It is assumed that the project mitigation measures described above are included under the cumulative with project conditions analysis. The cumulative with project analysis includes evaluation of intersection levels of service with and without the extension of Gabilan Drive to US 101 as described above.

Cumulative Intersection Levels of Service Operations

The results of the intersection LOS analysis under cumulative conditions are summarized in Figure 4.13-12. The results show that all of the study intersections would operate at an acceptable LOS D or better under cumulative conditions with and without the project.

Cumulative Signal Warrant Operations

The peak-hour signal warrant analysis for cumulative conditions showed that the Caltrans peak-hour volume warrant would not be satisfied at any further study intersections than those identified under project conditions. The results of the signal warrant analysis can be found in the Transportation Impact Analysis contained in Technical Appendix T-8 in Volume II of this EIR.

Cumulative Roadway Segment Analysis

Traffic volumes for cumulative conditions on each of the studied roadway segments were developed by adding to background condition volumes the trips associated with each of the pending projects and proposed project. The roadway segment analysis indicates that all but one of the studied roadway segments are projected to operate at LOS D or better during both peak hours under cumulative no project conditions at:

Front Street - between East St and Nestles Rd (westbound)

The roadway segment analysis indicates that the addition of project traffic would cause four additional studied roadway segments to deteriorate to LOS E or worse during at least one peak hour under cumulative with project conditions at:

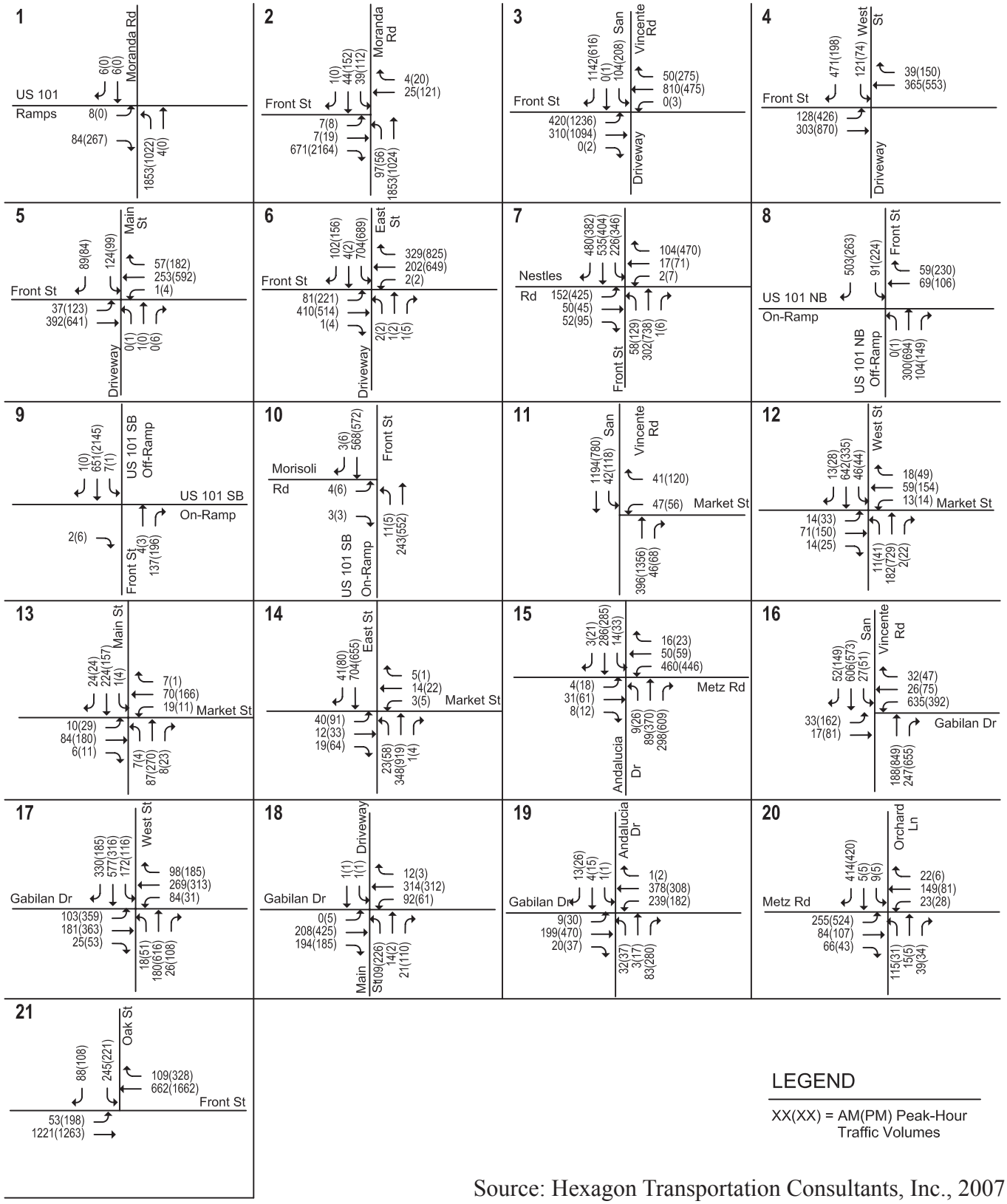
Front Street - between Moranda Rd and San Vicente Rd (eastbound)
Front Street - between East St and Nestles Rd (eastbound)
San Vicente -between Market St. and Gabilan Dr. (northbound & southbound)

The degradation of roadway segment levels of service indicates the need for roadway widening.

Cumulative Freeway Segment Analysis

Traffic volumes for cumulative conditions on each of the studied freeway segments were developed by adding to background condition volumes the trips associated with each of the pending projects and proposed project. The pending project trips were assigned to the freeway system in the same manner as with the proposed project. The freeway segment analysis indicates that all but one of the studied roadway segments are projected to operate at LOS C or better during both peak hours under cumulative no project conditions. The freeway segment analysis indicates that one additional study segment than those identified under project conditions would deteriorate to LOS D or worse during at least one peak hour under cumulative with project conditions. Freeway segment analysis is presented in Tables 28 and 29 of the Transportation Impact Analysis.

US 101 –Northbound between Gloria Road and Soledad Prison (AM Peak Hour)



Source: Hexagon Transportation Consultants, Inc., 2007

Cumulative Growth Traffic Volumes

Figure 4.13-12

Table 4.13-4
Cumulative Project Trip Generation Estimates

			Daily		AM Peak Hour				PM Peak Hour			
Land Use	Size		Rate /a/	Trips	Rate /a/	In	Out	Total	Rate /a/	In	Out	Total
The Village at Soledad												
Shopping Center /d/	139,730	s.f.	42.94	6,000	1.03	88	56	144	3.75	252	272	524
Hotel /e/	84	Rooms	8.17	686	0.56	29	18	47	0.59	26	23	50
Cinema	1,329	seats							0.08	38	68	106
Totals				6,686		116	74	191		316	364	680
Soledad Plaza												
Shopping Center /d/	415,000	s.f.	42.94	17,820	1.03	261	167	427	3.75	747	809	1556
263 Front Street												
Specialty Retail Center /c/	12,200	s.f.	44.32	541		8	9	16	2.71	15	19	33
Residential /b/	152	units	5.86	891		11	56	67	0.52	53	26	79
Totals				1,431		19	64	83		68	45	112
Total All Approved Projects				**25,938**		**397**	**305**	**702**		**1,131**	**1,218**	**2,348**

Notes:
/a/ Rates expressed in trips per dwelling units.
/b/ Trip Generation rates for residential condominium/townhouse (ITE Land Use #230) used for this project.
/c/ Trip Generation rates for specialty retail center (ITE Land Use #814) used for this project.

/d/ Trip Generation rates for shopping center (ITE Land Use #820) used for this project.
/e/ Trip Generation rates for hotel (ITE Land Use #310) used for this project.

Source for rates: ITE Trip Generation, Seventh Edition.

Cumulative Freeway Ramp Analysis

Traffic volumes for cumulative conditions on each of the studied freeway ramps were developed by adding to background condition volumes the trips associated with each of the pending projects and proposed project. The pending project trips were assigned to the freeway ramps in the same manner as with the proposed project. The freeway ramp analysis indicates that no further study ramps than those identified under project conditions would deteriorate in levels of service under cumulative no project and with project conditions. Freeway ramp analysis is presented in Tables 30 and 31 of the Transportation Impact Analysis.

Cumulative Impacts and Mitigation Measures

Impact **Based on the significance impact criteria, the project together with the cumulative developments will have a significant impact on two intersections.** ***The traffic impacts would be reduced to a less-than-significant level with implementation of mitigation identified below.***

Mitigation

4.13-13 *Moranda Road and Front Street:* Addition of an east leg to the intersection to serve the Soledad Plaza project site. In order to mitigate potential impacts at this intersection, the project applicant shall submit payment of the City's adopted traffic impact fee in effect at the time of building permit issuance for each phase of development, subject to the review and approval of the City of Soledad Director of Public Works. All fees shall be paid prior to the issuance of any building permit for each phase of development.

4.13-14 *San Vicente Road and Gabilan Drive:* Addition of a west leg to the intersection to serve the Soledad Plaza project site. In order to mitigate potential impacts at this intersection, the project applicant shall submit payment of the City's adopted traffic impact fee in effect at the time of building permit issuance for each phase of development, subject to the review and approval of the City of Soledad Director of Public Works. All fees shall be paid prior to the issuance of any building permit for each phase of development.

4.14 UTILITIES AND SERVICE SYSTEMS

Introduction

This section evaluates the impacts of the project on water distribution systems and facilities, wastewater collection, treatment and disposal systems and facilities, solid waste disposal facilities, and energy (specifically electricity) supply and infrastructure. Impacts related to the quality of water supply and stormwater/drainage infrastructure are addressed in **Section 4.8 Hydrology and Water Quality.**

To obtain information from public utility providers, DD&A contacted the sewer, water, and landfill operators. Additionally, a Water Supply Assessment and Written Verification of Supply (WSA) was prepared for this project by Byron Buck & Associates. A copy of the WSA is contained in Appendix K and the following section was prepared using information contained in that report. Further, information received from public providers is used to evaluate existing capacity, projected capacity, and existing and projected future use of that capacity.

Setting

Water Supply

The municipal water purveyor for the proposed project is the City of Soledad, which currently operates a series of wells, tanks, and distribution lines within the City's boundaries. As an urban water supplier of more than 3,000 customers, the City is required, under the Urban Water Management Planning Act, as amended, to prepare and periodically update an urban water management plan that describes and projects estimated past, present, and future water sources, supply and demand for at least 20 years into the future. The City's most recent urban water management plan (UWMP) was adopted in December 2005. A portion of the projected water demand associated with the project was included in the UWMP. Under Water Code § 10910(c)(2), and Public Resources Code § 21151.9, when an individual land use project's water demand was accounted for in the most recently adopted urban water management plan, the urban water management plan's information and analysis may be incorporated in the water supply and demand assessment. Accordingly, the information and analysis in the UWMP, including the overall water planning projections and supply projections, is incorporated into this EIR.

The water supply analysis in this section is based on a number of sources in addition to the UWMP, including the following: the June 2001 EIR/EIS for the Salinas Valley Water Project, information developed by the City, the City's 2005 Water Supply Assessment and Written Verification of Supply (WSA) prepared for this project by Byron Buck & Associates, and the City's 2005 Water Master Plan prepared by Schaaf & Wheeler.

As identified in the above referenced documents, the City's sole source of water is groundwater from the Salinas Valley Groundwater Basin (herein referred to as "Basin"), which follows the Salinas River throughout Monterey County. Due to significant groundwater overdraft, the Basin, which consists of four subareas (East Side, Pressure, Forebay, and Upper Valley), has historically experienced saltwater intrusion of varying magnitude along its northern terminus. More specifically, overdraft has caused saltwater intrusion in areas closer to the coast. The City of Soledad, however, is located within the Forebay Subarea, which has a total surface area of 94,000 acres. Soledad draws its water from the unconfined shallow aquifer zone, and overdraft has not historically been a problem in the Forebay Subarea.

Existing groundwater production is shown in Table 4.14-1. According to the 2005 UWMP, the City anticipates pumping up to 8,458 acre feet per year (AFY). This projection, however, is considered

conservative as it does not represent all new demands on the Basin, as existing agricultural uses will gradually be retired, mitigating much of the impacts on the Basin. Table 4.14-2 depicts projected water demand in comparison with available water supply.

Table 4.14-1
City of Soledad's Groundwater Production (AFY)
2000 – 2004

Year	City of Soledad Service Area
2000	1,716
2001	1,749
2002	1,878
2003	2,322
2004	2,363

Source: City of Soledad Urban Water Management Plan, Harris & Associates, December 2005.

Table 4.14-2
City of Soledad Water Supply Demand & Supply Comparisons (AFY)

Year	Available Supply	Projected Demand	Proportion of Available Supply
2005	1,500,000	2,337	0.16%
2010	1,500,000	5,592	0.37%
2015	1,500,000	6,531	0.43%
2020	1,500,000	7,506	0.50%
2025	1,500,000	8,458	0.56%

Source: City of Soledad Urban Water Management Plan, Harris & Associates, December 2005.

Infiltration in the Salinas River channel is the principal source of groundwater for the Basin. Flows from the Salinas River channel and its tributaries percolate through alluvial materials and porous geological structures, recharging the local aquifers. While seawater intrusion does not directly affect the City of Soledad, it is an issue for the Monterey County Water Resources Agency (MCWRA), which manages water resources throughout the County. MCWRA is currently in the process of implementing a long-term program to address and ultimately eliminate overdraft and seawater intrusion in the basin known as the Salinas Valley Water Project (SVWP). The objectives of the SVWP, as delineated in the June 2001 EIR/EIS (SVWP EIR) for the project, include halting seawater intrusion, continuing conservation of winter flows for recharge of the Salinas Valley basin through summer releases, improving long-term hydrologic balance between recharge and withdrawal, and providing a sufficient water supply to meet water needs through the year 2030.

According to the 2005 UWMP and the City's WSA for the proposed project, sufficient water exists to meet the anticipated demands generated by the proposed project. Additionally, the project site is located in Zone 2C of the SVWP and would subsequently benefit from the implementation of the measures previously identified above. Furthermore, projected water supplies are sufficient to meet the projected annual water demands of existing and previously approved uses and the proposed Miravale III project during normal, single dry and multiple dry years" (Water Supply Assessment and Written Verification of Supply).

Water System

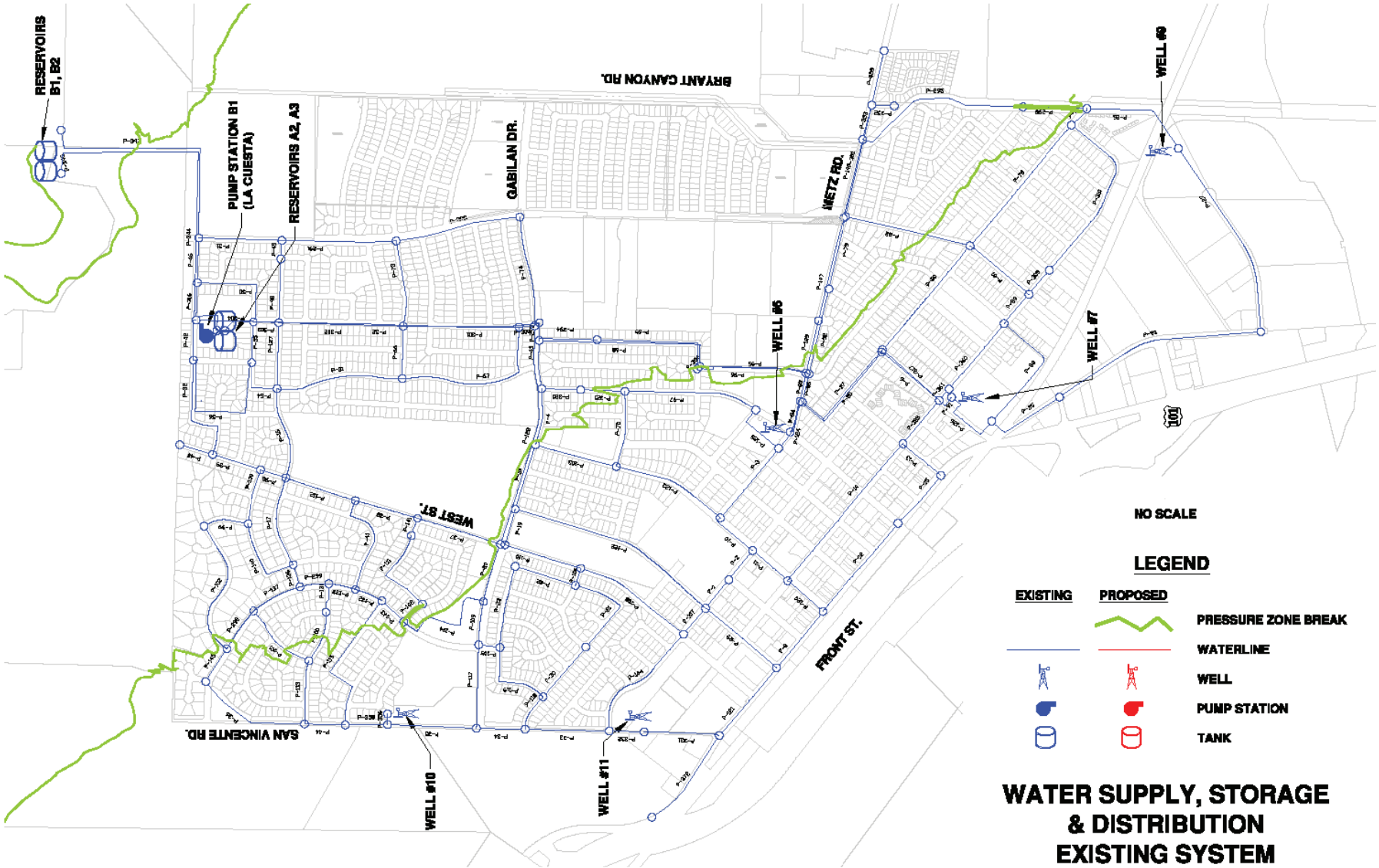
According to the 2005 Soledad Water Master Plan prepared by Schaaf & Wheeler, the existing City operated system consists of production wells, storage tanks, one booster pump station, and approximately 40 miles of water distribution pipelines ranging in size between 2" to 16" in diameter. The existing system provides approximately 3,900 metered connections and is classified as a large water system according to the State of California Department of Health Services. Figure 4.14-1 provides a graphical representation of the City's water distribution system. The following section provides an overview of the City's existing water distribution system as described in the 2005 Soledad Water Master Plan.

The existing system, which is defined as two pressure zones, Zone A and Zone B, five production supply wells, four reservoirs (i.e. storage tanks), and one booster pump. Due to elevation changes, the City has been defined as two pressure zones in order to ensure that adequate pressure and services are provided to area residents. More specifically, the service elevation for Zone A ranges between 180 and 215 feet above sea level and Zone B ranges between 215 and 340 feet above sea level. There are two existing storage tanks, including a 100,000 gallon tank located in Vosti Park, and a one million gallon tank located near the La Cuesta Views subdivision, in Zone A. All the production wells are also located within Zone A. After water has been pumped from the wells it is subsequently treated with a Chlorine solution to provide for residual disinfection. Two of the existing wells are emergency/standby production wells that have historically tested high for nitrates and low levels of bromobenzene. These wells have not been used and they will be abandoned as new wells are added to the system. Two additional one million gallon storage tanks are located in Zone B. Since all the production wells are currently located within Zone A, a booster pump station, consisting of three pumps, is located at the La Cuesta site and provides water from Zone A to the storage facilities in Zone B. The total storage capacity for the entire system is approximately 3.1 million gallons or approximately 9.5 acre-feet (AF). Existing supply capacity from the five groundwater wells is estimated at 7.5 million gallons per day (MGD) or approximately 8,400 acre-feet per year (AFY).

As identified in the Soledad Water Master Plan, a number of Capital Improvement Program (CIP) projects have been identified as requiring immediate attention in order to address system deficiencies. These projects include the provision of permits and land acquisition for additional supply wells, installing an additional reservoir at the La Cuesta location, and discontinuing the use of the Vosti Park tank. In summary, the existing systems requires infrastructure upgrades in order to meet existing demands and further upgrades are warranted to accommodate both "Near Future Development," which includes the proposed project, and ultimate buildout of the City as envisioned in the General Plan.

Wastewater

In 2005, the City of Soledad, due to the urgent need for wastewater infrastructure to accommodate planned growth, undertook the preparation of a comprehensive Long Term Wastewater Management Plan (LTWMP) for upgrading, operating, maintaining, and expanding the City's sewer system. In May 2006, the City Council adopted Resolution No. 3783 adopting the LTWMP prepared by Black & Veatch. The following discussion provides an overview of the City's wastewater system as described in the Black & Veatch report.



Source: Shcaaf and Wheeler, 2007

N

Existing Water Distribution System

Figure 14.4-1

DENISE DUFFY & ASSOCIATES, INC.

As identified in the LTWMP, wastewater and sanitary sewer services are provided by the City of Soledad. The City operates two wastewater treatment plants, including a plant owned by the California Department of Corrections and Rehabilitation (CDCR), located southwest of the City. The City Plant is owned by the City, and the Prison Plant is leased from CDCR. Currently, the City is in process of purchasing the Prison Plant from the State. The two plants treat wastewater from the City, two prison facilities (CDCR's Salinas State Prison and Correctional Training Facility), and several industrial dischargers.

In November 2001, due to capacity concerns, Carollo Engineers conducted a capacity evaluation and re-rated the capacity of the City Plant at 3.6 million gallons per day (mgd). This re-rating allowed the City to continue approving new development while planning for plant expansion. In 2004, however, the City council adopted Urgency Ordinance No. 612 "Establishing a Moratorium on the Issuance of Building Permits Requiring Sewer Connections and Making Findings Related Thereto" due to treatment capacity concerns. More specifically, in September of 2004 flow rates were measured at 2.9 mgd, exceeding percolation pond capacity. As a result, the City determined that the only viable alternative was to prohibit additional inflow until such time that additional capacity could be provided. Subsequently, the council also adopted Resolution No. 3557 "Declaring an Emergency Pursuant to Section 20168 of the Public Contract Code and Authorizing Contracting Without Compliance With Mandatory Contract Bidding Procedures" in order to expedite design and construction efforts necessary to resolve the treatment and disposal emergency created by the conditions at the facility.

The City's existing wastewater collection system includes more than 100,000 feet of gravity wastewater pipelines, ranging in diameter from 6 to 15 inches, and one small temporary sewage pump station. Currently, the City Plant utilizes both biological and physical treatments, which consist of headworks, aeration ponds, secondary ponds, and effluent disposal. See Figure 4.14-2. After disposal, additional biological and physical treatment occurs within the soil column, but is limited due to high groundwater conditions. The City, however, has committed to phasing in tertiary treatment by 2010 in order to mitigate groundwater quality concerns and allow for the future use of recycled water.

The 2006 LTWMP, which provides for funding, upgrading, operating, maintaining, and expanding the City's wastewater infrastructure, has an emphasis on use of recycled water. The recommended improvements include process improvements and capacity expansion (5.5 MGD) to the City's Wastewater Treatment Plant and implementation of a 1.3 MGD Scalping Plant within the City's collection system. This scalping plant would provide Title 22 water for irrigation of golf courses, parks and other landscape areas. The estimated cost of the capital improvements required to meet the City's projected growth at the year 2028 is approximately $42.8 million. Currently, the City is in the process of soliciting proposals for the expansion of plant capacity. These upgrades are scheduled to be in service by 2010.

Solid Waste

The project area is within the jurisdiction of the Salinas Valley Solid Waste Authority (SVSWA), which provides solid waste services to the cities of Gonzales, Greenfield, King City, Salinas, Soledad, and the unincorporated areas of Monterey County in the Salinas Valley Region. Currently, the SVSWA owns three landfills and a transfer station, and oversees the contract operation of these facilities. The SVSWA is also responsible for overseeing future landfill siting or expansion to meet the area's long-term solid waste disposal needs. Solid waste collection is provided by Tri-Cities, a private hauler.

8"-10" Sewer Line

12"-18" Sewer Line

21"-27" Sewer Line

City Limit

0 1,000 2,000

Scale in Feet

N

Existing Wastewater Distribution System

Figure

4.14-2

DENISE DUFFY & ASSOCIATES, INC.

In 1999, the SVSWA developed a Regional Plan to provide the Salinas Valley with additional landfill capacity. As a result of this process, the SVSWA Board of Directors adopted a program that provided for the expansion of Crazy Horse, Johnson Canyon and Jolon Road Landfills, as well as a good faith effort to find a new landfill site to supplement the capacity of the existing landfills in the Salinas Valley for at least 35 years. In 2002, the SVSWA undertook the preparation of an EIR for the Regional Solid Waste Facilities Project in order to procure additional landfill capacity for the SVSWA's member jurisdictions. On November 14, 2002, the SVSWA Board of Directors adopted the Regional Solid Waste Facilities Project, which would maximize the capacity of existing facilities within the SVSWA's jurisdiction.

In addition to disposing of waste at the above referenced landfills, the SVSWA also disposes of waste at Foothill Sanitary Landfill and the Monterey Regional Waste Management District Marina Landfill. As identified in the City of Soledad General Plan EIR, solid waste is primarily disposed of at the Johnson Canyon facility. According to the California Integrated Waste Management Board, the Johnson Canyon facility has an estimated capacity of approximately 6,601,100 cubic yards. Approximately 5,936,250 cubic yards of capacity is available for disposal.

