parcels are features in grassland habitat that contain wetland vegetation. Wetlands on Tracts 2342, 2353, and 2428 are currently grazed by horses and/or cattle. No riparian shrubs or trees are currently associated with wetlands on the project sites.

The Wetland Evaluation Technique (WET) was adapted to assess the function and values of wetlands to be impacted (Adamus et a. 1991).

Wetland functions in the impacted area have been assigned an effectiveness probability rating (i.e. low, moderate, or high). This rating is an estimate of the likelihood that a wetland will perform a certain function based on its characteristics.

"Opportunity" is a measure of the probability that a wetland has the chance to perform a function. "Social Significance" is a measure of the probability that a wetland is of value to society because of its natural features, economic value, official status, and strategic location. Definitions of functions and related terms used in the WET evaluation are listed in Exhibit C.

TABLE 3. Functions of impacted federal[1] wetlands are listed with our assessment of effectiveness, opportunity and social significance.

Function[2]	**Effectiveness**	**Opportunity**	**Social Significance**
Ground-water recharge	Low	Low	Low
Ground-water discharge	Low	Low	Low
Floodflow alteration	Low	Low	Low
Sediment stabilization	Moderate	Moderate	Low
Sediment/toxicant retention	Low	Low	Low
Nutrient removal/ transformation	Moderate	Moderate	Low
Production export – cattle and horses	Low	Low	Low
Wildlife diversity/ abundance	Low	Moderate	Low
Recreation – passive	Low	Low	Low
Uniqueness/ heritage	Low	Low	Low
Aesthetics	Moderate	Moderate	Moderate

[1] Non-federal state wetlands may have only one or two wetland characteristics: Hydrology, soils, **and/or** vegetation.
[2] Definitions of functions are provided in Appendix C.

TABLE 4. Functions of impacted non-federal state[3] wetlands are listed with our assessment of effectiveness, opportunity and social significance.

Function	Effectiveness	Opportunity	Social Significance
Ground-water recharge	Low	Low	Low
Ground-water discharge	Low	Low	Low
Floodflow alteration	Low	Low	Low
Sediment stabilization	Low	Low	Low
Sediment/toxicant retention	Low	Low	Low
Nutrient removal/ transformation	Low	Low	Low
Production export – cattle and horses	Low	Low	Low
Wildlife and plant diversity/ abundance	Low	Moderate	Low
Recreation – passive	Low	Low	Low
Uniqueness/ heritage	Low	Low	Low
Aesthetics	Low	Low	Low

The existing wetlands on site provide low biodiversity value. Neither shrubs nor trees are associated with wetlands on the project sites. The federal wetlands are self-perpetuating. Some of the non-federal state wetlands are not self-perpetuating (i.e. will transition to meadow if a leaky water line is repaired). Some of the state wetlands appear to form in response to above-average rainfall years, and diminish in dry years. The impacted wetlands have some external value for livestock watering, livestock forage, and minimal water quality improvement. Overall, the value of the impacted wetlands is low.

[3] Federal wetlands are also within the state's jurisdiction, and have three wetland characteristics: Hydrology, soils, **and** vegetation.

III. Goals of the Compensatory Mitigation Project

The first goal of the mitigation project is to convert parts of former agricultural fields and vacant oil tank farm property into functional wetland habitat for native plants and animals. The second goal is stormwater biofiltration, detention, and infiltration.

The mitigation project will have additional beneficial uses. External wetland values will increase with the addition of the planned trail system and flood peak reduction. Internal wetland values will increase with improved sediment trapping and improved habitat for plants and animals.

A. Types and Areas of Habitat to be Established, Restored, and/or Enhanced

Impacts from the proposed projects will be mitigated via creation of federal wetlands and waters on the floor of the stormwater basin, establishment of state wetlands at the margins of the basin floor, and creation of riparian and upland buffer on the slopes and upper edges of the basin. A conceptual illustration of type and location of mitigation habitats in the basin is provided as Figure 3.

TABLE 5. Mitigation requirements for wetland impacts from Margarita Area projects.

Type of Impact	**Mitigation Requirement Calculation**		
	Impact: Basin plus adjacent projects (acre)	Typical mitigation ratio	Mitigation area required (acre)
Federal Wetland– Permanent [acre]	1.73	2:1 (for permanent impacts to low function/value wetland)	3.46
Federal Wetland– Temporary [acre]	0.50	1:1 for temporary impacts	0.50
State wetland [acre]	0.78	1:1 (no net loss; may include riparian enhancement)	0.78
Non-wetland Waters [acre]	0.08	1:1 for permanent impacts	0.08
Totals	**3.09**	**n/a**	**4.82**

TABLE 6. Types and areas of habitat to be established, restored, and/or enhanced in the stormwater detention/wetland mitigation basin.

Habitat Created	**Tract 2342 Portion of Basin (acre)**	**Prado Park Portion of Basin (acre)**	**Total Mitigation Area (acre)**
Federal Wetland	0.23	3.04	**3.27**
State Wetland, Riparian, and Upland Buffer	0.41	1.98	**2.39**
Total Area	**0.64**	**5.02**	**5.66**

A two to one (2:1) replacement ratio for permanent impacts and one to one (1:1) replacement ratio for temporary impacts to federal wetland would require total mitigation area of 3.96 acres of federal wetland established and/or restored. The proposed mitigation project is expected to result in only 3.27 acres of federal wetland, a net deficit of 0.69 acre. The deficit will be made up via establishment of 1.53 acre of state wetland, riparian, and upland buffer.

B. Specific Functions and Values of Habitat Type(s) to be Established, Restored, and/or Enhanced

The enhanced wetland area, combined with close proximity to open space north of the compensatory mitigation area will increase the wetland's social value. The wetland will be close to an open space area with potential nature walk opportunities for residents, workers, and visitors.

Basin creation combined with wetland establishment and enhancement on the basin floor (**federal wetland**) will improve the sediment stabilization and toxicant retention functions of the basin. The addition of hardscape (e.g. driveways, roads, homes) upslope from the enhanced wetlands will increase the opportunity for sediment and toxicant retention; consequently, the improved function is necessary. In addition, the proposed basin will include a designated sediment clean-out area outside the area designated as wetland. The cleanout area will function as a sediment trap, and will also provide access to clear blockages and maintain culverts without disturbing wetland habitat within the basin. This will allow the basin to perform dual functions as detention basin and wetland habitat.

Installation of facultative vegetation along the margins and lower slopes of the basin (**state wetland**) will provide slope stabilization and increase plant diversity in the basin. This fringe of herbaceous wetland will help filter water without impeding or accelerating flow of stormwater at peak flow during and after storms.

Riparian buffer planned for the upper slopes and outer edge of the basin will provide a physical barrier between wetlands and uplands. This buffer will discourage unauthorized entry into the basin. The riparian plant palette consists of locally native tree and shrub species, thereby improving diversity of plant species and communities as well as adding aesthetic value by providing a screen between the basin and adjacent structures. Presence of shrubs and trees will be attractive to more species of birds and small wildlife species, enhancing habitat value of the mitigation wetlands.

The table below indicates the functions of the wetland areas that will be improved upon mitigation completion. Bolded measures indicate improvements from the present condition.

TABLE 7. Functions and values improved upon mitigation completion.

Function[4]	Effectiveness	Opportunity	Social Significance
Ground-water recharge	**Moderate**	**Moderate**	**High**
Ground-water discharge	Low	Low	Low
Floodflow alteration	**High**	**High**	**High**
Sediment stabilization	**High**	**High**	**Moderate**
Sediment/toxicant retention	**Moderate**	**High**	**Moderate**
Nutrient removal/ transformation	Moderate	**High**	**Moderate**
Production export	Low	Low	Low
Wildlife diversity/ abundance	**Moderate**	**Moderate**	**Moderate**
Recreation	Low	**Moderate**	**Moderate**
Uniqueness/ heritage	**High**	**Moderate**	**Moderate**

C. Target Hydrological Regime

The target hydrologic regime for the wetland mitigation area will create saturated soil conditions in the wetland basin during the winter months (at least five percent of the growing season). Indicators of wetland hydrology will include periodic occurrence of drift lines, sediment deposition, watermarks, and soil saturation.

D. Time Lapse Between Jurisdictional Impacts and Expected Compensatory Mitigation Success

Approximately three years after completion of installation will be required to attain compensatory mitigation success. If success criteria have not been met within three years, the applicant will have another two years to achieve compliance with the mitigation plan. If success criteria have not been met within five years, an alternate plan will be submitted to and approved by the Corps, and implemented by the applicant.

[4] Definitions of functions are provided in Appendix C.

E. Estimated Total Cost (includes all compensatory mitigation site preparation, planting, maintenance, and monitoring)

TABLE 8. Estimated total cost for compensatory mitigation on the Prado Basin and Tract 2342 Lot 67 sites.

Item	Estimated Cost
Site preparation – stockpile topsoil, grade, replace topsoil	
Seed with native mix (hydroseed with ~500 lbs mulch/acre)	9,000
Hydroseed tops of bank with native mix and 2500 lbs mulch/acre	7,000
Plant container stock and willow stakes	
Install temporary irrigation for container stock	
Maintenance (5 years) – mow, weed, protect, rodent control, check irrigation, remove trash, fertilize	36,000
Monitoring and reporting (5 years)	16,000
Estimated Total	

F. Overall Watershed Improvements to be Gained

The proposed mitigation will result in an increase in wetland vegetation and habitat. Riparian canopy previously absent from the mitigation site and the impacted wetlands will be created, thereby improving diversity of plant species and habitat niches associated with the Margarita Area upper watershed. Presence of shrubs and trees will be attractive to more species of birds and small wildlife species than currently frequent degraded wetlands in the watershed. The basin will also perform stormwater detention, sediment catchment, toxicant trapping, and water filtration functions that will improve quality of water leaving the mitigation site. These improvements to water quality will benefit the watershed downstream of the basin.

Wetland function and habitat diversity will improve and both the ecological and social value of the wetland will increase. Consequently, watershed function and value will increase.

IV. Description of the Compensatory Mitigation Sites

A. Process of Selecting Proposed Mitigation Sites

The stormwater basin/wetland mitigation site was selected based on the following characteristics:

- Low relief and gentle slopes adjacent to Prado Road, compared to hilly terrain and steeper slopes in Tracts 2428 and 2353, are more conducive to

creation of lowland. Gentle slopes and low relief will favor more persistent inundation, provide more time for infiltration, and improve probability of wetland formation.

- Minimal grading requirement because site is already relatively flat.
- Existing drainages and culverts on the proposed project sites converge and transport water onto the proposed Prado Basin site. Thus, use of the Prado Basin property will maintain connectivity similar to the existing pattern within minimal realignment.
- Water from existing stormdrains in neighborhoods adjacent to the proposed projects will be rerouted into the stormwater detention/wetland mitigation basin, damping the "flashy" nature of urban runoff. Sediment, nutrient, and pollutant loads will be reduced due to slower velocity of water moving through the basin and physical and biological filtration by wetland plant species.
- Similar soil conditions occur on project sites and proposed mitigation sites.
- City of San Luis Obispo's approved Margarita Area Specific Plan recommends the Prado Basin site (formerly referred to as Unocal Martinelli Property) for a stormwater basin and/or wetland mitigation activities.
- Small amounts of degraded wetland already present at the Prado Basin provide an opportunity for wetland preservation and enhancement.
- The proposed location is best suited to ameliorate potential stormwater increases from construction of the proposed projects. Impervious urban sites typically accelerate runoff and direct water away more quickly than vegetated natural sites. The proposed basin counteracts this effect by providing a low gradient, high capacity area to collect water and allow infiltration before water leaves the watershed.

Compensatory mitigation for impacts to federal wetlands and waters will occur on the basin floor. The basin floor has the lowest gradient, and is most likely to be inundated or saturated for long periods of time, allowing hydric soil conditions to develop. A low-flow swale created in the basin floor will replace non-wetland waters disturbed by projects.

State wetland mitigation will consist of margins and slopes of the basin. This area will be subject to occasional inundation, and is expected to support hydrophytic vegetation but may not be wet enough to develop true wetland hydrology and/or hydric soils. A riparian buffer will be installed on the upper banks and outer edge of the basin. The buffer will include native riparian and wetland trees and shrubs, and will create new wildlife habitat value in addition to protecting wetland habitat on the basin floor.

B. Location and Size of Compensatory Mitigation Sites

TABLE 9. Mitigation locations and sizes.

Mitigation Site Location	Area	Unit
Wetlands		
Prado Basin Easement	3.04	Acre
Tract 2342 Lot 67	0.23	Acre
Wetland total	**3.27**	**acres**
Waters of the U.S.		
Prado Basin Thalweg	530	linear feet
Tract 2342 Lot 67 Thalweg	420	linear feet
Waters total	**950**	**linear feet**
State Wetlands, Riparian, and Upland Buffer		
Prado Basin	1.98	Acres
Tract 2342 Lot 67	0.41	Acres
Buffer Total	**2.39**	**Acres**

C. Ownership Status

TABLE 10. Current ownership of compensatory mitigation sites.

Site	Owner	Contact Information
Prado Basin (Basin south of Prado Road)	Prado Basin LLC	3580 Sacramento Dr. San Luis Obispo, CA 93401 (805) 543-5717
Tract 2342 Lot 67 (Basin north of Prado Road)	Prado Basin LLC	3580 Sacramento Dr. San Luis Obispo, CA 93401 (805) 543-5717

TABLE 11. Ownership of compensatory mitigation sites at project completion.

Site	Owner	Contact Information
Prado Basin Easement	MASP HOMEOWNERS ASSOCIATION	To Be Determined
Tract 2342 Lot 67	MASP HOMEOWNERS ASSOCIATION	To Be Determined

D. Existing Functions and Values of the Compensatory Mitigation Sites - Baseline

The current condition of the compensatory mitigation site for wetland habitat is an upland vegetated area with non-native grasses dominant. The area was farmed in past years and is dominated by introduced Mediterranean grass species. Federal wetlands occur within and adjacent to the mitigation site.

TABLE 12. Current condition of compensatory mitigation sites.

Function	Effectiveness	Opportunity	Social Significance
Ground-water recharge	Low	Moderate	Low
Ground-water discharge	Low	Low	Low
Floodflow alteration	Low	Low	Low
Sediment stabilization	Low	Low	Low
Sediment/toxicant retention	Low	Low	Low
Nutrient removal/ transformation	Low	Low	Low
Production export	Low	Low	Low
Wildlife diversity/ abundance	Moderate	Low	Low
Recreation	Low	Low	Low
Uniqueness/ heritage	Low	Low	Low

E. Jurisdictional Delineation

Jurisdictional delineations of section 404 waters and wetlands on compensatory mitigation properties were conducted between October 2004 and June 2005. The delineations were completed as follows: Tract 2342 by Rincon Consultants, Inc. (June 2005); Unocal Martinelli Site (now Prado Park) by David Wolff Environmental (October 2004; amendment May 2005). These delineations were submitted with permit application packages in early 2007 and were reviewed by Bruce Henderson, USACE Project Manager.

F. Present and Proposed Uses of the Compensatory Mitigation Site and All Adjacent Areas

TABLE 13. Present and proposed use of mitigation sites and surrounding land.

Site	Present Use	Proposed Use
Wetland mitigation area – Prado Basin (compensatory mitigation)	Vacant field	Seasonal wetland habitat
Wetland mitigation area - Tract 2342 (compensatory mitigation)	Grazing land	Seasonal wetland habitat
State wetland mitigation area – Prado Basin (compensatory mitigation)	Vacant field	Seasonal wetland habitat
Tract 2428 Project	Grazing land	Residential development
Tract 2353 Project	Grazing land	Residential development
Tract 2342 Project	Grazing land	Residential development
Prado Park Commercial Site	Vacant field	Commercial development
Areas west and north of proposed Tract 2342 development	Residential	No change proposed
Area north of proposed Tract 2353 development	Grazing land	City Open Space
Area west of proposed Tract 2353 development	Residential	No change proposed
Area east of proposed Tract 2353 development	Grazing land	Residential development
Area west of Prado Basin mitigation area	Commercial	No change proposed

G. Reference Site

Prior to monitoring, a reference site shall be established for the compensatory wetland area. The sampling areas shall be similar to the compensatory mitigation site with respect to vegetation, elevation, slope, aspect, size and soil type. Photo documentation will be made at the time of baseline data collection. The reference sites will be sampled in the same manner described in Section VII.

Data collected from the reference sites will be compared to performance criteria developed for the restoration sites in Section VIII.A. This will ensure that the performance criteria are appropriate and reasonable. Performance targets may be modified by the project restoration biologist at this time.

An appropriate reference site for the compensatory mitigation site is located at Laguna Lake Park (located at approximately N35^{o} 16’ 07” W120^{o} 41’ 24”).

V. Implementation Plan for Compensatory Mitigation Site

A. Rationale for Expecting Implementation Success

The mitigation site elevation will be lowered by minimal grading to allow water to spread and saturate soil. The mitigation area will be seeded with a palette of native plant species that includes native species present in adjacent drainages. Additional wetland species will recruit to the site from the natural seed bank (i.e., rabbit's foot grass, rye-grass and meadow barley). The establishment of these species is reasonably expected if site grading is accomplished as per this plan, and if one normal rainfall year occurs within three subsequent years.

For additional reasons implementation of the project is expected to succeed, please refer to section IV-A, Process of Selecting Proposed Mitigation Sites. This compensatory mitigation project is proposed for the location deemed best for establishment of wetland habitat and stormwater detention as a combined project to benefit water quality in the Margarita Area.

B. Responsible Parties

Project developers: Prado Basin LLC

Project biological consultant: Althouse and Meade, Inc.

The project engineers: Westland Engineering, Inc.

The landscape architect: Wallace Group

The lead agency: The City of San Luis Obispo

C. Financial Assurances

The applicant will bond with the City of San Luis Obispo for wetland mitigation as proposed.

D. Schedule

The applicant will not begin construction of compensatory mitigation wetlands until the Corps approves of the **final** compensatory mitigation and monitoring plan. The project owners plan to begin installation of the basins before fall rains in 2007. After the site has been graded and planted, the maintenance and monitoring phase of the compensatory mitigation begins immediately.

E. Site Preparation

All work will be conducted under supervision of a qualified restoration biologist. Areas of wetland habitat to remain intact will be flagged prior to grading for basin creation. The site of the wetland mitigation area will be prepared in accordance with the approved

project grading plan by Westland Engineering, Inc. and planting plans by the Wallace Group (Exhibit B). The plans specify appropriate site slope and drainage, and appropriate soil conditioning and preparation.

Site preparation requires salvage and soil stockpile activities for areas of wetland habitat that will be temporarily impacted. Wetland plants and topsoil will be salvaged under supervision of a qualified biologist according to specifications that will be included on the construction documents (see Exhibit B).

F. Planting Plan

The wetland mitigation area will be planted using two seed mixes, salvaged materials saved from original wetlands on project sites, and container stock. Planting will be supervised by the restoration biologist to ensure plantings are arranged in an appropriate, naturalistic (i.e., no straight lines) manner.

Salvaged plant materials saved from the original wetlands will be installed first, prior to hydroseed application. Salvaged plant materials shall be installed in patches along the basin floor margins. Exact planting locations will be chosen in the field by the project biologist and site manager, and flagged for planting crews. Salvaged plant materials will include the following species:

TABLE 14. Salvaged plant materials to be installed in the mitigation basin at locations designated by the project biologist.

Scientific name	Common name
Eleocharis macrostachya	Spikerush
Juncus phaeocephalus	Flat-stem rush

Following installation of salvaged materials, the entire federal wetland compensatory mitigation area (basin floor) will be hydroseeded with a seed mix as follows:

TABLE 15. Seed mix #1, for compensatory federal wetland mitigation area (basin floor).

lbs/acre	Scientific name	Common name
0.5	*Asclepias fascicularis*	Narrow-leafed milkweed
1	*Carex praegracilis*	Sedge
2	*Distichlis spicata*	Salt grass
1	*Eleocharis macrostachya*	Spike-rush
10	*Hordeum brachyantherum*	Meadow barley
6	*Hordeum depressum*	Alkali barley
0.5	*Juncus bufonius*	Toad rush
0.5	*Juncus balticus*	Baltic rush
6	*Leymus triticoides*	Creeping wild-rye
0.5	*Mimulus guttatus*	Stream monkeyflower
2	*Sisyrinchium bellum*	Blue-eyed grass
3	*Trifolium obtusiflorum*	Creek clover

If material is not available, substitutions may be made with the prior approval of the project restoration biologist. Hydroseed application on the basin floor will also include the following:

Material	**lbs/acre**
Wood fiber hydro-mulch	500
Seed as above	(see Table 15 above)
Guar Tack	50
Fertilizer to be determined following soil test of final soil surface	TBD

Hydromulch mix should be combined on site with no more than one-half hour between seed addition and application. Coverage must be even over the designated seeding area.

Adjacent areas of non-federal, state wetland mitigation (lower basin slopes) will be seeded with a different mix that includes species tolerant of drier conditions.

TABLE 16. Seed mix #2, for non-federal wetland mitigation area (basin slopes).

lbs/acre	**Scientific name**	**Common name**
1	*Achillea millefolium*	Yarrow
2	*Elymus glaucus*	Blue wild-rye
2	*Eschscholzia californica*	California poppy
6	*Hordeum brachyantherum*	Meadow barley
4	*Hordeum depressum*	Alkali barley
1	*Lasthenia californica*	Goldfields
1	*Layia platyglossa*	Tidy tips
2	*Leymus triticoides 'Rio'*	Creeping wild-rye
1	*Lupinus nanus*	Sky lupine
3	*Vulpia microstachys*	Annual fescue

If material is not available, substitutions may be made with the prior approval of the project restoration biologist. Hydroseed application on the basin floor will also include the following:

Material	**lbs/acre**
Wood fiber hydro-mulch	2500
Seed as above	(see Table 16 above)
Guar Tack	50
Fertilizer to be determined following soil test of final soil surface	TBD

Hydromulch mix should be combined on site with no more than one-half hour between seed addition and application. Coverage must be even and bare ground should not be visible for mulch application at 2500 lb/acre.

The buffer adjacent to the wetland, on upper basin slopes and outer edges, will be planted with container stock and cuttings, as appropriate, from local material. Willow stakes will be planted along margins of the basin floor and lower basin slopes.

TABLE 17. Container stock for riparian and upland buffer (upper basin slopes).

Stock Size	Quantity	Scientific name	Common name
TREES			
5-gal	13	*Platanus racemosa*	Sycamore
cuttings	144	*Populus balsamifera* spp. *trichocarpa*	Black cottonwood
5-gal	9	*Quercus agrifolia*	Coast live oak
5-gal	20	*Quercus lobata*	Valley oak
cuttings	208	*Salix lasiolepis*	Arroyo willow
SHRUBS			
1-gal	231	*Arctostaphylos obispoensis*	Obispo manzanita
1-gal	285	*Ceanothus cuneatus*	Buckbrush
1-gal	216	*Ceanothus thyrsiflorus*	Blue-blossom
1-gal	419	*Eriogonum fasciculatum*	California buckwheat
1-gal	628	*Mimulus aurantiacus*	Sticky monkeyflower
1-gal	568	*Muhlenbergia rigens*	Deer grass
1-gal	182	*Rhamnus californica*	Coffeeberry
1-gal	409	*Ribes malvaceum*	Chaparral current
1-gal	400	*Ribes speciosum*	Fuschia flowered gooseberry
1-gal	300	*Rosa californica*	California wild rose
1-gal	400	*Rubus ursinus*	California blackberry

Container stock will be of local origin from local genotypes.