Energy

Pacific Gas & Electric Co. (PG&E) provides gas and electric service to the project site. Natural gas is measured in British thermal units (Btu), which is the quantity of heat necessary to raise the temperature of one pound of water one degree Fahrenheit. Electricity is measured in kilowatt hours (kwh). A kilowatt (kw) is a measure of power produced through sources of generation at 3,413 Btu/kw-hour. Most electricity is produced by converting other primary energy sources into electricity. PG&E operates a grid distribution system that transmits electricity with a vast network of transmission and distribution lines throughout the service area to the users. Most of the electricity that PG&E distributes throughout Monterey County is obtained from the Duke Energy Moss Landing Plant. The Moss Landing Plant generates over 1,500 megawatts, which is adequate to supply the Monterey region (Jose Rios, PG&E, personal communication, August 2007).

Regulatory Environment

City of Soledad General Plan

The City of Soledad General Plan provides policies for adequate utilities and service systems. Please refer to Table 4.9-2 of the Land Use section for a detailed analysis of the project's consistency with the relevant utilities and service systems provisions of the Soledad General Plan. The following policies address utilities and service systems relevant to the proposed project.

Policy S-1 The City shall ensure through the development review process that adequate public facilities and services are available to serve new development. New development shall not be allowed until adequate public services and facilities to serve such development are provided. Where existing facilities are inadequate, new development may only be approved when the following conditions are met:

a. The development and/or City can demonstrate that all necessary public facilities will be adequately finance and installed in time (through fees or other means); and
b. The facilities improvements are consistent with applicable facility plans approved by the City or other agencies in which the City is a participant.

Policy S-2 The City shall plan for the expansion of needed water and sewer infrastructure including, but not limited to, the expansion of water production, storage and distribution facilities,

the expansion of wastewater collection and treatment capacity, and storm drainage facility expansion.

Policy S-3 Public facilities, such as wells, pumps, tanks, and yards shall be located and designed so that noise, light, odors, and appearances do not adversely affect nearby land uses.

Policy S-4 Where new development requires the construction of new public facilities, the new development shall pay its fair share of the construction. Where necessary, the City shall require the dedication of land within newly developing areas for public facilities.

Policy S-5 The City shall require that new development pay its fair share of the cost of all existing facilities it uses based on the demand for these facilities attributable to the new development; exceptions may be made when new development provides alternative sources of funding or equipment to offset any shortfall in revenues.

Policy S-8 The City shall promote the efficient use of water and reduce water demand by:

a. Requiring water-conserving design and equipment in new construction;
b. Encouraging water-conserving landscaping and other conservation measures;
c. Encouraging the retrofitting of existing fixtures with water-conserving fixtures.

Policy S-10 The City will manage the increase in water demand from new development to help insure groundwater resources are not overdrafted. The City will work with Monterey County and public and private water entities to plan for the efficient, long term management of groundwater resources.

Policy S-11 Gravity flow for sewer and water service shall be employed wherever feasible.

Policy S-12 The City shall encourage the use of natural drainage systems where feasible to preserve and enhance natural features.

Policy S-15 The City shall require new development to adequately mitigate increases in stormwater peak flows and/or volume. Mitigation measures shall take into consideration impacts on adjoining properties and impacts on groundwater recharge related to existing and proposed water wells.

Policy S-16 The City shall encourage project designs that minimize drainage concentrations and impervious coverage and maintain, to the extent feasible, natural site drainage conditions. Drainage onto adjacent properties shall be restricted to pre-project levels minus any runoff from the area to be developed.

Policy S-17 The City shall require projects to allocate land as necessary for the purpose of retaining flows and/or for the incorporation of mitigation measures for water quality and supply impacts related to urban runoff.

Policy S-19 Engineered drainage plans shall be required for all development projects. Engineered drainage plans shall incorporate a collection and treatment system for stormwater runoff consistent with applicable federal and state laws.

Environmental Impact Report on the Soledad General Plan. The General Plan EIR evaluated potential utilities and service systems impacts associated with the adoption and implementation of the Soledad General Plan, including future development within the project area. This program-level EIR

focused on general impacts associated with implementation of the General Plan, rather than project-specific impacts associated with individual development projects, such as the Miravale III Specific Plan project. According to the General Plan EIR, the following utilities and service systems impacts were identified:

- Buildout of the General Plan would require considerable expansion of wastewater infrastructure capacity for collection, treatment, and disposal. This impact was identified as significant unless mitigated.

- Buildout of the General Plan would significantly increase the amount of biosolids generated by the wastewater treatment plan, which would impact the capacity of licensed disposal facilities. This impact was identified as adverse, but not significant.

- Buildout would increase additional solid waste generation, which will adversely impact the capacity of landfills serving the City. This impact was considered significant unless mitigated.

- Development accommodated under the General Plan would increase the demand for electricity and therefore additional distribution facilities. This was considered significant unavoidable impact.

Soledad Municipal Code.

The following discussion provides a general overview of applicable provisions of the City of Soledad Municipal Code, in addition to associated Ordinances and City Council Resolutions, as they pertain to the construction of recycled water infrastructure and development impact fees for various public facilities. This information is intended to provide a contextual background of various City requirements pertaining to the payment of public facilities impact fees, as well as infrastructure requirements identified in the City's Municipal Code. Moreover, as discussed below, the City of Soledad annually updates the various development impact fees to reflect the percentage change in the construction index for San Francisco. As a result, the proposed project would be subject to the requirements of the adopted impact fee in effect at the time of building permit issuance.

Chapter 13.11 – Recycled Water Service

On June 6, 2007 the City Council adopted Ordinance No. 645, which amended the City of Soledad Municipal Code to include a new chapter, Chapter 13.11, governing the use of recycled water within the City's service area. More specifically, as identified in Section 13.11.010, the general purpose of Ordinance No. 645 is to "establish procedures, specifications, and limitations for the safe use and operation of recycled water facilities and systems within the City's service area, and adopt rules and regulations controlling such use" in order to achieve conservation of potable water supplies. Development of all recycled water components associated with the proposed project would be required to adhere to the requirements set forth in this Ordinance in order to ensure that project infrastructure adheres to the standards and specifications of the City of Soledad.

Ordinance No. 642

On January 17, 2007 the City Council adopted Ordinance No. 642, which amended Chapter 14.06 of Title 14 of the Soledad Municipal Code to incorporate Water Development Impact Fees (see Section 14.06.111). The general purpose of Ordinance No. 640 was to identify impact fees to mitigate impacts to public facilities associated with new developments. Pursuant to Section 14.06.111, the water development impact fees are required to be annually adjusted to reflect the annual percentage change in

the construction index for San Francisco as reported in the Engineering News-Record. In order to mitigate potential project-induced impacts to water facilities, the project applicant would be required to submit payment of impact fees consistent with the requirements of Ordinance No. 642 and the corresponding impact fee in effect at the time of building permit issuance. Since the proposed project is scheduled to be constructed over a duration of 20 years, the project would be subject to all impacts fees as amended that are in effect at the time of building permit issuance.

Ordinance No. 640

On December 6, 2006 the City Council adopted Ordinance No. 640, which amended Chapter 14.06 to Title 14 of the Soledad Municipal Code to incorporate Wastewater Development Impact Fees (see Section 14.06.110). The general purpose of Ordinance No. 640 was to identify wastewater impact fees to mitigate impacts to public facilities associated with new developments. Pursuant to Section 14.06.110, the wastewater development impact fees are required to be annually adjusted to reflect the annual percentage change in the construction index for San Francisco as reported in the Engineering News-Record. In order to mitigate potential project-induced impacts to wastewater facilities, the project applicant would be required to submit payment of impact fees consistent with the requirements of Ordinance No. 640 and the corresponding impact fee in effect at the time of building permit issuance.

Miravale III Specific Plan

Sections 5.0 of the Miravale III Specific Plan identify goals and policies to ensure the adequate provision of public services. Applicable goals are summarized as follows:

- Public Services and Facilities Goal PSF-1 states that project development should provide an efficient, self sustaining system of public facilities that accommodate the needs of project build-out.

- Goal PSF- 2 further states that project development should provide adequate and reliable services and utilities to area residents and business while ensuring that adequate maintenance of these facilities is provided.

Relevant Project Characteristics

The Miravale III Specific Plan and Vesting Tentative Map would result in the introduction of approximately 15,201 persons within the Specific Plan area, in addition to commercial uses, open space, and public facilities. Project infrastructure, including storm drainage mains, sanitary sewer lines, and water lines, would also be constructed to provide services to the project site.

Thresholds of Significance

In accordance with CEQA Guidelines, a project impact would be considered significant if the project would:

- Have insufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements.

- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction or which could cause significant environmental effects.

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

- 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.

- 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.

- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

- Not comply with federal, state, and local statutes and regulations related to solid waste.

Impacts and Mitigation

Water Supply

Potable Water Supply and Distribution System

The City of Soledad would provide domestic water service to the Miravale III project. The 2005 UWMP, which includes a portion of the anticipated land uses for the proposed project, states that the City has sufficient water supply to accommodate the development of the proposed project, in addition to, full buildout of the City as envisioned under the 2005 General Plan.

Senate Bills 610 (Water Code Section 10910 *et seq.*) and 221 (Government Code Section 66473.7), require the preparation of a water supply assessment in conjunction with project review under CEQA. The intent of SB 221 and 610 is to assure that certain new developments are provided with a reliable supply of water, and inform decision making regarding water supply implications of development. A Water Supply Assessment (WSA) has been prepared for this project by the City of Soledad and Byron Buck & Associates (August 2007). This EIR section supports the City's fulfillment of its obligation to independently assess and publicly disclose potential water-supply-related impacts of the project under CEQA Guidelines Section 15083.5, Water Code Section 10911(c), and Government Code Section 66473.7. The factual analysis in this EIR draws upon and discusses a range of water supply related information, including information developed by the City, the City of Soledad's 2005 UWMP, and the WSA for this project. The WSA for the project is included as part of this EIR (as required by SB 610) and is attached as Appendix K.

Table 4.14-3 shows the projected average annual water demand from the proposed project as determined in the WSA. This assessment applied accepted water use factors and assumed the use of low flow plumbing devices and other water conservation measures. As identified in Table 4.14-3, project development would result in an annual water demand of approximately 2,521.21 AFY. Net consumptive demand after factoring the use of recycled water is estimated as approximately 1,566.3 AFY. Taking into account historical land uses (i.e. agricultural) on the project site, development of the proposed project would result in an overall net reduction in groundwater extraction by 501.2 AFY. Actual water demands, however, would vary depending on the ultimate mix of specific uses, water use behavior, and landscape development/maintenance practices. In any given year, consumption is expected to vary depending on weather and precipitation. However, as identified in the WSA, the City of Soledad has sufficient water available to accommodate project generated demand during normal, single dry and multiple dry years. Payment of water impact fees as required by the City further insure that project-related impacts are considered less-than-significant. **Therefore, the project would result in a less-than-significant impact on water supply and services.**

Table 4.14-3 Miravale III Annual Water Demand			
Residential Uses	**No. Units**	**Annual Water Demand Factor AF/Y Unit**	**Demand AF/YR**
Large Lot Single Family	80	0.9	72.0
Standard Lot Single Family	1390	0.6	834.0
Duplex, small lots	116	0.25	29.0
Townhome/Apt. and Senior Units	2614	0.25	653.5
total	4200	**subtotal**	**1588.50**
Non-Residential	**No. Acres**	**Annual Water Demand (AF/Acre)**	
Village and Gateway Commercial	33.22	2.91	96.67
Institutional (4)	9.71	2.95	28.64
Elementary Schools	20	3.87	77.40
Middle School	19	4.0	76.00
Hotel, 120 Rooms		(.0.27 AF/Unit)	32.4
		subtotal	**311.11**
Open Spaces			
Golf Course(1)	144.87	3.75	543.26
Practice Driving Range (1)	12.62	3.75	47.33
Golf Pond	3.13	3.0	9.39
Developed Park(1)(2)	1.61	3.75	5.13
Upland Park (6)	75.77	2.5	18.94
Agricultural	1	3.85	1.54
Urban Reserve (7)	84.8	0.00	0.00
		subtotal	**625.59**
		Total Annual Gross Demands AF/Yr	**2525.21**
Wastewater Produced for Recycling in AF/Yr			
Residential Return Flows			865.17
Non-Residential Return Flows			93.33
		subtotal	**958.50**
Recycled Water Demands			
SF Home Front Yard Irrigation		15% gross demand	135.90
Golf Course		90% gross demand	488.94
Golf Course Driving Range		90% gross demand	42.59
Golf Course Pond (100% recycled)		100% gross demand	8.45
Developed Park		90% gross demand	5.13
Upland Park		100% gross demand	18.94
Elementary School Playfields		8 acres	30.00
Middle School Playfields		7 acres	26.25
Ag Buffer		1 acre	3.75
Roadway landscaping		10% of 122 acres of	30.53

Table 4.14-3 Miravale III Annual Water Demand			
Residential Uses	**No. Units**	**Annual Water Demand**	**Demand**
		Factor AF/Y Unit	**AF/YR**
		roadways	
		subtotal	**756.20**
Net Recycled Water Available Due to Project			
			202.30
Net Consumptive Demand on Groundwater			
			1566.70
Historical Irrigated Agricultural Uses (746 out of 922 acres)			
Row Crops Annual Groundwater Demand (3)			**2067.9**
Net Demand Change (reduction) on Aquifer			**(501.2)**
(1) 3.0 ETO @80% efficiency			
(2) 85% irrigated, 15% hardscape			
(3) 10% unirrigated roads, access; net of deep percolation and 20% annual fallowing at 3.85 ETO			
(4) Police/Fire, golf maint., recycled water plant and church site			
(5) 40% landscape			
(6) 10% buffer area irrigated only, drought tolerant landscape			
(7) no change in land use			

Source: Byron Buck & Associates, WSA and Written Verification of Supply, August 2007

Recycled Water Distribution and Storage

As identified in the WSA prepared for the project, in addition to the City's Urban Water Master Plan, a substantial portion of recycled water would be used to provide irrigation of the golf course and driving range, parks, landscaped parkways, trail areas, front yards, and other landscaped areas within the project site. The recycled water system for the project site would be distributed through a system of 12-inch "purple" pipes (as required for recycled water under Title 22). Mains would be extended to enable access to recycled water at most areas of the site where it can be used for irrigation of the public open space/parks.

The use of recycled water for irrigation purposes would substantially lessen the extent of water demand associated with project development. Installation of project infrastructure would not result in any additional environmental impacts beyond those identified in other sections of this EIR. **This represents a less-than-significant impact.**

Water System

According to the City of Soledad Water Master Plan prepared by Schaaf and Wheeler, the existing City operated water distribution system requires a number of improvements to address current system deficiencies. These improvements have been identified as necessary in order to meet existing system demands. Moreover, buildout of "Near Future Development," which was identified as Miravale III, would necessitate a number of infrastructure improvements to ensure that project generated demands were accommodated. In addition to requiring current improvements, the existing system would need to be extended to provide water services to the project area. As such, additional on-site infrastructure improvements would be warranted. Moreover, development of the proposed project would result in the

introduction of new residences and commercial uses outside of the two existing pressure zones previously described above. In order to accommodate the Miravale III project a new pressure zone, Zone C, would be necessary to accommodate development outside of the existing pressure zones.

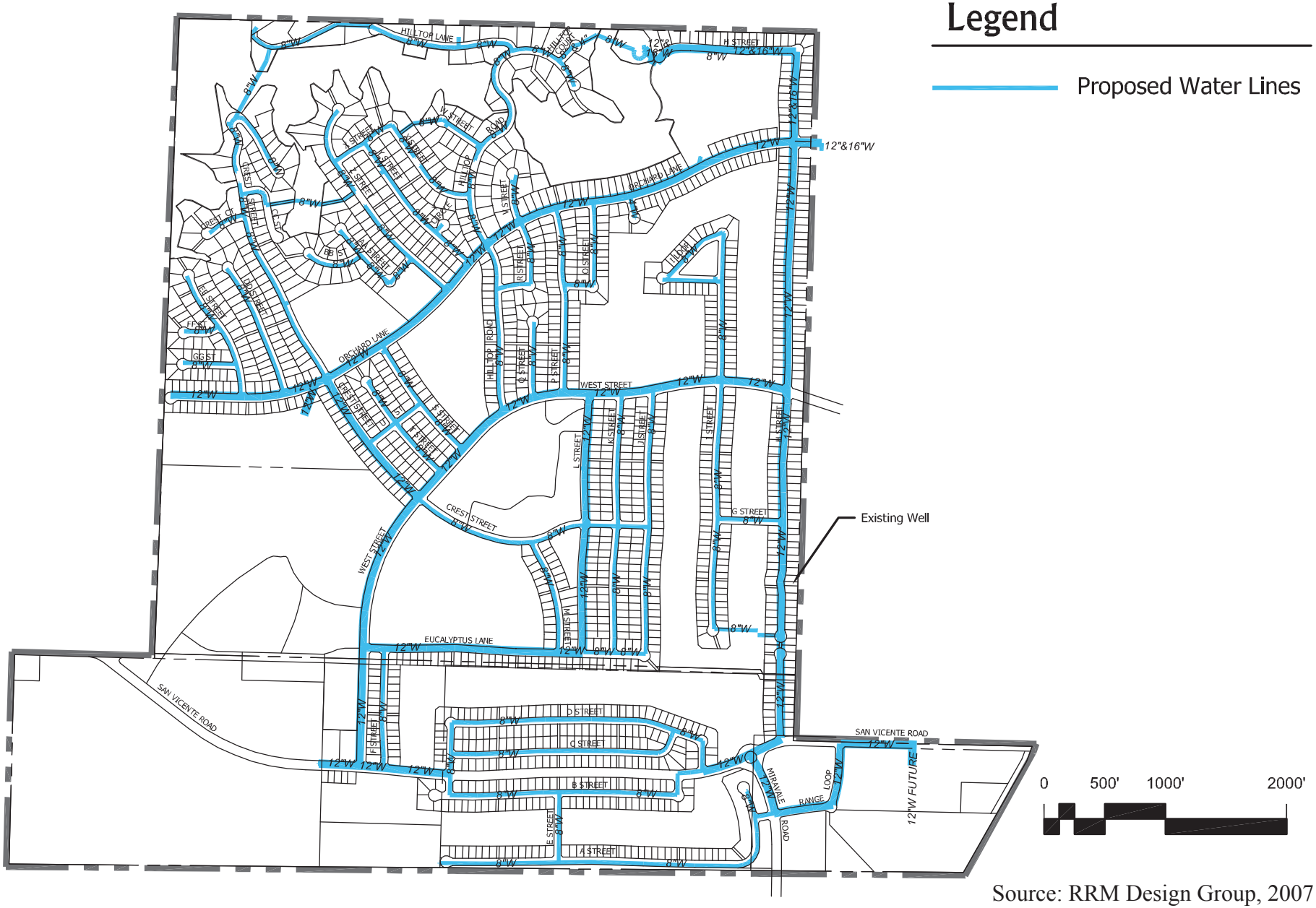
As proposed, the project would allow the development of 4,200 units, in addition to, commercial and public uses. Based on the assumed buildout of 3,000 units, the Soledad Water Master Plan determined that the existing water distribution system would be insufficient to meet maximum day demand and at least two additional wells would need to be drilled, permitted, and connected to the existing system. Additionally, new and/or upgraded booster pump stations would also be warranted in Zone B and the new pressure zone, "Zone C." Additional storage tanks would also be necessary to accommodate project development. Preliminary estimates identified in the Soledad Water Master Plan determined that a 1.2 million gallon tank in Zone B would be necessary. A conceptual water distribution map is presented in Figure 4.14-3.

The final design, sizing, and location of system infrastructure would be determined by the City in order to ensure that adequate infrastructure would be provided to meet project demand. Project development would, therefore, require the construction of a number of improvements to expand City services to the project area. The installation of project infrastructure would not result in any new environmental impacts beyond those identified in other sections of this EIR. Furthermore, the City requires applicants to pay all costs associated with extending water mains to provide water service and fire fighting flows to and through the project site. In addition, the applicant would be required to pay impact fees. Implementation of the following mitigation measures would not result in any new environmental impact beyond those identified elsewhere in this EIR.

Impact **Development of the proposed project would require or result in the construction of new water and recycled water facilities and the expansion of existing facilities. Project development would also require the construction of additional distribution and storage systems, transmission mains and improvements. Potential significant environmental effects could be realized through construction of the facilities if not planned and constructed consistent with Citywide infrastructure improvement plans.** ***This would represent a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measures.***

4.14-1 Design and construct the water supply and distribution system for the project that is integrated with the City's water distribution system and consistent with the Urban Water Management Plan and the City's 2005 Water Master Plan. Prior to the issuance of any building permit, the project applicant shall submit detailed design-level infrastructure plans in accordance with this measure, subject to the review and approval of the City of Soledad Director of Public Works.

4.14-2 All water and recycled water facilities and infrastructure shall be designed with sufficient capacity to accommodate the project and be required to adhere to all applicable City standards in terms of infrastructure sizing, design and construction. Prior to the issuance of any building permit, the project applicant shall submit detailed design-level infrastructure plans in accordance with this measure, subject to the approval of the Director of Public Works.



Source: RRM Design Group, 2007

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Conceptual Water Distribution System

Figure 4.14-3

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4.14-3 All water and recycled water pipelines shall be placed underground and in the utilities right-of-way and constructed to comply with all applicable state and local standards. Prior to the issuance of any building permit, the project applicant shall submit detailed design-level infrastructure plans in accordance with this measure, subject to the review and approval of the City of Soledad Director of Public Works.

4.14-4 The project shall be required to construct new infrastructure that is of adequate capacity to serve the project's projected water and fire flow demand in addition to the provider's existing commitments. Prior to the issuance of any building permit, the project applicant shall submit detailed design-level infrastructure plans in accordance with this measure, subject to the approval of the Director of Public Works.

Provided that the applicant makes all water system capacity improvements as required by the City's Public Works Department, project impacts on the City's water system would be mitigated. The proposed project would not result in any potentially significant impacts that cannot be mitigated to a less-than-significant level through implementation of standard conditions of approval and mitigation measures identified above. No additional mitigation measures are required. **This represents a less-than-significant impact.**

Wastewater

The City of Soledad would be responsible for providing sanitary sewer services within the project area and the existing collection system would be extended to provide services to the project site. New wastewater infrastructure (i.e. distribution lines, treatment facility, etc.) would need to be constructed in order to provide services to the project area. According to the City's Long-Term Wastewater Management Plan, the City's total permitted wastewater treatment and disposal capacity is 4.1 mgd and the existing infrastructure would need to be expanded in order to support projected growth. Currently, the City is in the process of expanding its existing treatment capacity to 5.5. mgd with a 4.3 mgd disposal capacity (Clifton Price, personal communication, August 2007). In other words, the City's existing treatment capacity would be expanded to 6,160 AFY with approximately 4,816 AFY of disposal capacity.

Based on the anticipated population of the proposed project and using a wastewater generation rate of 67.5 gpd per person, the proposed project would generate a total of 1.02 mgd of domestic wastewater with an additional 0.08 mgd of commercial flow or a total of approximately 1,232 AFY of residential and non-residential wastewater. Preliminary estimates by the City indicate that projected wastewater generation may be as high as 1.5 mgd or 1,680 AFY. The wastewater generation for the Specific Plan area is greater than that projected in the City's LTWMP due to the difference between the assumed land uses in the LTWMP and the proposed land uses associated with the Miravale III Specific Plan. More specifically, it was originally assumed that buildout of the project site would result in the construction of 2,890 residential units and commercial uses with a projected wastewater flow of 1.0 mgd or 1,120 AFY. Due to an increase in the number of units, projected wastewater flow is now approximately 1.5 mgd or 1,680 AFY.

Based on the preceding analysis, existing treatment capacity is inadequate to accommodate project generated wastewater. Therefore, project buildout would result in an increased generation of wastewater that would cause a need for additional wastewater collection and treatment capacity, including new or expanded facilities. This represents a potentially significant impact. In order to accommodate projected wastewater, a recycled water facility is being planned in the southwest corner of the Specific Plan area as part of the proposed project. All project generated wastewater would be treated at this facility and subsequently used as recycled water for irrigation purposes. According to the City of Soledad, initial

treatment capacity at this facility would be able to accommodate an estimated 1.0 mgd or 1,120 AFY. Full buildout of the project site would, however, exceed the initial treatment capacity at this facility. While the initial capacity is inadequate to support full buildout of the project site, the City has indicated that the facility would be expanded to accommodate a total treatment capacity of over 2.0 mgd or 2,240 AFY. Project impacts can be further reduced to a less-than-significant impact through the incorporation of the following mitigation measures identified below. Implementation of the following mitigation measures would not result in any new environmental impact beyond those identified elsewhere in this EIR.

Impact **Development of the proposed project would potentially exceed existing and planned wastewater treatment capacity.** ***This would represent a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measures.***

Mitigation

4.14-5 In order to ensure that the proposed wastewater treatment system is consistent with the applicable requirements of the Soledad Urban Water Management Plan, Long-Term Wastewater Management Plan, and Chapter 13.11 Recycled Water Service, the project applicant shall submit detailed design-level plans in accordance with these requirements, prior to the issuance of any building and/or grading permit, subject to the review and approval of the City of Soledad Public Works Director.