G. Irrigation Plan

Temporary irrigation will be provided to trees and shrubs for three years (See Plan Sheets 11-14 of 14, Exhibit B).

H. As-Built Conditions (to be certified by a professional engineer and submitted to the Corps within 45 days of fully implementing the compensatory mitigation)

A final set of as-built plans will be provided to the Corps within 45 days of mitigation implementation.

I. Compliance Visit from Corps Project Manager

A site visit with the appropriate Corps Project Manager is recommended but not required. This site visit should be scheduled within 90 days of project installation to confirm the site has been installed and planted adequately.

VI. Maintenance activities during the monitoring period

A. Maintenance Activities

The compensatory mitigation areas shall be maintained after installation and wetland mitigation project completion by Prado Basin LLC until such time as maintenance activities are turned over to the Homeowners' Association. Maintenance activities will be consistent with Performance Criteria described in this plan, Section VII (A).

B. Responsible Parties

Compensatory mitigation site installation: Prado Basin LLC

Site maintenance: Prado Basin LLC / Homeowners' Association

C. Schedule

The contractor shall maintain the installation for 3 to 5 years following implementation to meet performance criteria. The wetland mitigation site shall be maintained on a monthly basis during the establishment phase, a minimum of one year, with two additional years to be added if necessary after evaluation of the site at the end of the first year. The project biological monitor shall coordinate with the site owner and maintenance contractor to schedule additional maintenance as required.

D. Maintenance Tasks

Maintenance tasks shall include the following items, to be performed as needed.

- Remove weeds via hand weeding and weed whip, as necessary. An action list of priority weeds for removal is provided below.
- Check and maintain irrigation system.
    - Repair leaks, replace broken parts, ensure schedule/timing is season-appropriate.
- Check tree stakes. Ensure stakes are appropriately secured and are not rubbing tree trunks or branches. Replace broken stakes and ties.
- Prune off broken or damaged branches
- Remove trash.

Additional maintenance activities to be scheduled as needed by the restoration biologist shall include the following:

- Remove construction and erosion control debris as needed. This includes removal of rebar, construction debris, and non-biodegradable plastic remnants from fencing, erosion control materials, and packaging as necessary.

- Plant replacement container stock as needed.
- Remove tree stakes when trees are deemed stable and sturdy enough to remove supports (likely at the end of 5 years or as determined by project biologist).
- Remove trash and debris after major storm events.
- If necessary, repair erosion features developing from unexpected early storm events prior to establishment of vegetation.

The biological monitor for the project has the authority to require additional maintenance items when such action is necessary to guide the project toward meeting success criteria.

VII. Monitoring Plan for the Compensatory Mitigation site

The goal of the wetland mitigation is to provide functional habitat value for native plants and animals. Performance criteria are provided to measure progress toward the goal. Performance criteria and yearly targets are presented below. Success rates below the stated minimum target for each criterion indicate the need for additional revegetation, plant protection, weed eradication, or erosion control efforts. Contingency measures for failure to meet those targets are provided in Section IX.

A. Performance Standards for Target Dates and Success Criteria

TABLE 18. Performance Standards.

Compensatory Wetland Area						
Feature	**Performance Criteria**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Wetland basin	hydric soils	saturated for several weeks	saturated for several weeks	hydric features	Redoxi-morphic features	Redoxi-morphic features
Wetland basin	% cover of wetland species	>50%	>50%	>50%	>50%	>50%
Wetland basin	% cover native species	>50%	>60%	>65%	>70%	>75%
Wetland basin	% vegetative cover	>50%	>60%	>70%	>80%	>90%
Buffer	% shrub vegetative cover	>10%	>20%	>30%	>40%	>50%
Buffer	% survival of container stock	75%	70%	60%	60%	60%
Height gain of container stock—trees	Change in height compared to height at planting—average by species	0.5	1	2	3	4
Height gain of container stock—shrubs	Change in height compared to height at planting—average by species	0.5	0.75	1	1.25	1.5

B. Target Functions and Values

The compensatory wetland area shall function as seasonal wetland habitat with aesthetic and wildlife habitat values. It shall function to filter stormwater from the developments, slow the rate of flow in the drainage, and increase infiltration. Refer to Table 7 for target functions and values.

C. Target Jurisdictional and Non-Jurisdictional Acreages to be Established, Restored, and/or Enhanced

Target mitigation acreage should meet or exceed 5.66 acres total. Jurisdictional federal wetland in basin bottom should equal at least 3.27 acres and adjacent state wetland and buffer should be 2.39 acres in size.

D. Monitoring Methods

The biologist who prepares the annual report will use the following methods to measure parameters on the site. The site monitor will indicate on a site map where any problem areas are located. In Year 1, the actual area of each mitigation site will be measured and reported. If the size of each mitigation area is consistent with the table above, no additional measurement of site dimensions will be necessary in subsequent years.

Photo points will be established after implementation. Photo points shall be chosen in locations that accurately capture condition of the site in the minimum number of photos. Photo point location shall be recorded on a site plan and used for each subsequent monitoring visit.

In addition to formal monitoring visits, the site will be inspected monthly for the first year to document site conditions and identify maintenance items. These visits shall be used to schedule maintenance and correct problems in a timely fashion. In particular the following items should be noted during monthly site visits:

- Note presence/absence of water onsite
    - If present, estimated depth, flow, and location of water
- Monitor seed germination
- Check for problems with temporary irrigation system
- Note establishment of cuttings and salvaged plants
    - Note which species are thriving and which, if any, are struggling
- Identify stressed, dying, and dead plant material
    - Determine cause if possible and make recommendations to rectify
    - Determine quantity of replacement plantings required.
    - Information on success/failure of each species and type of stock (container, cutting, salvage) shall be taken into consideration when recommending replacement plantings. A species that is not thriving

overall may be replaced with a different species with the approval of the restoration biologist.

- Check weed removal status/maintenance requirements
- Check condition of tree support stakes. Note any stakes that need to be replaced or relocated. Note locations of trees that no longer need stakes or need a different stake system.

TABLE 19. Mitigation features monitored each year.

Feature	Performance Criteria	Monitoring Method
Trees	Survival and growth	Count and measure height.
Shrubs	Survival and growth	Count and measure height.
Willow stakes	To be planted above and below mitigation site	Count and report total surviving willow stakes.
Salvaged herbaceous plants	Establishment/ Vegetative cover	Sample and report estimated average cover. Use a minimum of 10 1-meter quadrat samples distributed among areas planted with salvaged plants.
Hydroseed	Vegetative cover before winter rains	Measure and report percent cover and range of values. Use a minimum of 10, 1-meter quadrat random samples.
Other	Trash	Inspect visually and report.
Other	Erosion	Inspect visually and report.
Other	Human intrusion/disturbance	Inspect visually and report.
Other	Pest damage	Inspect visually and report.

When wetland mitigation project is nearing completion, a wetland delineation shall be performed to determine presence and extent of jurisdictional wetlands on the mitigation site. Delineation shall be performed according the USACE 2006 Arid West Supplement and the 1987 Corps Manual for Wetland Delineation or most current accepted method and forms. Wetland shall be sampled in at least two locations. Delineation may be performed at any time between years three and five when mitigation appears to be nearing completion.

E. Monitoring Schedule

The site will be monitored during the fall and mid winter (September and February) for five years. If the project meets the success criteria by year 3, monitoring may be suspended and a final report prepared for the City Natural Resources Manager and the Corps of Engineers. If the project does not meet the success criteria by year 5, remediation will be continued and the project monitored until success is met.

In addition the project restoration biologist shall monitor the site once per month for the first twelve months at a minimum to identify potential problems and recommend corrective action during this critical establishment period. Frequent monitoring visits during the first year shall be conducted as described above to ensure that potential problems do not have time to escalate.

F. Annual Monitoring Reports

Annual monitoring reports will be submitted to the City Natural Resources Manager and to the Corps by December 15 of each year. The report will include a site map where any problem areas are located. A summary table and discussion shall compare performance standards and success criteria with the annual monitoring data.

The following information will be included in the monitoring reports for the project. Submit reports unbound for inclusion into the official case file. Electronic copies of the reports can be submitted in lieu of written reports.

Pages 1-2

A. Project Information
    1. Project Name
    2. Applicant name, address, and phone number
    3. Consultant name, address, and phone number (for permit applications if necessary)
    4. Corps permit file number
    5. Acres of impact and type(s) of habitat impacted
    6. Date project construction commenced
    7. Location of the project and directions to site (including latitude/longitude or UTM coordinates)
    8. Date of the report and the corresponding permit conditions pertaining to the compensatory mitigation
    9. Amount and information on any required performance bond or surety.

B. Compensatory Mitigation Site Information
    1. Location and directions to the site (including latitude/longitude or UTM coordinates)
    2. Size and type(s) of habitat existing at the site and proposed for restoration, enhancement, establishment (creation), and/or preservation
    3. Specific purpose / goals for the compensatory mitigation site
    4. Date site construction and planting completed (fully implemented)
    5. Dates of previous maintenance and monitoring visits
    6. Name, address, and contact number of responsible parties for the site

7. Name, address, and contact number for designer

C. Brief Summary of Remedial Action(s) and Maintenance of the Compensatory Mitigation Site

Page 2 or 3

A. Map of the compensatory mitigation sites
   1. 8 ½ by 11 diagram of the site including:
      a. Habitat types (as constructed)
      b. Locations of photographic record stations
      c. Landmarks
      d. Inset defining location of the site

Page 3 or 4

A. List of Corps approved success criteria
B. Table of results form the monitoring visits versus performance standards for specified target dates

Page 5, 6 or 7:

A. Summary of field data taken to determine compliance with performance standards and success criteria (at least one page, no more than two pages)

Page 6, 7, or 8 (if needed):

A. Summary of any significant events that occurred on the site that may affect ultimate compensatory mitigation success.

VIII. Completion of Compensatory Mitigation

A. Notification of Completion

The applicant should notify the Corps in writing when the monitoring period is complete and the Corps approved success criteria have been met. When applicable, a formal jurisdictional delineation of established wetlands should be submitted with the report (this delineation shall be accompanied by legible copies of all field data sheets). If wetlands are not established, a delineation of non-wetland waters of the U.S. and other areas enhanced, restored, established, or preserved as part of the compensatory mitigation program shall be submitted to the Corps LAD. Following receipt of the final report, the Corps LAD will contact the applicant (or agent) as soon as possible to schedule a site visit to confirm the completion of the compensatory mitigation effort and any jurisdictional delineation. The compensatory mitigation will not be considered complete without an on-site inspection by a Corps Project Manager and written confirmation that approved success criteria was achieved.

B. Agency Confirmation

The compensatory mitigation is not complete until a Corps Los Angeles District Project Manager confirms it is complete during a site inspection.

IX. Contingency Measures

A. Initiating Procedures

If a performance standard is not met for all or any portion of the compensatory mitigation project in any year, or if the approved success criteria are not met, the applicant shall prepare an analysis of the cause(s) or failure(s) and, if determined necessary by the Corps, propose remedial actions for approval. If the compensatory mitigation site has not met one or more of the success criteria or performance standards, the responsible party's maintenance and monitoring obligations shall continue until the Corps gives final approval and the compensatory mitigation obligations have been satisfied.

B. Remedial Action Onsite

Prado Basin LLC will be responsible for any required remediation. Remediation will be conducted onsite at Prado Basin and/or Tract 2342 Lot 67 as appropriate.

X. References

Adamus, P. R., Stockwell, L. T., Clairain, E. J., Jr., Morrow, M. E., Rozas, L. P., and Smith, D. R. (1991). "Wetland evaluation technique (WET); Volume I: Literature review and evaluation rationale," Technical Report WRP-DE-2, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS., NTIS No. AD A251 739, Vol I; NTIS No. AD A189 986, Vol II.

Althouse and Meade, Inc. 2003. Wetland Delineation for Tract 2270, Valle Vista Ranch LLC, 444 Higuera Street, Suite 200, San Luis Obispo, CA 93401. Revised April 29, 2004.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Oasis Landscape Architecture and Planning. 2004. Landscape Planting Plan, for Tract 2270, Valle Vista Ranch LLC, 444 Higuera Street, Suite 200, San Luis Obispo, CA 93401

Rincon Consultants. 2005. Tract 2342 of the Margarita Specific Plan Area, Focused Biological Studies and Wetland Delineations. San Luis Obispo, California. June.

U.S. Army Corps of Engineers. 1991. Habitat Mitigation and Monitoring Proposal Guidelines. San Francisco District, CA.

U.S. Army Corps of Engineers. 2003. Mitigation Guidelines and Monitoring Requirements, Special Public Notice. Los Angeles District, CA. January 27.

Novitzki, Richard P., R. Daniel Smith, Judy D. Fretwell. 1997. National Water Summary on Wetland Resources United States Geological Survey Water Supply Paper 2425. Web Version by Kim Fry Last Modified: 1345 20Oct97 klfhttp://water.usgs.gov/nwsum/WSP2425/functions.html. Accessed 27Sep05.

XI. Exhibit A – Figures

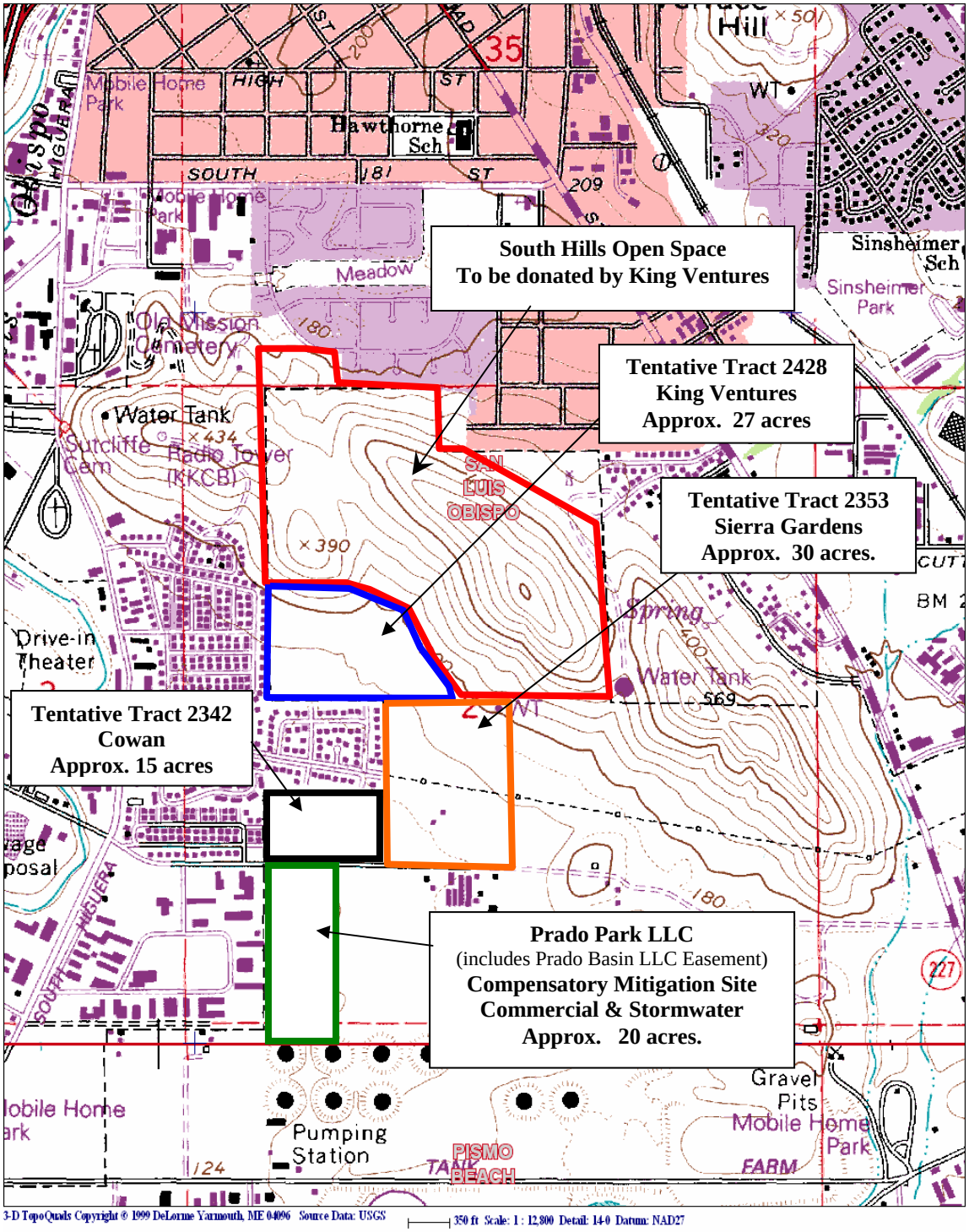


FIGURE 1. Approximate boundaries of the projects with wetland impacts to be mitigated within T2342 Lot 67 and Prado Basin stormwater detention/wetland mitigation basin.

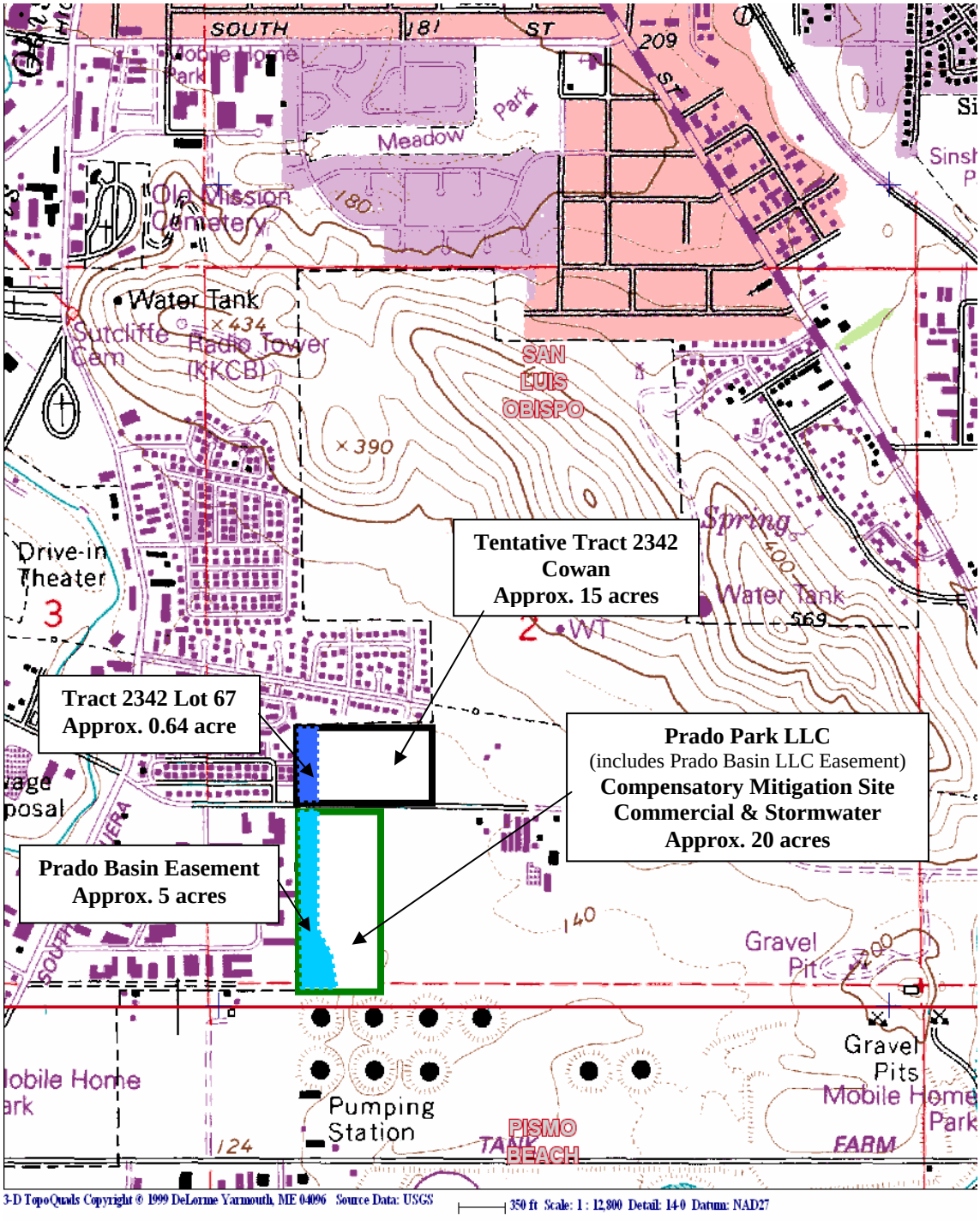


FIGURE 2. Approximate locations of compensatory wetland mitigation sites: Tract 2342 Lot 67 and Prado Basin LLC Easement.