4.14-6 Prior to the approval of the first final map within the Specific Plan area, all required permits for the on-site recycled water facility, including, but not limited to, a Waste Discharge Permit from the Regional Water Quality Control Board and approval of the system design, shall be obtained. The project applicant shall submit written evidence to the City of Soledad documenting compliance with this measure.

4.14-7 In order to ensure that adequate wastewater treatment is available to accommodate each phase of project development, the treatment capacity for the on-site recycled water facility shall be increased to accommodate each phase of the project prior to the final approval of the first building permit or occupancy permit for each of the respective project phases as appropriate. Subject to the review and approval of the Director of Public Works, excess treatment capacity shall be added to the plant and disposal facilities, as needed, for each phase of the project, to accommodate future increases in wastewater flow rates, based on estimates of future development. In addition, flows shall be metered and records of the flows shall be provided to the RWQCB for review and approval. No building permits shall be issuance unless sufficient capacity exists to accommodate additional phases of development.

4.14-8 Prior to the issuance of any building permit, the applicant/developer shall submit payment of the current City Development Impact Fee for each type of development in accordance with the adjusted impact fee in effect at the time of building permit issuance. Additionally, the applicant/developer shall submit payment of all fees necessary to fund the construction of the expansion of the treatment plant located within the project site, as required by the City of Soledad. All fees shall be subject to the review and approval of the Director of Public Works.

The Miravale III Specific Plan and Vesting Tentative Map have developed a preliminary onsite sanitary sewer plan that addresses the development of the Specific Plan area, as well as its relationship to the existing sewer system. This plan analyzes the sewer system for the Plan area and establishes policies that will help to facilitate the design and construction of a system that would meet the needs of the public. Sanitary sewer lines will be located within the proposed street right-of-ways, and connect to the existing

sanitary sewer lines that serve the City. A conceptual layout of the wastewater plan is presented in Figure 4.14-4.

The City Public Works Director has stated that all wastewater mains must be designed consistent with the requirements set forth by City. All wastewater pipelines would be placed underground and in the utilities right-of-way. The project would be required to construct new infrastructure that is of adequate capacity to serve the project's projected demand in addition to the wastewater provider's existing commitments (Cliff Price, City of Soledad, personal communication, July 2007). Implementation of the following mitigation measures would not result in any new environmental impact beyond those identified elsewhere in this EIR.

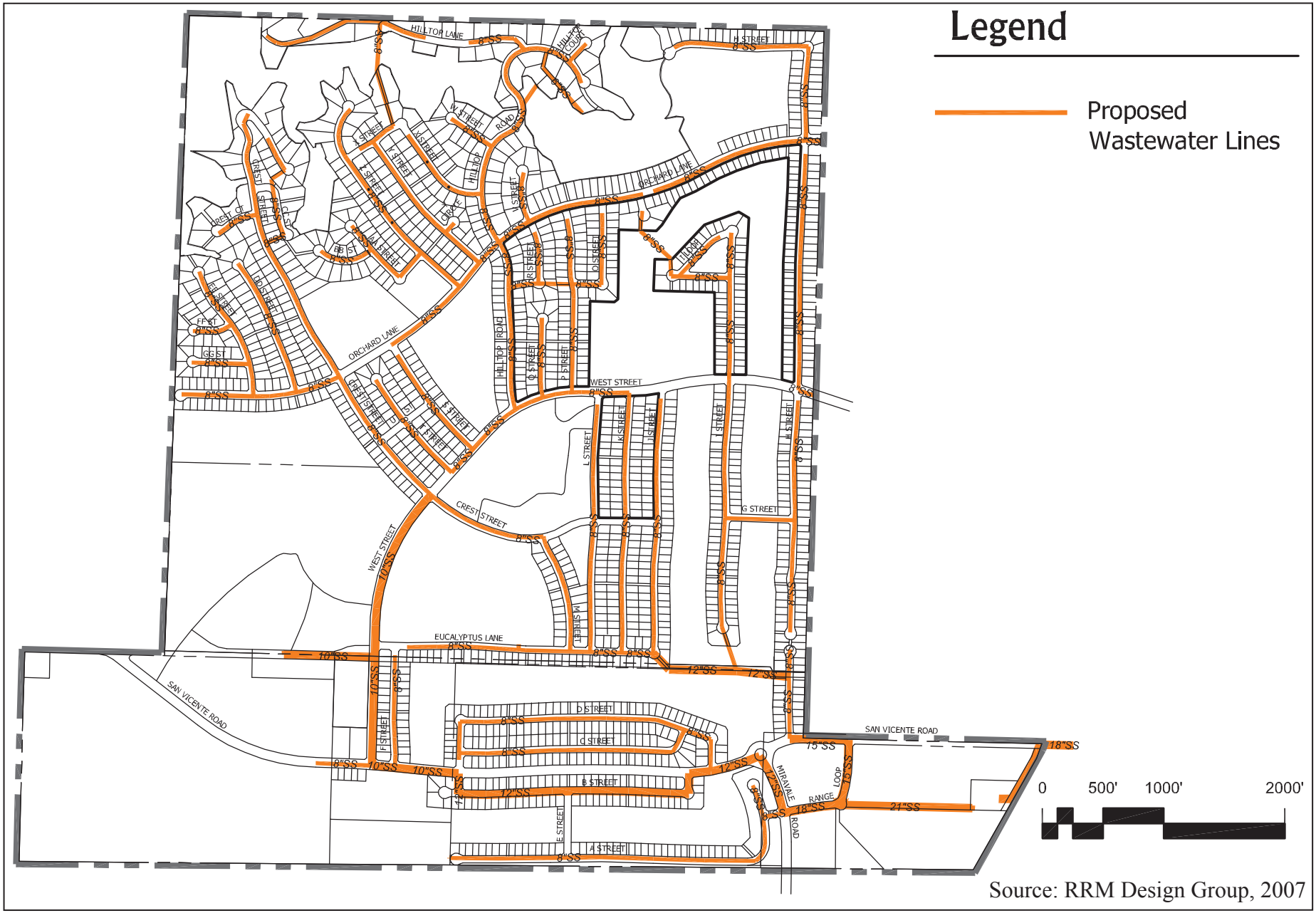
Impact **Development of the proposed project would require or result in the construction of new water or wastewater treatment facilities and expansion of existing facilities, including the construction of water and wastewater facilities, transmission mains and improvements which could cause significant environmental effects through construction of the facilities if not planned and constructed consistent with Citywide infrastructure improvement plans.** ***This would represent a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measures.***

4.14-9 All water and wastewater infrastructure shall be designed with sufficient capacity to accommodate the project and be required to adhere to all applicable City standards in terms of infrastructure sizing, design and construction. Prior to the issuance of any building and/or grading plan, the project applicant shall submit detailed evidence, including but not limited to design-level infrastructure plans, consistent with the requirements of this mitigation, subject to the approval of the Director of Public Works.

4.14-10 All wastewater pipelines shall be placed underground and in the utilities right-of-way. Prior to the issuance of any building permit, the project applicant shall submit detailed design-level infrastructure plans in accordance with this measure, subject to the review and approval of the City of Soledad Director of Public Works.

4.14-11 The project would be required to construct new infrastructure that is of adequate capacity to serve the project's projected demand in addition to the wastewater provider's existing commitments. Prior to the issuance of any building permit, the project applicant shall submit detailed design-level documentation, in addition to written documentation from the City of Soledad, documenting that design-level plans are in accordance with City standards, as well as documenting that the City has sufficient capacity to accommodate project demands in addition to existing commitments, subject to the approval of the Director of Public Works.

Construction of wastewater infrastructure has the potential to result in physical environmental impacts such as noise dust, water quality, and potential biological impacts. These issues are addressed within their respective section of this EIR. The proposed project would not result in potentially significant impacts that cannot be mitigated to a less-than-significant level through implementation of standard conditions of approval and mitigation identified elsewhere in this EIR. No additional mitigation measures are required. **This would represent a less-than-significant impact.**



Source: RRM Design Group, 2007

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Conceptual Wastewater Distribution System

Figure 4.14-4

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Solid Waste

Change in solid waste streams generally results from population growth, successful diversion efforts, and substantial fluctuations in demolition and construction activities. The project would result in a population increase as well as new construction activities. As a result, it would increase solid waste generation that could adversely affect local facilities that process or store solid waste.

The project would generate solid waste related to project operations. The solid waste generation rate of 5.4 pounds per person per day is a target rate mandated by the Waste Management Act of 1989 (AB 939) and assumes that solid waste reduction and recycling program would be implemented. According to the Salinas Valley Solid Waste Authority (SVSWA), solid waste generation for each of the six jurisdictions averages approximately 5.0 pounds per capita per resident per day (Jorge Gamboa, SVSWA, personal communication, August 2007). Based on a solid waste generation rate of 5.0 pounds per person per day, upon buildout, the project would generate about 76,005 pounds of solid waste per day, or 13,870 tons per year. According to SVSWA, project generated solid waste would be disposed of primarily at the Johnson Canyon facility, which is permitted to receive 300 tons of solid waste per day. In 2000, the facility received an average of 132 tons of solid waste per day from six jurisdictions. Development of the proposed project would contribute an additional 38 tons of solid waste per day.

The Johnson Canyon landfill has adequate capacity to serve its present service area, including the development of the proposed project site. Moreover, the SVSWA is currently in the process of expanding the capacity of several of its existing facilities, including the Johnson Canyon landfill, which would provide adequate disposal capacity for 70 years. The project's solid waste generation of 13,870 tons per year represents an incremental increase in the yearly receipt of solid waste by the Johnson Canyon facility that can be accommodated by existing landfill facilities (Jose Gamboa, SVSWA, personal communication, August 2007). Further, current efforts to expand capacity would ensure that solid waste generated by the proposed development would be accommodated within existing facilities. As such, no new facilities would need to be constructed in order to accommodate project generated solid waste. Although project-generated solid waste would be accommodated in an existing disposal facility with adequate capacity, project construction would result in significant construction-generated waste. The SVSWA has identified the following mitigation measure as necessary, in order to reduce project construction impacts. Implementation of the following mitigation measure would not result in any new environmental impact beyond those identified elsewhere in this EIR.

Impact **Project construction would result in significant construction-generated waste. The following mitigation has been identified by the Salinas Valley Solid Waste Authority to ensure that all construction-generated waste is recycled to the greatest extent feasible in order to minimize impacts to existing facilities within their jurisdiction.** ***This would represent a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measures.***

Mitigation

4.14-12 Prior to the commencement of construction related activities, the applicant/developer shall prepare and submit a Construction and Demolition Diversion Plan consistent with the requirements of the City's adopted Diversion Plan Ordinance, subject to the review and approval of the Salinas Valley Solid Waste Authority and the City of Soledad. This plan shall identify on-going implementation measures for the diversion and separation of construction waste to ensure that all construction-generated solid waste is recycled to the greatest extent possible.

Energy

The project site would be constructed with a variety of commercial, residential, and hospitality-oriented uses that would increase demands on electricity and natural gas supplies. In addition, the proposed project also entails the development of a number of public facilities, including several school sites, a police/fire substation, as well as various parks. Development of the proposed project would result in both direct and indirect energy consumption. Indirect energy consumption includes 1) energy consumed by construction vehicles and energy used for construction materials, such as asphalt, steel, concrete, pipes and manufactured or processed materials such as lumber and metal, and 2) energy consumption related to project land uses (i.e. vehicular traffic). At this time information regarding the type and quantity of building materials is not known. Therefore, only direct energy consumption associated with project operation is considered for this analysis. Anticipated operational energy demand is presented in Table 4.13-4 and 4.13-5 below. Please note that energy and natural gas estimations do not include estimates for institutional uses, such as schools and other public facilities, due to the fact the size of these facilities is currently unknown. Nevertheless, potential energy demands associated with these facilities would not result in the wasteful, inefficient and unnecessary consumption of energy. Although development of the proposed project would result in indirect energy consumption as a result of project construction and operation, these additional demands are not anticipated to result in the need for new facilities such that an adverse environmental impact would occur. PG&E is currently in the process of updating an existing substation and has indicated that this facility, upon completion of the upgrades, would have sufficient capacity to meet project generated demands.

Table 4.13-4 Anticipated Annual Energy Demand

Use	Proposed Dwelling Units	Proposed Floor Area (sq. ft.)	Demand Factor (kiloWatt hour per du/sq)[1]	Approximate Energy Demand (kiloWatt hour/year)
Commercial/Retail/Restaurant	N/A	275,000	13.55	3,726,250
Single Family Residential	1,470	N/A	6,081	8,939,070
Residential - Multifamily	2,230	N/A	6,081	13,560,630
Senior Unit	500	N/A	6,081	3,040,500
Hotel	120	N/A	6,081	729,720
Golf Clubhouse	N/A	15,000	13.55	203,250
			Total:	**30,199,420 kWh**

Source Estimations: Please note that these are rough estimates. Actual energy demand will likely vary depending on commercial uses and other factors. Estimates obtained from Energy Information Administration, California Energy Commission, and SCAQMD CEQA Air Quality Handbook, 1993.
1). Estimates obtained from the Energy Information Administration. Demand factors are provided according to the type of use. Each demand factor either corresponds with total square footage or dwelling units.

According to the California Energy Commission (CEC), total energy consumption in California in 2005 was approximately 272,464 M kWh.[1] Monterey County's average energy consumption in 2005 was

[1] Please note that "M" refers to the International System of Units prefix representing "mega," which denotes one million units or 10^6.

approximately 2,539 M kWh. As identified in Table 4.13-4, development of the proposed project would generate additional demands for energy consumption on the project-site beyond pre-project conditions. Specifically, the proposed project would demand approximately 30.2M kWh. (Note: the figures contained in Table 4.13-4 were converted from kWh to M kWh for consistency.) The additional demands associated with the operation of the proposed project would result in an incremental, albeit insignificant, increase in the demand for electricity consumption. Although the incremental increase in energy demand is relatively insignificant in comparison to energy usage within Monterey County, additional infrastructure would be necessary to provide services to the project site. As identified by PG&E, the capacity of an existing substation would need to be expanded to serve projected demands associated with the proposed project. PG&E has indicated that these improvements would be able to accommodate project demands.

Table 4.13-5 Anticipated Annual Natural Gas Demand

Use	Proposed Dwelling Units	Proposed Floor Area (sq. ft.)	Demand Factor (kBtu/unit of measurement per du/sq. ft.) [1]	Gas Demand (kBtu/unit measurement /year)
Commercial/Retail/Restaurant	N/A	275,000	5.17	1,421,750
Single Family Residential	1,470	N/A	45,900	67,473,000
Residential - Multifamily	2,230	N/A	45,900	1,023,57,000
Senior Unit	500	N/A	45,900	22,950,000
Hotel	120	N/A	45,900	5,508,000
Golf Clubhouse	N/A	15,000	5.17	77,550
			Total:	**97,430,300 kBtu**

Source Estimations: Estimates obtained from the Energy Information Administration & US Environmental Protection Agency. Please note that these are rough estimates of potential natural gas demand associated with the proposed project. Actual demand will likely vary depending on commercial uses and other factors.
1). Demand factors are provided according to the type of use. Each demand factor either corresponds with total square footage or dwelling units.

According to the CEC, total natural gas consumption in California in 2005 was approximately 2,092 T Btu per year.[2] At the time of report preparation, data regarding Monterey County's average natural gas consumption was not readily available. As identified in Table 4.13-5 below project demands would be approximately 0.000094 T Btu per year. (Note: the projected natural gas demand figures contained in Table 4.13-6 were converted from K Btu to T Btu for consistency.) The additional demands associated with the operation of the proposed project would result in an incremental increase in the demand for natural gas. Although project generated demands would result in an insignificant increase in natural gas consumption, services would need to be extended to the project site in order to meet project demands.

As identified above, the project site would be constructed with a variety of residential and commercial uses, increasing demands on electricity and natural gas supplies. It is anticipated that PG&E would extend their services to the project area under a franchise agreement with the City. According to PG&E, the project would not result in any adverse effects on their services, and PG&E has the capacity to provide electric service to the project (Jose Rios, PG&E, personal communication, August 2007).

[2] Please note that "T" refers to the International System of Units prefix representing "tera," which represents one trillion units or 10^{12}.

Existing PG&E-operated gas mains and electrical distribution systems would be extended and new distribution mains installed in a new joint trench adjacent to roadways. In addition, the expansion of existing gas and electrical transmission facilities outside of the project site may be required. The need for these improvements will be determined by PG&E. More specifically, PG&E has indicated that they are currently in the process of upgrading an existing substation within the northern portion of Soledad to ensure that adequate facilities are provided to meet project generated demands, in addition to, full buildout of the General Plan (Jose Rios, PG&E, personal communication, August 2007). As a result, the project would be adequately served by PG&E.

CEQA Guidelines Section 15126.4(a)(1)(c) identifies that energy conservation measures, in addition to mitigation measures intended on reducing energy consumption, should be identified within the context of an EIR. In order to ensure that project impacts related to increased energy consumption are minimized to the extent feasible, the Specific Plan contains policies to reduce energy consumption. In addition, the City of Soledad implements Title 24 requirements as part of their building code to ensure that energy conservation measures are incorporated into project design. While adherence to existing City requirements related to Title 24 compliance would generally reduce project-induced impacts, the increased energy consumption, albeit relatively insignificant from a regional perspective, would still result in the permanent commitment of a non-renewable resource. Development of the proposed project, however, would not result in the wasteful, inefficient and unnecessary consumption of energy. Policies are incorporated into the Specific Plan to minimize the wasteful use of energy and ensure that planning and building efforts are coordinated to maximize energy conservation. In addition, the implementation of additional project-specific mitigation would also ensure that energy use is minimized to the greatest extent feasible and thereby ensure that project-impacts would be considered less-than-significant.

Increased demand for energy and natural gas would also result in additional greenhouse gas emissions as identified in sections **4.3 Air Quality** and **5.0 CEQA Considerations**. While project-induced impacts associated with greenhouse gas emissions are addressed elsewhere in this EIR, it is important to acknowledge the relationship between energy consumption and greenhouse gas emissions. According to the CEC, approximately 20% of greenhouse gas emissions are associated with the energy sector in California. As a result, increased energy demands associated with the construction and operation of the proposed project would contribute towards climate change. In order to ensure project impacts are minimized to the greatest extent feasible, mitigation is warranted. The following mitigation measure is necessary to reduce project demands for electricity and natural gas and is in addition to other mitigation measures identified elsewhere in this EIR to reduce energy consumption and thereby greenhouse gas emissions. Implementation of the following mitigation measure would not result in any new environmental impact beyond those previously identified in this EIR.

Impact **Development of the proposed project would increase demands for electricity and natural gas consumption.** ***This would represent a potentially significant impact that can be reduced to a less-than-significant level with the implementation of the following mitigation measure.***

4.13-1 In order to prevent the wasteful use of energy, all new residential, commercial, and hospitality oriented structures shall incorporate the principles of passive solar design to the maximum extent feasible. Typical passive solar design principles may include the following; 1) large south-facing windows; 2) tile, brick, or other thermal mass material used in flooring or walls to absorb natural heat; 3) improved insulation; 4) building orientation that takes advantage of the sun, shade, and wind; and 5) energy efficient building materials. For new structures that are unable to incorporate these principles, the project applicant shall submit detailed evidence, such as site plans, landscape plans, and similar, to the City of Soledad Public Works Director demonstrating that there are no viable design alternatives to accommodate these principles. Prior to the issuance of each

individual building permit for new structures, the project applicant shall submit evidence, including but not limited to, site plans, proposed building materials, and landscape plans, to the City of Soledad Public Works Director for review and approval.

5.0 CEQA CONSIDERATIONS

5.1 GROWTH INDUCEMENT

CEQA (Section 15126 (d)) requires that any growth inducing aspect of a project be addressed in an EIR. This discussion includes consideration of ways in which the project could directly or indirectly foster economic or population growth, or the construction of additional housing, in the surrounding area. Projects that would remove obstacles to population growth, such as a major public service or utility expansions, are also considered in this discussion.

Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, the growth-inducing potential of a project would be considered significant if it encourages growth or a concentration of population in excess of what is assumed in appropriate master plans, land use plans, or in projections made by regional planning agencies such as the Association of Monterey Bay Area Governments (AMBAG). Significant growth impacts could also occur if the project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth inducement by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the physical environment in some other way, such as through an increase in traffic congestion or deterioration of air quality. In addition, the removal of constraints to growth, such as the extension of services or infrastructure into an area, can be considered growth-inducing.

Soledad's existing population (2007) is 28,361. The project would increase population in the area through the development of 1,470 single family units and 2,730 multi-family units for a total of 4,200 residential units. Based on assumptions for persons per housing type identified in **Section 4.11 Population and Housing**, the 4,200 new units proposed by the project could result in an additional 15,201 people. This additional population represents about 54 percent of Soledad's existing (2007) population. This growth in population would increase demands on existing community facilities, requiring construction of new facilities. The project site is located outside City limits, within an area planned for City expansion. The project would provide new infrastructure to the area, including extensions of water and sanitary sewer lines, as well as roadway improvements.

Based on the above discussion, the project would result in a significant growth-inducing impact.

5.2 CUMULATIVE IMPACTS

Section 15130 of the State CEQA Guidelines requires an EIR to generate impacts that may be individually limited, but could be significant when taken together with other similar projects in the area (cumulative impacts). As defined by Section 15355 of the State CEQA Guidelines, a cumulative impact is an impact that is created as a result of the combination of the proposed project and related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

Approach

This EIR uses the general plan approach and the project list approach for determining potential cumulative impacts. The geographic area considered in this general plan analysis includes the area within

the City of Soledad incorporated limits and general plan area, as defined in the City General Plan. The General Plan and General Plan EIR are incorporated by reference and available for review at the offices of the City of Soledad. The area covered by the General Plan is referred to herein as the City's planning area and includes the incorporated limits as well as "...any land outside its boundaries which in the planning agency's judgment bears a relation to its planning" (Government Code Section 65300). The City's planning area is shown on Figure 4-9.1 and covers an area generally defined by the ridegline of the Gabilan Range to the east and the foothills of the coast range to the west, extending north past the Soledad prison, and to the south about mid-way between Soledad and Greenfield.

City of Soledad General Plan and EIR. The cumulative and growth inducing impacts of continued development of the City of Soledad including the project site were evaluated by the City of Soledad General Plan EIR. As noted in Table 5.2-1, below, the EIR concluded that buildout of the Plan area in forty or more years will have unavoidable adverse impacts related to the permanent loss of prime agricultural land, regional traffic, cumulative air quality, visual resources, biological resources, energy consumption, and water supply. However, potentially significant adverse impacts related to infrastructure, traffic, noise, and others, will be avoided by implementing the policies and programs recommended by the adopted General Plan. Additionally, the following impacts were found to be less-than-significant by the General Plan EIR.

- ✓ Fire protection for industrial development
- ✓ Energy consumption related to motor vehicle fuel
- ✓ Traffic hazards
- ✓ Demand for public transit
- ✓ Increase of population in relation to consistency with the Clean Air Plan
- ✓ Air quality impacts relative to CO hotspots
- ✓ Impacts related to stationary noise sources and agricultural operations
- ✓ Impacts to groundwater recharge
- ✓ Impacts to the beneficial use of groundwater resources
- ✓ Groundwater quality
- ✓ Impacts relating to the movement of animal species across the Valley floor
- ✓ Urbanization impacts (light, glare, and noise) on animal populations
- ✓ The potential for urban development to hasten the cancellation of Land Conservation Act contracts
- ✓ Visual impacts of construction storage
- ✓ Jobs housing balance

Section 15130 of the State CEQA Guidelines requires an EIR to generate impacts that may be individually limited, but could be significant when taken together with other similar projects in the area (cumulative impacts). This EIR addresses the cumulative considerations of this development with the buildout considered in the Soledad General Plan DEIR.

Table 5.2-1
Summary Of Impacts in the 2005 City General Plan EIR

Environmental Issue	Impact	Policy Response/ Mitigation Measures	Residual EFFECT
Class I Impacts -- Significant and unavoidable impacts.			
Public Services	Impact PS-1: Water demand associated with buildout of the draft Plan will contribute to the cumulative demand for water for domestic use from the Salinas Groundwater Basin.	Policies S-1 though S-40, HZ-9 through H-11, Programs 5.11, 7.1 through 7.9, 9.4 through 9.7, 4.1 and 4.2	Significant and adverse.
Energy	Impact PS-14: Development accommodated by the draft will increase the demand for electricity within the Plan area and the need for distribution facilities.	Policy H-11, Program 5.11	Significant and adverse.
Traffic and Circulation	Impact T-1: Buildout of the land uses recommended by the Draft General Plan will significantly increase traffic generation with a corresponding cumulative impact on the level of service of regional roadways, streets and intersections serving the City.	Policies T-1 through T-37, Programs 5.1 through 5.24	Significant and adverse.
Air Quality	Impact AQ-2: Motor vehicle trips associated with buildout of the draft Plan will contribute to a cumulative adverse impact on regional air quality.	Policies T-1 through T-37, C/OS-13 through C/OS – 16 Programs 5.2 through 5.11, Programs 5.15, 8.1 through 8.4	Significant and adverse.
Biological Resources	Impact BIO-4: Development accommodated by the draft Plan will increase groundwater withdrawals, which has the potential to diminish in-stream flow along the Salinas River.	Policies C/OS-7 through C/OS-12; Policies C/OS-17 through C/OS-21 Programs 8.7 and 8.8	Significant and adverse.
	Impact BIO-7: The permanent loss of 3,500 acres of foraging area for special status animal species would contribute to the cumulative loss of such areas within the Salinas Valley.		Significant and adverse.
Agricultural Resources	Impact A-1: Development of land designated for urban development by the draft Plan, and the development of additional disposal ponds for the wastewater treatment plant, will result in the permanent conversion of about 3,500 acres of land classified Prime and Farmland of Statewide Importance.	Policies C/OS-1 through C/OS-8 Programs 8.7 and 8.8	Significant and adverse.