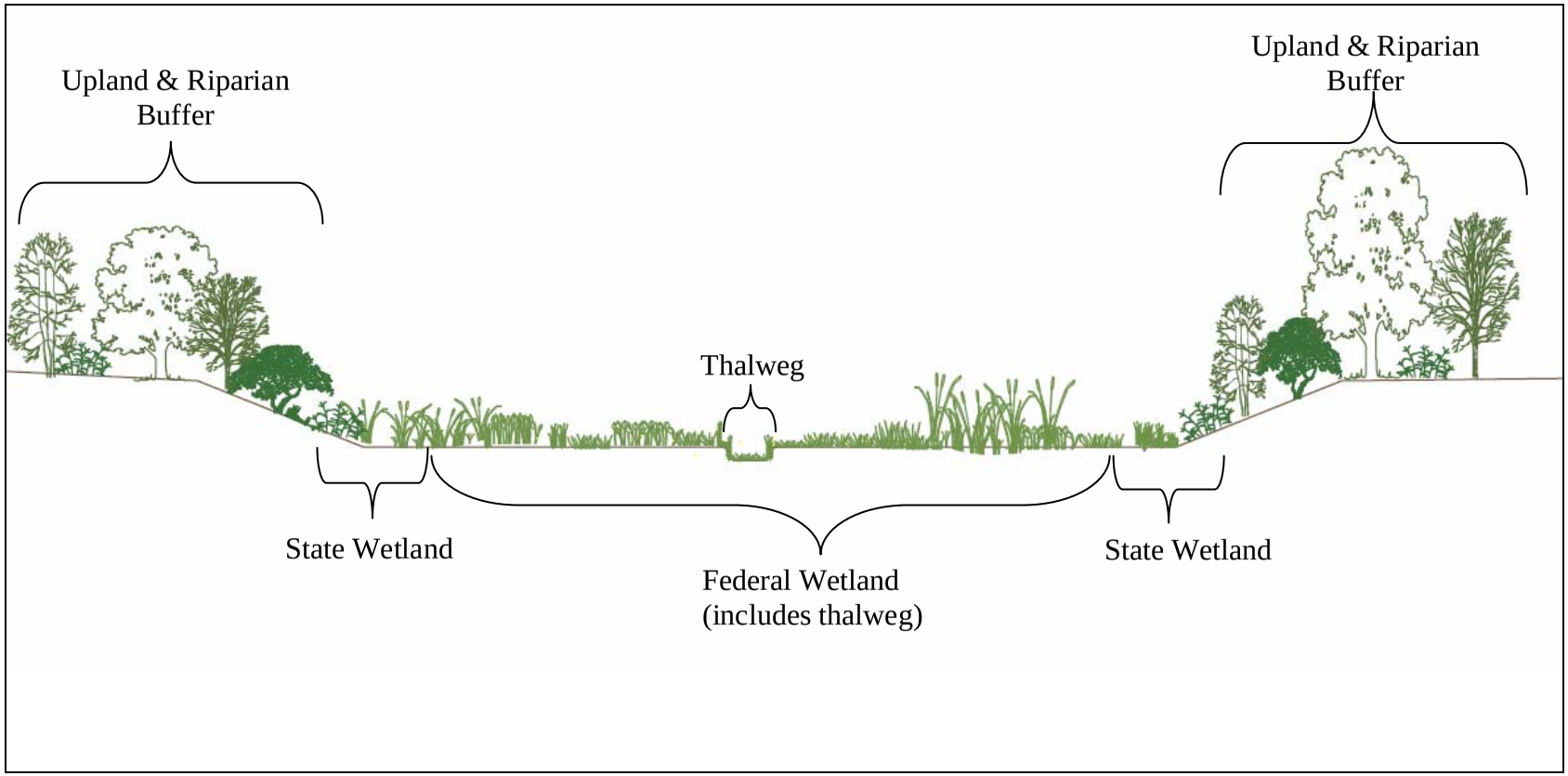
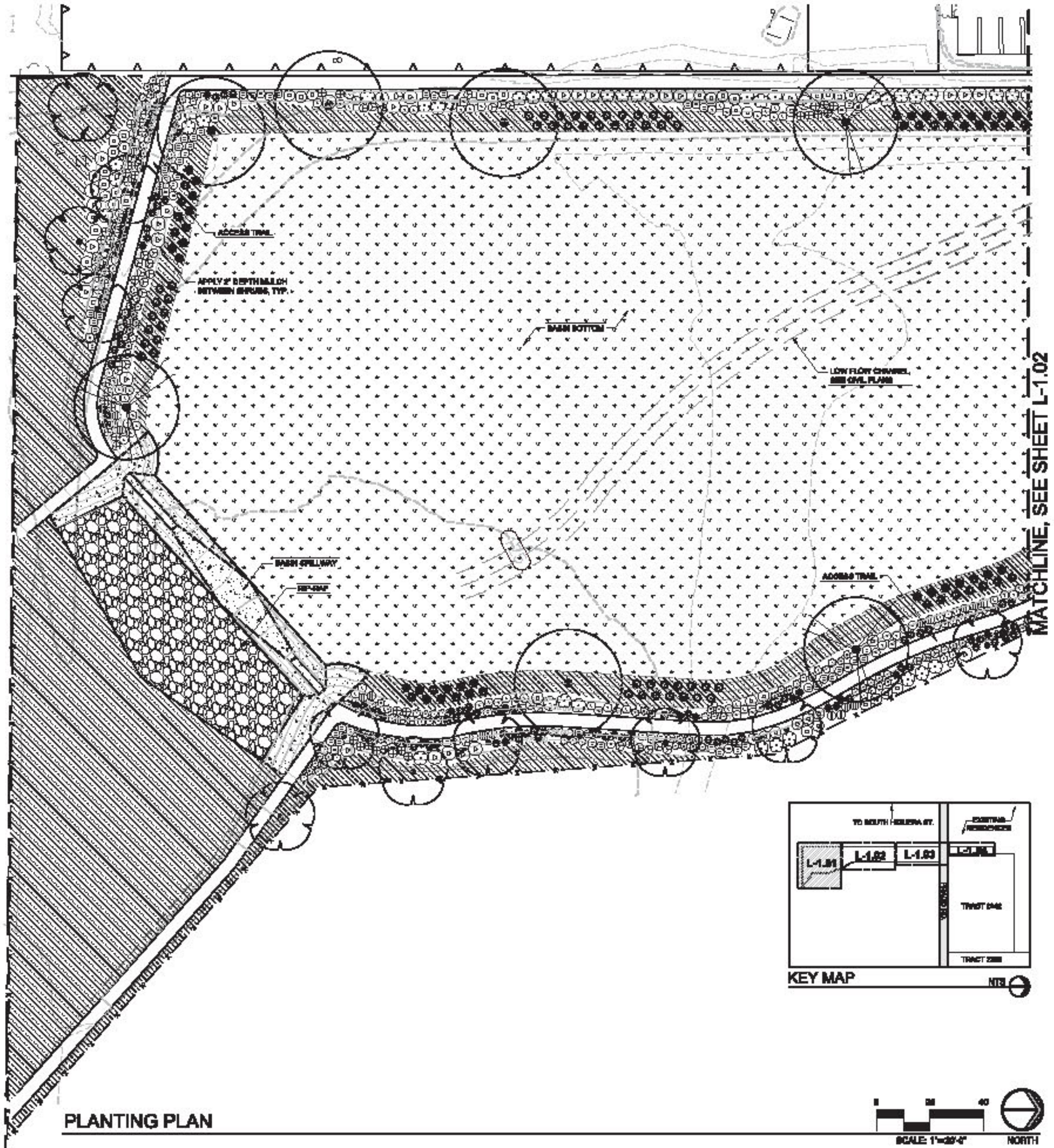


FIGURE 3. Conceptual illustration of habitat zones on the mitigation site at completion. Features of this cross section are labeled above.

XII. Exhibit B – Compensatory Mitigation Site Plans



PLANTING PLAN

PLANT LEGEND

TREES	BOTANICAL NAME	COMMON NAME	CONT	QTY
	Platanus racemosa	California Sycamore	5 gal	28
	Populus balsamifera trichocarpa	Black Cottonwood	Cuttings	108
	Quercus agrifolia	Coast Live Oak	5 gal	21
	Quercus lobata	Valley Oak	5 gal	16
	Salix lasiolepis	Arroyo Willow	Cuttings	107

SHRUBS	BOTANICAL NAME	COMMON NAME	CONT	QTY
	Arctostaphylos obispoensis	Obispo Manzanita	1 gal	122
	Ceanothus cuneatus	Buckbrush	1 gal	108
	Ceanothus thyrsiflorus	Blue Blossom	1 gal	126
	Eriogonum fasciculatum	Common Buckwheat	1 gal	104
	Mimulus aurantiacus	Sticky Monkey Flower	1 gal	282
	Muhlenbergia rigens	Deer Grass	1 gal	388
	Rhamnus californica	California Coffee Berry	1 gal	140
	Ribes speciosum	Fuchsia Flowering Gooseberry	1 gal	107
	Rosa californica	California Wild Rose	1 gal	211
	Rubus ursinus	California Blackberry	1 gal	228

HYDROSEED MIXES	QTY
HYDROSEED WETLAND MIX	
Asclepias fascicularis / Mexican Whorled Milkweed	4.5 lbs/acre
Carex praegracilis / Slender Sedge	1 lbs/acre
Distichlis spicata / Saltgrass	3 lbs/acre
Eleocharis macrostachya / Common Spikerush	1 lbs/acre
Hordeum brachyantherum / Meadow Barley	10 lbs/acre
Hordeum depressum / Alkali Barley	6 lbs/acre
Juncus balticus / Baltic Rush	4.5 lbs/acre
Juncus bufonius / Common Toad Rush	4.5 lbs/acre
Leymus triticoides 'Rio' / Wild Rye	6 lbs/acre
Mimulus guttatus / Seep Monkeyflower	1 lbs/acre
Sisyrinchium bellum / Blue Eyed Grass	2 lbs/acre
Trifolium wildenovii / Creek Clover	3 lbs/acre
HYDROSEED GRASSES	
Hordeum vulgare / Cereal Barley	60 lbs/acre
HYDROSEED SLOPE	
Achillea millefolium / Common Yarrow	1 lbs/acre
Elymus glaucus / Blue Wildrye	2 lbs/acre
Eschscholzia californica / California Poppy	2 lbs/acre
Hordeum brachyantherum / Meadow Barley	6 lbs/acre
Hordeum depressum / Alkali Barley	4 lbs/acre
Lasthenia californica / California Goldfields	1 lbs/acre
Layia platyglossa / Tidy Tips	1 lbs/acre
Leymus triticoides 'Rio' / Wild Rye	3 lbs/acre
Lupinus nanus / Sky Lupine	1 lbs/acre
Vulpia microstachys / Small Fescue	3 lbs/acre

HABITAT CREATION QUANTITIES

HABITAT TYPE	AREA
Wetland Basin:	
Hydroseed Wetland Mix	3.30 acre
Hydroseed Grasses	0.36 acre
TOTAL:	3.66 acre
Wetland Slopes and Riparian Buffer:	
Hydroseed Slope	1.12 acre
Riparian Buffer (Shrubs)	0.74 acre
TOTAL:	1.86 acre

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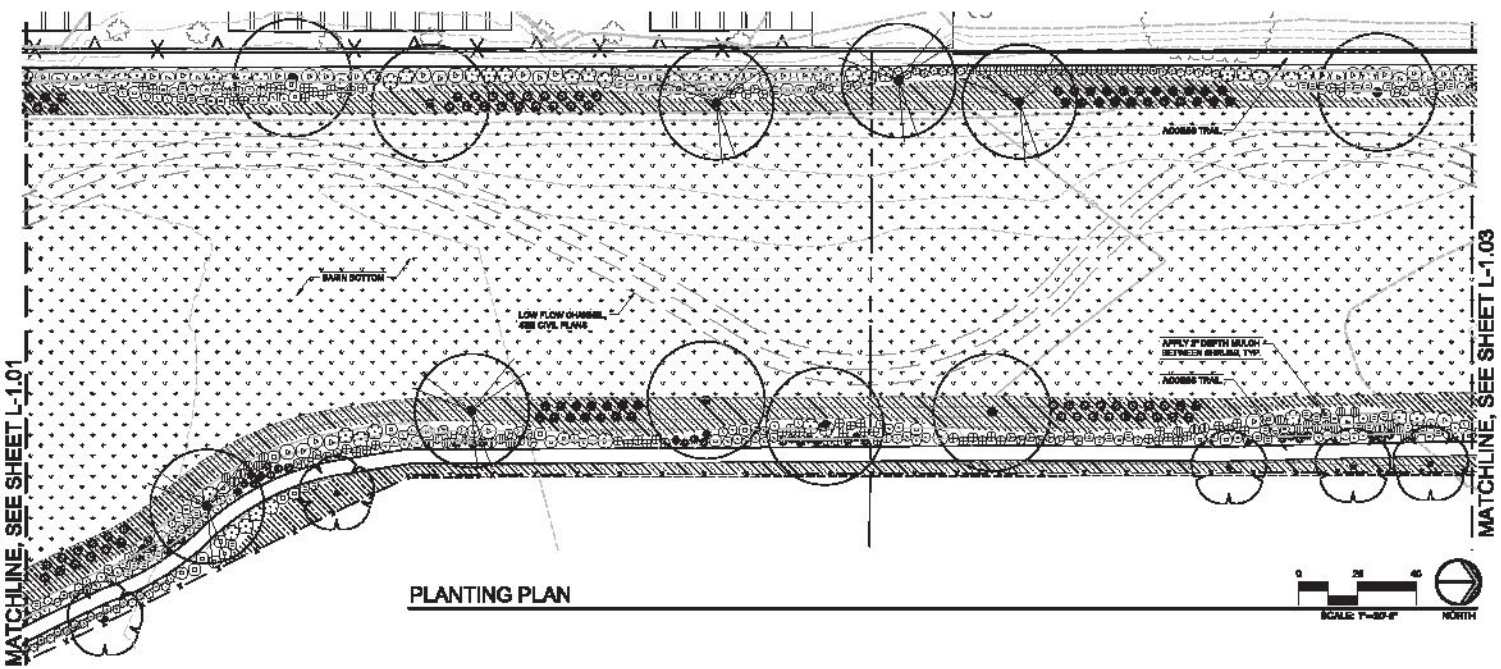
PLANTING PLAN

DATE	May 31, 2011
JOB NUMBER	1011009
SHEET	L-1.01



PLANTING PLAN

PLANT LEGEND

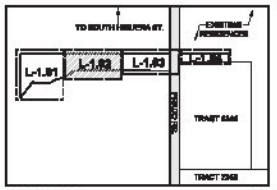
TREES	BOTANICAL NAME	COMMON NAME	CONT	QTY
	Platanus racemosa	California Sycamore	8 gal	26
	Populus balsamifera trichocarpa	Black Cottonwood	Cuttings	166
	Quercus agrifolia	Coast Live Oak	8 gal	21
	Quercus lobata	Valley Oak	8 gal	16
	Salix lasiolepis	Arroyo Willow	Cuttings	167

SHRUBS	BOTANICAL NAME	COMMON NAME	CONT	QTY
	Arctostaphylos edmundsii	Little Sur Manzanita	1 gal	133
	Ceanothus auritus	Buckbrush	1 gal	166
	Ceanothus thyrsiflorus	Blue Blossom	1 gal	126
	Eriogonum fasciculatum	Common Buckwheat	1 gal	161
	Mimulus aurantiacus	Sticky Monkey Flower	1 gal	269
	Muhlenbergia rigens	Deer Grass	1 gal	269
	Rhamnus californica	California Coffee Berry	1 gal	140
	Ribes speciosum	Fuchsia Flowering Gooseberry	1 gal	147
	Rosa californica	California Wild Rose	1 gal	211
	Rubus ursinus	California Blackberry	1 gal	225

HYDROSEED MIXES		QTY
	HYDROSEED WETLAND MIX	
	Achillea millefolium / Common Yarrow	0.5 lbs/acre
	Carex praegracilis / Clustered Field Sedge	1 lbs/acre
	Elymus glaucus / Blue Wildrye	2 lbs/acre
	Eschscholzia californica / California Poppy	1 lbs/acre
	Hordeum brachyantherum / Meadow Barley	1 lb/acre
	Hordeum depressum / Alkali Barley	0 lbs/acre
	Juncus bufonius / Common Toad Rush	0.5 lbs/acre
	Juncus patens / Spreading Rush	0.5 lbs/acre
	Lupinus bicolor / Miniature Lupine	0 lbs/acre
	Lupinus microcarpus / Small Fescue	1 lbs/acre
	Mimulus guttatus / Seep Monkeyflower	1 lbs/acre
	Nassella pulchra / Purple Needlegrass	2 lbs/acre
	Trifolium wormskioldii / Cimarron Clover	3 lbs/acre
	HYDROSEED BRAKING	
	Hordeum vulgare / Cereal Barley	50 lbs/acre
	HYDROSEED SLOPE	
	Achillea millefolium / Common Yarrow	1 lbs/acre
	Elymus glaucus / Blue Wildrye	2 lbs/acre
	Eschscholzia californica / California Poppy	2 lbs/acre
	Hordeum brachyantherum / Meadow Barley	3 lbs/acre
	Hordeum depressum / Alkali Barley	4 lbs/acre
	Lasthenia californica / California Goldfields	1 lbs/acre
	Leymus triticoides "Tilo" / Wild Rye	1 lbs/acre
	Leymus triticoides "Tilo" / Wild Rye	2 lbs/acre
	Lupinus succa / Sky Lupine	1 lbs/acre
	Vulpia microstachys / Small Fescue	3 lbs/acre

HABITAT CREATION QUANTITIES

HABITAT TYPE		AREA
Wetland Basin:		
	Hydroseed Wetland Mix	3.20 acre
	Hydroseed Grasses	0.38 acre
	TOTAL:	3.58 acre
Wetland Slopes and Riparian Buffer:		
	Hydroseed Slope	1.12 acre
	Riparian Buffer (Shrubs)	0.78 acre
	TOTAL:	1.90 acre



KEY MAP NTS

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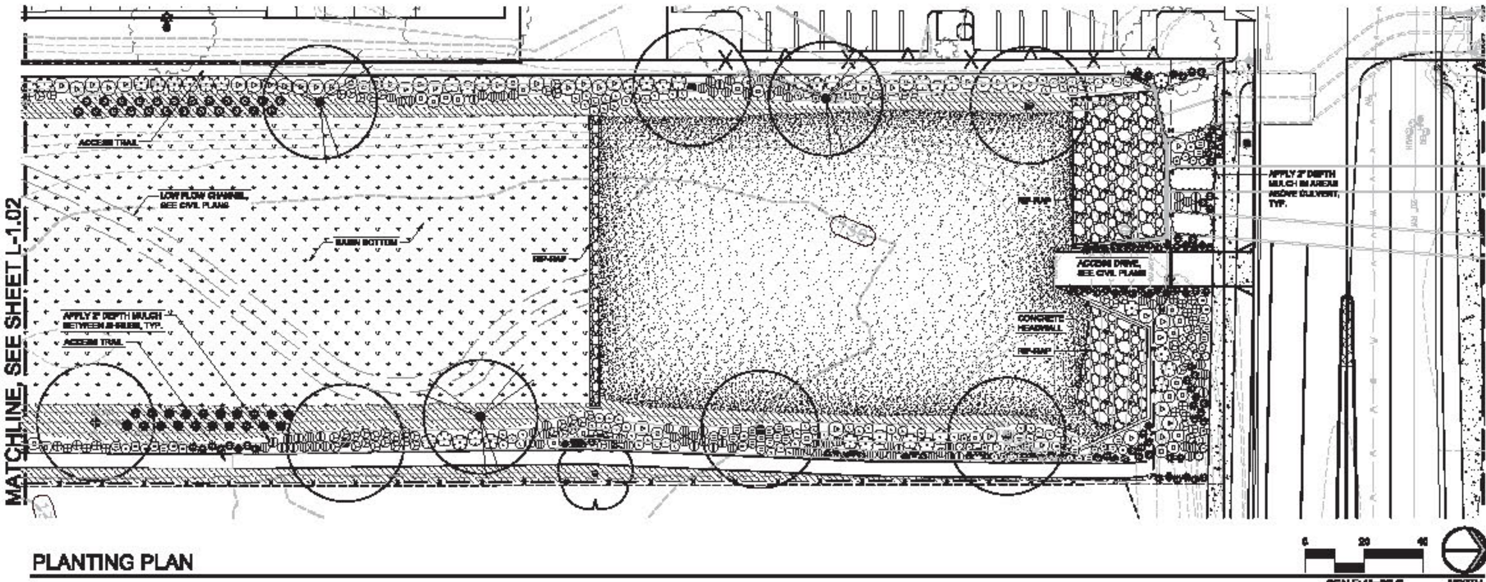
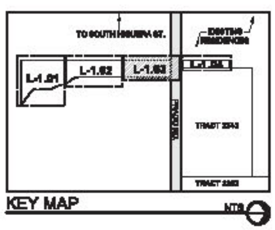
PLANTING PLAN

NO.	REVISION	DATE

PROJECT MANAGER: CD
DRAWN BY: MP
CHECKED BY: JF
DATE: May 31, 2011
CAD FILE: 1011009_PP Display.dwg
JOB NUMBER: 1011009
SHEET: L-1.02



PLANTING PLAN



KEY MAP

NTS

PLANT LEGEND

TREES	BOTANICAL NAME	COMMON NAME	CONT	QTY
	Platanus racemosa	California Sycamore	5 gal	20
	Populus balsamifera trichocarpa	Black Cottonwood	Cuttings	185
	Quercus agrifolia	Coast Live Oak	5 gal	21
	Quercus lobata	Valley Oak	5 gal	15
	Salix lasiolepis	Arroyo Willow	Cuttings	187

SHRUBS	BOTANICAL NAME	COMMON NAME	CONT	QTY
	Arctostaphylos obispoensis	Obispo Manzanita	1 gal	133
	Ceanothus cuneatus	Buckbrush	1 gal	180
	Ceanothus thyrsiflorus	Blue Blossom	1 gal	135
	Eriogonum fasciculatum	Common Buckwheat	1 gal	184
	Mimulus aurantiacus	Sticky Monkey Flower	1 gal	288
	Muhlenbergia rigens	Deer Grass	1 gal	303
	Rhamnus californica	California Coffee Berry	1 gal	148
	Ribes speciosum	Fuchsia Flowering Gooseberry	1 gal	167
	Rosa californica	California Wild Rose	1 gal	211
	Rubus ursinus	California Blackberry	1 gal	225

HYDROSEED MIXES		QTY
	HYDROSEED WETLAND MIX	
	Amsinckia menziesii / Menzies' Fiddleneck	0.5 lbs/acre
	Carex praegracilis / Meadow Sedge	1 lbs/acre
	Distichlis spicata / Saltgrass	2 lbs/acre
	Eleocharis macrostachya / Common Spikerush	1 lbs/acre
	Hordeum brachyantherum / Meadow Barley	17 lbs/acre
	Hordeum depressum / Alkali Barley	9 lbs/acre
	Juncus balticus / Baltic Rush	5.5 lbs/acre
	Juncus bufonius / Common Toad Rush	0.5 lbs/acre
	Leymus triticoides 'Rio' / Wild Rye	9 lbs/acre
	Mimulus guttatus / Seep Monkeyflower	1 lbs/acre
	Sisyrinchium bellum / Blue Eyed Grass	2 lbs/acre
	Trifolium obtusiflorum / Creek Clover	3 lbs/acre
	HYDROSEED GRASSES	
	Hordeum vulgare / Cereal Barley	60 lbs/acre
	HYDROSEED SLOPE	
	Achillea millefolium / Common Yarrow	1 lbs/acre
	Elymus glaucus / Blue Wildrye	2 lbs/acre
	Eschscholzia californica / California Poppy	2 lbs/acre
	Hordeum brachyantherum / Meadow Barley	9 lbs/acre
	Hordeum depressum / Alkali Barley	4 lbs/acre
	Lasthenia californica / California Goldfields	1 lbs/acre
	Layia platyglossa / Tidy Tips	1 lbs/acre
	Leymus triticoides 'Rio' / Wild Rye	2 lbs/acre
	Lupinus nanus / Sky Lupine	1 lbs/acre
	Vulpia microstachys / Small Fescue	3 lbs/acre

HABITAT CREATION QUANTITIES

HABITAT TYPE	AREA
Wetland Basin:	
Hydroseed Wetland Mix	3.28 acre
Hydroseed Grasses	0.38 acre
TOTAL:	3.66 acre
Wetland Slopes and Riparian Buffer:	
Hydroseed Slope	1.12 acre
Riparian Buffer (Shrubs)	0.78 acre
TOTAL:	1.90 acre

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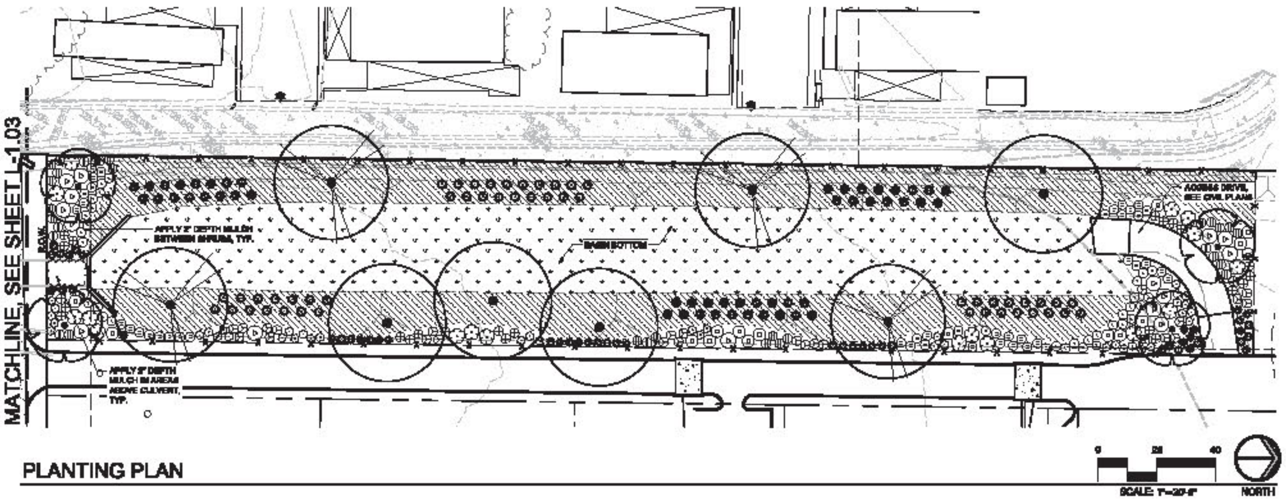
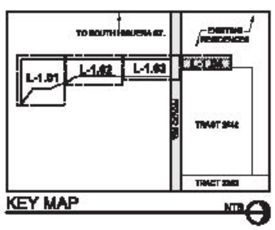
PLANTING PLAN

NO.	REVISION	DATE

PROJECT MANAGER: CD
DRAWN BY: MF
DATE: May 31, 2011
JOB NUMBER: 1011009
SHEET: L-1.03



PLANTING PLAN



KEY MAP

PLANT LEGEND

TREES	BOTANICAL NAME	COMMON NAME	CONT	QTY
	Platanus racemosa	California Sycamore	5 gal	29
	Populus balsamifera trichocarpa	Black Cottonwood	Cuttings	198
	Quercus agrifolia	Coast Live Oak	5 gal	21
	Quercus lobata	Valley Oak	5 gal	16
	Salix lasiolepis	Arroyo Willow	Cuttings	167
SHRUBS	**BOTANICAL NAME**	**COMMON NAME**	**CONT**	**QTY**
	Arctostaphylos obispoensis	Obispo Manzanita	1 gal	133
	Ceanothus cuneatus	Buckbrush	1 gal	164
	Ceanothus thyrsiflorus	Blue Blossom	1 gal	138
	Eriogonum fasciculatum	Common Buckwheat	1 gal	164
	Mimulus aurantiacus	Sticky Monkey Flower	1 gal	257
	Muhlenbergia rigens	Deer Grass	1 gal	309
	Rhamnus californica	California Coffee Berry	1 gal	146
	Ribes speciosum	Fuchsia Flowering Gooseberry	1 gal	167
	Rosa californica	California Wild Rose	1 gal	211
	Rubus ursinus	California Blackberry	1 gal	229

HYDROSEED MIXES	QTY
HYDROSEED WETLAND MIX	
Asclepias fascicularis / Narrow Leafed Milkweed	0.5 lbs/acre
Carex praegracilis / Slender Sedge	1 lbs/acre
Distichlis spicata / Saltgrass	3 lbs/acre
Eleocharis macrostachya / Common Spikerush	1 lbs/acre
Hordeum brachyantherum / Meadow Barley	10 lbs/acre
Hordeum depressum / Alkali Barley	8 lbs/acre
Juncus balticus / Baltic Rush	0.5 lbs/acre
Juncus bufonius / Common Toad Rush	0.5 lbs/acre
Leymus triticoides 'Rio' / Wild Rye	8 lbs/acre
Mimulus guttatus / Seep Monkeyflower	1 lbs/acre
Sisyrinchium bellum / Blue Eyed Grass	2 lbs/acre
Trifolium ciliolatum / Creek Clover	3 lbs/acre
HYDROSEED GRASSES	
Hordeum vulgare / Cereal Barley	60 lbs/acre
HYDROSEED SLOPE	
Achillea millefolium / Common Yarrow	1 lbs/acre
Elymus glaucus / Blue Wildrye	2 lbs/acre
Eschscholzia californica / California Poppy	2 lbs/acre
Hordeum brachyantherum / Meadow Barley	8 lbs/acre
Hordeum depressum / Alkali Barley	4 lbs/acre
Lasthenia californica / California Goldfields	1 lbs/acre
Layia platyglossa / Tidy Tips	1 lbs/acre
Leymus triticoides 'Rio' / Wild Rye	3 lbs/acre
Lupinus nanus / Sky Lupine	1 lbs/acre
Vulpia microstachys / Small Fescue	3 lbs/acre

HABITAT CREATION QUANTITIES

HABITAT TYPE	AREA
Wetland Basin:	
Hydroseed Wetland Mix	3.20 acre
Hydroseed Grasses	0.38 acre
TOTAL:	3.58 acre
Wetland Slopes and Riparian Buffer:	
Hydroseed Slope	1.12 acre
Riparian Buffer (Shrubs)	0.78 acre
TOTAL:	1.90 acre

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MD2 COMMUNITIES INC.

rrmdesigngroup
creating environments people enjoy®

TRACT 2342

PLANTING PLAN

NO.	REVISION	DATE

PROJECT MANAGER: CD
DRAWN BY: MP
CHECKED BY: JF
DATE: May 31, 2011
JOB NUMBER: 1011009
SHEET: L-1.04

XIII. Exhibit C – Wetland Evaluation Techniques (WET) Definitions

From: Adamus, P. R., Stockwell, L. T., Clairain, E. J., Jr., Morrow, M. E., Rozas, L. P., and Smith, D. R. (1991). "Wetland evaluation technique (WET); Volume I: Literature review and evaluation rationale," Technical Report WRP-DE-2, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS., NTIS No. AD A251 739, Vol I; NTIS No. AD A189 986, Vol II.

Aquatic Diversity/Abundance: A HIGH rating for an area means that, at least seasonally, the AA supports a notably great on-site diversity of fish or invertebrates (i.e., most trophic groups of secondary consumers with complex food webs). Other aquatic animals (e.g., waterfowl) are covered under other functions.

Assessment Area (AA): Assessment Area

Effectiveness: Effectiveness is a measure of the probability that a wetland has the capability to perform a function.

Floodflow Alteration: Floodflow alteration occurs in those areas where surface water is stored or its velocity is attenuated to a greater degree than typically occurs in a terrestrial environments. No judgment is made as to the value of such flow alteration; in fact, there may be situations in which reduction off low velocity causes increased flooding due to the flow synchronization.

Ground Water Recharge: Recharge AA's or wetlands are considered to be those where: (a) recharge to underlying materials or round water (deep or shallow) exceeds ground water discharge to the wet depression on a net annual basis, and/or (b) the rate of recharge typically exceeds the rate of recharge from terrestrial environments.

Ground Water Discharge: Ground water discharge areas are those where the rate of discharge from ground water (deep or shallow) into the wetland exceeds the rate of recharge to the underlying ground water from the wetland on a net annual basis.

Nutrient Removal/Transformation: A HIGH nutrient removal/transformation areas are those which retain or transform inorganic phosphorus and /or nitrogen into their organic forms or transform (remove) nitrogen in its gaseous form, on either a net annual basis or during the growing season, and which are generally more effective at doing so than typical upland environments.

Opportunity: Opportunity is a measure of the probability that a wetland has the chance to perform a function.

Product Export: A HIGH production export is the flushing of relatively large amounts of organic plant material (specifically, net annual primary production) from the AA into down slope waters. No judgment is made as to the value off such export; indeed, there may be instances where such export represents a nutrient loss to the exporting system or where such exported material causes water quality problems down slope.

Qualitative Probability Ratings: Qualitative probability ratings of HIGH (H), MODERATE (M), and LOW (L) are assigned by this method. These ratings are not direct estimates of the magnitude off a wetland function or value. The ratings are an estimate of the probability that a function or value will exist or occur in the wetland.

Recreation: Recreational areas are those that are regularly used for recreational or consumptive activities, which opportunities are otherwise locally deficient as

recognized by a local or state recreational plan, or as a major public access point to a recreational waterway.

Sediment Stabilization: A HIGH sediment stabilization areas are those which are more effective for binding soil and dissipation erosive forces than are typical upland environments.

Sediment/Toxicant Retention: A HIGH sediment/toxicant retention areas are those which physically (or chemically in the case of toxicants) trap and retain on a net annual basis the inorganic sediments and/or chemical substances generally toxic to aquatic life.

Social Significance: Social Significance is a measure of the probability that a wetland is of value to society because of its natural features, economic value, official status, and strategic location.

Uniqueness/Heritage: Uniqueness/heritage areas include those that, 1) are regularly used by Federal or State endangered or threatened species, 2) owned by an organized conservation group, 3) are included in a statewide listing of historical or archaeological sites, 4) known to have ecological or geological features consistently considered by regional scientists to be unusual or rare for wetlands in the region, 5) represent most or all of this wetland type in the locality, 6) the closest wetland with parking to a nature center, 7) is essential to on-going, long-term environmental research, and/or 8) is within an pristine watershed natural area.

Wildlife Diversity/Abundance for Breeding: A HIGH rating for a wetland means that during the breeding season the wetland normally supports a notably great on-site diversity and/or abundance of wetland-dependent birds. This definition does not take into account the contribution of the AA to off-site (regional) faunal richness or the uniqueness/rarity of the species.

Wildlife Diversity/Abundance for Migration and Wintering: A HIGH rating for a wetland means that during migration or winter, the wetland normally supports a notably great on-site diversity and/or abundance of wetland-dependent birds.

Attachment 4

Tract 2353 Swale – Brief Biological Resource Review

ALTHOUSE AND MEADE, INC.

BIOLOGICAL AND ENVIRONMENTAL SERVICES

1602 Spring Street • Paso Robles, CA 93446 • Telephone (805) 237-9626 • Fax (805) 237-9181

January 17, 2014
753.04

Stephen J. Peck, AICP
Project Manager
Mangano Homes, Inc.
Central Coast Division
735 Tank Farm Road
San Luis Obispo, CA
Cell: (559) 731-5778

Re: **Tract 2353 Swale – Brief Biological Resource Review**

Dear Mr. Peck:

This letter summarizes our historic and recent observations of an ephemeral drainage located in the northern part of Tract 2353. We also summarize requested modifications to the swale feature and mitigations currently implemented that would compensate for any potential loss of waters of the state or U.S.

Existing Conditions: The drainage feature was identified in 2005 as a potential Clean Water Act Section 404 water of the U.S. and a water of the state[1]. Its dimensions were described as about 530 linear feet and 1,352 square feet (ordinary high water was approximately 2 to 3 feet wide). The feature only carries water during and shortly after storm events. During our winter 2014 site visit, biologist Mike Hill and I observed no evidence of a stream bed or bank, and no evidence of drift or ordinary high water. Upstream from the property, a channel is still evident where water flows down a relatively steep slope to Tract 2353, into a swale that had been historically farmed. The downstream end of the swale terminates at a drop inlet box that leads to a small (approximately 12 inch) pipe that travels through the neighbor's yard toward stormwater pipes under Calle Jazmin.

Vegetation in the swale is characteristic of California annual grassland growing on heavy clay soil (photos attached). Species composition is dominated by non-native species such as rye-grass (*Lolium multiflorum*) and brome (*Bromus hordeaceus*). Rare plants were not observed during previous surveys, and are not expected in this drainage feature. It does not contain potential ponded habitat, therefore aquatic organisms, including fairy shrimp, would not occur in this swale.

[1] Althouse and Meade, Inc. 2005. Biological Assessment for Sierra Gardens, Vesting Tentative Tract Map No. 2353, City of San Luis Obispo, CA. Prepared for Sierra Gardens of SLO Limited, Arroyo Grande. July.

We also reviewed the California Natural Diversity Database[2] to verify that no rare species have been reported from this location (attached exhibits). Rare plants occur on neighboring properties where rock outcrops and seeps are common. There are no rock outcrops or seeps in the vicinity of the subject swale.

Proposed Impacts: Conversion of a drainage segment 104 feet long between the proposed north-south road and the neighbor's existing yard would impact approximately 260 square feet of potential non-wetland waters of the U.S. and waters of the state.

Mitigation: We reviewed the Comprehensive Wetland Mitigation and Monitoring Plan for Vesting Tentative Tracts 2342, 2353, 2428, and Prado Park: Stormwater and Wetland Mitigation Basin (Althouse and Meade, Inc. 2007) that was approved by the U.S. Army Corps of Engineers, the Regional Water Quality Control Board and the California Department of Fish and Game. That plan included impacts to the entire drainage (530 feet; 0.03 acre) on Tract 2353 (Table 2, page 5).

Mitigation Area Verification: On January 10, 2014, biologist Mike Hill and GIS specialist John Burman conducted a field investigation of the basin areas completed for the comprehensive mitigation plan. We confirmed that 3.32 acres of basin wetland area were created.

Conclusion: The proposed project impacts to the drainage will be substantially less than included in the comprehensive mitigation plan implemented by construction of the Prado Basin and the basin on Tract 2342. The proposed project would not affect sensitive plant or wildlife species.

Sincerely,

LynneDee Althouse, Principal Scientist

Copy: Hal Hannula and Pam Ricci, City of San Luis Obispo

Attachments: Photographs
Location Map
CNDDB (Plants and Animals)

[2] California Natural Diversity Database (CNDDB) Rarefind. 2014. The California Department of Fish and Game Natural Diversity Data Base, version 3.1.1. January 3, 2014 data.

PHOTOGRAPHS

JANUARY 7, 2014

Photo 1. View southwest downstream in swale.

Photo 2. Grasses and heavy clay in swale.

Photo 3. View upstream to neighbor's property and South Hills.

Photo 4. Drop inlet a downstream terminus of swale. Stormwater flows through pipes under the house to Calle Jazmin.

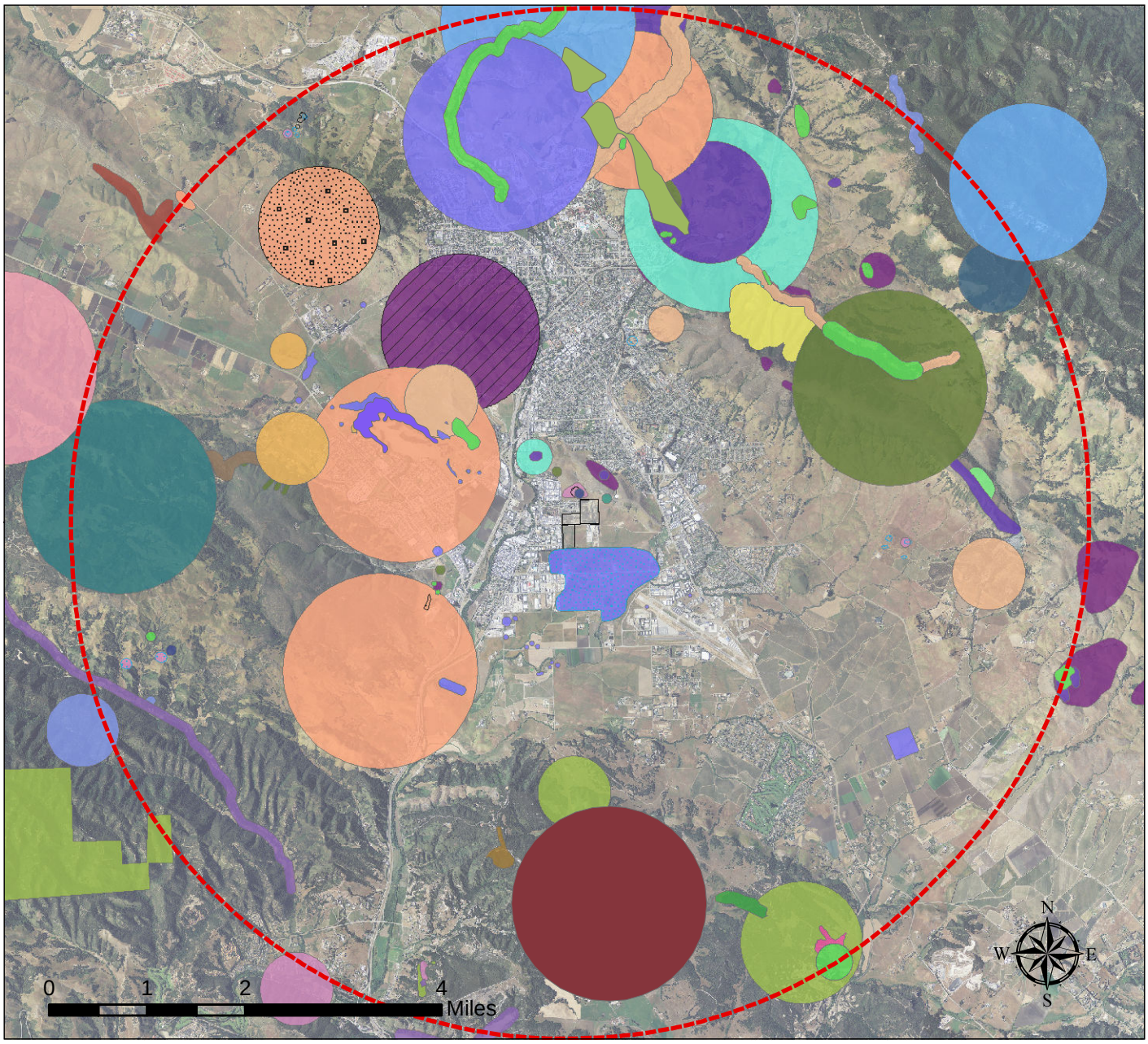
Aerial Photograph

Tract 2353

2012 San Luis Obispo County
NAIP Aerial Photography
Map Updated: January 17, 2014, 11:55 AM

Althouse and Meade, Inc.
1602 Spring Street
Paso Robles, CA 93446

CNDDB & FWS Critical Habitat Map (Plants)



Legend

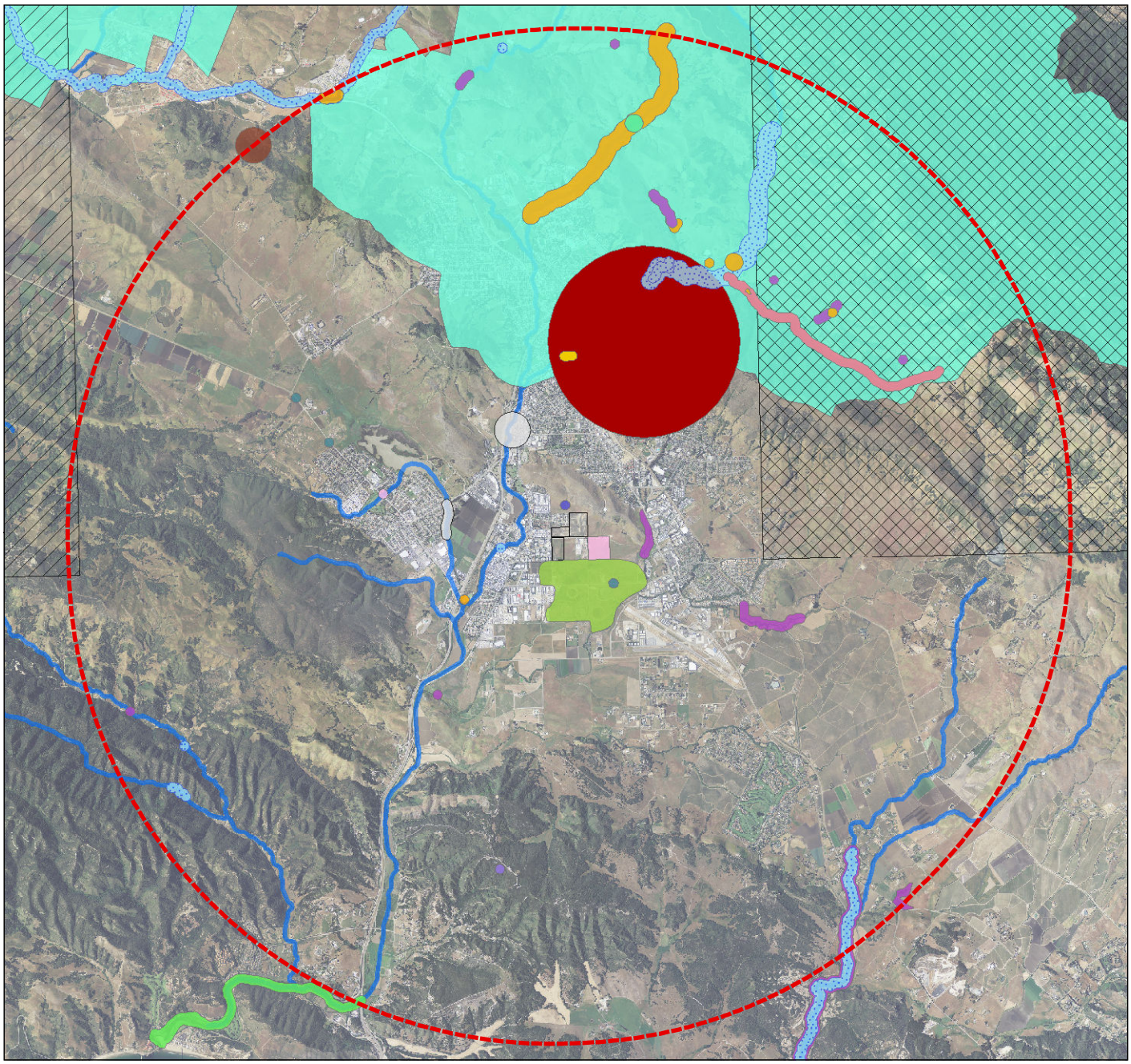
- 5-mile buffer
- Central Maritime Chaparral
- Coastal and Valley Freshwater Marsh
- Serpentine Bunchgrass
- Arroyo de la Cruz manzanita
- Betty's dudleya
- Blochman's dudleya
- Brewer's spineflower
- Cambria morning-glory
- Congdon's tarplant
- Cuesta Ridge thistle
- Eastwood's larkspur
- Hoover's bent grass
- Hoover's button-celery
- Indian Knob mountainbalm
- Jones' layia
- La Panza mariposa-lily
- Miles' milk-vetch
- Morro manzanita
- Palmer's monardella
- Pecho manzanita
- Pismo clarkia
- San Benito fritillary
- San Luis Obispo County lupine
- San Luis Obispo fountain thistle
- San Luis Obispo owl's-clover
- San Luis Obispo sedge
- San Luis mariposa-lily
- Santa Lucia manzanita
- Santa Margarita manzanita
- adobe sanicle
- black-flowered figwort
- chaparral ragwort
- dune larkspur
- dwarf soaproot
- mesa horkelia
- most beautiful jewelflower
- mouse-gray dudleya
- saline clover
- Parcels

Tract 2353

CNDDB Data from January 1, 2014
2012 San Luis Obispo County
NAIP Aerial Photography
Map Updated: January 17, 2014 09:54 AM

Althouse and Meade, Inc.
1602 Spring Street
Paso Robles, CA 93446

CNDDB & FWS Critical Habitat Map (Animals)



Legend

- 5-mile buffer
- American badger
- California red-legged frog
- Coast Range newt
- San Luis Obispo pyrg
- black legless lizard
- coast horned lizard
- ferruginous hawk
- foothill yellow-legged frog
- loggerhead shrike
- monarch butterfly
- pallid bat
- prairie falcon
- steelhead - south/central California coast DPS
- tidewater goby
- vernal pool fairy shrimp
- western pond turtle
- white-tailed kite
- western yellow-billed cuckoo
- western mastiff bat
- Atascadero june beetle
- steelhead critical habitat
- California red-legged frog critical habitat
- Parcels

0 1 2 4 Miles

N W E S

Tract 2353

CNDDB Data from January 1, 2014
2012 San Luis Obispo County
NAIP Aerial Photography
Map Updated: January 17, 2014 09:44 AM

Althouse and Meade, Inc.
1602 Spring Street
Paso Robles, CA 93446

Attachment 5

Traffic Study

Central Coast Transportation Consulting
Traffic Engineering & Transportation Planning

January 6, 2014

Timothy Bochum, PE
Deputy Director of Public Works
City of San Luis Obispo
919 Palm Street
San Luis Obispo, CA 93401

Mr. Bochum:

This study evaluates traffic conditions with development of the Western Enclave of the Margarita Area Specific Plan (MASP) and other near-term projects without the Prado Road extension to Broad Street.