Table 5.2-1
Summary Of Impacts in the 2005 City General Plan EIR

Environmental Issue	Impact	Policy Response/ Mitigation Measures	Residual EFFECT
	Impact A-2:Development of additional rapid infiltration basins as recommended by the draft Wastewater Treatment and Disposal Master Plan will result in the permanent conversion of about 469 acres of land classified Prime and Farmland of Statewide Importance. This is considered an unavoidable and adverse project-specific and cumulative impact (Class I).	Policies C/OS-1 through C/OS-8 Programs 8.7 and 8.8	Significant and adverse.
Visual Resources	Impact V-1 Development of the various land uses contemplated by the Draft Plan will alter the visual character and/or quality of the Plan area.	Policies L-3, L-42 through L-52; Policies C/OS-7 through C/OS-9, C/OS-18 Programs 8.7 through 8.9	Significant and adverse.
Class II Impacts -- Significant impacts that can be mitigated to a less-than-significant level by recommended mitigation measures.			
Public Services	Impact PS-3: Buildout of the area designated for urban development will require the expansion and extension of water storage and distribution infrastructure to accommodate the level of development anticipated.	Policies S-1 though S-40, HZ-9 through H-11, Programs 5.11, 7.1 through 7.9, 9.4 through 9.7, 4.1 and 4.2	Not significant
	Impact PS-4: The draft Plan designates some 2,750 acres for urban expansion beyond the area currently served by the City's wastewater collection and treatment systems. Serving this area will require considerable expansion of infrastructure capacity for collection, treatment and disposal.		Not significant.
	Impact PS-6: Buildout of the City as contemplated by the draft Plan will increase the need for fire fighting personnel and equipment.		Not significant
	Impacts PS-7: Buildout of the draft Plan will require additional fire protection facilities and equipment to maintain an acceptable response time.		Not significant
	Impact PS-9: Buildout of the City as contemplated by the draft Plan will increase the need for police protection personnel and equipment.		Not significant
	Impact PS-10: Buildout of the draft Plan will significantly increase the City's population and the demand for parkland.		Not significant

Table 5.2-1
Summary Of Impacts in the 2005 City General Plan EIR

Environmental Issue	Impact	Policy Response/ Mitigation Measures	Residual EFFECT
	Impact PS-12: Buildout of the draft Plan will accommodate about 11,539 additional dwelling units which in turn are expected to generate additional school aged children. The number of new households and associated students will significantly increase the demand for school facilities.		Not significant
	Impact PS-13: Buildout of the draft Plan will result in the generation of additional solid waste which will adversely impact the capacity of landfills serving the City and surrounding cities.		Not significant
Traffic	Impact T-2: Buildout of the land uses recommended by the Draft General Plan will adversely affect the operation and level of service of the two freeway interchanges serving the City.	Policies T-1 through T-37, Programs 5.1 through 5.24	Not significant
Noise	Impact N-1: Noise associated with construction activities may adversely impact nearby noise-sensitive uses.	Policies N-1 through N-5; Programs10.1 and 10.2	Not significant
	Impact N-2: Noise associated with motor vehicle traffic generated by the development of land uses accommodated by the draft Plan will increase, which may result in the exceedence of the standards described in Table V.4-1 adjacent to the roadway.		Not significant
Geologic Hazards	Impacts GEO-1: A major earthquake on the San Andreas faults could produce ground accelerations of 0.15g to 0.7g within the Plan area, resulting in damage to structures and a potential safety hazard to occupants of such structures.	Policies C/OS-7, C.OS-8, C/OS-9, HZ-5 through 8; S-12 through S-19; Program 9.2	Not significant
	Impact GEO-2: Portions of the Plan area may be subject to landslides and/or slope failure.		Not significant
	Impact GEO-3: Development activities associated with the various land uses contemplated by the draft Plan have the potential to result in soil erosion.		Not significant
	Impact GEO-4: Construction and renovation activities associated with the Wastewater Master plan could result in erosion and sedimentation.		Not significant
Flooding, Drainage and Water Quality	Impact W-1 Buildout of the land uses designated by the draft Plan will increase the amount of impervious surfaces within the City's Plan area, thereby increasing the volume and velocity of runoff, and the potential for erosion and sedimentation in the Salinas River and its tributaries.	Policies S-12 through S-19; HZ-1 through HZ-4; Programs 9.1 and 9.2	Not significant

Table 5.2-1
Summary Of Impacts in the 2005 City General Plan EIR

Environmental Issue	Impact	Policy Response/ Mitigation Measures	Residual EFFECT
	Impact W-2: Heavy metals and other hazardous materials washed from the surface of parking lots and roadways constructed within the Plan area could enter natural drainage courses such as the Salinas River during a rainstorm.		Not significant
	Impact W-3: Construction activities could result in the release of oil, engine fuel and other toxic substances into the Salinas River or its tributaries, adversely affecting water quality.		Not significant
	Impact W-4: Buildout of the land uses designated by the draft Plan may expose people and property to the periodic effects of flooding.		Not significant
Biological Resources	Impact BIO-1: Buildout of the Plan area with urban uses could result in the permanent conversion of 3,500 acres of agricultural land to urban use. This land may provide suitable foraging habitat for certain special status animal species, and uncultivated areas could contain sensitive plant species.	Policies C/OS-7 through C/OS-12; Policies C/OS-17 through C/OS-21 Programs 8.7 and 8.8	Not significant
	Impact BIO-2: Construction activities could result in a number of temporary impacts, including, but not limited to, disturbance of special status plant or animal species (nesting raptors, burrowing owls, etc.), increased erosion potential, and noise, particularly along the Salinas River and its tributaries, and the foothills.		Not significant
	Impact BIO-3: Urban development in the planning area could adversely impact riparian habitat by increasing impervious surfaces, accelerating erosion and input of sediments and pollutants.		Not significant
Agricultural Resources	Impact A-3: The expansion of urban uses contemplated by the draft Plan will increase the potential for incompatibility between urban uses and agricultural operations.	Policies C/OS-1 through C/OS-8 Programs 8.7 and 8.8	Not significant
Visual Resources	Impact V-3: Development of the various land uses accommodated by the draft Plan will result in additional sources of light and glare. These new sources will be visible from adjoining areas and from the 101 Freeway.	Policies C/OS-1 through C/OS-8 Programs 8.7 and 8.8	Not significant
	Impact V-4: New urban development could adversely affect the historic character of the City.		Not significant
Cultural Resources	Impact C-1: Development of the land uses contemplated by the draft Plan could unearth or disturb previously undiscovered resources of cultural or historic significance.	Policies L-49, L-52, C/OS-23, C/OS-24, Programs 8.5, 8.9, 8.10	Not significant

Table 5.2-1
Summary Of Impacts in the 2005 City General Plan EIR

Environmental Issue	Impact	Policy Response/ Mitigation Measures	Residual EFFECT
	Impact C-2: Development in accordance with the draft Plan could alter the historic character of the City.		Not significant
Class III Impacts -- Impacts that are adverse but not significant.			
Public Services	Impact PS-2: The increased demand on groundwater resources required to serve buildout of the City's Plan area could potentially reduce water levels in wells serving agricultural operations in the vicinity of the City.	Policies S-1 though S-40, HZ-9 through H-11, Programs 5.11, 7.1 through 7.9, 9.4 through 9.8, 4.1 and 4.2	Not significant
	Impact PS-5: Buildout of the draft Plan will significantly increase the amount of biosolids generated by the wastewater treatment plant which in turn will impact the capacity of licensed disposal facilities.		
	Impact PS-8: The additional industrial development accommodated by the draft Plan may necessitate specialized fire fighting and hazardous materials equipment to maintain an acceptable level of fire protection.		
	Impact PS-11: Buildout of the draft Plan will significantly increase the City's population and the demand for recreation programs.		Not significant
	Impacts PS-15: Development of the land uses contemplated by the draft Plan will increase motor vehicle use with a corresponding increase in the consumption of motor vehicle fuels.		Not significant
Traffic	Impact T-3: Buildout of the land uses recommended by the Draft General Plan could result in traffic hazards on city streets and intersections.	Policies T-1 through T-37, Programs 5.1 through 5.24	Not significant
	Impact T-4: Buildout of the land uses recommended by the Draft General Plan will significantly contribute to the demand for bicycle and pedestrian facilities in the City's planning area.		Not significant
	Impact T-5: Buildout of the land uses recommended by the Draft General Plan will contribute to the demand for public transit serving the City's planning area.		Not significant
Air Quality	Impact AQ-1: The draft Plan accommodates a considerable increase in the City's population over the next twenty or more years which may hamper efforts to achieve and maintain federal and state air quality standards.	Policies T-1 through T-37, C/OS-13 through C/OS – 16 Programs 5.2 through 5.11, Programs 5.15,	Not significant

Table 5.2-1
Summary Of Impacts in the 2005 City General Plan EIR

Environmental Issue	Impact	Policy Response/ Mitigation Measures	Residual EFFECT
	Impact AQ-3: Buildout of the draft Plan will degrade the operation of intersections within the City's Plan area which may lead to CO 'hotspots' where the state or federal standard may be violated.	8.1 through 8.4	Not significant
	Impact AQ-4: Expansion of the City's wastewater treatment and disposal capacity as contemplated by the draft Wastewater Treatment and Disposal Master Plan could result in the generation of nuisance odors.		Not significant
Noise	Impact N-3: Buildout of land uses accommodated by the draft Plan will increase the exposure of people to new and existing stationary sources of noise.	Policies N-1 through N-5; Programs10.1 and 10.2	Not significant
	Impact N-4: Noise from ongoing agricultural operations could periodically exceed the City's noise standards for adjacent residences.		Not significant
Flooding, Drainage and Water Quality	Impact W-5: The increase in impervious surfaces could adversely affect groundwater recharge.	Policies S-12 through S-19; HZ-1 through HZ-4; Programs 9.1 and 9.2	Not significant
	Impact W-6: Improvements contemplated by the draft Wastewater Treatment and Discharge Master Plan and resulting treatment plant expansions could impair groundwater beneficial uses or quality.		Not significant
	Impact W-7: The proposed change in land use at the project area could affect regional groundwater quality.		Not significant
	Impact W-8: Expanded infiltration basins could result in increased risk of surface water degradation to the Salinas River in the event of a spill.		Not significant
Biological Resources	Impact BIO-5: The conversion of agricultural land to urban uses within the Plan area may restrict the east-west movement of animals from the hills to the west across the Salinas Valley.	Policies C/OS-1 through C/OS-8 Programs 8.7 and 8.8	Not significant
	Impact BIO-6: Buildout of the Plan area with urban uses will result in long-term indirect impacts associated with increased urbanization, including light, noise, pets, traffic, and other effects of increased human presence.		Not significant
Agricultural Resources	Impact A-4: Development of land designated for urban development by the draft Plan may hasten the early cancellation of Land Conservation Act Contracts.	Policies C/OS-1 through C/OS-8 Programs 8.7 and 8.8	Not significant

Table 5.2-1 Summary Of Impacts in the 2005 City General Plan EIR			
Environmental Issue	**Impact**	**Policy Response/ Mitigation Measures**	**Residual EFFECT**
	Impact A-5: Development of infiltration basins could hasten the cancellation of LCA contracts on properties surrounding the wastewater treatment plant.		Not significant
Visual Resources	Impact V-2: Grading and construction activities and the storage of construction materials may be visible from public vantage points.	Policies C/OS-1 through C/OS-8 Programs 8.7 and 8.8	Not significant
Housing and Population	Impacts PH-1: Continued development of the City as contemplated by the draft Plan will result in considerable additional housing and population growth which in turn could affect the supply of affordable housing and the relationship between jobs and housing.	Policies L-1 through L-20, L-43, H-1 through H-12, Programs 2.1 through 2.7; 4.1 through 4.23	Not significant

5.2A Viewshed

Setting: The viewshed surrounding the City consists largely of agricultural fields with a backdrop of mountain ranges to the east and west. The outward expansion of the City has established a firm visual edge between urban and rural uses. However, commercial and industrial businesses located along the Highway 101 right-of-way north of the City interrupt this established boundary. The scenic variety of the City's Plan area could hardly be considered 'distinctive' within the context of the Salinas Valley. The fairly uniform rows of crops with the mountain ranges behind is the predominant visual experience when traveling through the Salinas Valley.

When approaching the City from either the north or south on Highway 101, the most prominent view of the City is the commercial businesses along the east side of Front Street which form a nearly solid facade when viewed from the west. The freeway interchanges serving the City are important visual gateways that provide visitors with their first impressions of the form and character of the community and its largely-agricultural setting.

General Plan EIR: The General Plan EIR evaluated potential aesthetic impacts associated with the adoption and implementation of the Soledad General Plan, including future development within the project area. The General Plan EIR identified the following cumulative impacts:

- Development of the various land uses contemplated in the General Plan would alter the visual character and/or quality of the area. This impact was identified as significant and unavoidable.

- Temporary construction related impacts were identified due to buildout according to the General Plan. This impact was identified as adverse, but not significant.

- Buildout of the General Plan would result in additional sources of light and glare, which would be visible from adjoining areas and from Highway 101. This impact was considered significant, unless mitigated.

Cumulative Impact: Implementation of the project in conjunction with cumulative projects associated with General Plan buildout would introduce substantial new development, decreased views of open space, and potential reduction of views of the Gabilan Mountain Range foothills. The proposed Specific Plan adoption amends a key goal of the General Plan that will introduce substantial new development, including structures of various heights and densities, which would result in decreased views of open space, within that portion of the Gabilan Mountain Range foothills located within the project boundaries. Mitigation is presented in this EIR to reduce these impacts as much as feasible at the project level but this project impact remains significant and unavoidable. Similarly, the General Plan includes goals and policies intended to protect the visual character of the City and surrounding scenic resources. This EIR finds that the increased visibility and intensity of development would have a substantial adverse effect on a scenic vista. The cumulative loss of natural open space and introduction of urban development would result in a significant unavoidable impact to the scenic vista. **Based on the above discussion, the cumulative impacts associated with loss of viewshed materials would be cumulatively considerable.**

Cumulative Mitigation: Implementation of the policies and programs contained in the City General Plan (Table 5.2-1 above).

5.2B Agricultural Resources

Setting: Conversion of agricultural land to urban uses continues to be a public policy issue in California. The Farmland Mapping and Monitoring Program (FMMP) has determined that approximately 828,445 acres (approximately 1.8 percent of California's landmass) were converted to urban and built uses between 2000–2002. Of the total acres converted, 397,097 were formerly cropland and 172,857 were formerly grazing land.

Monterey County cities and residential communities continue to grow and in recent years, agricultural land has been converted to residential and other non-agricultural uses. The single most important factor in the decline of agricultural acreage in Monterey County has been the rapid spread of urban development. In the South Monterey County area, significant development pressures have resulted in the conversion of agricultural land to urban uses.

According to a study by the California Department of Conservation, conversions of farmland to urban uses adversely affect the efficiency of remaining farming operations in the area. For example, agricultural production decreases as a result of increased air pollution, livestock predation by pets, crop diseases resulting from inadequate care of off-farm ornamental plants, restriction on pesticide use and burning, and requirements to set aside on-farm buffer zones. Production costs increase because of rising land costs, water scarcity, theft and vandalism of farm equipment, crop pilferage, road congestion, and personal injury liability associated with farm trespass.

Based on data from the FMMP for the years 2000 to 2004 (Table 5.2. 1), it would appear that the majority of residential and commercial development has occurred on prime farmlands (prime and important lands, combined). However, the conversion of prime irrigated lands is not consistently related to the increases in urban land areas. As an example, Table 5.2.2 shows that between 2000 and 2002, approximately 12.5 percent of irrigated farmland loss was due to conversion to urban development. During this period total irrigated agricultural acreage increased by 1,596 acres. The additional prime land is largely attributable to the conversion of non-irrigated grazing and other lands.

Table 5.2.2 Change in Monterey County Prime and Important Farmland Acreage					
Category	**Years Inventoried**			**Net Change (%)**	
	1984	**2000**	**2004**	**1984-2000**	**2000-2004**
Prime Farmland	176,779	169,255	169,368	-4.3	0.1
Farmland of Statewide Importance	37,762	45,877	44,544	21.5	-2.9
Prime Farmland Subtotal	214,541	215,132	213,912	0.2	-0.6
			Acres	591	-1220
Grazing Land	1,081,510	1,060,663	1,066,539 Acres	-1.9 -20,847	0.6 5876
Agricultural Land Subtotal	1,306,926	1,299,937	1,306,929	-0.5	0.5
			Acres	-6989	6992
Urban and Built-Up Land	42,374	52,486	54,293 Acres	23.9 10,112	3.4 1807

Source: California Department of Conservation Farmland Mapping and Monitoring Program, 1994-2000

*Due to the incorporation of digital soil survey data (SSURGO) in 2000, acreages for farmland, grazing and other land categories may differ from those published in the 1998-2000 Farmland Conversion Report.

Table 5.2.3 Change in Monterey County Irrigated Farmland Acreage Between 2000 and 2002						
Land converted to irrigated			**Land converted from irrigated**			
Prime	**Statewide and Unique**	**Total**	**Urban**	**Grazing**	**Other**	**Total**
1295	2953	4248	331	1461	860	2652

The proposed project would incrementally contribute to this significant cumulative impact by converting approximately 760 acres of prime cropland to a non-agricultural use and is therefore considered significant and unavoidable.

The draft County General Plan includes a policy where "... impacts to productive farmlands resulting from urban development shall be mitigated through the implementation of agricultural land conservation programs. Mitigation shall be provided at a ratio of 1 acre conserved for each acre impacted. In lieu of conserving land through a conservation easement, another mitigation approach is payment of a fee based upon a one to one replacement for a farmland conservation easement or farmland deed restriction established by the Board of Supervisors by resolution or through an enforceable agreement with the developer. The in lieu fee option must be approved by the Board of Supervisors. The fee shall be equal to or greater than the value of a previous farmland conservation transaction in the planning area plus the estimated cost of legal, appraisal and other costs, including staff time, to acquire property for agricultural mitigation...".

General Plan EIR: The impact to agricultural lands due to the allowable development under the General Plan Land Use Element was identified as an unavoidable significant impact.

Cumulative Impact: Implementation of the project in conjunction with cumulative projects associated with General Plan buildout would introduce substantial new development, decreased agricultural lands and open space, and potential conversion and early cancellation of Williamson Act parcels in the planning area of the City. Due to the conversion of 3500 acres of state-identified prime agricultural land within the planning area of the City, the impacts from loss of agricultural lands due to development accommodated by the General Plan Land Use Element is considered an unavoidable significant impact.

Cumulative Mitigation: Currently there are no formal mitigation fee and/or conservation easement policies in place. There are grant programs provided by the State's Department of Conservation to assist in the acquisition of conservation easements and the Monterey County Agricultural and Historical Conservancy Inc. has successfully acquired easements in the Salinas Valley.

Impact after Mitigation - **No measures are available to fully mitigate the loss of prime agricultural land, therefore even after mitigation the impact will be significant and unavoidable.** This conclusion is consistent with the City of Soledad General Plan EIR, Agricultural Resources section for the eventual phased development of adjacent agricultural land.

5.2C Geologic Hazards

Setting: The City of Soledad is located on the eastern side of the Salinas Valley. The Valley is bordered by the Santa Lucia mountain range to the west, and the Gabilan range to the east and is underlain by alluvial fill to an estimated depth of between 800 and 1,000 feet. The composition of the fill is mainly unconsolidated or loosely consolidated sediments. These sediments were derived through weathering and subsequent movement of this material from upland areas to the valley floor. Most of the City of Soledad overlies recent alluvium although underlying geologic structure can vary considerably due to alternating layers of silt, sand, gravel, cobble, and occasional boulders that have been deposited over the alluvial fans in the valley. Clay layers occur at irregular intervals and depths throughout the area (Soledad General Plan, 2005). The City of Soledad is located in a seismically active region. The alluvial Salinas Valley is bordered both to the east and west by active or potentially active fault zones.

General Plan EIR: Potential geological and geotechnical hazards due to development accommodated by the Land Use Element were identified as potentially significant impacts which would be reduced to less-than-significant with implementation of policies and programs in the General Plan.

Cumulative Impact: The San Andreas Fault lies some thirteen miles east of the City and has produced some of the largest earthquakes in California history. A major seismic event associated with this fault could result in significant damage to structures and public infrastructure within the Plan area. The Plan area includes a portion of the foothills of the Gabilan Range which contain slopes of twenty percent and more. Portions of the Plan area may be subject to landslides and/or slope failure. Development activities associated with the various land uses under cumulative development of the General Plan construction activities will involve grading, excavation, and fill, all of which will expose soils to wind, water and other eroding elements.

Cumulative Mitigation: Implementation of the policies and programs contained in the City General Plan (Table 5.2-1 above) will reduce the potentially significant impacts to a less-than-significant level. **Based on the above, cumulative impacts associated with geologic hazards would be less-than-significant.**

5.2D Hydrology/Drainage

Setting: The project site is located north and northwest of the City of Soledad. The City is divided into nine drainage basins. Five of these lie entirely within the City limits, three are partially inside the City limits, and one lies entirely outside City boundaries. The Salinas River is located approximately 1.25 miles to the south of the site and is the primary surface drainage feature that affects the area. The City is located within the Salinas Valley groundwater Basin within the Forebay area. The Forebay area is characterized by gravels, sands, and clays of fluvial origin with minor, interfingering alluvial fan deposits occurring along the valley margins. These sediments constitute an unconfined aquifer over 800 feet thick, although local occurrence of clay layers may create partially confined conditions in some areas.

Recharge to groundwater occurs principally by 1) infiltration from the Salinas River, fed during the dry part of the year by water release from the Nacimiento and San Antonio reservoirs, 2) infiltration and underflow from tributary drainages around the basin and 3) return flows from agricultural irrigation and percolation of rainfall. Groundwater flow in the valley is to the northwest, towards the mouth of the Salinas Valley. However, pumping from large agricultural wells can have a significant local impact on groundwater gradient, and may locally induce cross valley groundwater flow.

Soledad General Plan EIR. The General Plan EIR evaluated potential hydrologic and drainage impacts associated with the buildout of the Soledad General Plan, including future development within the project area. According to the General Plan EIR, the following potentially significant impacts were identified:

- Buildout of the General Plan would increase the amount of impervious surfaces within the City's Plan area, thereby increasing the volume and velocity of runoff, and the potential for erosion and sedimentation in the Salinas River and its tributaries.

- Buildout of the General Plan would increase the amount of heavy metals and other hazardous materials washed from the surface of parking lots and roadways constructed within the Plan area that could enter natural drainage courses such as the Salinas River during a rainstorm.

- Development and associated construction activities could result in the release of oil, engine fuel and other toxic substances into the Salinas River or its tributaries, adversely affecting water quality.

- Buildout of the land uses designated by the General Plan have to potential to expose people and property to the periodic effects of flooding.

- The increase in impervious surfaces resulting from General Plan buildout could adversely affect groundwater recharge.

- Development and the proposed change in land use from buildout of the General Plan could affect regional groundwater quality.

Impacts to water quality were determined to be significant if project implementation would not comply with surface water quality objectives established by the Regional Water Quality Control Board (RWQCB) in Chapter 3 of the Water Quality Control Plan, Central Coast Region.

Additionally, the General Plan EIR concluded that water demand associated with buildout of the draft Plan will contribute to the cumulative demand for water for domestic use from the Salinas Groundwater Basin.

The remaining impacts were considered to be less-than-significant with mitigation proposed as part of the General Plan.

Cumulative Impact: Implementation of the project in conjunction with cumulative projects associated with General Plan buildout would introduce substantial new development. Cumulative development on undisturbed land within the watershed could increase the amount of impervious surfaces, thereby increasing runoff rates in the area. Future development of the project site as proposed by the Miravale III Specific Plan would include storm drain facilities not currently sized to be consistent with Storm Drain Master Plan requirements. However, with mitigation, the project's storm drain facilities will be in accordance with all local and state regulations, and would not result in significant impacts to hydrology or flooding conditions.

Cumulative development and increases in localized runoff could introduce urban pollutants into the drainage system and receiving water bodies, impacting water quality. The project proposes BMPs, as well as detention basins, to allow infiltration and remove heavy metals and other pollutants from storm water before it enters the groundwater. The onsite drainage system with proposed mitigation in this EIR and BMP measures would avoid offsite, cumulative water quality impacts.

The General Plan EIR concluded that water demand associated with buildout of the draft Plan will contribute to the cumulative demand for water for domestic use from the Salinas Groundwater Basin. The contribution of this project to incremental increase in demand is not considered cumulatively (as evidenced by the UWMP and WSA prepared for this project).