SUMMARY

Table 1 summarizes the level of service (LOS) at the study intersections, which would operate acceptably at LOS D or better under all study scenarios. Some locations would experience queue spillback with the addition of near-term project traffic, which could be addressed by the recommendations at the end of this letter.

Table 1: Intersection Levels of Service Summary[1]

		Existing		Scenario A		Scenario B	
Intersection	Peak Hour	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
1. S Higuera St/	AM	19.5	B	20.2	C	21.8	C
South St	PM	22.0	C	22.7	C	24.1	C
2. S Higuera St/	AM	17.4	B	18.1	B	18.2	B
Madonna Rd	PM	26.3	C	27.8	C	47.5	D
3. S Higuera St/	AM	9.5	A	11.5	B	11.5	B
Margarita Ave	PM	10.0	A	10.4	B	10.5	B
4. S Higuera St/	AM	17.3	B	19.0	B	20.0	C
Prado Rd	PM	21.0	C	23.9	C	25.4	C
5. S Higuera St/	AM	21.8	C	22.7	C	25.9	C
Tank Farm Rd	PM	29.1	C	30.5	C	33.9	C

1. HCM 2000 average control delay in seconds per vehide.

Deferring the Prado Road extension will result in higher volumes along South Street and Tank Farm Road. South Street currently operates near the daily threshold noted in the Circulation Element, and is forecast to exceed that threshold by approximately 15 percent with near-term projects in place. This is not expected to result in a breakdown in flow, but would reduce available gaps for turning vehicles, pedestrians, and cyclists. Tank Farm Road currently operates above the daily threshold, but would be well below the threshold when it is widened to four lanes.

Margarita Avenue was reviewed in the context of daily traffic levels based on Circulation Element guidelines which specify a desired maximum of 3,000 daily vehicles. With development of the Western Enclave, daily traffic would grow to approximately 2,900 daily vehicles. Traffic along Margarita Avenue should be monitored

by the City and the area may qualify for the City's Neighborhood Traffic Management Program if desired by local residents.

ANALYSIS APPROACH

These study roadway segments were evaluated using average daily traffic (ADT) volumes, shown on Figure 1:

- South Street west of King Street
- Margarita Avenue east of South Higuera Street
- Prado Road east of South Higuera Street
- Tank Farm Road west of Santa Fe Road

Roadway segment threshold volumes are approximate and serve as a general guide for determining if a roadway is below or over capacity, and are typically used for long-range planning purposes. Intersections are usually the constraint points in urban environments, causing capacity issues before the roadway segment flow breaks down.

The following intersections were evaluated during the weekday morning (7-9 AM) and evening (4-6 PM) time periods. The peak hour volumes are shown on Figure 2.

1. South Higuera Street/South Street
2. South Higuera Street/Madonna Avenue
3. South Higuera Street/Margarita Avenue
4. South Higuera Street/Prado Road
5. South Higuera Street/Tank Farm Road

The analysis scenarios are described below. Figure 3 shows the projects included in each scenario.

- **Existing Conditions** reflect recently collected (2012) traffic counts.
- **Scenario A** adds traffic expected from Tracts 2342, 2353, and 2428 (all located in the Western Enclave) to Existing Conditions volumes. This scenario assumes that Tank Farm Road is widened to four lanes.
- **Scenario B** includes near-term approved and pending projects in the study area and the Western Enclave projects. This scenario also assumes that Tank Farm Road is widened to four lanes.

Further details of each of these scenarios and the analysis results are provided in the forecasting section.

The City of San Luis Obispo's Circulation Element calls for LOS D as the minimum acceptable service condition for signalized intersections. Average daily traffic (ADT) volumes were analyzed based on thresholds in the Circulation Element. Table 2 shows the LOS thresholds for signalized intersections and the ADT thresholds from the City's Circulation Element.

Table 2: Vehicular Level of Service Thresholds

Signalized Intersections[1]		Average Daily Traffic Thresholds[2]		
Control Delay (seconds/vehicle)	**Level of Service**		**Desired Maximum ADT/LOS**	**Desired Maximum Speeds**
≤ 10	A	Two-lane Arterial Streets	15,200/D	40 mph
> 10 - 20	B	Four-lane Parkway Arterial Streets	33,030/D	45 mph
> 20 - 35	C	Residential Collector Streets	3,000	25 mph
> 35 - 55	D	2. Maximum Desired ADT and speeds per Table 6.2 of the 2006 Circulation Element. Arterial streets have a maximum of LOS D, which corresponds to an ADT of 15,200 vehicles for 2-lane sections per FDOT's ADT tables (Class II signalized arterial, 2 lanes undivided). Four-lane parkway arterial capacities are calculated as a Class I arterial with capacity lowered 10% because it is a major City (not State) roadway.		
> 55 - 80	E			
> 80	F			
1. Based on 2000 *Highway Capacity Manual.*				

EXISTING CONDITIONS

This section describes existing conditions in the study area.

Traffic Operations

Traffic counts from May 2012 were used to analyze weekday AM and PM peak hour conditions. Figure 2 shows the peak hour traffic volumes under the analysis scenarios. Table 1 shows that the intersections operate at LOS C or better under existing conditions. The detailed LOS calculation sheets are included as Appendix A.

Table 3 summarizes the average daily traffic levels on key roadways in the area. Tank Farm Road currently exceeds the daily volume desired in the Circulation Element. Margarita Avenue and Prado Road are both well below their desired thresholds identified in the Circulation Element. South Street is within three percent of the desired maximum volume. As noted above, these are approximate thresholds generally used for planning future roadway expansions, and operational issues would occur at intersections rather than along the roadway segments.

Table 3: Daily Volume Forecasts

Segment	Existing	Scenario A	Scenario B
Margarita Avenue	1,190	2,900	2,900
Prado Road	3,302	6,100	7,500
South Street	14,854	15,300	17,300
Tank Farm Road	19,576	20,100	23,700

Margarita Neighborhood Traffic

Traffic Speeds: The City collects vehicle speed data as a part of setting speed limits. Speed surveys were conducted in 2010 for the eastbound and westbound segments of Margarita Avenue. Traffic speeds are typically expressed in terms of the 85th percentile speeds, which is the speed that is not exceeded by 85 percent of drivers. The 85th percentile speeds on Margarita Avenue are 28 mph in the westbound direction and 29 mph in the eastbound direction. The posted speed is 25 mph. This data would not support a change to the speed limit based on the California Vehicle Code.

Collision History: The City prepares a Traffic Safety Report every year to identify high collision locations within the City and monitor mitigation measures intended to reduce collision rates. Margarita Avenue has not been identified as having high collision rates in any of the Traffic Safety Reports prepared since 2005. The calculated collision rate at the intersection of South Higuera Street/Margarita Avenue is 0.83 collisions per million entering vehicles. This is below the statewide and SLO County average collision rates for two-lane facilities.

Daily Volumes: Margarita Avenue has a maximum desired ADT of 3,000 daily vehicles per Table 6.2 of the City's Circulation Element. The existing ADT of this segment is 1,190 daily vehicles.

TRAFFIC VOLUME FORECASTS

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

The City of San Luis Obispo's Travel Demand Model (TDM) incorporates these steps, and was used to develop forecasts for Scenarios B. The TDM was used because it includes locally valid trip generation rates and captures the interaction between different land uses.

Model Application Approach

A list of approved, pending, and reasonably foreseeable projects was obtained from City staff. These projects, shown on Figure 3, were added to the TDM. Trip generation rates produced by the City's TDM were compared to rates in the Institute of Transportation Engineers' *Trip Generation Manual* for PM peak hour conditions. The TDM's trip generation for the Scenario B land uses was 11 percent lower than the generic ITE rates. The ITE rates were not adjusted to reflect higher than average levels of cycling and transit usage in the City, nor were they adjusted to reflect pass-by trip reductions. This comparison indicates that the model outputs are reasonable and appropriate for use. Appendix B shows the model's trip generation compared to ITE rates.

Scenario A

This scenario adds traffic from Western Enclave Tracts 2342, 2353, and 2428 to existing traffic volumes. The TDM does not include detailed loading for individual parcels, such as those in the Western Enclave where detailed site layouts affect the portion of traffic assigned to Margarita Avenue and Prado Road. Trips from the Western Enclave tracts were manually added to the network using standard ITE rates based on the site plans contained in the Prado Road Delivery Plan. This manual assignment used ITE rates to present a conservative analysis, since the ITE rates for residential uses are higher than the comparable rates in the TDM.

Development of the Western Enclave Tracts would include new road connections between Margarita Avenue and Prado Road. These connections would be used by some of the existing residents along Margarita Avenue, shifting some existing traffic to Prado Road. These shifts are not reflected in the analysis to present a conservative analysis of forecast conditions along Margarita Avenue.

Scenario B

Scenario B reflects conditions with near-term projects plus the Western Enclave Tracts in place. The location of near-term projects are shown on Figure 3, and near-term project details are provided in Appendix B. Trips from approved/pending/reasonably foreseeable projects were assigned by the TDM, which provides a post-processing module applying NCHRP 255 forecasting methods to produce turning movement forecasts.

ANALYSIS RESULTS

The analysis results are summarized in Tables 1, 3, and 4. The study intersections operate acceptably at LOS D or better during the AM and PM periods under all scenarios. The study segments of Margarita Avenue, Prado Road, and Tank Farm Road are forecast to have volumes below the desired maximum daily volumes. South Street would exceed its daily volume threshold by approximately 15 percent. As noted above, this is not expected to result in a breakdown in flow, but would offer fewer gaps for turning traffic and pedestrians crossing South Street between Broad Street and South Higuera Street. Because traffic operations are constrained by the intersections at both ends of South Street, the widening of South Street is not recommended.

Margarita Avenue has a maximum desired ADT of 3,000 daily vehicles per Table 6.2 of the City's Circulation Element. The existing ADT of this segment is 1,190 daily vehicles, and the addition of near-term traffic increases the forecast ADT to 2,900 daily vehicles. The all-way stop controlled intersections on Margarita Avenue would continue to operate at LOS A during peak hours with the addition of near-term traffic.

Queue Analysis

Queues were evaluated using the 95th percentile values, which would not be exceeded 95 percent of the time. Table 3 summarizes 95th percentile queues for turning movements that would exceed storage capacity.

Table 4: 95th Percentile Queues

Intersection	Movement	Storage Length	Peak Hour	95th Percentile Queues (feet) Existing	Scenario A	Scenario B	Scenario B w/ improvement
1. S Higuera St/ South St	Westbound Left	130 ft	AM	172	175	238	Extend turn pocket to 300 ft.
			PM	236	242	284	
	Southbound Left[2]	100 ft	AM	#140	#140	#140	No improvement recommended.
			PM	104	104	#113	
2. S Higuera St/ Madonna Rd	Northbound Left	160 ft	PM	#310	#323	#495	Dual left- queue #212 feet
3. S Higuera St/ Margarita Ave	Southbound Left[2]	100 ft	PM	63	109	111	No improvement recommended.
4. S Higuera St/ Prado Rd	Northbound Left[2]	250 ft	PM	351	358	385	Dual left- queue 156 feet
	Southbound Left[2]	125 ft	AM	116	156	196	Extend turn pocket to 250 feet.
			PM	104	189	202	
5. S Higuera St/ Tank Farm Rd	Southbound Left[2]	165 ft	AM	200	232	276	Dual left- queue 135 (159) feet (AM(PM))
			PM	#306	#347	#387	

1. Queue length that would not be exceeded 95 percent of the time. Queues are reported only for turning movements where queues exceed storage capacity.
2. Length of marked pocket. Queues spilling out of pocket would be stored in a two-way left-turn lane.
#. 95th percentile volume exceeds capacity, queue may be longer.

Recommendations

1. **South Higuera Street/South Street:** Caltrans recently ceded control of this intersection to the City of San Luis Obispo. The City is in the process of upgrading the signal control equipment to meet City standards, which may include signal timing changes. The City has a project underway to prohibit left turns from South Street to Parker Street in an effort to improve safety at that location. This turn prohibition would also extend the westbound left turn lane at South Higuera Street/South Street to approximately 300 feet, which would accommodate the projected queues under all scenarios. The southbound left turn queue spillback is not expected to change substantially from existing conditions (approximately two vehicles), so no further improvements are recommended.

2. **South Higuera Street/Madonna Avenue:** This intersection also was recently controlled by Caltrans and is now controlled by the City. The northbound left turn queue is expected to increase from approximately 300 feet under existing conditions to nearly 500 feet with near-term projects. Traffic from the Western Enclave Tracts 2342, 2353, and 2428 represents less than ten percent of the near-term growth contributing to this deficiency. The conversion of one northbound through lane to a left turn lane (resulting in two northbound left turn lanes and one shared through/right turn lane) would reduce this queue to approximately 200 feet and would reduce overall intersection delay. This project is not currently programmed, and would require further operational study and geometric review before implementation.

3. **South Higuera Street/Margarita Avenue:** Southbound left turn queues are projected to spill out of the turn pocket by less than one vehicle length. The queue would spill back into a two-way left-turn lane, not the through lanes, so no improvements are recommended for this location. Queues on the eastbound approach (DMV driveway) would remain under two vehicles with near-term projects in place.

4. **South Higuera Street/Prado Road:**

    a. Queues from the **northbound left turn lane** currently spill back out of the turn pocket, and the addition of near-term traffic will increase these queues. While the Western Enclave tracts do not add traffic to this movement, the Prado Road extension is expected to shift traffic patterns and reduce the demand for this movement. Deferring the Prado Road extension would prolong the time that this left turn movement experiences queue spillback. The addition of a second northbound left turn lane would reduce queues for this movement to less than 200 feet. This improvement would also require widening of the Prado Road bridge west of South Higuera Street to provide two receiving lanes. A project study report is currently underway for the bridge widening, and the second left turn lane is expected to be amended into the City's Traffic Impact Fee program during its next update.

    b. **The southbound left turn lane** would also experience queue spillback. While the marked pocket is relatively short, queues can spill back into a two-way left-turn lane. This TWLTL serves a driveway approximately 275 feet north of Prado Road, so the effective storage length is longer than the marked turn lane. The projected queues for the southbound left turn movement would be accommodated in the TWLTL without blocking access to the driveway. Re-striping the TWLTL as a 250 foot pocket would accommodate the projected queues.

    c. **The westbound approach** is not expected to have queue spillback. The installation of pedestrian countdown heads on the South Higuera Street crossings would improve pedestrian conditions by showing how much time remains to complete the crossing, which provides access to the Bob Jones Trail.

5. **South Higuera Street/Tank Farm Road:** The southbound left turn queues at this intersection currently exceed the storage capacity, and would lengthen with near-term traffic. The installation of a second southbound left turn lane would reduce queues to an acceptable level. Cost estimates have recently been prepared for this projects, and it is expected to be amended into the City's Traffic Impact Fee program in the next TIF update. A related project is the installation of a westbound right turn overlap phase, which would further improve traffic operations at this location.

6. **Margarita Neighborhood:** Margarita Avenue has a maximum desired ADT of 3,000 daily vehicles per Table 6.2 of the City's Circulation Element. The existing ADT of this segment is 1,190 daily vehicles, and the addition of near-term traffic increases the forecast ADT to 2,900 daily vehicles. Traffic speeds and volumes along Margarita Avenue should be monitored upon occupancy of Western Enclave tracts, and neighborhood issues evaluated in the context of the City's Neighborhood Traffic Management program. This is consistent with the conditions of approval (per Resolution No. 9776 (2006 Series), condition Streets 6) requiring monitoring of traffic volume and speeds in the area once development occurs and installation of traffic calming measures if necessary. Alternatively, the Resolution allows for payment of a one-time contribution to the City's Neighborhood Traffic Management program in the amount of $130,000. This condition should remain in place to ensure neighborhood traffic issues are addressed.

Traffic Share Calculations

Table 5 summarizes the portion of traffic generated by individual MASP projects. Standard ITE rates were used to develop daily trip estimates using the land uses in the *Margarita Area Specific Plan Reimbursement, Fiscal, and Economic Analysis Final Report* (Goodwin Consulting Group, January 4, 2013).

Table 5: MASP Traffic Share Summary[1]

Project	Land Use	Size	Daily Trips	% of MASP Trips
Tract 2428 (King)	Single Family Residential[2]	165 units	1,665	8%
	Multi-Family Residential[3]	32 units	213	
Tract 2353 (Serra Meadows)	Single Family Residential[2]	121 units	1,252	7%
	Multi-Family Residential[3]	23 units	153	
	Business Park[4]	18,290 s.f.	228	
Tract 2342 (Mangano)	Single Family Residential[2]	56 units	616	4%
	Business Park[4]	20,119 s.f.	250	
Byron Davis	Business Park[4]	160,000 s.f.	1,990	8%
Damon & Garcia	Single Family Residential[2]	355 units	3,369	58%
	Multi-Family Residential[3]	84 units	559	
	Business Park[4]	405,108 s.f.	5,040	
	Retail[5]	65,000 s.f.	5,133	
LJ Martinelli, Jr	Business Park[4]	200,000 s.f.	2,488	10%
AP Martinelli	Business Park[4]	100,000 s.f.	1,244	5%
		Total	**24,200**	**100%**

1. Estimates based on Institute of Transportation Engineers' Trip Generation Manual, using most applicable generic land use types.
2. ITE Land Use Code 210, Single-Family Detached Housing. Fitted curve equations used.
3. ITE Land Use Code 220, Apartment. Average rates used.
4. ITE Land Use Code 770, Business Park. Average rates used.
5. ITE Land Use Code 820, Shopping Center. Fitted Curve equations used.

Source: Trip Generation, 9th Edition, ITE (2012) and CCTC, 2013

CONCLUSIONS

The development of Western Enclave tracts and near-term projects would not result in LOS deficiencies at the study intersections. Near-term traffic increases will cause operational issues at the study intersections which can be addressed by the following actions:

- **South Higuera Street/South Street:** the City shall implement the planned westbound left turn lane extension and associated left turn prohibition to/from Parker Street.
- **South Higuera Street/Madonna Avenue:** the City shall monitor traffic operations at this location and evaluate the need and feasibility of converting a northbound through lane to a second northbound left turn lane.
- **South Higuera Street/Prado Road:** the City shall amend the Traffic Impact Fee to include the second northbound left turn lane at this location. The City shall enter into a cost sharing agreement with the Western Enclave applicants to re-stripe the southbound left turn lane and install pedestrian countdown heads at this intersection.
- **South Higuera Street/Tank Farm Road:** the City shall amend the Traffic Impact Fee to include the second southbound left turn lane at this location.
- **Margarita Neighborhood:** the previously adopted Condition of Approval requiring monitoring of traffic conditions or a one-time Neighborhood Traffic Management contribution should be included in the revised Conditions of Approval.
- The Western Enclave projects shall pay the amended Traffic Impact Fee as their fair share contribution to the deficiencies identified in this report. If at the time of building permit issuance the City's TIF has not been amended to accommodate these projects, or Prado Road has not been connected to Broad Street, the Western Enclave project applicants will be responsible for paying a pro rata share of said improvements subject to approval of the City's Public Work Director.

Please let me know if you have any questions. I appreciate the opportunity to assist with this project.

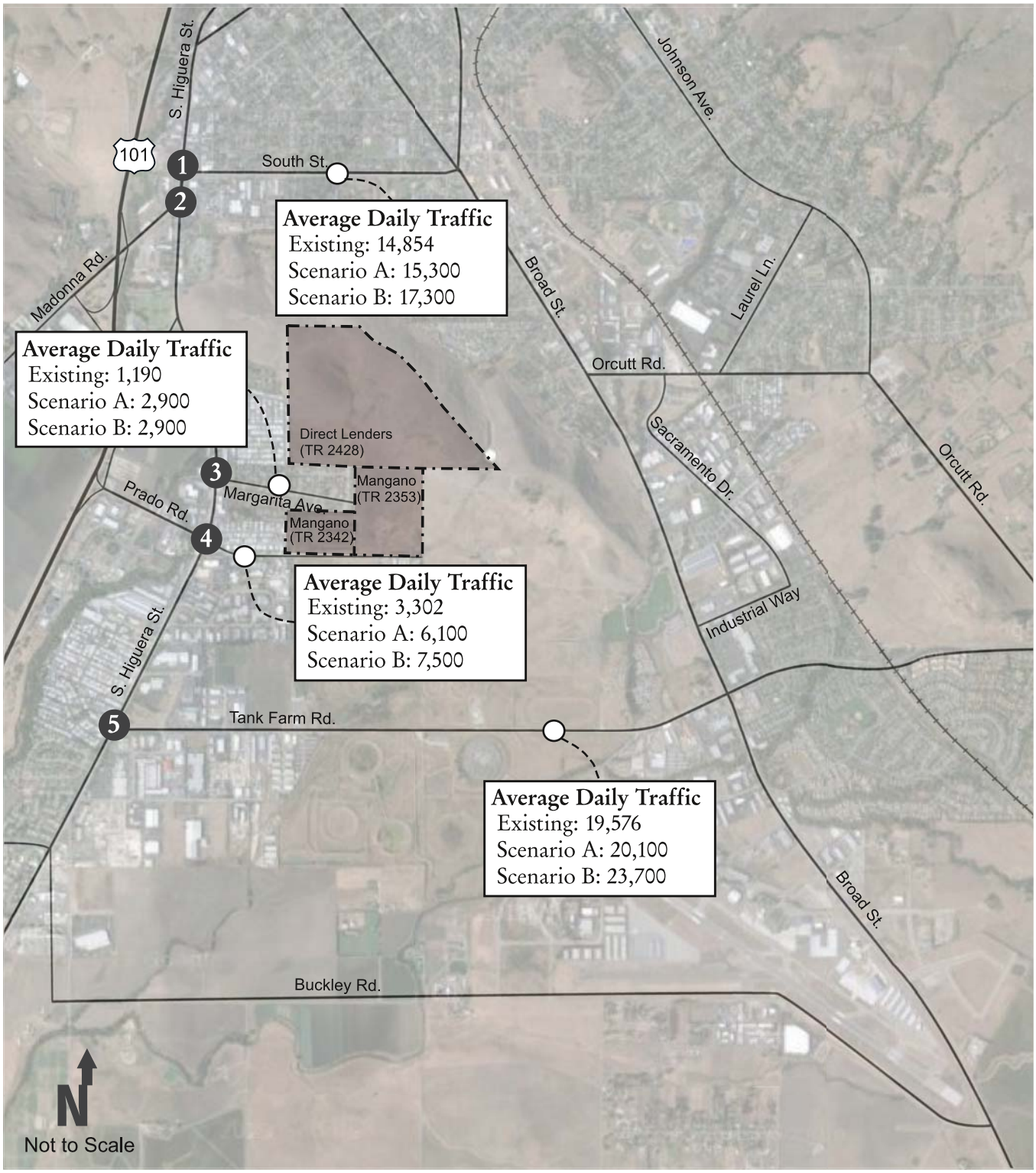
Sincerely,

Joe Fernandez, PE, AICP
Principal

Enclosures:

Figure 1: Study Area and Daily Volumes
Figure 2: Peak Hour Volume Summary
Figure 3: Approved/Pending Projects Summary
Appendix A: LOS/Queue Calculation Sheets
Appendix B: Trip Generation Comparison

Figure 1: Study Locations and Daily Volumes

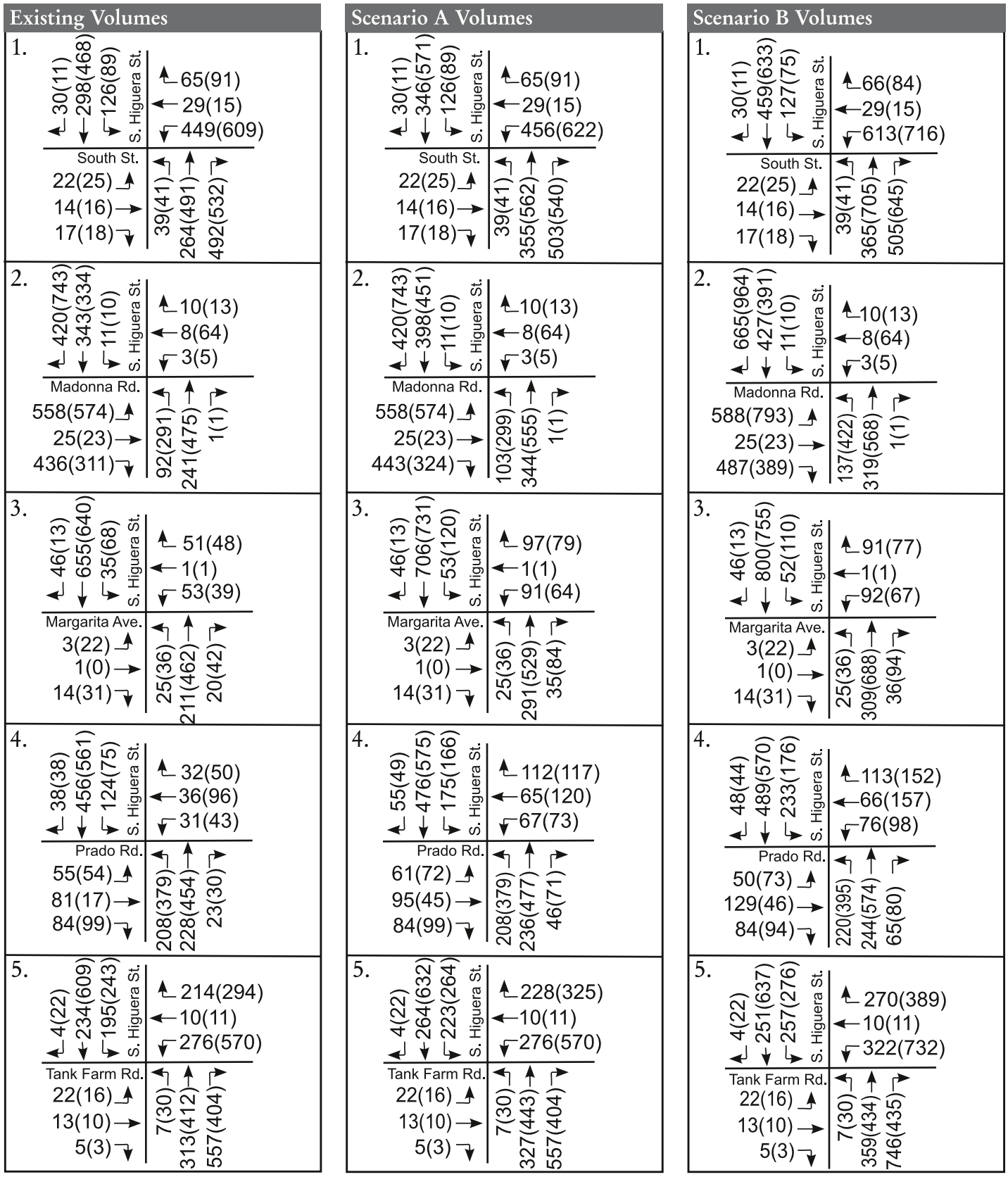


Central Coast Transportation Consulting
Traffic Engineering & Transportation Planning

Legend:

7 - Study Locations

Figure 2: Peak Hour Volumes

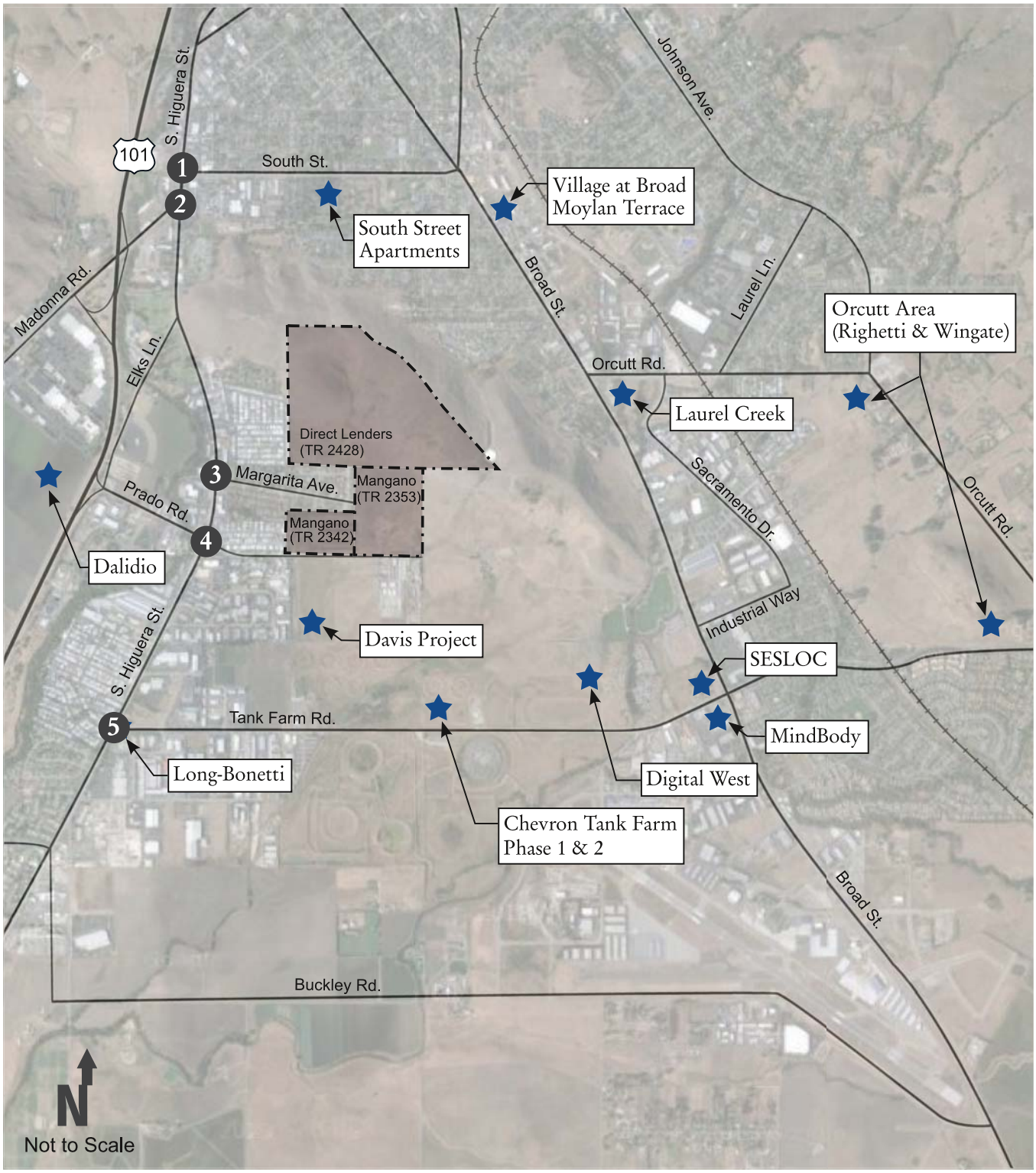


Central Coast Transportation Consulting
Traffic Engineering & Transportation Planning

Legend:

xx(yy) - AM(PM) Peak Hour Traffic Volumes

Figure 3: Near Term Projects



Legend:

7 - Study Intersection

★ - Scenario B

▭ - Scenario A

Central Coast Transportation Consulting
Traffic Engineering & Transportation Planning

December 2013

MASP Western Enclave Traffic Analysis

Attachment 6

CalEEMod Software Program Output

VTM #2353

San Luis Obispo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	18.30	1000sqft	2.86	18,300.00	0
Apartments Mid Rise	11.00	Dwelling Unit	0.29	11,000.00	31
Condo/Townhouse	23.00	Dwelling Unit	1.38	23,000.00	66
Single Family Housing	111.00	Dwelling Unit	12.17	199,800.00	317

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Maximum buildout base don project traffic study. Acreage consistent with tract map.

Construction Phase - Default construction period.

Vehicle Trips - Trip rates from ITE 9th Ed. Trip Generation Manual.

Construction Off-road Equipment Mitigation - SLOAPCD requirements: diesel construction equip tier 2 or better, soil stabilizers on unpaved areas, watering of exposed areas.

Mobile Land Use Mitigation - Increased density described based on estimated population (DoF Table E-5) and employment (SCAG Density Study).

Area Mitigation - No hearths.

Waste Mitigation - AB 939 mandated solid waste reduction.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblLandUse	LotAcreage	0.42	2.86
tblLandUse	LotAcreage	1.44	1.38
tblLandUse	LotAcreage	36.04	12.17
tblProjectCharacteristics	OperationalYear	2014	2016
tblVehicleTrips	ST_TR	7.16	5.67
tblVehicleTrips	ST_TR	7.16	5.67
tblVehicleTrips	ST_TR	1.64	2.46
tblVehicleTrips	ST_TR	10.08	9.91
tblVehicleTrips	SU_TR	6.07	4.84
tblVehicleTrips	SU_TR	6.07	4.84
tblVehicleTrips	SU_TR	0.76	1.05
tblVehicleTrips	SU_TR	8.77	8.62
tblVehicleTrips	WD_TR	6.59	5.81
tblVehicleTrips	WD_TR	6.59	5.81
tblVehicleTrips	WD_TR	11.42	11.03
tblVehicleTrips	WD_TR	9.57	9.52

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					
2015	6.8807	79.1936	52.3180	0.0640	18.2442	3.8039	21.3340	9.9779	3.4995	12.8205	0.0000	6,681.4862	6,681.4862	1.9486	0.0000	6,722.4076
2016	387.3730	30.3993	25.0412	0.0378	0.7740	1.9933	2.7673	0.2070	1.8722	2.0791	0.0000	3,634.6571	3,634.6571	0.7069	0.0000	3,649.5010
Total	**394.2537**	**109.5929**	**77.3592**	**0.1018**	**19.0182**	**5.7972**	**24.1013**	**10.1848**	**5.3717**	**14.8996**	**0.0000**	**10,316.1433**	**10,316.1433**	**2.6555**	**0.0000**	**10,371.9086**

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					
2015	1.9977	51.0934	39.4212	0.0640	8.3078	1.3800	9.2704	4.5160	1.3798	5.4784	0.0000	6,681.4862	6,681.4862	1.9486	0.0000	6,722.4076
2016	387.1185	25.3545	24.3501	0.0378	0.7740	0.9275	1.7015	0.2070	0.9253	1.1323	0.0000	3,634.6571	3,634.6571	0.7069	0.0000	3,649.5010
Total	**389.1162**	**76.4479**	**63.7714**	**0.1018**	**9.0818**	**2.3074**	**10.9718**	**4.7230**	**2.3051**	**6.6107**	**0.0000**	**10,316.1433**	**10,316.1433**	**2.6555**	**0.0000**	**10,371.9086**

	ROG	NOx	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	**1.30**	**30.24**	**17.56**	**0.00**	**52.25**	**60.20**	**54.48**	**53.63**	**57.09**	**55.63**	**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	7.8973	0.1419	12.1313	6.3000e-004		0.0654	0.0654		0.0654	0.0654	0.0000	21.5441	21.5441	0.0220	0.0000	22.0053
Energy	0.1436	1.2337	0.5703	7.8300e-003		0.0992	0.0992		0.0992	0.0992		1,566.5929	1,566.5929	0.0300	0.0287	1,576.1269
Mobile	6.5895	16.7029	64.4370	0.1149	8.0224	0.2041	8.2265	2.1452	0.1873	2.3326		10,120.2642	10,120.2642	0.4677		10,130.0851
Total	**14.6304**	**18.0786**	**77.1386**	**0.1233**	**8.0224**	**0.3688**	**8.3911**	**2.1452**	**0.3520**	**2.4972**	**0.0000**	**11,708.4012**	**11,708.4012**	**0.5197**	**0.0287**	**11,728.2173**

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	7.8973	0.1419	12.1313	6.3000e-004		0.0654	0.0654		0.0654	0.0654	0.0000	21.5441	21.5441	0.0220	0.0000	22.0053
Energy	0.1436	1.2337	0.5703	7.8300e-003		0.0992	0.0992		0.0992	0.0992		1,566.5929	1,566.5929	0.0300	0.0287	1,576.1269
Mobile	6.5893	16.7015	64.4322	0.1149	8.0216	0.2041	8.2256	2.1450	0.1873	2.3323		10,119.2725	10,119.2725	0.4676		10,129.0925
Total	**14.6302**	**18.0771**	**77.1337**	**0.1233**	**8.0216**	**0.3687**	**8.3903**	**2.1450**	**0.3520**	**2.4970**	**0.0000**	**11,707.4095**	**11,707.4095**	**0.5196**	**0.0287**	**11,727.2247**

	ROG	NOx	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	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.01

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2015	1/14/2015	5	10	
2	Grading	Grading	1/15/2015	2/25/2015	5	30	
3	Building Construction	Building Construction	2/26/2015	4/20/2016	5	300	
4	Paving	Paving	4/21/2016	5/18/2016	5	20	
5	Architectural Coating	Architectural Coating	5/19/2016	6/15/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 473,445; Residential Outdoor: 157,815; Non-Residential Indoor: 27,450; Non-Residential Outdoor: 9,150 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	70.00	18.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2015

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

3.2 Site Preparation - 2015

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	0.0950	0.1322	1.3302	2.0400e-003	0.1780	1.5200e-003	0.1795	0.0472	1.3700e-003	0.0486		175.7186	175.7186	0.0110		175.9497
Total	**0.0950**	**0.1322**	**1.3302**	**2.0400e-003**	**0.1780**	**1.5200e-003**	**0.1795**	**0.0472**	**1.3700e-003**	**0.0486**		**175.7186**	**175.7186**	**0.0110**		**175.9497**

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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	1.2300	34.4240	23.4003	0.0391		0.9611	0.9611		0.9611	0.9611	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**1.2300**	**34.4240**	**23.4003**	**0.0391**	**8.1298**	**0.9611**	**9.0909**	**4.4688**	**0.9611**	**5.4299**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

3.2 Site Preparation - 2015

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	0.0950	0.1322	1.3302	2.0400e-003	0.1780	1.5200e-003	0.1795	0.0472	1.3700e-003	0.0486		175.7186	175.7186	0.0110		175.9497
Total	**0.0950**	**0.1322**	**1.3302**	**2.0400e-003**	**0.1780**	**1.5200e-003**	**0.1795**	**0.0472**	**1.3700e-003**	**0.0486**		**175.7186**	**175.7186**	**0.0110**		**175.9497**

3.3 Grading - 2015

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**8.6733**	**3.8022**	**12.4755**	**3.5965**	**3.4980**	**7.0945**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

3.3 Grading - 2015

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	0.1055	0.1469	1.4780	2.2600e-003	0.1977	1.6900e-003	0.1994	0.0524	1.5200e-003	0.0540		195.2429	195.2429	0.0122		195.4996
Total	**0.1055**	**0.1469**	**1.4780**	**2.2600e-003**	**0.1977**	**1.6900e-003**	**0.1994**	**0.0524**	**1.5200e-003**	**0.0540**		**195.2429**	**195.2429**	**0.0122**		**195.4996**

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					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	1.8922	50.9465	37.9432	0.0618		1.3783	1.3783		1.3783	1.3783	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**1.8922**	**50.9465**	**37.9432**	**0.0618**	**3.9030**	**1.3783**	**5.2813**	**1.6184**	**1.3783**	**2.9967**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

3.3 Grading - 2015

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	0.1055	0.1469	1.4780	2.2600e-003	0.1977	1.6900e-003	0.1994	0.0524	1.5200e-003	0.0540		195.2429	195.2429	0.0122		195.4996
Total	**0.1055**	**0.1469**	**1.4780**	**2.2600e-003**	**0.1977**	**1.6900e-003**	**0.1994**	**0.0524**	**1.5200e-003**	**0.0540**		**195.2429**	**195.2429**	**0.0122**		**195.4996**

3.4 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**		**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

3.4 Building Construction - 2015

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	0.2215	1.6370	2.1633	3.0700e-003	0.0820	0.0258	0.1078	0.0234	0.0237	0.0471		309.6974	309.6974	2.9600e-003		309.7595
Worker	0.3694	0.5143	5.1731	7.9200e-003	0.6920	5.9200e-003	0.6980	0.1835	5.3300e-003	0.1889		683.3501	683.3501	0.0428		684.2487
Total	**0.5909**	**2.1512**	**7.3364**	**0.0110**	**0.7740**	**0.0317**	**0.8057**	**0.2069**	**0.0291**	**0.2360**		**993.0475**	**993.0475**	**0.0458**		**994.0082**

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	1.0782	23.4615	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**1.0782**	**23.4615**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

3.4 Building Construction - 2015

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	0.2215	1.6370	2.1633	3.0700e-003	0.0820	0.0258	0.1078	0.0234	0.0237	0.0471		309.6974	309.6974	2.9600e-003		309.7595
Worker	0.3694	0.5143	5.1731	7.9200e-003	0.6920	5.9200e-003	0.6980	0.1835	5.3300e-003	0.1889		683.3501	683.3501	0.0428		684.2487
Total	**0.5909**	**2.1512**	**7.3364**	**0.0110**	**0.7740**	**0.0317**	**0.8057**	**0.2069**	**0.0291**	**0.2360**		**993.0475**	**993.0475**	**0.0458**		**994.0082**

3.4 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.4 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2071	1.4441	2.0607	3.0700e-003	0.0820	0.0205	0.1024	0.0234	0.0188	0.0422		306.3650	306.3650	2.5700e-003		306.4189
Worker	0.3158	0.4489	4.4739	7.9100e-003	0.6920	5.4300e-003	0.6975	0.1835	4.9200e-003	0.1885		659.0057	659.0057	0.0380		659.8043
Total	**0.5228**	**1.8930**	**6.5346**	**0.0110**	**0.7740**	**0.0259**	**0.7999**	**0.2070**	**0.0237**	**0.2307**		**965.3707**	**965.3707**	**0.0406**		**966.2232**

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	1.0782	23.4615	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**1.0782**	**23.4615**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.4 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2071	1.4441	2.0607	3.0700e-003	0.0820	0.0205	0.1024	0.0234	0.0188	0.0422		306.3650	306.3650	2.5700e-003		306.4189
Worker	0.3158	0.4489	4.4739	7.9100e-003	0.6920	5.4300e-003	0.6975	0.1835	4.9200e-003	0.1885		659.0057	659.0057	0.0380		659.8043
Total	**0.5228**	**1.8930**	**6.5346**	**0.0110**	**0.7740**	**0.0259**	**0.7999**	**0.2070**	**0.0237**	**0.2307**		**965.3707**	**965.3707**	**0.0406**		**966.2232**

3.5 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

3.5 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0677	0.0962	0.9587	1.6900e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		141.2155	141.2155	8.1500e-003		141.3866
Total	**0.0677**	**0.0962**	**0.9587**	**1.6900e-003**	**0.1483**	**1.1600e-003**	**0.1495**	**0.0393**	**1.0500e-003**	**0.0404**		**141.2155**	**141.2155**	**8.1500e-003**		**141.3866**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9122	19.6998	16.9276	0.0223		0.6542	0.6542		0.6542	0.6542	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9122**	**19.6998**	**16.9276**	**0.0223**		**0.6542**	**0.6542**		**0.6542**	**0.6542**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

3.5 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0677	0.0962	0.9587	1.6900e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		141.2155	141.2155	8.1500e-003		141.3866
Total	**0.0677**	**0.0962**	**0.9587**	**1.6900e-003**	**0.1483**	**1.1600e-003**	**0.1495**	**0.0393**	**1.0500e-003**	**0.0404**		**141.2155**	**141.2155**	**8.1500e-003**		**141.3866**

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	386.9414					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**387.3099**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0632	0.0898	0.8948	1.5800e-003	0.1384	1.0900e-003	0.1395	0.0367	9.8000e-004	0.0377		131.8012	131.8012	7.6100e-003		131.9609
Total	**0.0632**	**0.0898**	**0.8948**	**1.5800e-003**	**0.1384**	**1.0900e-003**	**0.1395**	**0.0367**	**9.8000e-004**	**0.0377**		**131.8012**	**131.8012**	**7.6100e-003**		**131.9609**

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	386.9414					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**387.0553**	**2.3524**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0632	0.0898	0.8948	1.5800e-003	0.1384	1.0900e-003	0.1395	0.0367	9.8000e-004	0.0377		131.8012	131.8012	7.6100e-003		131.9609
Total	**0.0632**	**0.0898**	**0.8948**	**1.5800e-003**	**0.1384**	**1.0900e-003**	**0.1395**	**0.0367**	**9.8000e-004**	**0.0377**		**131.8012**	**131.8012**	**7.6100e-003**		**131.9609**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	6.5893	16.7015	64.4322	0.1149	8.0216	0.2041	8.2256	2.1450	0.1873	2.3323		10,119.2725	10,119.2725	0.4676		10,129.0925
Unmitigated	6.5895	16.7029	64.4370	0.1149	8.0224	0.2041	8.2265	2.1452	0.1873	2.3326		10,120.2642	10,120.2642	0.4677		10,130.0851

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	63.91	62.37	53.24	157,998	157,982
Condo/Townhouse	133.63	130.41	111.32	330,359	330,325
Office Park	201.85	45.02	19.22	365,867	365,830
Single Family Housing	1,056.72	1,100.01	956.82	2,665,160	2,664,890
Total	1,456.11	1,337.81	1,140.60	3,519,384	3,519,027

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
Condo/Townhouse	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Office Park	13.00	5.00	5.00	33.00	48.00	19.00	82	15	3
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3

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

5.0 Energy Detail

4.4 Fleet Mix

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	0.1436	1.2337	0.5703	7.8300e-003		0.0992	0.0992		0.0992	0.0992		1,566.5929	1,566.5929	0.0300	0.0287	1,576.1269
NaturalGas Unmitigated	0.1436	1.2337	0.5703	7.8300e-003		0.0992	0.0992		0.0992	0.0992		1,566.5929	1,566.5929	0.0300	0.0287	1,576.1269