Cumulative Mitigation: Implementation of the policies and programs contained in the City General Plan (Table 5.2-1 above) and this EIR will reduce the potentially significant impacts to a less-than-significant level. The project would have a less-than-significant cumulative impact on hydrology and water quality.

Based on the above discussion, the cumulative impacts associated with hydrology and water quality would be less-than-significant.

5.2E Biological Resources

Setting: The majority of the lowland portion of the project site is currently in active agricultural production or fallow but typically dedicated to agricultural production. Active and fallow agricultural areas represent appropriate foraging and dispersal habitat for a variety of wildlife species and limited habitat for special-status plant species. The grassland portions of the site associated with the Gabilan foothills are relatively undeveloped and are not currently grazed; these areas provide valuable plant and wildlife habitat and habitat connectivity.

General Plan EIR: The General Plan EIR evaluated potential biological impacts associated with the adoption and implementation of the Soledad General Plan, including future development within the project area. According to the General Plan EIR, the following impacts were identified as unavoidable and adverse:

- Development accommodated by the draft Plan will increase groundwater withdrawals, which has the potential to diminish in-stream flow along the Salinas River.

- The permanent loss of 3,500 acres of foraging area for special status animal species would contribute to the cumulative loss of such areas within the Salinas Valley.

Additionally, these impacts were considered significant unless mitigated:

- Buildout of the Plan area with urban uses could result in the permanent conversion of 3,500 acres of agricultural land to urban use. This land may provide suitable foraging habitat for certain special status animal species, and uncultivated areas could contain sensitive plant species.

- Construction activities could result in a number of temporary impacts, including, but not limited to, disturbance of special status plant or animal species (nesting raptors, burrowing owls, etc.), increased erosion potential, and noise, particularly along the Salinas River and its tributaries, and the foothills.

- Urban development in the planning area could adversely impact riparian habitat by increasing impervious surfaces, accelerating erosion and input of sediments and pollutants.

Cumulative Impact: Buildout according to the General Plan in addition to other cumulative developments would potentially result in significant cumulative level impacts to biological resources as a result of habitat loss, fragmentation, and isolation. More specifically, as identified in **Section 4.4 Biological Resources,** the proposed project would result in several significant unavoidable impacts to a number of special status species, in addition to significant impacts due to habitat loss. Moreover, as identified in the General Plan EIR, the permanent loss of foraging habitat would result in a significant cumulative impact to biological resources. To the extent that mitigation has been incorporated into this EIR, project impacts, as well as cumulative impacts, would remain significant and unavoidable. **This represents a significant cumulative level impact.**

Mitigation: Mitigation as proposed in the EIR and General Plan Policies identified in Table 5.2-1 above.

5.2F Utilities/Public Services

General Plan EIR: The impacts to Utilities/Public Services due to development accommodated by the buildout of the General Plan was identified as a potentially significant impact but reduced to less-than-significant with mitigation and planned improvements.

Cumulative Impact: Buildout of the Plan area as contemplated by the General Plan will require the expansion and extension of public utilities and infrastructure. Accordingly, policies and programs of the Plan recommend preparation of capital improvement plans to identify these improvements and funding, and require adequate capacity for services to be in place concurrently or in advance of such new development.

> **Water**: Buildout of the Plan area with urban land uses as contemplated by the draft Plan will result in a net increase in water extracted from the Forebay Sub-basin. An estimate of future water demand under cumulative conditions for all land uses was prepared for the Soledad General Plan EIR. Applying assigned demand factors to buildout yielded the following estimate of future demand under cumulative conditions:

Table 5.2-4 Future Cumulative Water Demand		
Future Non-Prison Population	**Water Demand Factor**	**Water Demand At Buildout (AFY)[2]**
57,273	128 gallons per day per capita[1]	8,233
Current Demand (Urban plus Ag.)		7,756
Increased Demand At Buildout		**477**

Notes:
1. Water demand from all land uses expressed as a per capita equivalent (Hanna and Brunetti *Water Impact Fee Study*, December, 1999);
2. Based on average daily demand
3. Assumes buildout of the General Plan, 2005 projections
4. Source: Table V.1-4: Future Water Demand At Buildout of the Draft Plan, GPEIR

As Table 5.2-4 suggests, total water demand from the City's Plan area will increase by about 477 AFY at buildout with the uses contemplated by the adopted General Plan. This will occur incrementally over time as more land is annexed to the City and converted from an agricultural to an urban use. It should be noted, however, that this estimate of future water demand makes no assumptions for savings associated with water conservation measures that will implemented in the future as required by State law. For example, new development will be required to incorporate water-conserving plumbing fixtures which will reduce future water use. According to the General Plan EIR, with other more aggressive measures, such as the retrofitting of older toilets and showerheads with more water efficient fixtures, would reduce future demand to near or below current water demand for the Plan area.

Table 5.2-5 from the 2005 General Plan compares present and future water demand with identified withdrawals from the Forebay Sub-basin. The General Plan EIR concluded that water demand associated with buildout of the draft Plan will contribute to the cumulative demand for water for domestic use from the Salinas Groundwater Basin. As identified in the General Plan EIR, withdrawals from the Forebay sub-basin attributable to buildout of the draft Plan will increase by about 0.3 percent over 2004 demand. **The contribution of this project to incremental increase in demand is not considered significant in comparison to withdrawal in the Forebay Sub-Basin.**

Table 5.2-5
Comparison of Present and Future Water Demand In Relation to 2004 Groundwater Withdrawals from the Forebay Sub-Basin

	AFY	Expressed as a Percentage of Total Withdrawals from Forebay Sub-Basin[2]
Current (2004) Demand[1]	7,756	4.8 %
Buildout Demand	8,233	5.1%
Increase	477	0.34%

Sources: CMCA and DWR Bulletin 118, February, 2004
Notes:
1. Urban and agricultural uses within the City's Plan area.
2. February, 2004 withdrawals are estimated at 160,000 AFY by DWR Bulletin 118.
3. Source: Table V.1-5 City of Soledad GPEIR

Both the Urban Water Management Plan and the WSA prepared for the project take into account the salt water intrusion and Salinas Valley Water Project issues; the EIR concludes that adequate water is available to serve the proposed project.

The Salinas Valley Groundwater Basin is experiencing overdraft, with seawater intrusion of about 9,000 acre-feet per year (AF/Y) at its coastal margins affecting portions of the 180-foot and 400-foot aquifer systems. The Monterey County Water Resources Agency (MCWRA) has been pursuing the Salinas Valley Water Project (SVWP) to address the saltwater intrusion in the coastal regions of the basin. Funding for the SVWP under a special property assessment in accordance with Proposition 218 was approved by a vote of property owners in a mailed ballot election in 2003, and the MCWRA has secured federal grants to fund analysis of the second phase of the project, which involves supplying a portion of the available surface water to coastal urban water agencies to further reduce pumping in the coastal areas. Additionally, the State Water Resources Control Board has been monitoring the MCWRA's ongoing efforts to halt seawater intrusion in the basin and has provided $1.4 million in funding to the MCWRA for development of this seawater intrusion solution. As discussed in the SVWP, after reviewing the technical documents analyzing the probable effects of the SVWP on seawater intrusion, the SWRCB concluded "that seawater intrusion can be stopped" (refer to SVWP EIR). However, given the lack of full understanding of the relationship between the Salinas Basin as a whole, and the Pressure Subarea in the vicinity of the former Fort Ord, it is uncertain whether this outcome will be achieved at currently expected levels of pumping increases in the coastal margins of the Pressure Subarea.

The reader is referred to detailed information regarding the background and history of the condition of the Salinas Valley Groundwater Basin, including the cause and extent of overdraft and seawater intrusion, current and future water needs and trends, and efficacy of alternative mitigation measures contained in the EIR/EIS for the Salinas Valley Water Project. (Please refer to http://www.mcwra.co.monterey.ca.us/SVWP/DEIR_EIS_2001/index.htm). The information and analysis in the Salinas Valley Water Project EIR/EIS is expressly incorporated into the Draft EIR. Under Public Resources Code Section 21061, information or data that is relevant to the environmental analysis and is a matter of public record or is generally available to the public need not be repeated in the EIR, but may be specifically cited as the source for conclusions stated in

the EIR. It is sufficient that such information or data is briefly described and that its relationship to the EIR is indicated. As set forth in Guideline Section 15150(a), where all or part of another document is incorporated by reference, the incorporated language is considered to be provided in full as part of the EIR text.

Fire and Police Services: The EIR analyzes the potential impacts of development on fire and police protection services, including the impacts of development within the five Expansion Areas. The EIR concludes that buildout of the City as contemplated by the Plan will increase the need for fire fighting and police protection personnel and equipment. The EIR further concludes that new development to the east and north of the City limits, including within the Expansion Areas, will require additional fire protection facilities to maintain an acceptable response time, and that implementation of mitigation measures will reduce these impacts to a less-than-significant level. Development of the project site and corresponding fire and police protection for such development is anticipated in the General Plan and EIR. Therefore, the proposed project does not create any new or more significant impacts with respect to fire or police protection services.

Wastewater: The General Plan designates some 2,750 acres for urban expansion to be served by the City's wastewater collection and treatment systems. Serving this area assumes expansion of infrastructure capacity for collection, treatment and disposal. This impact was considered significant unless mitigated in the General Plan EIR.

Services Conclusion: Buildout of the Plan area as contemplated by the draft Plan will require the expansion and extension of wastewater collection and treatment facilities, water supply infrastructure, as well as fire and police facilities and services. Accordingly, policies and programs of the Plan recommend preparation of capital improvement plans to identify these improvements and funding, and require adequate capacity for services to be in place concurrently or in advance of such new development. These improvement plans and programs are ongoing under the direction of the City. Thus, the contribution of the project to expansion of public services would not be cumulatively considerable.

Mitigation: Mitigation as proposed in this EIR and General Plan Policies identified in Table 5.2-1 above.

5.2G Air Quality

Regional Air Quality

Setting: The air pollutant emissions resulting from the Miravale III project would contribute to overall increases in regional emissions due to other cumulative development. A determination of consistency with the Air Quality Management Plan is used to define the cumulative impacts of a proposed project on regional air quality.

AMBAG is responsible for determining consistency of the Miravale III project with the Air Quality Management Plan for the Monterey Bay Region (AQMP). The 2008 Regional Population & Employment Forecast is the official population forecast of the AQMP and is the basis for AMBAG's consistency analysis. Consistency of the project with the AQMP was analyzed by comparing the total potential population growth facilitated by the project with the forecasted growth for Monterey County.

Specific plans are evaluated for cumulative impacts both determining the consistency of the proposed project with the applicable regional air quality plan the specific plan's individual impacts to air quality. The MBUAPCD *2008 Air Quality Management Plan for the Monterey Bay Region* (AQMP) addresses

attainment of the State ozone standard. MBUAPCD has included emissions related to population growth in the AQMP using projections adopted by the AMBAG. For this specific plan, consistency with population forecasts is determined by comparing plan build-out population at the year of project completion with the appropriate five-year forecast increment for the jurisdiction that the project is located (i.e. Soledad). Projects or plans that would not cause the estimated cumulative population to exceed forecasts are considered consistent with air quality planning efforts. According to the AMBAG, this project is consistent with the 2008 regional forecasts for Monterey County and the Air Quality Management Plan. A letter from AMBAG documenting the consistency determination is included in the Air Quality Report in Appendix E.

As described in the Air Quality Section of this EIR, individual projects developed could have significant air quality impacts with respect to direct and indirect emissions of ozone precursor pollutants. These impacts are typically identified at the time project-level analyses are conducted. Current modeling indicated the potential for projects to have VOC emissions in excess of the MBUAPCD thresholds. Therefore, this was identified as a potentially significant impact. Mitigation measures to reduce the impacts were suggested to apply to the plan. Because much of the emission from projects would be associated with use of consumer products that cannot be mitigated, the impact could be considered significant and unavoidable. This represents a potentially significant cumulative impact to air quality.

Cumulative Impact: The specific plan consists of mostly residential with commercial retail uses and schools that were found by AMBAG to be consistent with 2008 regional forecasts and the Air Quality Management Plan; therefore, it would not conflict with regional efforts to attain and maintain ambient air quality standards. Projects developed under the specific plan may have individually significant impacts that may not be mitigated to a less-than-significant level**. As a result, the specific plan may contribute significantly to a significant cumulative air quality impact.**

Mitigation: Implementation of the Air Quality mitigations in this EIR and programs and policies in the General Plan identified in Table 5.2-1 above.

Greenhouse Gas and Global Climate Change

Various gases in the Earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect.

Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for enhancing the greenhouse effect (Ahrens 2003). Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors (California Energy Commission 2006a). In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (California Energy Commission 2006a). A byproduct of fossil fuel combustion is CO_2. Methane, a highly potent GHG, results from off-gassing associated with agricultural practices and landfills. Processes that absorb and accumulate CO_2, often called CO_2 "sinks," include uptake by vegetation and dissolution into the ocean.

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California is the 12th to 16th largest emitter of CO_2 in the world and produced 492 million gross metric tons of carbon dioxide equivalents in 2004 (California Energy Commission 2006a). Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

Carbon dioxide, the primary man-made greenhouse gas of concern, would be generated by the project from mobile sources and other energy usage. The proposed Specific Plan incorporates the following measures to reduce motor vehicle and other energy use:

- Providing employment opportunities near housing to minimize off-site commuting.
- Linking a mix of land uses with alternative transportation facilities (e.g., bikeways, sidewalks, and trails).
- Promote the use of solar energy devices to encourage solar orientation of residential and business buildings to reduce the use of fossil fuels.

In addition, mitigation is identified in this EIR, including Transportation Demand Measures, to further reduce mobile source emissions.

Regulatory Framework

This section describes recent state regulations that specifically address greenhouse gas emissions and global climate change. At the time of writing, there are no regulations setting ambient air quality standards or emission limits for greenhouse gases.

Assembly Bill 1493. In 2002, then-Governor Gray Davis signed Assembly Bill (AB) 1493. AB 1493 requires that the California Air Resources Board (ARB) develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty truck and other vehicles determined by the ARB to be vehicles whose primary use is noncommercial personal transportation in the state." For more information see http://www.leginfo.ca.gov/pub/01-02/bill/asm/ab_1451-1500/, http://www.arb.ca.gov/regact/grnhsgas/revfro.pdf and http://www.arb.ca.gov/regact/grnhsgas/revtp.pdf.

Assembly Bill 32, the California Climate Solutions Act of 2006. In September 2006, Governor Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs ARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then ARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32. AB 32 requires that ARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an

economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions. For more information see http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf

Senate Bill 1368. SB 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 required the California Public Utilities Commission (PUC) to establish a greenhouse gas emission performance standard. Therefore, on January 25, 2007, the PUC adopted an interim GHG Emissions Performance Standard in an effort to help mitigate climate change. The Emissions Performance Standard is a facility-based emissions standard requiring that all new long-term commitments for baseload generation to serve California consumers be with power plants that have emissions no greater than a combined cycle gas turbine plant. That level is established at 1,100 pounds of CO_2 per megawatt-hour. "New long-term commitment" refers to new plant investments (new construction), new or renewal contracts with a term of five years or more, or major investments by the utility in its existing baseload power plants. In addition, the California Energy Commission (CEC) established a similar standard for local publicly owned utilities that cannot exceed the greenhouse gas emission rate from a baseload combined-cycle natural gas fired plant. On July 29, 2007, the Office of Administrative Law disapproved the Energy Commission's proposed Greenhouse Gases Emission Performance Standard rulemaking action and subsequently, the CEC revised the proposed regulations. Those regulations can be found at http://www.energy.ca.gov/ghgstandards/documents/index.html. SB 1368 further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the PUC and CEC.

Executive Order S-3-05. signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change and declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80% below the 1990 level by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary will also submit biannual reports to the governor and state legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Act Team (CAT) made up of members from various state agencies and commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs. For more information see http://gov.ca.gov/index.php?/executive-order/1861/.

In addition to S-3-05, the following executive orders deal with greenhouse gas reduction:

- Executive Order S-01-07 regarding low carbon standard for transportation fuels http://gov.ca.gov/index.php?/executive-order/5172/
- Executive Order S-20-06 regarding implementation of AB 32 http://gov.ca.gov/index.php?/executive-order/4484/
- Executive Order S-20-04 regarding energy conservation by state http://gov.ca.gov/index.php?/executive-order/3360/

The following documents have been recently released to assist state and local governments and agencies with compliance with the above legislation, including defining how to address the issue in CEQA documents, in particular development and planning projects such as Miravale III. The recommendations in these guidance documents provide tools for entities and agencies to implement to voluntarily reduce

their greenhouse gas emissions and their susceptibility to the risks of adverse effects of global climate change by addressing it in planning and site design of development projects:

- California Air Resources Board, June 2008. Climate Change Draft Scoping Plan: a framework for change.
- California Air Pollution Control Officers Association, January 2008. CEQA & Climate Change.
- California Office of Planning and Research, June 19, 2008. CEQA and Climate Change: Addressing Climate Change Through CEQA.

Greenhouse Gas Emissions/Global Climate Change Thresholds

No air districts have established significance thresholds for greenhouse gas (GHG) emissions or a methodology for analyzing air quality impacts related to greenhouse gas emissions. With the adoption of AB 32, the state has set a goal of reducing GHG emissions to 1990 levels by 2020. It has been acknowledged by previous EIRs addressing this issue that it may be considered speculative to determine if a project would be consistent with the AB 32 goals. CO_2 emissions do not directly create environmental effects; rather it is the cumulative increased concentration of CO_2 in the atmosphere that results in global climate change and associated consequences. While it is possible to estimate the project's CO_2 emissions, it is typically not possible to determine whether those emissions (however small) would manifest into significant environmental impacts. The complexity of global and regional-scale physical, chemical, atmospheric, terrestrial, and aquatic systems preclude a meaningful determination of whether the CO_2 emitted by a single project (or in this case adoption of a Specific Plan) would result in a measurable or even, non-negligible change in climate. A quantitative standard of significance is not used in this EIR because of the global nature of the analysis required, instead a project's contribution to the cumulative significant impact of global climate change would be considered significant if, due to the size or nature of the project, it would generate a substantial increase in GHG emissions relative to existing conditions. In addition, the discussion considers whether or not the project would result in greenhouse gas emissions that would hinder or delay the State's ability to meet the reduction targets contained in AB 32.

Analysis Methodology

GHG emissions associated with the Miravale III Project were estimated using CO_2 emissions as a proxy for all GHG emissions. Urbemis 2007 version 9.2.2 was used to calculate CO_2 from operational and on-site area source emissions. The CO_2 emissions from non-vehicular sources associated with the project were calculated based upon the statewide factor of 40.7% of emissions that are attributed to transportation sources (California Energy Commission 2006). This is consistent with the current reporting protocol of the California Climate Action Registry (CCAR). Calculations of GHG emissions typically focus on CO_2 because it is the most commonly produced GHG in terms of both number of sources and volume generated, and because it is among the easiest GHGs to measure. However, it is important to note that other GHGs have a higher global warming potential than CO_2. Emissions of other GHGs from the Miravale III Project (and from almost all GHG emissions sources) would be low relative to emissions of CO_2 and would not contribute significantly to the overall generation of GHGs from the project.

Although the CCAR provides a methodology for calculating GHG emissions, the process is designed to be applied to a single or limited number of entities or operations where detailed information on emissions sources is available (e.g., usage of electricity and natural gas, numbers and types of vehicles and equipment in a fleet, type and usage of heating and cooling systems, emissions from manufacturing processes). Information at this level of detail is not available for the Miravale III Project. Given the lack of detailed design and operational information available at this time for facilities in the Miravale III

Specific Plan area, the CCAR emissions inventory methodology is considered to be not appropriate for estimating GHG emissions from the project. In addition, this EIR does not address GHG emissions and associated impacts during construction because these would be considered negligible compared to total operational, cumulative regional, state, national, and global GHG emissions.

Calculations of GHG Emissions

As discussed in the Analysis Methodology section, above, CO_2 emissions are used in this Draft EIR as a proxy for all GHG emissions. Urbemis 2007 v 9.2.2 was used to estimate CO_2 emissions shown in Table 4.3-7 from project-generated vehicle trips and on-site area source emissions (fossil fuel combustion and wood burning). According to the Urbemis model run in Appendix C, operations (including mobile and on-site area sources) due to buildout of the Specific Plan would result in emissions of 293,809 pounds per day of CO_2 which includes vehicular sources emitting 236,630 lbs per day and area sources (natural gas burning on-site) emitting 57,179 lbs per day. This estimate does not include emissions due to off-site electricity generation needed for the project. Converting to tons/year, the Specific Plan would result in approximately 53,620 tons of CO_2 per year, with 43,185 tons per year due to vehicular sources. To include off-site electricity generation and other GHG emissions, the transportation sector has been estimated to account for 40.7% of total GHG emissions in California (California Energy Commission 2006). Therefore, the project's non-transportation sector CO_2 emissions are estimated to be 62,921 tons per year for a total CO_2 emission estimate of approximately 106,100 tons per year.

This estimate of CO_2 emissions due to project implementation is likely much greater than the net new CO_2 emission that will actually occur. At the time of project buildout (beyond 2025), overall CO_2 emissions attributable to the Miravale III project could be substantially less than current emissions assumptions might indicate. This is due to the following factors:

- Although this future CO2 emission factor does assume certain reductions in vehicle emissions due to future vehicle models operating more efficiently, it does not take into account additional vehicle emission reductions that might take place in response to AB 1493, if mobile source emission reductions are ultimately implemented through this legislation.

- The emissions calculations described above do not take into account reductions in GHG emissions resulting from implementation of AB 32. Stationary emissions sources on the project site and stationary sources that serve the project site (e.g., power plants) will be subject to emissions reductions requirements of AB 32. The extent of these reductions has not yet been quantified by ARB.

- If GHG emissions reductions for vehicles are enacted, through either the requirements of AB 1493 or AB 32 or a federal regulation, CO2 emissions from the Specific Plan project would be further reduced. If regulations proposed to comply with AB 1493 survive current legal challenges, by project buildout CO2 emissions from vehicles associated with the project could be 20% to 30% less than under current conditions. If AB 1493 is repealed, it is unclear what vehicle emissions limits might be adopted as part of AB 32.

- The Miravale III Project includes numerous policies aimed at reducing the burning of fossil fuels (including transportation demand management, encouraging pedestrian and bike modes of transport, sustainable development, and energy efficiency policies). These policies are listed above City of Soledad General Plan policies and Miravale III Specific Plan policies.

- New homes are generally more energy efficient than older homes and by building new homes, it is possible that older, less efficient homes would be razed. The occupants of those older homes would reduce their carbon footprint by living in newer more efficient homes.

- Potential in-migration to the County and/or the State may result due to increased housing stock. This may be argued to result in more people living in a more temperate climate and thereby using less energy for climate control.

Conclusions

As described above, the cumulative increase in GHG concentrations in the atmosphere has resulted in and will continue to result in increases in global average temperature and associated shifts in climatic and environmental conditions. Multiple adverse environmental effects are attributable to global climate change, such as sea level rise, increased incidence and intensity of severe weather events (e.g., heavy rainfall, more severe flood events, droughts), and extirpation or extinction of plant and wildlife species. Given the significant adverse environmental effects linked to global climate change induced by GHGs, the emission of GHGs is considered a significant cumulative impact. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors (California Energy Commission 2006a). Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. Aside from the difficulty of assessing the actual GHG emissions of project buildout (as discussed above), it is even more difficult to determine the significance of an individual project's contribution to global GHG emissions and associated global climate change impacts. This would require determining whether a project's GHG emissions—which may be considered negligible relative to global emissions— would result in a cumulatively considerable incremental contribution to the significant cumulative climate change impact due to all global GHG emissions.

In 2003, global emissions of carbon (i.e., only the carbon atoms within CO_2 molecules) solely from fossil fuel burning total an estimated 7,303 million metric tons (Marlands et al. 2006). This translates to approximately 29,400 million tons of CO_2. This is only a portion of global CO_2 emission because it only includes fossil fuel burning and does not address burning of vegetation or other natural sources. Total estimated CO_2 emissions from all sources associated with the Miravale III Project (which is potentially high given the issues discussed above) would be less than 0.0004% of this partial global total. CO_2 emission in California totaled approximately 391 million tons in 2004 (California Energy Commission 2006). The project's CO_2 emissions at project buildout represent 0.03% of this 2004 statewide emission amount.

In addition to uncertainties regarding the project's net contribution of CO_2 emissions to global climate change; it is also uncertain how current regulations might affect CO_2 emissions attributable to other global sources. Also, it cannot be determined how CO_2 emissions associated with the project might or might not influence actual physical effects of global climate change. For these reasons, it is uncertain whether the project would generate a substantial increase in GHG emissions relative to existing conditions, and whether emissions from buildout of individual projects with the specific plan area would make a cumulatively considerable incremental contribution to the significant cumulative impact of global climate change.

As a primarily residential development project, Miravale III is not considered to be the type of project that would substantially hinder or delay the State's ability to meet the reduction targets contained in AB 32. However, the project would potentially result in new greenhouse gas emissions and does not propose pro-active measures to reduce transportation emissions of CO_2 or improve energy efficiencies of project

facilities beyond Title 24 requirements; therefore, it is possible that the project may hinder or delay GHG emission reductions.

Impact **Implementation of the Miravale III Project may increase global greenhouse gas (GHG) emissions resulting in a potentially cumulatively considerable incremental contribution to significant cumulative global climate change impacts and the project may hinder or delay the State's ability to meet GHG reduction targets in AB 32.** ***This is considered a significant and unavoidable cumulative impact that can be reduced by implementation of Mitigation Measures # 4.3-3 and 4.13-1, however, not to a less-than-significant level.***

Impacts of Global Climate Change on the Project

Global climate change is expected to affect water resources in California overall, and in particular, areas that rely upon the Sierra Nevada snowfall and snowpack. Because this project is in an area that does not rely on this source of water, it would experience less of an impact due to this phenomenon. In addition, global climate change is expected to influence many interconnected phenomena, which will in turn affect the rate of climate change itself. Besides effects on water supply for areas served by Sierra Nevada precipitation, the following are other global climate change issues that may significantly adversely impact the project:

- Water supplies available in surface reservoirs
- Water demand
- Surface water quality
- Groundwater quality or recharge characteristics
- Fisheries and aquatic resources
- Flooding/flood control
- Sudden temperature and other climatic changes

Details and evaluation of these issues and other related issues are described in various reference documents, including the following: *Progress of Incorporating Climate Change into Management of California's Water Resources, Technical Memorandum Report* (DWR 2006), *Climate Change 2001: The Scientific Basis. Contribution of Working Group 1 to the Third Assessment Report of the Intergovernmental Panel on Climate Change* (IPCC), (IPCC, 2001), *Water Planning and Management Under Climate Change* (Gleick, P.H., 1997), *Climate Change and California Resources: A Survey and Summary of the Literature. The California Water Plan, Volume 4* (Kiparsky M. and P.H. Gleick, 2003), *The Effects of Climate Change on Agricultrue, Land Resources, Water Resources and Biodiversity in the United States* (U.S. Climate Change Program, May 2008), and *Climate Warming and California's Water Future* (Lund, J.R., et al, 2003) among others.

It can be assumed that under a long-term cumulative condition, one or more of the above significant adverse impacts may occur. The above issues which are applicable to this project are addressed in the relevant sections of this Draft EIR to the extent that the impacts are known and are not simply speculative.

5.2H Noise

Setting: The major noise source in Soledad, as in most other communities, is traffic. Railroads, aircraft, farming activities, quarry activities, and industrial and food packaging facilities also contribute to local ambient noise levels.

General Plan EIR: The impact to the existing and future noise environment due to development accommodated by the buildout of the General Plan was identified as a potentially significant impact. The impact was shown to be mitigated to less-than-significant by applying the policies and programs recommended by the Noise Element.

Cumulative Impact: The project would contribute at least 1 decibel to the cumulative noise level increase expected throughout Soledad and would be "cumulatively considerable." Table 5.2-6 summarizes the roadway segments where the project would contribute a measurable increase and cumulative noise level increases resulting from the project and other planned developments would be substantial.

Table 5.2-6
Cumulative Traffic Noise Level Increases Above Existing Levels

Roadway	Segment	Cumulative Noise Level Increase (dBA, CNEL)
San Vincente Road	Market St. to Gabilan Dr.	+9
	Gabilan Dr. to Project Entrance	+10
West Street	Market St. to Gabilan Dr.	+6
	Gabilan Dr. to Project Entrance	+8
Main Street	Market St. to Gabilan Dr.	+7
Gabilan Dr.	San Vincente Rd. to West St.	+9
	West St. to Andalucia Dr.	+5
	East of Andalucia Dr.	+5
Andalucia Dr.	Metz Rd. to Gabilan Dr.	+4

Source: *Miravale III Specific Plan Environmental Noise Assessment*. Illingworth & Rodkin, Inc. 2007.

Traffic noise levels will increase with the development of the project area and other planned developments in Soledad. In some locations, these increases would be substantial, and the project would contribute to the overall cumulative noise impact. This is a potentially significant impact.

Mitigation: Implementation of the Traffic and Noise mitigations in this EIR and programs and policies in the General Plan identified in Table 5.2-1 above.

5.2I Traffic

This section describes the results of the traffic analysis prepared by Hexagon Associates and Omni-Means (for the City-wide 2030 analysis) under cumulative conditions under the assumption of 2030 buildout, as described below.

General Plan EIR According to the General Plan EIR, the following circulation impacts were identified for buildout of the Soledad General Plan (2005 EIR):

- Buildout of the land uses recommended by the Draft General Plan will significantly increase traffic generation with a corresponding cumulative impact on the level of service of regional roadways (Highway 101), streets and intersections serving the City. This impact was considered significant and unavoidable.

- Buildout of the land uses recommended by the Draft General Plan will adversely affect the operation and level of service of the two freeway interchanges serving the City. This impact was considered significant and adverse.

- Buildout of the land uses recommended by the Draft General Plan could result in traffic hazards on city streets and intersections. This impact was considered adverse but not significant.

- Buildout of the land uses recommended by the Draft General Plan will significantly contribute to the demand for bicycle and pedestrian facilities in the City's planning area. This impact was considered adverse but not significant.

Buildout of the land uses recommended by the Draft General Plan will contribute to the demand for public transit serving the City's planning area. This impact was considered adverse but not significant.

2030 Buildout Conditions This section describes the results of the traffic analysis prepared by Hexagon Associates and Omni-Means (for the City-wide 2030 analysis) under cumulative conditions under the assumption of 2030 buildout, as described below. The traffic analysis evaluated two cumulative conditions: 1) baseline cumulative conditions without the project, and 2) cumulative conditions with the project. The cumulative traffic condition is defined as traffic conditions roughly 25 years into the future, or 2030 and beyond.

This section describes the long-term traffic impacts on the transportation system associated with the proposed development as well as land use growth and transportation improvements within the entire City of Soledad. The purpose of this analysis is to evaluate the long-term traffic impacts on the transportation system associated with the proposed development.

Trip Generation: Year 2030 traffic volumes were developed by Omni Means Engineers & Planning Consultants. The traffic forecasts for Year 2030 were produced using the Association of Monterey Bay Area Governments (AMBAG) Regional Traffic Model. The 2030 model includes land use growth and transportation improvements associated with buildout of all General Plans within the AMBAG region and 30 year through-traffic growth on major regional facilities.

The recently adopted 2005 Soledad General Plan is not accounted for in the land use assumptions contained in the AMBAG model. Additionally, the proposed Miravale III land uses are of greater intensity than those assumed in the General Plan. Therefore, Omni Means and AMBAG adjusted the land uses contained in the model to include the adopted General Plan and Miravale III land uses. The roadway network contained in the AMBAG model for the City of Soledad was expanded to include the expansion of the street network to serve future land uses.

Though the Year 2030 forecasts reflect approximately 23 years of development growth, the forecasts do not show significant increases in traffic volumes on US 101 and its ramps within the City of Soledad. The lack of volume increases on the regional facilities is primarily due to significant changes in land uses within Soledad that are being represented in the model. There currently is very little land uses besides residential within Soledad. As such, existing traffic volumes on the regional facilities reflect the unbalanced land uses within Soledad where trips originate within Soledad due to its substantial residential development and have destinations outside of Soledad in areas that contain industrial/commercial (employment) land uses. The model reflects the future addition of a significant amount of industrial/commercial (employment) within Soledad thus creating a more balanced land use scenario within the City of Soledad. The future balance of land uses will internalize many trips in Soledad.

Additionally, several new roadways that will be constructed to serve future development will provide for enhanced connectivity to US 101, specifically the Gloria/Camphora interchange.

Peak hour project trips associated with the proposed Miravale project were also produced as part of the forecasts completed by Omni Means. The Year 2030 Miravale III project trips differ from those presented in the near term project trips calculations due to changes in land uses and the transportation system as described above. It is expected that the development of more balanced land uses (employment vs. housing) will internalize many of the project trips within Soledad. The near-term project trip assignment and analysis depicts the existing unbalanced land use scenario. The Year 2030 projections and project trip assignment assumes a more balanced land use with project trip destinations within Soledad and the utilization of new and enhanced connections to US 101.

Year 2030 Level of Service Analysis: Level of service analysis was conducted for all freeway segments and interchange ramps within the City of Soledad. The traffic model is intended to provide projections for interregional facilities, and may project future forecasts that are significantly different than existing and expected future traffic volumes on city-level roadways. Therefore, no intersection analysis is presented. The freeway and ramp analysis consists of an evaluation of volume-to-capacity of each of the facilities.

Freeway Segment Analysis: Year 2030 conditions freeway segment analysis indicates that all freeway segments within the City of Soledad are projected to operate at LOS D or better conditions. The Miravale project will add between 250 and 770 vehicles to the freeway segments during the AM peak and 200-770 vehicles during the PM peak.

Freeway Ramp Analysis: Year 2030 conditions interchange ramp analysis indicates that all freeway ramps ad are projected to operate at LOS D or better conditions. The Miravale project will add between 30 and 770 vehicles to the identified ramps during the peak hours.

Year 2030 Freeway Facility Impacts and Mitigation Measures: Long-term traffic analysis of the proposed development levels for the project as well as long-term land use growth and transportation improvements within the entire City of Soledad indicate that the development levels will not have adverse impacts on the major regional facilities serving Soledad. Nonetheless, the proposed project as well as other development projects within the City of Soledad will be required to contribute to the regional development impact fee program as described under near-term project conditions.

Mitigation in this EIR addresses cumulative impacts. Additionally, cumulative development will be required to contribute to the regional development impact fee program as described under near-term project conditions in the Traffic Section of this report.

Mitigations: Implementation of the Traffic mitigations in this EIR and programs and policies in the General Plan identified in Table 5.2-1 above.

Cumulative development will be required to contribute to the regional development impact fee program as described under near-term project conditions in the Traffic Section of this report. Even with cumulative contribution to traffic mitigations, buildout of the land uses recommended by the Draft General Plan will significantly increase traffic generation with a corresponding cumulative impact on the level of service of regional roadways, streets and intersections serving the City. **The General Plan EIR found this cumulative impact to be significant and unavoidable.**

5.2J Population and Housing

Setting: This growth in population in the expansion areas including the project site would increase population and demands on housing and existing community facilities. According to the adopted General Plan, the site is within an area of planned growth and expansion although outside of the current City limits and sphere of influence for the City. The City has identified holding capacities for individual major properties within these expansion areas. The proposed Specific Plan for Miravale III proposes an increase in the applied density for the project site, approximately 1,500 units above the estimated holding capacity for the Miravale III site.

General Plan EIR: General Plan policies L-2 to L-7 address policies to phase develop and plan for expansion of City service capacity, per the General Plan EIR:

L-2 Further annexations to the City may occur when a) a substantial portion of the development capacity within the existing city limits has been developed, b) a substantial public benefit can be realized through the annexation, such as the provision of public open space, additional parkland, or the protection of scenic vistas, or natural resources, or c) a special type of use is proposed that cannot be practically accommodated in the existing city limits, and d) the project can be found to provide a financial benefit to the City or to be fiscally neutral. The Planning Commission shall review the merits of a request for annexation based on these criteria, and make a recommendation to the City Council.

L-3 A specific plan shall be required for all annexations and development of properties designated *Expansion Area*. Specific plans shall be prepared in accordance with the standards provided in Appendix B of the General Plan.

L-4 The City shall promote patterns of development that allow for the efficient and timely extension of infrastructure and services.

L-5 New development shall not be allowed unless adequate public services are available to serve such new development, or that can be provided at the time of development.

L-6 New development shall pay its fair share of providing additional public services needed to accommodate such development.

L-7 Master plans for sewer, water, roads, drainage and other public improvements shall be required for new development on large undeveloped parcels and may be included in the specific plan required by policy L-3, and as determined by the City.

Cumulative Impact: The project would represent an incremental increase in overall holding capacity identified in the 2005 General Plan EIR for the Mirassou, San Vincente and Northwest Expansion Areas and could be considered growth inducing if annexations and development in the area exceed development potential addressed in the General Plan EIR. The additional population increase (15,201) associated with buildout of the project site over the projected 15-20 years of project development represents approximately 54 percent of Soledad's existing (2007) population. Depending upon the timing of project development, this additional population represents a major portion of the projected City wide population of 28,000 by year 2020. Buildout of the City density over and above the development anticipated in the 2005 General Plan could impact planned services and city wide infrastructure or be considered growth

inducing. **This would represent a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measures.**

Cumulative Mitigation (Consistent with Project Mitigations Section 4-11)

4-11.1 Phase approval of development applications and annexations in the Mirassou, San Vincente and Northwest Expansion Areas to maintain holding capacity and population projections in Table 4.11-5 of the General Plan EIR. Monitor development approvals in these expansion areas to limit overall density and population growth to the holding capacity identified to ensure consistency with projections in approved City planning documents.

4-11.2 Implement General Plan policies L-2 to L-7 and other applicable policies for phased development and population growth in the project and expansion areas.

5.3 OTHER CUMULATIVE CONSIDERATIONS

Land Use

Future development of the project site as proposed by the Specific Plan would not significantly contribute to cumulative impacts associated with land use and planning. Land use effects would be localized and would not combine with similar effects in other locations. Further, there is no cumulative context to assess land use consistency and compatibility issues unless there is an environmental impact, whereby these impacts are discussed in the appropriate environmental discussion sections in this EIR. **The project would have a less-than-significant impact cumulative impact on land use.**

Hazardous Materials

The project, together with other cumulative development in the project area, could increase the use of hazardous materials. This could increase the occurrence of hazardous materials releases, resulting in potential health and safety risks. However, hazardous materials incidents, which usually involve inadvertent releases or accidental spills, are typically site-specific and occur on an isolated basis. Associated health and safety impacts are likewise normally limited to the persons using or working in the vicinity of the materials or to others in the immediate vicinity. Thus, the contribution of the project to risks from hazardous materials would not be cumulatively considerable. Any potential for such impacts would be minimized by implementation of federal, state, and local requirements regulating the use, storage, and transportation of hazardous materials. **Based on the above discussion, the cumulative impacts associated with hazards and hazardous materials would be less-than-significant.**

Cultural Resources

The project could significantly impact archaeological resources by disturbing buried resources. Mitigation is identified for the project to reduce impacts to cultural resources to a less-than-significant level. The project would not contribute to significant cumulative impacts to cultural resources. In addition, the incorporation of appropriate management measures to avoid or remove existing resources, protect resources, and/or document resources by cumulative development in the area, as required by the City and CEQA, would minimize impacts to cultural resources. **The project would have less-than-significant cumulative impacts on cultural resources.**

5.4 IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126[f] of the State CEQA Guidelines requires EIRs to include a discussion of significant, irreversible environmental changes that would result from project implementation. This section is required for EIRs prepared for plans, policies and ordinances, and for actions involving LAFCO. The intent is to focus special attention on impacts that narrow the range of beneficial uses of the environment or pose long-term risks to health or safety. CEQA Section 15126.2(c) identifies irreversible environmental changes as those involving a large commitment of nonrenewable resources or irreversible damage resulting from environmental accidents.

The project would develop residential, commercial, office, and public facility uses on the site.

Development of the project will result in irreversible changes to the environment in the following areas:

- The permanent conversion of over 760 acres of prime farmland to urban and/or non-agricultural uses;
- The permanent loss of potential foraging habitat associated with the permanent conversion of open space and agricultural land to urban uses;
- The permanent loss of petroleum products and other materials used to produce energy during project operations;
- Permanent loss of nonrenewable resources during construction, including building materials;
- The permanent change of the visual character of the City and its environs from one consisting predominantly of agriculture and open space to a more suburban character. In addition, grading from the project would permanently alter the topography of the site.

Although the policies and programs of the draft Specific Plan are aimed at minimizing the effects of these changes on the environment, they will remain permanent and adverse when compared to current conditions.

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6.0 Alternatives

6.1 INTRODUCTION

CEQA Guidelines section 15126.6 requires the consideration of a range of reasonable alternatives to the proposed project that could feasibly attain the basic objectives of the proposed project. CEQA further requires that the discussion focus on alternatives capable of eliminating significant adverse impacts of the project, or reducing them to a less-than-significant level, even if the alternative would not fully attain the project objectives or would be more costly. According to CEQA, the range of alternatives discussed in an EIR is governed by the "rule of reason" that requires an EIR to evaluate only those alternatives necessary to allow a reasoned choice. An EIR need not consider an alternative where the effects cannot be reasonably ascertained, or and where implementation is remote and speculative.

Alternatives Not Analyzed in Detail

Alternative Location. CEQA Guidelines Section 15126.6(f)(2) provides guidelines regarding when it is appropriate to analyze an alternative location as part of the alternatives analysis. Specifically, Section 15126.6(f)(2)(a) states that alternative locations should be analyzed if the location would avoid or substantially lessen any of the significant effects of the project. Consistent with Section 15126.6(f)(2)(a), applicable case law indicates that an off-site alternative should be analyzed where significant impacts can be avoided by choosing another site. As previously identified, the project site is located within an area identified in the General Plan as a future expansion area and is located adjacent to existing residential development within the City of Soledad. This area is considered appropriate for urban expansion. Development within adjacent expansions areas would not necessarily result in the reduction of any significant environmental impacts. Furthermore, undeveloped privately owned parcels are not under the control of the project applicant. Since the selection of an alternative location would not substantially lessen project-related impacts and the applicant is unable to acquire feasible alternatives sites, an alternative location was not considered.

Alternatives Selected

The following section discusses the alternatives evaluated in this EIR and the comparative environmental effects of each. The alternatives considered in this analysis are as follows:

- *No Project Alternative – No Development*
- *Buildout Consistent with General Plan Alternative*
- *Reduced Project Alternative*
- *No Golf Course Alternative*
- *Alternative Design: Increased Senior Housing Alternative*

The alternatives chosen for this analysis, beyond those mandated by CEQA, were developed specifically to avoid or substantially reduce the significant impacts of the project. A comparison of the impacts for each alternative is presented in Table 6-1. A substantive discussion is provided for each issue area where a proposed alternative would lessen the significance of an impact. For an alternative that would result in approximately the same level of impact (i.e. less-than-significant, less-than-significant with mitigation) as the proposed project, a discussion of that issue area is not necessarily provided. It is important to note, however, that certain aspects of a given alternative may minimize the extent of impact, but may not necessarily affect the level of significance relative to the proposed project.

Table 6-1 Comparison of Impacts – Project Alternatives					
Impact	**No Project - No Build**	**Buildout Consistent w/ General Plan**	**Reduced Project**	**No Golf Course**	**Alternative Design: Increased Senior Housing**
Aesthetics/Visual	<	<	<	=	=
Agricultural Resources	<	<	<	<	=
Air Quality	<	<	<	=	=
Biological Resources	<	<	<	<	=
Cultural Resources	<	=	=	<	=
Geology/Soils/Mineral Resources	<	=	=	=	=
Hazards & Hazardous Materials	<	=	=	<	=
Hydrology & Water Quality	<	<	<	=	=
Land Use and Planning	<	<	<	=	=
Noise	<	<	<	=	=
Public Services	<	<	<	<	<
Utilities and Service Systems	<	<	<	=	=
Traffic	<	<	<	<	<
> Impact Greater than Project = Impact Comparable to Project < Impact Less than Project					

6.2 SUMMARY OF PROJECT OBJECTIVES AND SIGNIFICANT IMPACTS

Objectives

The following are the primary objectives of the project:

- Provide a range of moderate-income housing for the existing and future residents of Soledad.
- Provide a mixed-use development of housing, parks, schools and neighborhood commercial uses to serve the local area and provide a balance of uses.
- Reserve land for commercial development to allow for future economic growth within the City and assist in maintaining a local jobs/housing balance.
- Provide public park lands to serve the recreational needs of the proposed development and surrounding community.
- Support the local economy by increasing income on the site through permits, fees, property taxes, and job creation.

Another project objective of the Specific Plan and development project is to implement the goals of the City of Soledad 2005 General Plan and 2003 Housing Element. A summary of these plans' goals are included in pertinent sections of this EIR.

Significant Impacts

The project would result in significant impacts in the following categories, as described in this EIR: aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, public services, transportation/traffic, and utilities and service systems. All project impacts can be reduced to a less-than-significant level with implementation of mitigation identified in this EIR, with the exception of the following:

- Significant unavoidable project and cumulative impacts to a scenic vista and to the visual character of the project site.
- Significant unavoidable project and cumulative impacts due to the conversion of prime agricultural land and impacts to Williamson Act contracted lands.
- Significant unavoidable construction-related air quality impacts, as well as, significant and unavoidable project impacts due to the generation of regional emissions of an ozone precursor.
- Significant unavoidable biological impacts due to habitat loss, fragmentation, and impacts to federally listed species.
- Significant unavoidable noise impacts during construction, significant project/cumulative noise impacts from increases in traffic volumes, and impacts to existing and proposed noise-sensitive land uses.
- Significant and unavoidable growth-inducing impacts.
- Significant and unavoidable impacts due to conflicts with adopted land use policies intended to reduced and/or avoid environmental impacts.

6.3 NO PROJECT ALTERNATIVE

CEQA requires the discussion of the No Project alternative "to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." The no development scenario represents baseline conditions and eliminates all development on the project site.

NO DEVELOPMENT SCENARIO

Description

The No Development scenario consists of leaving the site in its current undeveloped condition. The No Development alternative would avoid both the adverse and beneficial effects of the project. It would eliminate all of the significant environmental impacts of the project, but would fail to meet any of the project's objectives identified above.

Impacts

The No Development alternative would avoid the significant environmental impacts of the project in the following areas: aesthetics, air quality, biological resources, cultural resources, geology/soils/mineral resources, hazardous materials, land use and planning, noise, public services, traffic, and water quality. This alternative would also avoid construction-related impacts, including noise, dust, and water quality impacts; vegetation removal; and potential disturbance of buried archaeological resources. The No Development alternative would also avoid the all significant unavoidable impacts previously identified above.

Summary

The No Project – No Development alternative would avoid all of the environmental impacts of the project. However, this alternative would fail to meet any of the City and project objectives to provide an integrated mixed-use community within future expansion areas identified in the City of Soledad General Plan. This alternative would also fail to meet the primary objectives to provide a range of housing types for future Soledad Residents.

6.4 BUILDOUT CONSISTENT WITH GENERAL PLAN

Description

Development under this scenario would assume buildout of the project site consistent with existing policies contained within the General Plan. Under this scenario, a Specific Plan would be prepared, as required by the General Plan. Single family residential uses would be prohibited above the 400 foot elevation contour and the project would consist of the construction of approximately 2,680 units. Additional units identified in other expansion areas would not be applied to this alternative and no General Plan amendments would be required. This alternative would consist of an array of residential uses, including low, medium, and high density land uses, as well as commercial, and public uses.

Development under this alternative is assumed to result in approximately the same impacts in regard to cultural resources, geology and soils, and hazards and hazardous materials as the proposed project. Although development of the proposed alternative would substantially lessen the extent of project-related impacts, the proposed alternative would not reduce the overall level of significance (i.e. less-than-significant, less-than-significant with mitigation) for each of these respective issues. The following discussion addresses only those issues areas where significant project-related impacts would be minimized and/or avoided.

Impacts

Aesthetics. This alternative would result in less intensive urban development of the project site. More specifically, significant unavoidable impacts associated with development above the 400 foot elevation contour would be eliminated and the proposed alternative would not result in significant impacts to the existing Gabilan Range, which is considered a scenic vista. The area above the 400 foot contour would remain as open space, consistent with the requirements of the General Plan and views of the project site as perceived from adjacent public vantage points would be significantly lessened. Moreover, significant grading and changes in topography would not be necessary within the hillside portion of the project site as development would be eliminated within the visually sensitive areas on the Gabilan Range. Development of this alternative would still substantially alter the visual character of the project site by introducing urban development onto a previously undeveloped site. The effects from new light/glare sources would be comparable to the proposed project.

Agricultural Resources. Development of this alternative, while not changing the level of significance determination (i.e. significant unavoidable), would require less development of the project site and therefore less prime farmland would be converted to a non-agricultural use. Despite the reduction in units and the corresponding reduction in developable space, the project site would still be converted to a non-agricultural land use. Furthermore, the project area is identified in the General Plan as an area of future urban development.

Air Quality. Development of this alternative would reduce the level of emissions associated with buildout of the project site. More specifically, due to the reduction in units, project-generated traffic is anticipated to decline significantly in comparison to the proposed project. This reduction in traffic trips would reduce project emissions associated with the project. In addition, less area would be developed under this scenario, therefore, requiring less grading and project construction. While the duration of construction impacts are anticipated to be approximately the same as the proposed project, the amount of construction would be significantly less.

Biological Resources. Development of the proposed alternative would substantially lessen potential impacts to biological resources located within the project area. More specifically, as identified in the General Plan portions of the Gabilan Range are identified as Open Space. As development would not occur above the 400 foot elevation contour, these areas would remain as natural Open Space. As identified in the biological resources section of this EIR, impacts associated with the loss of Open Space was identified as a potentially significant impact that would affect a number of federally listed species. Although development of this scenario would still result in the introduction of urban features within the project site, the extent to which the site would be disturbed would be substantially less.

Hydrology/Water Quality. Development of this alternative would substantially reduce impervious surfaces due to the overall reduction of development. Although this alternative would reduce impervious surface areas, as well as off-site related impacts, this alternative would not reduce the overall level of significant (i.e. less-than-significant with mitigation) as compared to the proposed project. Moreover, development of this alternative would also be required to adhere to the requirements of the City of Soledad Storm Drainage Master Plan.