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					
Office Park	1114.04	0.0120	0.1092	0.0917	6.6000e-004		8.3000e-003	8.3000e-003		8.3000e-003	8.3000e-003		131.0640	131.0640	2.5100e-003	2.4000e-003	131.8616
Single Family Housing	10729.9	0.1157	0.9888	0.4208	6.3100e-003		0.0800	0.0800		0.0800	0.0800		1,262.3396	1,262.3396	0.0242	0.0231	1,270.0220
Apartments Mid Rise	244.942	2.6400e-003	0.0226	9.6100e-003	1.4000e-004		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		28.8167	28.8167	5.5000e-004	5.3000e-004	28.9921
Condo/Townhouse	1227.17	0.0132	0.1131	0.0481	7.2000e-004		9.1400e-003	9.1400e-003		9.1400e-003	9.1400e-003		144.3726	144.3726	2.7700e-003	2.6500e-003	145.2512
Total		**0.1436**	**1.2337**	**0.5703**	**7.8300e-003**		**0.0992**	**0.0992**		**0.0992**	**0.0992**		**1,566.5929**	**1,566.5929**	**0.0300**	**0.0287**	**1,576.1269**

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					
Office Park	1.11404	0.0120	0.1092	0.0917	6.6000e-004		8.3000e-003	8.3000e-003		8.3000e-003	8.3000e-003		131.0640	131.0640	2.5100e-003	2.4000e-003	131.8616
Single Family Housing	10.7299	0.1157	0.9888	0.4208	6.3100e-003		0.0800	0.0800		0.0800	0.0800		1,262.3396	1,262.3396	0.0242	0.0231	1,270.0220
Apartments Mid Rise	0.244942	2.6400e-003	0.0226	9.6100e-003	1.4000e-004		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		28.8167	28.8167	5.5000e-004	5.3000e-004	28.9921
Condo/Townhouse	1.22717	0.0132	0.1131	0.0481	7.2000e-004		9.1400e-003	9.1400e-003		9.1400e-003	9.1400e-003		144.3726	144.3726	2.7700e-003	2.6500e-003	145.2512
Total		**0.1436**	**1.2337**	**0.5703**	**7.8300e-003**		**0.0992**	**0.0992**		**0.0992**	**0.0992**		**1,566.5929**	**1,566.5929**	**0.0300**	**0.0287**	**1,576.1269**

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	7.8973	0.1419	12.1313	6.3000e-004		0.0654	0.0654		0.0654	0.0654	0.0000	21.5441	21.5441	0.0220	0.0000	22.0053
Unmitigated	7.8973	0.1419	12.1313	6.3000e-004		0.0654	0.0654		0.0654	0.0654	0.0000	21.5441	21.5441	0.0220	0.0000	22.0053

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	2.1202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3949					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	0.3822	0.1419	12.1313	6.3000e-004		0.0654	0.0654		0.0654	0.0654		21.5441	21.5441	0.0220		22.0053
Total	**7.8973**	**0.1419**	**12.1313**	**6.3000e-004**		**0.0654**	**0.0654**		**0.0654**	**0.0654**	**0.0000**	**21.5441**	**21.5441**	**0.0220**	**0.0000**	**22.0053**

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	2.1202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3949					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	0.3822	0.1419	12.1313	6.3000e-004		0.0654	0.0654		0.0654	0.0654		21.5441	21.5441	0.0220		22.0053
Total	**7.8973**	**0.1419**	**12.1313**	**6.3000e-004**		**0.0654**	**0.0654**		**0.0654**	**0.0654**	**0.0000**	**21.5441**	**21.5441**	**0.0220**	**0.0000**	**22.0053**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Vegetation

VTM #2353

San Luis Obispo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	18.30	1000sqft	2.86	18,300.00	0
Apartments Mid Rise	11.00	Dwelling Unit	0.29	11,000.00	31
Condo/Townhouse	23.00	Dwelling Unit	1.38	23,000.00	66
Single Family Housing	111.00	Dwelling Unit	12.17	199,800.00	317

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Maximum buildout base don project traffic study. Acreage consistent with tract map.

Construction Phase - Default construction period.

Vehicle Trips - Trip rates from ITE 9th Ed. Trip Generation Manual.

Construction Off-road Equipment Mitigation - SLOAPCD requirements: diesel construction equip tier 2 or better, soil stabilizers on unpaved areas, watering of exposed areas.

Mobile Land Use Mitigation - Increased density described based on estimated population (DoF Table E-5) and employment (SCAG Density Study).

Area Mitigation - No hearths.

Waste Mitigation - AB 939 mandated solid waste reduction.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblLandUse	LotAcreage	0.42	2.86
tblLandUse	LotAcreage	1.44	1.38
tblLandUse	LotAcreage	36.04	12.17
tblProjectCharacteristics	OperationalYear	2014	2016
tblVehicleTrips	ST_TR	7.16	5.67
tblVehicleTrips	ST_TR	7.16	5.67
tblVehicleTrips	ST_TR	1.64	2.46
tblVehicleTrips	ST_TR	10.08	9.91
tblVehicleTrips	SU_TR	6.07	4.84
tblVehicleTrips	SU_TR	6.07	4.84
tblVehicleTrips	SU_TR	0.76	1.05
tblVehicleTrips	SU_TR	8.77	8.62
tblVehicleTrips	WD_TR	6.59	5.81
tblVehicleTrips	WD_TR	6.59	5.81
tblVehicleTrips	WD_TR	11.42	11.03
tblVehicleTrips	WD_TR	9.57	9.52

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					
2015	6.8892	79.2130	52.3502	0.0639	18.2442	3.8039	21.3340	9.9779	3.4995	12.8205	0.0000	6,672.4633	6,672.4633	1.9486	0.0000	6,713.3847
2016	387.3778	30.4815	26.0285	0.0374	0.7740	1.9936	2.7676	0.2070	1.8725	2.0795	0.0000	3,600.8290	3,600.8290	0.7069	0.0000	3,615.6729
Total	**394.2670**	**109.6945**	**78.3787**	**0.1013**	**19.0182**	**5.7975**	**24.1017**	**10.1848**	**5.3721**	**14.8999**	**0.0000**	**10,273.2923**	**10,273.2923**	**2.6555**	**0.0000**	**10,329.0576**

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					
2015	2.0063	51.1128	39.4534	0.0639	8.3078	1.3800	9.2704	4.5160	1.3798	5.4784	0.0000	6,672.4633	6,672.4633	1.9486	0.0000	6,713.3847
2016	387.1233	25.4367	25.3375	0.0374	0.7740	0.9278	1.7018	0.2070	0.9256	1.1326	0.0000	3,600.8290	3,600.8290	0.7069	0.0000	3,615.6729
Total	**389.1295**	**76.5495**	**64.7909**	**0.1013**	**9.0818**	**2.3078**	**10.9722**	**4.7230**	**2.3054**	**6.6110**	**0.0000**	**10,273.2923**	**10,273.2923**	**2.6555**	**0.0000**	**10,329.0576**

	ROG	NOx	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	**1.30**	**30.22**	**17.34**	**0.00**	**52.25**	**60.19**	**54.48**	**53.63**	**57.08**	**55.63**	**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	7.8973	0.1419	12.1313	6.3000e-004		0.0654	0.0654		0.0654	0.0654	0.0000	21.5441	21.5441	0.0220	0.0000	22.0053
Energy	0.1436	1.2337	0.5703	7.8300e-003		0.0992	0.0992		0.0992	0.0992		1,566.5929	1,566.5929	0.0300	0.0287	1,576.1269
Mobile	7.2031	17.6995	71.2201	0.1110	8.0224	0.2053	8.2277	2.1452	0.1885	2.3337		9,779.2168	9,779.2168	0.4680		9,789.0445
Total	**15.2440**	**19.0752**	**83.9216**	**0.1194**	**8.0224**	**0.3700**	**8.3924**	**2.1452**	**0.3531**	**2.4984**	**0.0000**	**11,367.3538**	**11,367.3538**	**0.5200**	**0.0287**	**11,387.1767**

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	7.8973	0.1419	12.1313	6.3000e-004		0.0654	0.0654		0.0654	0.0654	0.0000	21.5441	21.5441	0.0220	0.0000	22.0053
Energy	0.1436	1.2337	0.5703	7.8300e-003		0.0992	0.0992		0.0992	0.0992		1,566.5929	1,566.5929	0.0300	0.0287	1,576.1269
Mobile	7.2028	17.6980	71.2154	0.1110	8.0216	0.2053	8.2269	2.1450	0.1885	2.3335		9,778.2585	9,778.2585	0.4679		9,788.0853
Total	**15.2438**	**19.0736**	**83.9170**	**0.1194**	**8.0216**	**0.3700**	**8.3915**	**2.1450**	**0.3531**	**2.4981**	**0.0000**	**11,366.3955**	**11,366.3955**	**0.5199**	**0.0287**	**11,386.2175**

	ROG	NOx	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	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.01

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2015	1/14/2015	5	10	
2	Grading	Grading	1/15/2015	2/25/2015	5	30	
3	Building Construction	Building Construction	2/26/2015	4/20/2016	5	300	
4	Paving	Paving	4/21/2016	5/18/2016	5	20	
5	Architectural Coating	Architectural Coating	5/19/2016	6/15/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 473,445; Residential Outdoor: 157,815; Non-Residential Indoor: 27,450; Non-Residential Outdoor: 9,150 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	70.00	18.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2015

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

3.2 Site Preparation - 2015

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	0.1027	0.1497	1.3592	1.9400e-003	0.1780	1.5200e-003	0.1795	0.0472	1.3700e-003	0.0486		167.5980	167.5980	0.0110		167.8291
Total	**0.1027**	**0.1497**	**1.3592**	**1.9400e-003**	**0.1780**	**1.5200e-003**	**0.1795**	**0.0472**	**1.3700e-003**	**0.0486**		**167.5980**	**167.5980**	**0.0110**		**167.8291**

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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	1.2300	34.4240	23.4003	0.0391		0.9611	0.9611		0.9611	0.9611	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**1.2300**	**34.4240**	**23.4003**	**0.0391**	**8.1298**	**0.9611**	**9.0909**	**4.4688**	**0.9611**	**5.4299**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

3.2 Site Preparation - 2015

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	0.1027	0.1497	1.3592	1.9400e-003	0.1780	1.5200e-003	0.1795	0.0472	1.3700e-003	0.0486		167.5980	167.5980	0.0110		167.8291
Total	**0.1027**	**0.1497**	**1.3592**	**1.9400e-003**	**0.1780**	**1.5200e-003**	**0.1795**	**0.0472**	**1.3700e-003**	**0.0486**		**167.5980**	**167.5980**	**0.0110**		**167.8291**

3.3 Grading - 2015

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**8.6733**	**3.8022**	**12.4755**	**3.5965**	**3.4980**	**7.0945**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

3.3 Grading - 2015

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	0.1141	0.1664	1.5102	2.1600e-003	0.1977	1.6900e-003	0.1994	0.0524	1.5200e-003	0.0540		186.2200	186.2200	0.0122		186.4767
Total	**0.1141**	**0.1664**	**1.5102**	**2.1600e-003**	**0.1977**	**1.6900e-003**	**0.1994**	**0.0524**	**1.5200e-003**	**0.0540**		**186.2200**	**186.2200**	**0.0122**		**186.4767**

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					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	1.8922	50.9465	37.9432	0.0618		1.3783	1.3783		1.3783	1.3783	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**1.8922**	**50.9465**	**37.9432**	**0.0618**	**3.9030**	**1.3783**	**5.2813**	**1.6184**	**1.3783**	**2.9967**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

3.3 Grading - 2015

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	0.1141	0.1664	1.5102	2.1600e-003	0.1977	1.6900e-003	0.1994	0.0524	1.5200e-003	0.0540		186.2200	186.2200	0.0122		186.4767
Total	**0.1141**	**0.1664**	**1.5102**	**2.1600e-003**	**0.1977**	**1.6900e-003**	**0.1994**	**0.0524**	**1.5200e-003**	**0.0540**		**186.2200**	**186.2200**	**0.0122**		**186.4767**

3.4 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**		**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

3.4 Building Construction - 2015

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	0.2729	1.6629	3.1115	3.0500e-003	0.0820	0.0263	0.1083	0.0234	0.0242	0.0476		306.3977	306.3977	3.0500e-003		306.4618
Worker	0.3994	0.5822	5.2857	7.5500e-003	0.6920	5.9200e-003	0.6980	0.1835	5.3300e-003	0.1889		651.7701	651.7701	0.0428		652.6686
Total	**0.6723**	**2.2452**	**8.3972**	**0.0106**	**0.7740**	**0.0322**	**0.8062**	**0.2069**	**0.0295**	**0.2365**		**958.1678**	**958.1678**	**0.0458**		**959.1304**

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	1.0782	23.4615	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**1.0782**	**23.4615**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

3.4 Building Construction - 2015

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	0.2729	1.6629	3.1115	3.0500e-003	0.0820	0.0263	0.1083	0.0234	0.0242	0.0476		306.3977	306.3977	3.0500e-003		306.4618
Worker	0.3994	0.5822	5.2857	7.5500e-003	0.6920	5.9200e-003	0.6980	0.1835	5.3300e-003	0.1889		651.7701	651.7701	0.0428		652.6686
Total	**0.6723**	**2.2452**	**8.3972**	**0.0106**	**0.7740**	**0.0322**	**0.8062**	**0.2069**	**0.0295**	**0.2365**		**958.1678**	**958.1678**	**0.0458**		**959.1304**

3.4 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.4 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2560	1.4666	2.9849	3.0500e-003	0.0820	0.0208	0.1028	0.0234	0.0191	0.0425		303.0833	303.0833	2.6500e-003		303.1390
Worker	0.3398	0.5085	4.5370	7.5400e-003	0.6920	5.4300e-003	0.6975	0.1835	4.9200e-003	0.1885		628.4593	628.4593	0.0380		629.2579
Total	**0.5958**	**1.9751**	**7.5219**	**0.0106**	**0.7740**	**0.0263**	**0.8003**	**0.2070**	**0.0241**	**0.2310**		**931.5426**	**931.5426**	**0.0407**		**932.3969**

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	1.0782	23.4615	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**1.0782**	**23.4615**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.4 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2560	1.4666	2.9849	3.0500e-003	0.0820	0.0208	0.1028	0.0234	0.0191	0.0425		303.0833	303.0833	2.6500e-003		303.1390
Worker	0.3398	0.5085	4.5370	7.5400e-003	0.6920	5.4300e-003	0.6975	0.1835	4.9200e-003	0.1885		628.4593	628.4593	0.0380		629.2579
Total	**0.5958**	**1.9751**	**7.5219**	**0.0106**	**0.7740**	**0.0263**	**0.8003**	**0.2070**	**0.0241**	**0.2310**		**931.5426**	**931.5426**	**0.0407**		**932.3969**

3.5 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

3.5 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0728	0.1090	0.9722	1.6200e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		134.6699	134.6699	8.1500e-003		134.8410
Total	**0.0728**	**0.1090**	**0.9722**	**1.6200e-003**	**0.1483**	**1.1600e-003**	**0.1495**	**0.0393**	**1.0500e-003**	**0.0404**		**134.6699**	**134.6699**	**8.1500e-003**		**134.8410**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9122	19.6998	16.9276	0.0223		0.6542	0.6542		0.6542	0.6542	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9122**	**19.6998**	**16.9276**	**0.0223**		**0.6542**	**0.6542**		**0.6542**	**0.6542**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

3.5 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0728	0.1090	0.9722	1.6200e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		134.6699	134.6699	8.1500e-003		134.8410
Total	**0.0728**	**0.1090**	**0.9722**	**1.6200e-003**	**0.1483**	**1.1600e-003**	**0.1495**	**0.0393**	**1.0500e-003**	**0.0404**		**134.6699**	**134.6699**	**8.1500e-003**		**134.8410**

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	386.9414					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**387.3099**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.1017	0.9074	1.5100e-003	0.1384	1.0900e-003	0.1395	0.0367	9.8000e-004	0.0377		125.6919	125.6919	7.6100e-003		125.8516
Total	**0.0680**	**0.1017**	**0.9074**	**1.5100e-003**	**0.1384**	**1.0900e-003**	**0.1395**	**0.0367**	**9.8000e-004**	**0.0377**		**125.6919**	**125.6919**	**7.6100e-003**		**125.8516**

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	386.9414					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**387.0553**	**2.3524**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.1017	0.9074	1.5100e-003	0.1384	1.0900e-003	0.1395	0.0367	9.8000e-004	0.0377		125.6919	125.6919	7.6100e-003		125.8516
Total	**0.0680**	**0.1017**	**0.9074**	**1.5100e-003**	**0.1384**	**1.0900e-003**	**0.1395**	**0.0367**	**9.8000e-004**	**0.0377**		**125.6919**	**125.6919**	**7.6100e-003**		**125.8516**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	7.2028	17.6980	71.2154	0.1110	8.0216	0.2053	8.2269	2.1450	0.1885	2.3335		9,778.2585	9,778.2585	0.4679		9,788.0853
Unmitigated	7.2031	17.6995	71.2201	0.1110	8.0224	0.2053	8.2277	2.1452	0.1885	2.3337		9,779.2168	9,779.2168	0.4680		9,789.0445

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	63.91	62.37	53.24	157,998	157,982
Condo/Townhouse	133.63	130.41	111.32	330,359	330,325
Office Park	201.85	45.02	19.22	365,867	365,830
Single Family Housing	1,056.72	1,100.01	956.82	2,665,160	2,664,890
Total	1,456.11	1,337.81	1,140.60	3,519,384	3,519,027

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
Condo/Townhouse	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Office Park	13.00	5.00	5.00	33.00	48.00	19.00	82	15	3
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3

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

5.0 Energy Detail

4.4 Fleet Mix

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	0.1436	1.2337	0.5703	7.8300e-003		0.0992	0.0992		0.0992	0.0992		1,566.5929	1,566.5929	0.0300	0.0287	1,576.1269
NaturalGas Unmitigated	0.1436	1.2337	0.5703	7.8300e-003		0.0992	0.0992		0.0992	0.0992		1,566.5929	1,566.5929	0.0300	0.0287	1,576.1269

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					
Office Park	1114.04	0.0120	0.1092	0.0917	6.6000e-004		8.3000e-003	8.3000e-003		8.3000e-003	8.3000e-003		131.0640	131.0640	2.5100e-003	2.4000e-003	131.8616
Single Family Housing	10729.9	0.1157	0.9888	0.4208	6.3100e-003		0.0800	0.0800		0.0800	0.0800		1,262.3396	1,262.3396	0.0242	0.0231	1,270.0220
Apartments Mid Rise	244.942	2.6400e-003	0.0226	9.6100e-003	1.4000e-004		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		28.8167	28.8167	5.5000e-004	5.3000e-004	28.9921
Condo/Townhouse	1227.17	0.0132	0.1131	0.0481	7.2000e-004		9.1400e-003	9.1400e-003		9.1400e-003	9.1400e-003		144.3726	144.3726	2.7700e-003	2.6500e-003	145.2512
Total		**0.1436**	**1.2337**	**0.5703**	**7.8300e-003**		**0.0992**	**0.0992**		**0.0992**	**0.0992**		**1,566.5929**	**1,566.5929**	**0.0300**	**0.0287**	**1,576.1269**

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					
Office Park	1.11404	0.0120	0.1092	0.0917	6.6000e-004		8.3000e-003	8.3000e-003		8.3000e-003	8.3000e-003		131.0640	131.0640	2.5100e-003	2.4000e-003	131.8616
Single Family Housing	10.7299	0.1157	0.9888	0.4208	6.3100e-003		0.0800	0.0800		0.0800	0.0800		1,262.3396	1,262.3396	0.0242	0.0231	1,270.0220
Apartments Mid Rise	0.244942	2.6400e-003	0.0226	9.6100e-003	1.4000e-004		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		28.8167	28.8167	5.5000e-004	5.3000e-004	28.9921
Condo/Townhouse	1.22717	0.0132	0.1131	0.0481	7.2000e-004		9.1400e-003	9.1400e-003		9.1400e-003	9.1400e-003		144.3726	144.3726	2.7700e-003	2.6500e-003	145.2512
Total		**0.1436**	**1.2337**	**0.5703**	**7.8300e-003**		**0.0992**	**0.0992**		**0.0992**	**0.0992**		**1,566.5929**	**1,566.5929**	**0.0300**	**0.0287**	**1,576.1269**

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	7.8973	0.1419	12.1313	6.3000e-004		0.0654	0.0654		0.0654	0.0654	0.0000	21.5441	21.5441	0.0220	0.0000	22.0053
Unmitigated	7.8973	0.1419	12.1313	6.3000e-004		0.0654	0.0654		0.0654	0.0654	0.0000	21.5441	21.5441	0.0220	0.0000	22.0053

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	2.1202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3949					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	0.3822	0.1419	12.1313	6.3000e-004		0.0654	0.0654		0.0654	0.0654		21.5441	21.5441	0.0220		22.0053
Total	**7.8973**	**0.1419**	**12.1313**	**6.3000e-004**		**0.0654**	**0.0654**		**0.0654**	**0.0654**	**0.0000**	**21.5441**	**21.5441**	**0.0220**	**0.0000**	**22.0053**

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	2.1202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3949					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	0.3822	0.1419	12.1313	6.3000e-004		0.0654	0.0654		0.0654	0.0654		21.5441	21.5441	0.0220		22.0053
Total	**7.8973**	**0.1419**	**12.1313**	**6.3000e-004**		**0.0654**	**0.0654**		**0.0654**	**0.0654**	**0.0000**	**21.5441**	**21.5441**	**0.0220**	**0.0000**	**22.0053**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Vegetation

VTM #2353

San Luis Obispo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	18.30	1000sqft	2.86	18,300.00	0
Apartments Mid Rise	11.00	Dwelling Unit	0.29	11,000.00	31
Condo/Townhouse	23.00	Dwelling Unit	1.38	23,000.00	66
Single Family Housing	111.00	Dwelling Unit	12.17	199,800.00	317

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Maximum buildout base don project traffic study. Acreage consistent with tract map.

Construction Phase - Default construction period.

Vehicle Trips - Trip rates from ITE 9th Ed. Trip Generation Manual.

Construction Off-road Equipment Mitigation - SLOAPCD requirements: diesel construction equip tier 2 or better, soil stabilizers on unpaved areas, watering of exposed areas.

Mobile Land Use Mitigation - Increased density described based on estimated population (DoF Table E-5) and employment (SCAG Density Study).

Area Mitigation - No hearths.