Land Use. As identified in this EIR, development of the proposed project would conflict with adopted General Plan policies that are intended to either avoid and/or mitigated a potential environmental impact. Development of this alternative would, however, be required to comply with existing General Plan policies, including the preservation of areas above the 400 foot elevation contour. The prohibition of development above this contour was identified as a mitigating factor for a number of issue areas. By complying with existing adopted General Plan policies this alternative would not result in any conflicts with policies intended to avoid and/or mitigate a potential adverse environmental impact. As such, this alternative would lessen the impact determination to a level considered less-than-significant.

Noise. Due to the overall reduction of units, the proposed project is anticipated to result in less project generated noise. Moreover, due to the reduction of units and the corresponding reduction in vehicular traffic associated with project development, the proposed alternative would also result in substantially less construction noise. Development would also be less intensive and therefore impacts to adjacent sensitive land uses could potentially be minimized and/or avoided through site planning and project design.

Population and Housing. This alternative would result in substantial growth-inducing impacts. As compared to the proposed project, however, this alternative would generate less population within the project area and would not require revisions to the General Plan in order to accommodate increased density. The alternative would be required to comply with the City's adopted Inclusionary Housing Ordinance and would provide a variety of residential land use types. As the project would result in less units, this alternative would also allow the City to maintain a jobs/housing ratio that is more balanced in nature.

Public Services. Although all project impacts can be reduced to a less-than-significant level through the incorporation of mitigation for public services, the proposed alternative would substantially lessen the demand for public services (i.e. fire, police, schools, parks, etc.). Moreover, preliminary estimates indicate that this alternative would generate approximately 550 high school aged children. The existing

high school would have sufficient capacity to accommodate the additional demands generated by this alternative. Future buildout of the General Plan, however, would still require that the City and School District identify a future high school site within the City. Additionally, as development would predominantly be located outside of the hillside areas, the proposed alternative would not be subject to potential wildland fires. This alternative would still require additional public services, including police and fire substations, but the demand for these services would be less due to the reduction in units and developable area. Development consistent with the General Plan would also provide additional parkland and open space as the hillside areas would be designated as Open Space areas.

Utilities and Service Systems. While the City of Soledad has adequate capacity to provide utilities to the project site, the proposed alternative would substantially lessen the demand for water and energy. Additionally, due to the reduction of units, the proposed alternative would generate less wastewater, solid waste, and water demand. As such, the overall demand for utilities would be reduced. While all project impacts would be mitigated to a less-than-significant level, the overall reduction of population associated with the proposed alternative would substantially lessen impacts to City services and infrastructure.

Traffic. Development of the proposed alternative is anticipated to significantly reduce the amount of project-generated traffic due to the overall reduction in the number of proposed units. While the level of significance (i.e. less-than-significant with mitigation) is not anticipated to change, this alternative would likely require less mitigation.

Summary

Buildout consistent with the City of Soledad's General Plan would substantially lessen potential impacts in terms of aesthetics, agricultural resources, air quality, biological resources, land use and planning, noise, population and housing, public services, utilities, and traffic. As identified in Table 6-1, development of this alternative would result in substantially the same impacts in regard to cultural resources, geology and soils, and hazards and hazardous materials. While this alternative would not change the level of significance determination for many of the impact areas, the proposed alternative, due to the reduction in project site, would lessen the extent to which the project would impact these resources.

6.5 REDUCED PROJECT

Description

This alternative consists of reducing development on the project site to avoid significant impacts. More specifically, development of this alternative would result in the reduction of residential uses on the project site by 50 percent. As a result, this alternative would result in the construction of 2,100 residential units. The Reduced Project alternative would also result in a 50% reduction of commercial uses on the project site as well. More specifically, this alternative would allow approximately 125,000 square feet of commercial space. All development under this scenario would occur within the predominantly level portions of the project site and no development would occur within the foothill areas. Development would primarily be concentrated adjacent to existing residential areas within the City of Soledad.

Development under this alternative is assumed to result in approximately the same impacts in regard to cultural resources, geology and soils, and hazards and hazardous materials as the proposed project. Development of the proposed alternative would substantially lessen the extent of project-related impacts; however, the proposed alternative would not reduce the overall level of significance (i.e. less-than-significant, less-than-significant with mitigation) for each of respective issue areas discussed below. The

following discussion addresses only the respective issues areas that would be minimized and/or avoided under the proposed alternative.

Impacts

Aesthetic. This alternative would result in less intensive urban development of the project site. Consistent with the General Plan Consistency Alternative, development of this alternative would eliminate potential impacts to the Gabilan Range, which is considered a scenic vista. Grading would no longer be necessary within the foothill areas and changes to topography would be minimal. Additionally, due to the overall reduction of units, this alternative would also reduce the extent of visual impacts associated with development of this alternative. More specifically, the development of 2,100 residential units would be less visible from adjacent public vantage points due to the reduction in developable area. Additionally, less commercial area would be developed and potential aesthetic impacts associated with the development of commercial uses adjacent to residential areas would also be minimized. To the extent that the project would reduce the amount of units, the proposed alternative would still result in the conversion of a previously undeveloped site into urban uses and would therefore transform the visual character of the site permanently.

Agricultural Resources. Development of this alternative, while not changing the level of significance determination (i.e. significant unavoidable), would require less development of the project site and therefore less prime farmland would be converted to a non-agricultural use. Regardless, this alternative would require the conversion of significant prime farmland into an urban use.

Air Quality. Air quality impacts associated with this alternative would be substantially less than the proposed project due to the reduction in commercial and residential land uses. Similar short-term construction activities would occur under this alternative. However, long-term emissions associated with vehicle trips and stationary sources (i.e., non-residential uses) would be incrementally decreased under this alternative. In the long-term, at project buildout, the Miravale III Project would exceed criteria pollutant emission thresholds (e.g., PM10, CO, NOx) resulting in a significant and unavoidable impact to air quality. A decrease in development intensity by 50 percent under the Reduced Project Alternative would reduce air quality impacts. Despite the reduction in units, the Reduced Project Alternative would not reduce project impacts to a level considered less-than-significant. However, since the Reduced Project Alternative would generate less air quality emissions, this alternative is considered to have less effect on air quality in relation to the proposed project.

Biological Resources. Development of the proposed alternative would substantially lessen potential impacts to biological resources located within the project area. By eliminating development within the foothill portions of the project site, the proposed project would not result in the loss of an area of significant biological value. This area would remain as Open Space consistent with the City's General Plan and would retain its natural features. As identified in the biological resources section of this EIR, impacts associated with the loss of Open Space was identified as a potentially significant impact that would affect a number of federally listed species. The proposed alternative would eliminate potential impacts to badgers, borrowing owl, Salinas pocket mouse, kit fox, and other species identified as special status. The grassland habitat located in the foothill portion of the Gabilan Range is considered a biologically sensitive area of the project site. Development of this alternative would substantially lessen project impacts. While specific mitigation would still be warranted, impacts could potentially be reduced to a less-than-significant level.

Hydrology/Water Quality. Development of this alternative would substantially reduce impervious surfaces due to the reduction of development. Although this alternative would reduce impervious surface areas, as well as off-site related impacts, this alternative would not reduce the overall level of significant

(i.e. less-than-significant with mitigation) as compared to the proposed project. Moreover, development of this alternative would also be required to adhere to the requirements of the City of Soledad Storm Drainage Master Plan.

Land Use. As identified in this EIR, development of the proposed project would conflict with adopted General Plan policies that are intended to either avoid and/or mitigated a potential environmental impact. This alternative would not conflict with any plans or policies intended to minimize and/or avoid an adverse environmental impact. This alternative would not require any General Plan amendments to insure consistency with adopted plans and policies pertaining to development within the project area.

Noise. In comparison to the proposed project, construction-related noise is anticipated to be similar due to the extent and duration of development. Consistent with the proposed project, mitigation measures would be applicable to reduce potential noise-related impacts. Project-related long-term noise impacts associated with vehicle trips and stationary sources (i.e. mechanical equipment), however, would be significantly less. Due to the reduction in vehicle trips and the decrease in commercial square footage, the Reduced Project Alternative would result in less noise impacts. The final configuration of land uses may warrant mitigation to assure that impacts do not exceed established thresholds. Development would also be less intensive and therefore impacts to adjacent sensitive land uses could potentially be minimized and/or avoided through site planning and project design.

Population and Housing. This alternative would result in substantial growth-inducing impacts. As compared to the proposed project, however, this alternative would generate less population within the project area and would not require revisions to the General Plan in order to accommodate increased density. The alternative would be required to comply with the City's adopted Inclusionary Housing Ordinance and would provide a variety of residential land use types. As the project would result in less units, this alternative would also allow the City to maintain a jobs/housing ratio that is more balanced in nature.

Public Services. Although all project impacts can be reduced to a less-than-significant level through the incorporation of mitigation for public services, the proposed alternative would substantially lessen the demand for public services (i.e. fire, police, schools, parks, etc.). This alternative would still require additional public services, including police and fire substations, but the demand for these services would be substantial less due to the reduction in units and developable area.

Utilities and Service Systems. The Reduced Project alternative would require upgrades and/or extensions of utilities such as water and wastewater facilities. As compared to the proposed project, this alternative would result in an incremental decrease in the demand for services. However, as identified in **Section 4.14 Utilities and Service Systems,** impacts would be mitigated to a level considered less-than-significant. Since the project would not generate as much demand for utilities, this alternative is considered to have fewer impacts on utilities as compared to the proposed project.

Traffic. Development of the proposed alternative is anticipated to significantly reduce the amount of project-generated traffic due to the overall reduction in the number of proposed units. While the level of significance (i.e. less-than-significant with mitigation) is not anticipated to change, this alternative would likely require less mitigation.

Summary

This alternative would result in approximately the same impacts as the proposed project in the areas of cultural resources, geology, and hazardous materials. By decreasing the extent of development, however, the Reduced Project alternative would reduce the overall site disturbance and construction-related

impacts, including grading, construction noise, and short-term air quality impacts. Furthermore, this alternative would substantially reduce the impact of the project on sensitive biological resources and would reduce aesthetic, agricultural, air quality, biological, land use, noise, population and housing, public services, utilities, and traffic impacts.

6.6 NO GOLF COURSE

Description

This alternative consists of eliminating the golf course and associated infrastructure in order to avoid potential significant adverse environmental impacts associated with agricultural resources, biological resources, cultural resources, hazardous materials, public services, utilities, and traffic. This alternative would still allow for the development of up to 4,200 residential units and commercial uses. As currently proposed, the golf course, driving range, and other associated infrastructure occupy approximately 160 acres of the 920 acre site. This area may be developed at some future time consistent with the program and policies identified in the General Plan, but additional impacts could result from additional development within the existing golf course alignment. These impacts would be beyond the scope of analysis contained in this EIR. Potential impacts include increased traffic, noise, deterioration of air quality, increased demands for public services and similar. For the purposes of this analysis, it is assumed that the existing golf course alignment would be utilized for low-intensity public recreational uses. Residential development within this alignment is beyond the scope of the analysis contained in this EIR and would be subject to additional review in accordance with the requirements of CEQA.

Development under this alternative is assumed to result in approximately the same impacts in regard to aesthetics, air quality, geology and soils, land use and planning, and noise as the proposed project. Development of the proposed alternative would substantially lessen the extent of project-related impacts; however, the proposed alternative would not necessarily reduce the overall level of significance (i.e. less-than-significant, less-than-significant with mitigation) for each of respective issue areas discussed below. Development of this alternative could, however, result in potentially significant impacts in terms of hydrology and water quality due to the elimination of the golf course and associated features, which include stormwater facilities. The following discussion addresses only the respective issues areas that would be minimized and/or avoided under the proposed alternative.

Impacts

Agricultural Resources. As identified in **Section 4.2 Agricultural Resources,** development of the proposed project would result in the conversion of 760 acres of prime farmland into urban uses. Development of the proposed alternative would, however, retain approximately 160 acres of prime farmland as Open Space or similar low-intensity recreational uses. Development of this alternative, while not reducing the overall significance of project-related impacts (i.e. significant and unavoidable), would substantially reduce the total amount of prime farmland permanently converted to non-agricultural uses. While this land would not be utilized for agricultural production, prime farmland would be retained as Open Space thereby minimizing potential project-related impacts.

Biological Resources. Development of the proposed alternative would lessen potential impacts to biological resources located within the project area. As previously identified, the loss of Open Space was identified as a potentially significant impact that would affect a number of federally listed species. Eliminating the golf course and retaining an additional 160 acres as Open Space or similar low-intensity recreational use would minimize potential impacts to badgers, borrowing owl, Salinas pocket mouse, kit fox, and other special-status species. Moreover, maintaining the golf course alignment as Open Space or

similar low-intensity recreational use would also provide additional connectivity between existing Open Space areas within the Gabilan Range and areas used as foraging habitat. Development of this alternative would substantially lessen project impacts; however, mitigation would still be warranted.

Cultural Resources. Development of the proposed alternative would avoid all project-related impacts to the historically significant Lorentzen house. As currently proposed, project development would result in the relocation of this structure in order to accommodate the proposed golf course and other project components. This alternative, however, would avoid project impacts by leaving the proposed golf course alignment as Open Space or a similar low-intensity recreational use. While standard mitigation regarding buried human remains would still pertain to this alternative, the no Golf Course Alternative would substantially project impacts to a historically significant resource such that all potential impacts could be feasibly avoid.

Hazards and Hazardous Materials. Development of the proposed alternative would reduce potential adverse environmental impacts associated with the maintenance and operation of the golf course. More specifically, development of this alternative would not require the use of pesticides and/or other types of chemicals in order to maintain the facility. While exposure of these chemicals is not anticipated to be significant, the elimination of the golf course would no longer require the application of potentially harmful chemicals. While this alternative would not reduce the overall level of significance of potential impacts due to the exposure to hazardous materials, this alternative would eliminate the need to routinely use and handle harmful chemicals.

Public Services and Recreation. Development of the proposed alternative has the potential to substantially increase Open Space or similar low-intensity recreational uses, such as parks, and thereby reduce potential impacts associated with project development by providing increased access to passive use recreational opportunities. More specifically, the proposed alternative would increase passive recreational uses by approximately 160 acres. Total Open Space provided as part of this alternative would account for approximately 25% of total land uses. Although not an official component of this alternative, additional public parks could be designated within the existing golf course alignment. While development of the proposed alternative would increase the total acreage of open space, this alternative would not necessarily reduce the level of significance (i.e. less-than-significant) of potential impacts. Mitigations requiring the payment of impact fees and other similar mitigations would still apply.

Utilities and Service Systems. Development of the proposed alternative would substantially lessen annual project demand. As indicated in **Section 4.14 Utilities and Service Systems** the proposed golf course would account for an annual water demand of approximately 543 acre feet per year. Although the golf course would be provided recycled water, this alternative would substantially lessen projected demands.

Traffic. Development of the proposed alternative is anticipated to reduce the amount of project-generated traffic associated with the golf course. The reduction of traffic trips, however, is not anticipated to be substantial as project traffic associated with the operation of the golf-course is not a significant component of project traffic. While the level of significance (i.e. less-than-significant with mitigation) is not anticipated to change, this alternative would likely require less mitigation.

Summary

This alternative would result in approximately the same impacts as the proposed project in the areas of aesthetics, air quality, geology and soils, land use and planning, and noise. By eliminating development of the golf course and thereby increasing the amount of area to be preserved as Open Space or similar low-intensity recreational use this alternative would reduce potential agricultural, biological, cultural, hazards, public services, and utilities impacts associated with project development. Eliminating development of the

proposed golf course, however, could result in additional development potential within the project area. As identified by the City of Soledad, the existing golf course could be developed for residential use in accordance with the City's General Plan. Additional residential development within the golf course alignment is beyond the scope of this analysis and could result in additional environmental impacts. These impacts would be subject to review under the requirements of CEQA.

6.7 ALTERNATIVE DESIGN: INCREASED SENIOR HOUSING ALTERNATIVE

Description

The Increased Senior Housing Alternative consists of increasing the number of senior level housing from 500 to 1,500 units in order to minimize and/or avoid potential impacts to public services and traffic. Build-out of this alternative would still result in the construction of 4,200 units and commercial uses; however, a larger proportion of these units, approximately 35 percent, would be restricted for senior level housing. This alternative is anticipated to result in approximately the same impacts as the proposed project in terms of aesthetics, agricultural resources, biological resources, cultural resources, geology and soils, hazards, hydrology and water quality, land use and planning, noise, and utilities as the proposed project. Development of this alternative, however, would lessen project impacts to school facilities. The following discussion addresses only the respective issues areas that would be minimized and/or avoided under the proposed alternative.

Impacts

Population and Housing. Development of the proposed alternative would increase the amount of senior level housing provided in conjunction with project development and therefore reduce potential impacts associated with development of the proposed project. The incorporation of additional senior level housing, however, would not reduce the level of significance of project-related impacts and mitigation measures would still be necessary to ensure that project impacts are reduced to a level considered less-than-significant.

Public Services and Recreation. Development of the proposed alternative would lessen potential impacts to educational resources. More specifically, as identified in **Section 4.12 Public Services and Recreation,** development of the proposed project would generate an estimated 4,291 new students. These additional students, per the Soledad Unified School District, would necessitate the construction of several additional school facilities in order to accommodate the projected students. According to the Soledad Unified School District, development of the proposed alternative would generate approximately 3,132 school aged children. Despite the overall reduction of school aged children, development of this alternative would still require additional school facilities, including a high school and an additional elementary school. Therefore, mitigation measures would still be warranted as part of the proposed alternative. While reducing overall projected student population growth, this alternative would not reduce and/or eliminate the need for additional educational facilities to mitigate project-related impacts.

Traffic. Development of the proposed alternative is anticipated to reduce the amount of project-generated traffic due to the increase in the number of senior level housing. As identified in the Traffic Impact Analysis prepared by Hexagon Transportation Consultants, Inc., senior level housing results in less daily traffic trips as compared to other housing types. More specifically, the ITE trip generation rate for senior housing is identified as 3.48 traffic trips per day. Assuming the construction of 1,500 senior housing units, preliminary estimates indicate that the proposed senior level housing would account for approximately 5,200 daily traffic trips. As compared to the proposed project, the increased traffic trips associated with the senior level housing would correspond with an overall reduction of project traffic by

an estimated 4,311 daily trips. Although this alternative would result in less daily traffic trips, project impacts are still anticipated to be significant.

Summary

Although development of this alternative is likely to lessen the extent of project impacts by reducing daily traffic trips and the number of projected students, this alternative would not reduce the overall level of significance of project impacts. Moreover, this alternative would still require mitigation in order to reduce/minimize potential impacts. For instance, development of this alternative would still necessitate an additional high school site in order to accommodate projected students and traffic improvements would still be necessary. While minimizing impacts related to public services and traffic, this project would result in approximately the same environmental impacts as the proposed project.

6.8 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

A comparison of the impacts of each alternative relative to the proposed project is presented in Table 6-1. CEQA requires that an environmentally superior alternative to the proposed project be specified. In general, the environmentally superior alternative is that which minimizes the adverse impacts of the project to the greatest extent, while achieving the basic objectives of the project.

The No Project – No Development alternative could be considered the environmentally superior alternative because all adverse impacts associated with project construction and operation would be avoided. However, the No Project – No Development alternative does not satisfy the primary project objective to provide a range of housing types for future Soledad residents. In addition, CEQA Guidelines section 15126.6(e)(2) states: "If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Among the remaining alternatives, the Reduced Project alternative would represent the environmentally superior alternative, since it avoids or reduces many of the project's impacts associated with more intense development on the site. While this alternative would result in less units than the "Buildout Consistent with the General Plan" Alternative, the General Plan alternative assumes buildout according to the maximum allowable density on the site. The Reduced Project alternative would allow the City to meet its objectives, while insuring that adverse environmental impacts are reduced to the extent feasible. This alternative would reduce impacts in other impact areas in accordance with the decrease in development.

7.0 References

7.1 REPORT PREPARATION

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Biosearch Associates, Wildlife Biologists
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7.3 LITERATURE CITED

Archaeological Consulting, Preliminary Archaeological Reconnaissance for the Miravale Phase III Subdivision, Soledad, Monterey County, California, September 2006.

Association of Monterey Bay Area Governments, 2008 Regional Population and Employment Forecasts, 2008.

Association of Monterey Bay Area Governments, Regional Housing Needs Plan 2000-2007 for Monterey and Santa Cruz Counties," 2002.

Bestor Engineers, Miravale III Water System, July 2006.

Bestor Engineers, Preliminary Drainage Analysis, July 2006.

Bestor Engineers, Preliminary Wastewater Analysis, July 2006.

Bestor Engineers, Vesting Tentative Map for Miravale Phase III Project, October 2006, Revised June 2007.

Byron Buck & Associates, Water Supply Assessment for Miravale Phase III Project, August 2007.

California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program (www.consrv.ca.gov/DLRP/fmmp/index.htm).

California Department of Conservation, Division of Mines and Geology, Guidelines for Classification and Designation of Mineral Lands, October 1999.

California Department of Health Services, Guidelines for the Preparation and Content of the Noise Element of the General Plan, June 2007 (http://ceres.ca.gov/planning/genplan/appendix_a.html).

California Department of Fish and Game. 1997. List of California terrestrial natural communities recognized by the Natural Diversity Data Base.

California Department of Fish and Game. 2007. California Natural Diversity DataBase RareFind Report.

California Native Plant Society. 2001. Inventory of Rare and Endangered Plants of California, 6th edition.

California Native Plant Society. 2007. Inventory of Rare and Endangered Plants of California, 7th edition. Available online at: http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi

City of Soledad, 2005 General Plan, September 2005.

City of Soledad, Draft and Final EIR for the 2005 Soledad General Plan, September 2005.

City of Soledad, Draft and Final EIR for the Miravale Partnership – Hambey Property, May 2000.

City of Soledad, General Plan Background Report, February 2001.

City of Soledad, Housing Element, March 2003.

City of Soledad, Long-Term Wastewater Management Plan, March 2006.

City of Soledad, Municipal Code (includes Stormwater Quality and Inclusionary Housing Ordinances), June 2006.

City of Soledad, Draft Public Facilities Development Impact Fee Study, August 2006.

City of Soledad, Stormwater Management Plan, July 2004.

City of Soledad, Storm Drain Master Plan, October 2007.

City of Soledad, Urban Water Management Plan, December 2005.

City of Soledad, Water Master Plan, December 2005.

City of Soledad, Zoning Ordinance and Amendments, June 2006.

County of Monterey, Central Salinas Valley Area Plan and Amendments, Adopted October 1986.

County of Monterey, Monterey County 2006 General Plan Draft Program Environmental Impact Report, August 2006.

County of Monterey, Monterey County General Plan and Amendments, Adopted September 1982.

County of Monterey, Title 21 Zoning Ordinance and Amendments, Adopted September 1997.

County of Monterey, Williamson Act Contract Resolution No. 73-34-25, January 1973.

D&M Consulting Engineers, Inc., Phase I Environmental Site Assessment (including update of 1995 Terratech ESA), Miravale III Project Site, Monterey County, California, APNs 417-151-082, -083, -084 & -085; and 257-081-005, -026, -027 & -032, September 2006.

D&M Consulting Engineers, Inc., Phase I Environmental Site Assessment Addendum Letter, Miravale III Subdivision Project, Soledad, Monterey County, California, September 2006.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Department of the Army, Waterways Experiment Station, Vicksburg, Mississippi 39180-0631.

Hexagon Traffic Consultants, Transportation Impact Analysis, Miravale Phase III Mixed Use Development, November 2006.

Hickman, J. C. (ed.). 1993. The Jepson manual: higher plants of California. University of California Press, Berkeley, CA. 1400 pp.

Holland, R. F. 1986. Preliminary descriptions of the terrestrial natural communities of California. Nongame-Heritage Program, California Department of Fish and Game, Sacramento, CA. 156 pp.

Howitt, B. F. and J. T. Howell. 1964. The vascular plants of Monterey County, California.

Howitt, B. F. and J. T. Howell. 1973. Supplement to the vascular plants of Monterey County, California. Pacific Grove Museum of Natural History Association, Pacific Grove, CA. 60 pp.

Illingworth & Rodkin, Inc., Environmental Noise Assessment, Soledad, California, March 14, 2007.

Illingworth & Rodkin, Inc., Miravale Phase III Specific Plan, Air Quality Study, Soledad, CA June 26, 2007; revised August 29, 2007.

Jennings, M. R. and M. P. Hayes, 1994. Amphibian and reptile species of special concern in California. Final report to the California Department of Fish and Game, Inland Fisheries Division. 255 pp.

Jennings, M. R. and M. P. Hayes. 1988. Habitat correlates of distribution of the California red-legged frog (*Rana draytonii*) and the foothill yellow-legged frog (*Rana boylii*): implications for management. Proceedings form Management of Amphibians, Reptiles and Small Mammals in North America Symposium 1988.

Jennings, M.R. and M.P. Hayes. 1994. Amphibian and reptile species of special concern in California. California Department of Fish and Game report. 255 pp.

Jennings, M.R. and M.P. Hayes, and D. C. Holland. 1993. A petition to the US fish and wildlife service to place the California red-legged frog and the Western pond turtle (*Clemmys marmorata*) on the list of endangered and threatened wildlife and plants.