Waste Mitigation - AB 939 mandated solid waste reduction.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblLandUse	LotAcreage	0.42	2.86
tblLandUse	LotAcreage	1.44	1.38
tblLandUse	LotAcreage	36.04	12.17
tblProjectCharacteristics	OperationalYear	2014	2016
tblVehicleTrips	ST_TR	7.16	5.67
tblVehicleTrips	ST_TR	7.16	5.67
tblVehicleTrips	ST_TR	1.64	2.46
tblVehicleTrips	ST_TR	10.08	9.91
tblVehicleTrips	SU_TR	6.07	4.84
tblVehicleTrips	SU_TR	6.07	4.84
tblVehicleTrips	SU_TR	0.76	1.05
tblVehicleTrips	SU_TR	8.77	8.62
tblVehicleTrips	WD_TR	6.59	5.81
tblVehicleTrips	WD_TR	6.59	5.81
tblVehicleTrips	WD_TR	11.42	11.03
tblVehicleTrips	WD_TR	9.57	9.52

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					
2015	0.6033	5.0406	3.9518	5.3100e-003	0.3075	0.3099	0.6175	0.1269	0.2899	0.4168	0.0000	476.6164	476.6164	0.1044	0.0000	478.8081
2016	4.0517	1.4539	1.1964	1.7600e-003	0.0326	0.0933	0.1259	8.7200e-003	0.0875	0.0963	0.0000	155.2294	155.2294	0.0320	0.0000	155.9006
Total	**4.6550**	**6.4945**	**5.1482**	**7.0700e-003**	**0.3401**	**0.4033**	**0.7434**	**0.1357**	**0.3774**	**0.5131**	**0.0000**	**631.8458**	**631.8458**	**0.1363**	**0.0000**	**634.7088**

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					
2015	0.2247	3.7809	3.5595	5.3100e-003	0.1863	0.1287	0.3149	0.0699	0.1284	0.1983	0.0000	476.6159	476.6159	0.1044	0.0000	478.8077
2016	3.9454	1.2276	1.1897	1.7600e-003	0.0326	0.0442	0.0767	8.7200e-003	0.0441	0.0528	0.0000	155.2293	155.2293	0.0320	0.0000	155.9005
Total	**4.1702**	**5.0085**	**4.7492**	**7.0700e-003**	**0.2189**	**0.1728**	**0.3917**	**0.0787**	**0.1724**	**0.2511**	**0.0000**	**631.8452**	**631.8452**	**0.1363**	**0.0000**	**634.7082**

	ROG	NOx	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	**10.42**	**22.88**	**7.75**	**0.00**	**35.65**	**57.14**	**47.31**	**42.01**	**54.31**	**51.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4346	0.0234	2.0017	1.0000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	3.2248	3.2248	3.2900e-003	0.0000	3.2939
Energy	0.0262	0.2252	0.1041	1.4300e-003		0.0181	0.0181		0.0181	0.0181	0.0000	643.4156	643.4156	0.0223	8.3500e-003	646.4725
Mobile	1.1416	2.9920	11.5342	0.0189	1.3246	0.0346	1.3592	0.3550	0.0318	0.3868	0.0000	1,511.1334	1,511.1334	0.0718	0.0000	1,512.6417
Waste						0.0000	0.0000		0.0000	0.0000	33.0124	0.0000	33.0124	1.9510	0.0000	73.9830
Water						0.0000	0.0000		0.0000	0.0000	4.0291	28.0851	32.1142	0.4151	0.0100	43.9418
Total	**2.6024**	**3.2406**	**13.6399**	**0.0204**	**1.3246**	**0.0635**	**1.3881**	**0.3550**	**0.0607**	**0.4157**	**37.0415**	**2,185.8589**	**2,222.9004**	**2.4635**	**0.0184**	**2,280.3328**

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	1.4346	0.0234	2.0017	1.0000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	3.2248	3.2248	3.2900e-003	0.0000	3.2939
Energy	0.0262	0.2252	0.1041	1.4300e-003		0.0181	0.0181		0.0181	0.0181	0.0000	643.4156	643.4156	0.0223	8.3500e-003	646.4725
Mobile	1.1416	2.9918	11.5334	0.0189	1.3245	0.0346	1.3591	0.3549	0.0318	0.3867	0.0000	1,510.9853	1,510.9853	0.0718	0.0000	1,512.4935
Waste						0.0000	0.0000		0.0000	0.0000	16.5062	0.0000	16.5062	0.9755	0.0000	36.9915
Water						0.0000	0.0000		0.0000	0.0000	4.0291	28.0851	32.1142	0.4150	0.0100	43.9354
Total	**2.6023**	**3.2403**	**13.6391**	**0.0204**	**1.3245**	**0.0635**	**1.3880**	**0.3549**	**0.0607**	**0.4156**	**20.5353**	**2,185.7109**	**2,206.2462**	**1.4880**	**0.0184**	**2,243.1867**

	ROG	NOx	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**	**0.01**	**0.01**	**0.05**	**0.01**	**0.00**	**0.01**	**0.01**	**0.00**	**0.01**	**44.56**	**0.01**	**0.75**	**39.60**	**0.05**	**1.63**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2015	1/14/2015	5	10	
2	Grading	Grading	1/15/2015	2/25/2015	5	30	
3	Building Construction	Building Construction	2/26/2015	4/20/2016	5	300	
4	Paving	Paving	4/21/2016	5/18/2016	5	20	
5	Architectural Coating	Architectural Coating	5/19/2016	6/15/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 473,445; Residential Outdoor: 157,815; Non-Residential Indoor: 27,450; Non-Residential Outdoor: 9,150 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	70.00	18.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0263	0.2845	0.2132	2.0000e-004		0.0154	0.0154		0.0142	0.0142	0.0000	18.6506	18.6506	5.5700e-003	0.0000	18.7675
Total	**0.0263**	**0.2845**	**0.2132**	**2.0000e-004**	**0.0903**	**0.0154**	**0.1058**	**0.0497**	**0.0142**	**0.0639**	**0.0000**	**18.6506**	**18.6506**	**5.5700e-003**	**0.0000**	**18.7675**

3.2 Site Preparation - 2015

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	4.8000e-004	7.4000e-004	6.6600e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.7000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7663	0.7663	5.0000e-005	0.0000	0.7674
Total	**4.8000e-004**	**7.4000e-004**	**6.6600e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7663**	**0.7663**	**5.0000e-005**	**0.0000**	**0.7674**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1500e-003	0.1721	0.1170	2.0000e-004		4.8100e-003	4.8100e-003		4.8100e-003	4.8100e-003	0.0000	18.6505	18.6505	5.5700e-003	0.0000	18.7675
Total	**6.1500e-003**	**0.1721**	**0.1170**	**2.0000e-004**	**0.0407**	**4.8100e-003**	**0.0455**	**0.0223**	**4.8100e-003**	**0.0272**	**0.0000**	**18.6505**	**18.6505**	**5.5700e-003**	**0.0000**	**18.7675**

3.2 Site Preparation - 2015

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	4.8000e-004	7.4000e-004	6.6600e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.7000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7663	0.7663	5.0000e-005	0.0000	0.7674
Total	**4.8000e-004**	**7.4000e-004**	**6.6600e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7663**	**0.7663**	**5.0000e-005**	**0.0000**	**0.7674**

3.3 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1016	1.1857	0.7626	9.3000e-004		0.0570	0.0570		0.0525	0.0525	0.0000	88.2633	88.2633	0.0264	0.0000	88.8167
Total	**0.1016**	**1.1857**	**0.7626**	**9.3000e-004**	**0.1301**	**0.0570**	**0.1871**	**0.0540**	**0.0525**	**0.1064**	**0.0000**	**88.2633**	**88.2633**	**0.0264**	**0.0000**	**88.8167**

3.3 Grading - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-003	2.4500e-003	0.0222	3.0000e-005	2.8900e-003	3.0000e-005	2.9100e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.5544	2.5544	1.7000e-004	0.0000	2.5579
Total	**1.6000e-003**	**2.4500e-003**	**0.0222**	**3.0000e-005**	**2.8900e-003**	**3.0000e-005**	**2.9100e-003**	**7.7000e-004**	**2.0000e-005**	**7.9000e-004**	**0.0000**	**2.5544**	**2.5544**	**1.7000e-004**	**0.0000**	**2.5579**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0586	0.0000	0.0586	0.0243	0.0000	0.0243	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0284	0.7642	0.5692	9.3000e-004		0.0207	0.0207		0.0207	0.0207	0.0000	88.2632	88.2632	0.0264	0.0000	88.8166
Total	**0.0284**	**0.7642**	**0.5692**	**9.3000e-004**	**0.0586**	**0.0207**	**0.0792**	**0.0243**	**0.0207**	**0.0450**	**0.0000**	**88.2632**	**88.2632**	**0.0264**	**0.0000**	**88.8166**

3.3 Grading - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-003	2.4500e-003	0.0222	3.0000e-005	2.8900e-003	3.0000e-005	2.9100e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.5544	2.5544	1.7000e-004	0.0000	2.5579
Total	**1.6000e-003**	**2.4500e-003**	**0.0222**	**3.0000e-005**	**2.8900e-003**	**3.0000e-005**	**2.9100e-003**	**7.7000e-004**	**2.0000e-005**	**7.9000e-004**	**0.0000**	**2.5544**	**2.5544**	**1.7000e-004**	**0.0000**	**2.5579**

3.4 Building Construction - 2015

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	0.4043	3.3183	2.0713	2.9600e-003		0.2339	0.2339		0.2199	0.2199	0.0000	269.6137	269.6137	0.0677	0.0000	271.0343
Total	**0.4043**	**3.3183**	**2.0713**	**2.9600e-003**		**0.2339**	**0.2339**		**0.2199**	**0.2199**	**0.0000**	**269.6137**	**269.6137**	**0.0677**	**0.0000**	**271.0343**

3.4 Building Construction - 2015

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	0.0277	0.1857	0.3038	3.4000e-004	8.8600e-003	2.8700e-003	0.0117	2.5400e-003	2.6400e-003	5.1800e-003	0.0000	30.9064	30.9064	3.0000e-004	0.0000	30.9127
Worker	0.0413	0.0633	0.5721	8.4000e-004	0.0745	6.5000e-004	0.0751	0.0198	5.9000e-004	0.0204	0.0000	65.8616	65.8616	4.2900e-003	0.0000	65.9517
Total	**0.0690**	**0.2489**	**0.8759**	**1.1800e-003**	**0.0833**	**3.5200e-003**	**0.0869**	**0.0223**	**3.2300e-003**	**0.0256**	**0.0000**	**96.7680**	**96.7680**	**4.5900e-003**	**0.0000**	**96.8644**

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	0.1191	2.5925	1.9686	2.9600e-003		0.0996	0.0996		0.0996	0.0996	0.0000	269.6134	269.6134	0.0677	0.0000	271.0340
Total	**0.1191**	**2.5925**	**1.9686**	**2.9600e-003**		**0.0996**	**0.0996**		**0.0996**	**0.0996**	**0.0000**	**269.6134**	**269.6134**	**0.0677**	**0.0000**	**271.0340**

3.4 Building Construction - 2015

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	0.0277	0.1857	0.3038	3.4000e-004	8.8600e-003	2.8700e-003	0.0117	2.5400e-003	2.6400e-003	5.1800e-003	0.0000	30.9064	30.9064	3.0000e-004	0.0000	30.9127
Worker	0.0413	0.0633	0.5721	8.4000e-004	0.0745	6.5000e-004	0.0751	0.0198	5.9000e-004	0.0204	0.0000	65.8616	65.8616	4.2900e-003	0.0000	65.9517
Total	**0.0690**	**0.2489**	**0.8759**	**1.1800e-003**	**0.0833**	**3.5200e-003**	**0.0869**	**0.0223**	**3.2300e-003**	**0.0256**	**0.0000**	**96.7680**	**96.7680**	**4.5900e-003**	**0.0000**	**96.8644**

3.4 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1346	1.1260	0.7310	1.0600e-003		0.0777	0.0777		0.0730	0.0730	0.0000	95.6507	95.6507	0.0237	0.0000	96.1489
Total	**0.1346**	**1.1260**	**0.7310**	**1.0600e-003**		**0.0777**	**0.0777**		**0.0730**	**0.0730**	**0.0000**	**95.6507**	**95.6507**	**0.0237**	**0.0000**	**96.1489**

3.4 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.2600e-003	0.0585	0.1040	1.2000e-004	3.1700e-003	8.1000e-004	3.9800e-003	9.1000e-004	7.5000e-004	1.6600e-003	0.0000	10.9288	10.9288	9.0000e-005	0.0000	10.9308
Worker	0.0126	0.0198	0.1760	3.0000e-004	0.0266	2.1000e-004	0.0268	7.0700e-003	1.9000e-004	7.2700e-003	0.0000	22.7018	22.7018	1.3600e-003	0.0000	22.7305
Total	**0.0218**	**0.0783**	**0.2800**	**4.2000e-004**	**0.0298**	**1.0200e-003**	**0.0308**	**7.9800e-003**	**9.4000e-004**	**8.9300e-003**	**0.0000**	**33.6307**	**33.6307**	**1.4500e-003**	**0.0000**	**33.6613**

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	0.0426	0.9267	0.7037	1.0600e-003		0.0356	0.0356		0.0356	0.0356	0.0000	95.6506	95.6506	0.0237	0.0000	96.1487
Total	**0.0426**	**0.9267**	**0.7037**	**1.0600e-003**		**0.0356**	**0.0356**		**0.0356**	**0.0356**	**0.0000**	**95.6506**	**95.6506**	**0.0237**	**0.0000**	**96.1487**

3.4 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.2600e-003	0.0585	0.1040	1.2000e-004	3.1700e-003	8.1000e-004	3.9800e-003	9.1000e-004	7.5000e-004	1.6600e-003	0.0000	10.9288	10.9288	9.0000e-005	0.0000	10.9308
Worker	0.0126	0.0198	0.1760	3.0000e-004	0.0266	2.1000e-004	0.0268	7.0700e-003	1.9000e-004	7.2700e-003	0.0000	22.7018	22.7018	1.3600e-003	0.0000	22.7305
Total	**0.0218**	**0.0783**	**0.2800**	**4.2000e-004**	**0.0298**	**1.0200e-003**	**0.0308**	**7.9800e-003**	**9.4000e-004**	**8.9300e-003**	**0.0000**	**33.6307**	**33.6307**	**1.4500e-003**	**0.0000**	**33.6613**

3.5 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0209	0.2239	0.1482	2.2000e-004		0.0126	0.0126		0.0116	0.0116	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0209**	**0.2239**	**0.1482**	**2.2000e-004**		**0.0126**	**0.0126**		**0.0116**	**0.0116**	**0.0000**	**21.0138**	**21.0138**	**6.3400e-003**	**0.0000**	**21.1469**

3.5 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	1.0700e-003	9.5500e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2316	1.2316	7.0000e-005	0.0000	1.2331
Total	**6.8000e-004**	**1.0700e-003**	**9.5500e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4600e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2316**	**1.2316**	**7.0000e-005**	**0.0000**	**1.2331**

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	9.1200e-003	0.1970	0.1693	2.2000e-004		6.5400e-003	6.5400e-003		6.5400e-003	6.5400e-003	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1200e-003**	**0.1970**	**0.1693**	**2.2000e-004**		**6.5400e-003**	**6.5400e-003**		**6.5400e-003**	**6.5400e-003**	**0.0000**	**21.0138**	**21.0138**	**6.3400e-003**	**0.0000**	**21.1469**

3.5 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	1.0700e-003	9.5500e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2316	1.2316	7.0000e-005	0.0000	1.2331
Total	**6.8000e-004**	**1.0700e-003**	**9.5500e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4600e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2316**	**1.2316**	**7.0000e-005**	**0.0000**	**1.2331**

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.8694					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6800e-003	0.0237	0.0188	3.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	2.5533	2.5533	3.0000e-004	0.0000	2.5596
Total	**3.8731**	**0.0237**	**0.0188**	**3.0000e-005**		**1.9700e-003**	**1.9700e-003**		**1.9700e-003**	**1.9700e-003**	**0.0000**	**2.5533**	**2.5533**	**3.0000e-004**	**0.0000**	**2.5596**

3.6 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	1.0000e-003	8.9100e-003	2.0000e-005	1.3500e-003	1.0000e-005	1.3600e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.1495	1.1495	7.0000e-005	0.0000	1.1509
Total	**6.4000e-004**	**1.0000e-003**	**8.9100e-003**	**2.0000e-005**	**1.3500e-003**	**1.0000e-005**	**1.3600e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.1495**	**1.1495**	**7.0000e-005**	**0.0000**	**1.1509**

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	3.8694					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1400e-003	0.0235	0.0183	3.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	2.5533	2.5533	3.0000e-004	0.0000	2.5596
Total	**3.8706**	**0.0235**	**0.0183**	**3.0000e-005**		**9.5000e-004**	**9.5000e-004**		**9.5000e-004**	**9.5000e-004**	**0.0000**	**2.5533**	**2.5533**	**3.0000e-004**	**0.0000**	**2.5596**

3.6 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	1.0000e-003	8.9100e-003	2.0000e-005	1.3500e-003	1.0000e-005	1.3600e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.1495	1.1495	7.0000e-005	0.0000	1.1509
Total	**6.4000e-004**	**1.0000e-003**	**8.9100e-003**	**2.0000e-005**	**1.3500e-003**	**1.0000e-005**	**1.3600e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.1495**	**1.1495**	**7.0000e-005**	**0.0000**	**1.1509**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.1416	2.9918	11.5334	0.0189	1.3245	0.0346	1.3591	0.3549	0.0318	0.3867	0.0000	1,510.9853	1,510.9853	0.0718	0.0000	1,512.4935
Unmitigated	1.1416	2.9920	11.5342	0.0189	1.3246	0.0346	1.3592	0.3550	0.0318	0.3868	0.0000	1,511.1334	1,511.1334	0.0718	0.0000	1,512.6417

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	63.91	62.37	53.24	157,998	157,982
Condo/Townhouse	133.63	130.41	111.32	330,359	330,325
Office Park	201.85	45.02	19.22	365,867	365,830
Single Family Housing	1,056.72	1,100.01	956.82	2,665,160	2,664,890
Total	1,456.11	1,337.81	1,140.60	3,519,384	3,519,027

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
Condo/Townhouse	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3
Office Park	13.00	5.00	5.00	33.00	48.00	19.00	82	15	3
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3

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

5.0 Energy Detail

4.4 Fleet Mix

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	384.0486	384.0486	0.0174	3.5900e-003	385.5270
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	384.0486	384.0486	0.0174	3.5900e-003	385.5270
NaturalGas Mitigated	0.0262	0.2252	0.1041	1.4300e-003		0.0181	0.0181		0.0181	0.0181	0.0000	259.3670	259.3670	4.9700e-003	4.7600e-003	260.9455
NaturalGas Unmitigated	0.0262	0.2252	0.1041	1.4300e-003		0.0181	0.0181		0.0181	0.0181	0.0000	259.3670	259.3670	4.9700e-003	4.7600e-003	260.9455

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					
Office Park	406626	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	21.6991	21.6991	4.2000e-004	4.0000e-004	21.8312
Single Family Housing	3.91641e+006	0.0211	0.1805	0.0768	1.1500e-003		0.0146	0.0146		0.0146	0.0146	0.0000	208.9945	208.9945	4.0100e-003	3.8300e-003	210.2664
Apartments Mid Rise	89403.8	4.8000e-004	4.1200e-003	1.7500e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7709	4.7709	9.0000e-005	9.0000e-005	4.8000
Condo/Townhouse	447916	2.4200e-003	0.0206	8.7800e-003	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.9025	23.9025	4.6000e-004	4.4000e-004	24.0480
Total		**0.0262**	**0.2252**	**0.1041**	**1.4300e-003**		**0.0181**	**0.0181**		**0.0181**	**0.0181**	**0.0000**	**259.3670**	**259.3670**	**4.9800e-003**	**4.7600e-003**	**260.9455**

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					
Office Park	406626	2.1900e-003	0.0199	0.0167	1.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	21.6991	21.6991	4.2000e-004	4.0000e-004	21.8312
Single Family Housing	3.91641e+006	0.0211	0.1805	0.0768	1.1500e-003		0.0146	0.0146		0.0146	0.0146	0.0000	208.9945	208.9945	4.0100e-003	3.8300e-003	210.2664
Apartments Mid Rise	89403.8	4.8000e-004	4.1200e-003	1.7500e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7709	4.7709	9.0000e-005	9.0000e-005	4.8000
Condo/Townhouse	447916	2.4200e-003	0.0206	8.7800e-003	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.9025	23.9025	4.6000e-004	4.4000e-004	24.0480
Total		**0.0262**	**0.2252**	**0.1041**	**1.4300e-003**		**0.0181**	**0.0181**		**0.0181**	**0.0181**	**0.0000**	**259.3670**	**259.3670**	**4.9800e-003**	**4.7600e-003**	**260.9455**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	38792.2	11.2851	5.1000e-004	1.1000e-004	11.3285
Condo/Townhouse	99157.6	28.8461	1.3000e-003	2.7000e-004	28.9571
Office Park	397110	115.5239	5.2200e-003	1.0800e-003	115.9686
Single Family Housing	785096	228.3935	0.0103	2.1400e-003	229.2728
Total		**384.0485**	**0.0174**	**3.6000e-003**	**385.5270**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	38792.2	11.2851	5.1000e-004	1.1000e-004	11.3285
Condo/Townhouse	99157.6	28.8461	1.3000e-003	2.7000e-004	28.9571
Office Park	397110	115.5239	5.2200e-003	1.0800e-003	115.9686
Single Family Housing	785096	228.3935	0.0103	2.1400e-003	229.2728
Total		**384.0485**	**0.0174**	**3.6000e-003**	**385.5270**

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	1.4346	0.0234	2.0017	1.0000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	3.2248	3.2248	3.2900e-003	0.0000	3.2939
Unmitigated	1.4346	0.0234	2.0017	1.0000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	3.2248	3.2248	3.2900e-003	0.0000	3.2939

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	0.3869					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9846					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	0.0631	0.0234	2.0017	1.0000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	3.2248	3.2248	3.2900e-003	0.0000	3.2939
Total	**1.4346**	**0.0234**	**2.0017**	**1.0000e-004**		**0.0108**	**0.0108**		**0.0108**	**0.0108**	**0.0000**	**3.2248**	**3.2248**	**3.2900e-003**	**0.0000**	**3.2939**

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	0.3869					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9846					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	0.0631	0.0234	2.0017	1.0000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	3.2248	3.2248	3.2900e-003	0.0000	3.2939
Total	**1.4346**	**0.0234**	**2.0017**	**1.0000e-004**		**0.0108**	**0.0108**		**0.0108**	**0.0108**	**0.0000**	**3.2248**	**3.2248**	**3.2900e-003**	**0.0000**	**3.2939**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	32.1142	0.4150	0.0100	43.9354
Unmitigated	32.1142	0.4151	0.0100	43.9418

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.716694 / 0.451829	1.8156	0.0234	5.7000e-004	2.4831
Condo/Townhouse	1.49854 / 0.944733	3.7962	0.0490	1.1800e-003	5.1919
Office Park	3.25253 / 1.99348	8.1815	0.1063	2.5700e-003	11.2105
Single Family Housing	7.2321 / 4.55937	18.3209	0.2364	5.7100e-003	25.0564
Total		**32.1142**	**0.4151**	**0.0100**	**43.9418**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.716694 / 0.451829	1.8156	0.0234	5.7000e-004	2.4827
Condo/Townhouse	1.49854 / 0.944733	3.7962	0.0490	1.1800e-003	5.1911
Office Park	3.25253 / 1.99348	8.1815	0.1063	2.5700e-003	11.2088
Single Family Housing	7.2321 / 4.55937	18.3209	0.2363	5.7100e-003	25.0527
Total		**32.1142**	**0.4150**	**0.0100**	**43.9354**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	16.5062	0.9755	0.0000	36.9915
Unmitigated	33.0124	1.9510	0.0000	73.9830

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	5.06	1.0271	0.0607	0.0000	2.3019
Condo/Townhouse	10.58	2.1476	0.1269	0.0000	4.8130
Office Park	17.02	3.4549	0.2042	0.0000	7.7427
Single Family Housing	129.97	26.3827	1.5592	0.0000	59.1254
Total		**33.0124**	**1.9510**	**0.0000**	**73.9830**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	2.53	0.5136	0.0304	0.0000	1.1509
Condo/Townhouse	5.29	1.0738	0.0635	0.0000	2.4065
Office Park	8.51	1.7275	0.1021	0.0000	3.8713
Single Family Housing	64.985	13.1914	0.7796	0.0000	29.5627
Total		**16.5062**	**0.9755**	**0.0000**	**36.9915**

9.0 Operational Offroad

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

10.0 Vegetation