Kelley & Associates Environmental Sciences, Inc., Land Classification and Agricultural Suitability Assessment, San Vicente Vineyards and Hambey Property, Soledad, California, November 1995.

LAFCO of Monterey County, Public Review Draft Municipal Services Review for the Central and Southern Salinas Valley, April 2006.

Loredo et al, 1996. Habitat use and migration behavior of the California tiger salamander. Journal of Herpetology, Vol. 30(2). Pp. 282-285.

Matthews, M. A. 1997. An illustrated field key to the flowering plants of Monterey County. California Native Plant Society, Sacramento, California.

Monterey Bay Unified Air Pollution Control District (2008), CEQA Air Quality Guidelines, last update, February 2008.

Monterey Bay Unified Air Pollution Control District (2008), Air Quality Management Plan, June 2008.

Monterey Regional Water Pollution Control Agency, Wastewater Service Area Study Update, November 2003.

Munz, P. A. and D. D. Keck. 1973. A California flora and supplement. University of California Press, Berkeley, CA. 1681 pp., + 224 pp. supplement.

Nolan Associates, Hyrdrogeologic Evaluation Proposed Subdivision San Vicente Vineyards and Hambey Ranch Properties APN 417-151-082, -083, -084, & -085, 257-101-051, Monterey County, California, November 1995.

Nolan Associates, Preliminary Geologic Hazards Investigation Proposed Subdivisions San Vicente Vineyards and Hambey Ranch Properties APNs 417-151-082, -084, & -085, 257-101-051, Monterey, California, August 1995.

Nolan Associates, Geologic Hazards Investigation Update, Miravale III Subdivision, Martines Property: APNs 257-081-005, -026, -027, and -032, Section 16: APNs 417-151-082, -083, -084, and -085, Monterey County, California, September 2006.

Peterson, R.T., 1990. Western Birds (Third Edition). Houghton Mifflin Company, New York, N.Y. 431 pp.

Reed, P.B., Jr. 1988. National list of plant species that occur in wetlands: California (Region 0). U.S. Fish and Wildlife Service Biological Report 88 (26.10).

Regional Water Quality Control Board, *Water Quality Control Plan (Basin Plan) for Central Coast Basin*, September 1994.

Remsen, J. V. Jr. 1978. Bird species of special concern in California. California Dept. of Fish and Game, Nongame Wildlife Investigations, Wildlife Management Branch Administrative Report No. 78-1.

RRM Design, Inc., Draft Miravale Phase III Specific Plan, July 2007.

Seavey, Kent L., Phase One Historic Review for the Property Located at 32945 San Vicente Road (APN #417-151-085) in Soledad, Monterey County, California, October 2006.

Sawyer, J. O. and T. Keeler-Wolf. 1995. A manual of California vegetation. California Native Plant Society, Sacramento, CA. 471 pp.

Seavey, Kent L., Phase Two Historic Review for the Property Located at 32945 San Vicente Road (APN #417-151-085) in Soledad, Monterey County, California, November 2006.

Sibley, David, 2000. The Sibley Guide to Birds. National Audubon Society. Borzoi Books. New York, N.Y. 544pp.

Stebbins, R. C. 2003. Western reptiles and amphibians, 3rd edition. Houghton Mifflin Company, New York, NY. 533 pp.

Stebbins, R. C. 1985. Western reptiles and amphibians. Houghton Mifflin Company, Boston, MA. 336 pp.

Stebbins, R. C. 1972. California amphibians and reptiles. University of California Press, Berkeley. 152 pp.

Terratech, Inc., Phase I Environmental Site Assessment San Vicente Vineyards APN# 417-151-048, 049 T17S, R6E, S16, Monterey County, California, March 1995.

Tharp & Associates, Inc., Geotechnical Investigation – Preliminary Design Phase, Proposed Miravale III Subdivision, Vicente Road, Soledad, California, August 2006.

Tharp & Associates, Inc., Preliminary Soil & Foundation Investigation – EIR Phase Proposed Miravale Residential Development Parcels 1, 2, 3, 4, & 6 of 19 Survey Page 76, (MS 95-004), Soledad, Monterey County, California, October 1995.

Thelander, C. (ed.). 1994. Life on the edge: A guide to California's endangered natural resources: wildlife. BioSystems Books, Santa Cruz, CA.

Tibor, D. P. (ed.) 2001. Inventory of rare and endangered vascular plants of California. California Native Plant Society Special Publication No. 1 (6th edition). California Native Plant Society, Sacramento, CA. 384 pp.

Trenham et al, 2000. Life History and Demographic Variation in California tiger salamander (Ambystoma californiense). Copeia, 200(2). Pp. 365-377.

United States Department of Agriculture, Soil Conservation Service, *Soil Survey of Monterey County, California*, April 1978.

U.S. Census, 2000.

U.S. Department of Agriculture, Soil Conservation Service. 1978. Soil survey of Monterey County, California. In cooperation with the University of California Agricultural Experiment Station.

United States Fish and Wildlife Service. 2000. Draft Recovery Plan for the California red-legged frog (*Rana aurora draytonii).* U.S. Fish and Wildlife Service, Sacramento, CA.

United States Fish and Wildlife Service, 2004. Endangered and threatened wildlife and plants; Proposed designation of critical habitat for the Santa Barbara County distinct population segment of the California Tiger Salamander. Federal Register, Vol. 69(14). Pp 3064-3094.

United States Fish and Wildlife Service. 2001. Endangered and threatened wildlife and plants; proposed designation of Critical Habitat for *Chorizanthe pungens* var. *pungens* (Monterey spineflower). Federal Register 66(32): 10440-10469.

U.S. Geological Survey. Soledad quadrangle. 7.5 minute topographic map, and all surrounding quads.

Williams, D. 1986. Mammalian species of special concern in California. California Department of Fish and Game Report 86-1. 112 pp.

Zeiner, D. C., W. F. Laudenslayer, Jr., K. E. Mayer, and M. White (eds.). 1988. California's wildlife, Volume I: Amphibians and reptiles. California Department of Fish and Game, Sacramento, California. 272 pp.

Zeiner, D. C., W. F. Laudenslayer, Jr., K. E. Mayer, and M. White (eds.). 1990a. California's Wildlife, Volume II: Birds. California Department of Fish and Game, Sacramento, California. 731 pp.

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APPENDIX A

Notice of Preparation (NOP) and Comments on the NOP

MIRAVALE PHASE III

Notice of Preparation
City of Soledad

To: _____
(Responsible Agency/Interested Person or Entity)

From: City of Soledad__
(Lead Agency)

City of Soledad, City Hall
248 Main Street
Soledad, California 93960
Tel: (831) 678-3963
Fax: (831) 678-3965
E-mail: communitydev@cityofsoledad.com

Subject: Notice of Preparation (NOP) for the Draft Environmental Impact Report for Miravale Phase III Specific Plan

Project Applicant: Nader Agha

Public Review Period: NOP response period is from August 24, 2006 to September 23, 2006

NOP Scoping Meeting: One scoping meeting will be held to receive input on the EIR:

(1) September 7, 2006 at 5:00 PM at the City of Soledad City Hall Council Chambers, 248 Main Street, Soledad, CA 93960

The project description, location, and the potential environmental effects are discussed below.

The City of Soledad will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the Miravale Phase III Specific Plan Project. The California Environmental Quality Act (CEQA), Section 15082, states that once a decision is made to prepare an EIR, the lead agency must prepare a Notice of Preparation (NOP) to inform all responsible agencies of that decision. The purpose of the NOP is to provide responsible agencies and interested persons with sufficient information describing the proposed project and its potential environmental effects to enable them to make a meaningful response as to the scope and content of the information to be included in the EIR.

This NOP is being released to request comments on the scope of the EIR for the proposed project. The responses to this NOP will help the City of Soledad determine the scope of the EIR and ensure an appropriate level of environmental review. Project related documents and files are available at the address above.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but not later than 30 days after receipt of this notice. Please send your responses to Don Fleming at the address above. We will need the name for a contact person in your agency.

Date _____ Signature _____

I. INTRODUCTION

PROJECT LOCATION:

The 920-acre project site is located within unincorporated lands of Monterey County on the northern edge of the City of Soledad, approximately 35 miles southeast of the Monterey Peninsula and 85 miles southeast of the San Francisco Bay Area (see Figure 1). The project site is generally between San Vicente Road and Orchard Lane, and is surrounded by agricultural land to the north and east, an existing residential subdivision to the south, and undeveloped foothills of the Gabilan Mountain Range to the west. The Assessor's Parcel Numbers are: 417-151-082, 417-151-083, 417-151-084, 417-151-085, 257-081-005, 257-081-026, 257-081-027, and 257-081-032.

PROJECT DESCRIPTION:

The Miravale Phase III Specific Plan project proposes a mixed-use development consisting of approximately 2,600 single-family residential units, 1,600 multi-family residential units, 300 senior housing units, 120 hotel rooms, 250,000 square feet of retail commercial space and an 18-hole golf course. Conceptual plans include a variety of residential types, including apartments, townhouses, and attached homes on small and large lots. The project also proposes three school sites (2 elementary schools and 1 middle school), a fire and police substation, and approximately 71 acres of open space and recreation areas, including parks, playgrounds, and a trail system (see Figure 2).

The project site is currently zoned by the County for farmland and permanent grazing uses and is being used for agricultural cultivation and grazing. It includes two existing single family units, which will be removed as part of the project. According to the City's General Plan, the majority of the project site is located within a designated Expansion Area, comprising all or a portion of three sub-areas: Northwest Expansion, San Vicente West, and Mirassou. A specific plan is required by the City in advance of annexation and development of each sub-area. Development of the project site will require annexation to the City pursuant to Local Agency Formation Commission of Monterey County (LAFCO) regulations.

The project entitlements will include, but not be limited to, General Plan Amendment, Specific Plan, Zone Change (Pre-Zoning), Architectural Review, Sphere of Influence Amendment, Annexation, Tentative Subdivision Map, and Development Agreements to allow for the proposed development.

II. PROBABLE ENVIRONMENTAL EFFECTS

ENVIRONMENTAL ISSUE AND PROBABLE EFFECTS

The environmental review of the project will focus on the following issues and probable environmental effects, as identified to date. The environmental analysis will address short-term (construction) and long term (life of project) impacts.

Aesthetics: The EIR will evaluate the visual effects of the project, based on existing visual characteristics, impacts to scenic views, proposed site layout/design, and density of development. The visual analysis will consider the City's policies on protection of views and aesthetics.

Agricultural Resources: According to the Important Farmlands Map, the project site contains farmland that is mapped as prime or of statewide importance. The site also contains lands under Williamson Act

contract. The EIR will analyze potential impacts to existing agricultural operations and land uses, including loss of farmland, impacts to Williamson Act properties, and compatibility issues.

Air Quality: The EIR will describe the air quality of the area and provide an assessment of the potential air quality impacts of the project in compliance with the Monterey Bay Unified Air Pollution Control District guidelines. Short-term air quality impacts associated with construction related activities will also be addressed.

Biological Resources: A biological assessment will be performed as part of the EIR to determine site conditions, the presence/absence of sensitive species and habitats, and potential impacts of the project on these resources.

Cultural Resources: The EIR will include a cultural resources investigation to determine the potential impacts from the project on any historic, architectural, or archaeological resources.

Geology and Soils: The EIR will address potential soil, geologic, and geotechnical hazards on the site, based on a preliminary geotechnical/geologic report. Such hazards may include seismicity, problematic soil conditions, liquefaction, and erosion.

Hazardous Materials/Health and Safety: The EIR will address potential hazards associated with development of the project site, including potential impacts from hazardous materials associated with past or current uses (e.g., agricultural chemicals, hydrocarbons, etc,) and the use, storage, or transport of hazardous materials.

Hydrology and Water Quality: The EIR will address drainage, flooding, and water quality conditions on the site. Potential impacts from development could include increases in runoff and flooding potential, as well as degradation of water quality from increased erosion and sedimentation. Proposed drainage and wastewater disposal systems will be evaluated.

Land Use and Planning: The EIR will address land use compatibility and project compliance with applicable land use policies. The project will require annexation of the project site into the City of Soledad boundaries, as well as expansion of the City's Sphere of Influence, subject to the review and approval by the Monterey County LAFCO. Existing land uses on and surrounding the project site will be described and potential land use impacts assessed (i.e., compatibility with surrounding uses, consistency with plans and policies, effects on the community).

Noise: The EIR will describe the existing ambient noise levels in the vicinity, which are dominated by vehicular traffic. The EIR will assess the short-term (construction) and long-term (operational) noise impacts of the proposed project on the surrounding land uses, as well as noise impacts on proposed residential uses that may be affected by existing and future noise levels.

Population and Housing: A direct increase in population would occur due to proposed housing components of the project and an indirect increase may result from the creation of new jobs. The population and housing analysis in the EIR will consider the trends in population statistics for the local area and region.

Public Services/Utilities: The EIR will evaluate the existing public service systems serving the project area and evaluate the public service impacts of the project, including increased demands for sanitary sewer, storm drain, park, emergency, and school services.

Traffic and Circulation: The EIR will describe the existing and proposed roadway system, and evaluate traffic impacts. Traffic impacts, including degradation of levels of service on affected roadways and freeways, adequacy of site access, and provision of parking will be evaluated in a technical traffic study.

Water Supply: The EIR will describe the available water supply resources and projected demand for all phases of project implementation. This assessment will also address the proposed water system infrastructure to assess compliance with relevant standards (i.e., health and fire safety) and the adequacy of proposed storage and transmission capacity and pressures.

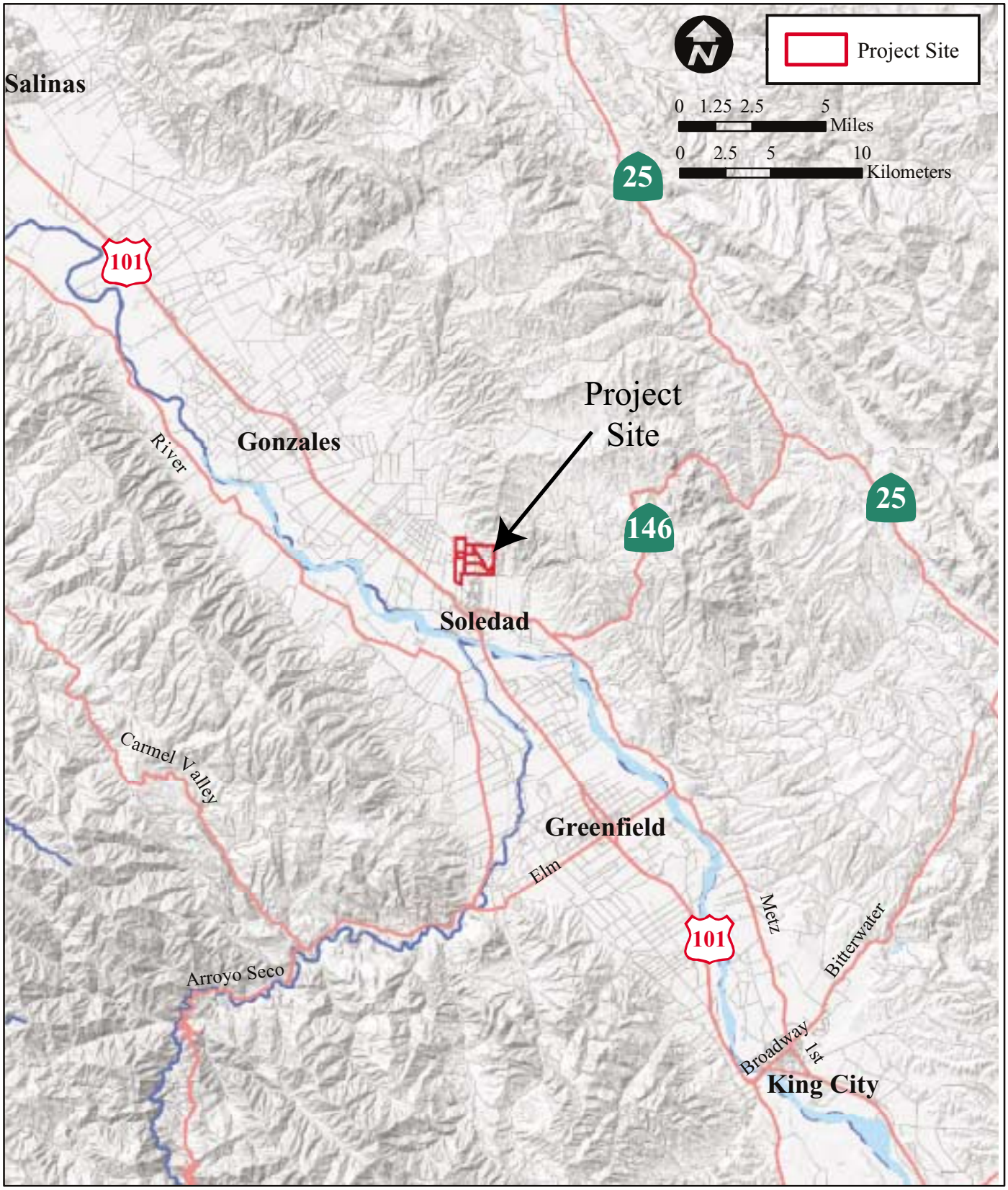
Growth Inducement: The EIR will evaluate the potential growth-inducing effects of the proposed development, including increases in jobs and housing, and improvements that may remove impediments to growth.

Cumulative Impacts: The EIR will evaluate the potential cumulative impacts of the project when combined with past, present and reasonably anticipated projects in the region. This evaluation will address (at a minimum) traffic, air quality, public services, and land use.

Alternatives: The EIR will consider a range of reasonable alternatives to the proposed project that could feasibly obtain most of the basic objectives of the proposed project, in accordance with CEQA Guidelines Section 15126.6.

Attachments:

Figure 1: Vicinity Map
Figure 2: Site Plan



	Vicinity Map	Figure 1

VESTING TENTATIVE MAP

MIRAVALE III SUBDIVISION

SOLEDAD, CALIFORNIA

NOTES

THE PROPERTY TO BE SUBDIVIDED CONSISTS OF SECTION 16: APN 417-151-082, 417-151-083, 417-151-084, 417-151-085 AND THE MARTINES PROPERTY APN 257-081-005, 257-081-026, 257-081-027 AND 257-081-032. THE PROPERTIES HAVE FRONTAGE ON SAN VICENTE ROAD.

EXISTING ZONING:
MONTEREY COUNTY F/40 (FARMLAND; 40-ACRE MINIMUM FOR ALL PARCELS EXCEPT 417-151-083. APN 417-151-083 ZONING IS MONTEREY COUNTY F/40 AND PG/40 (FARMLAND, 40-ACRE MINIMUM AND PERMANENT GRAZING 40-ACRE MINIMUM). ANNEXATION TO THE CITY OF SOLEDAD IS ANTICIPATED, SUBJECT TO LAFCO REGULATIONS.

PROPOSED ZONING:
R1,R1 WITH PLANNED UNIT DEVELOPMENT TO ALLOW VARIATIONS FROM 2,500 TO 6,000 SQUARE FEET. R-3 TO ALLOW TOWNHOMES AND APARTMENTS AT BETWEEN 14 AND 20 DWELLINGS PER ACRE, A MOBILE HOME PARK AND RETAIL COMMERCIAL.

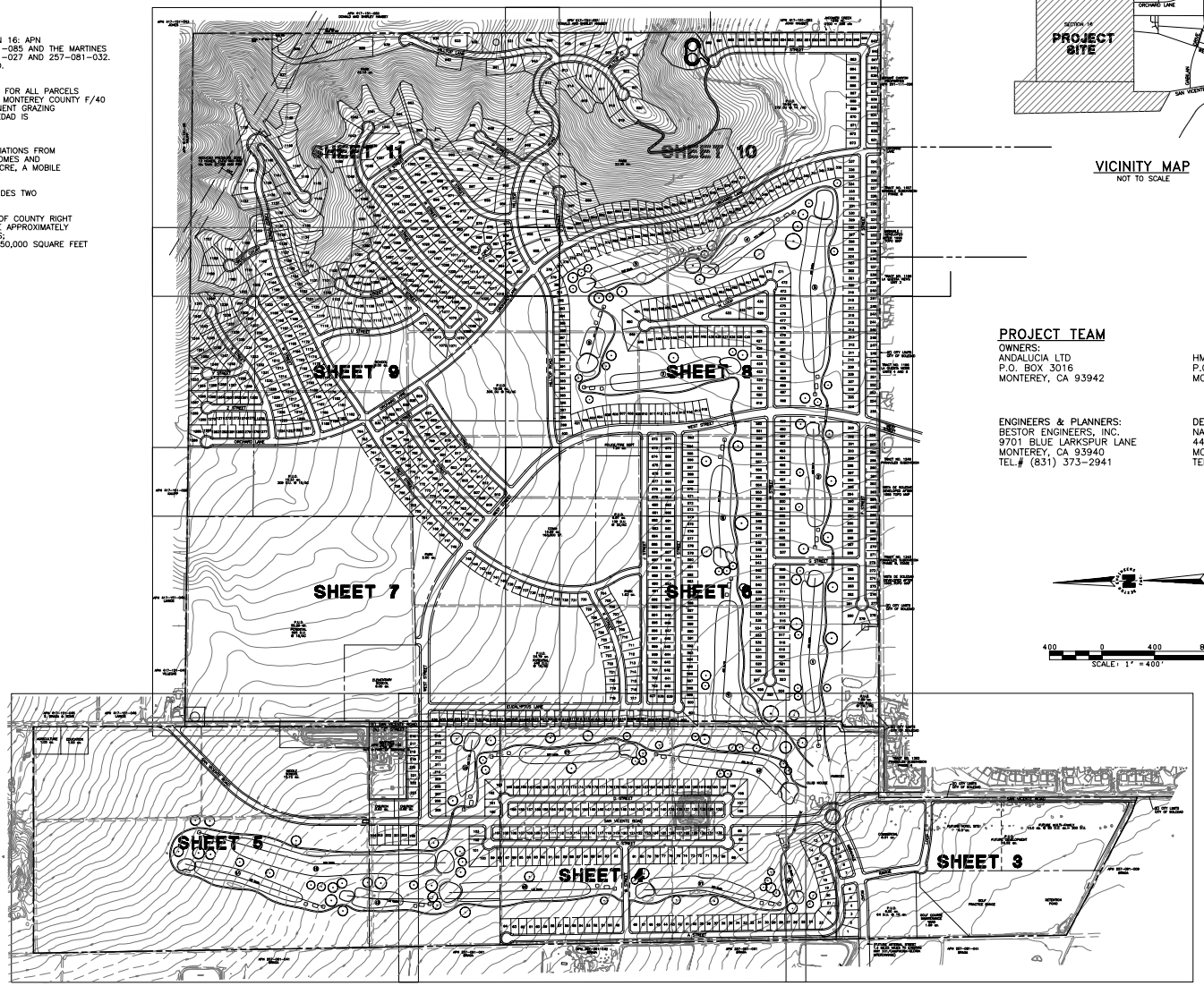
THE PROPERTY IS CURRENTLY IN CULTIVATION. IT INCLUDES TWO EXISTING HOMES THAT WILL BE REMOVED.

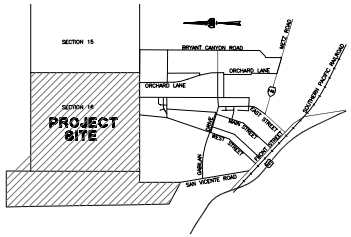
TOTAL PROPERTY IS 918.829 ACRES PLUS 3.03 ACRES OF COUNTY RIGHT OF WAY TO BE ABANDONED. TOTAL PROPOSED USES ARE APPROXIMATELY 2,600 SINGLE FAMILY HOMES; 1,600 MULTI-FAMILY UNITS; 300 UNITS OF SENIOR HOUSING; A 120 ROOM HOTEL, 250,000 SQUARE FEET OF RETAIL AND AN 18 HOLE GOLF COURSE.

PROPOSED UTILITY SUPPLIES ARE:
ELECTRICITY – PG&E
GAS – PG&E
CATV – CHARTER COMMUNICATION CO.
WATER – CITY OF SOLEDAD
SANITARY SEWER – CITY OF SOLEDAD
STORM DRAINAGE – CITY OF SOLEDAD
TELEPHONE – AT&T

PROPOSED USES

SINGLE FAMILY HOMES	2600 UNITS
MULTI-FAMILY HOMES	1600 UNITS
SENIOR HOUSING	300 UNITS
HOTEL	120 ROOMS
RETAIL	250,000 SQUARE FEET





VICINITY MAP
NOT TO SCALE

PROJECT TEAM

OWNERS:
ANDALUCIA LTD
P.O. BOX 3016
MONTEREY, CA 93942

HMBY, LP
P.O. BOX 3016
MONTEREY, CA 93942

ENGINEERS & PLANNERS:
BESTOR ENGINEERS, INC.
9701 BLUE LARKSPUR LANE
MONTEREY, CA 93940
TEL.# (831) 373-2941

DEVELOPER & SUBDIVIDER:
NADER AGHA
449 ALVARADO STREET
MONTEREY, CA 93940
TEL.# (831) 646-9030

REVISIONS

DESIGNED BY
DRAWN BY
DATE:
ENGINEER
RCE:
EXP:

PRELIMINARY
NOT FOR CONSTRUCTION

BESTOR ENGINEERS, INC.
CIVIL ENGINEERING – SURVEYING – LAND PLANNING
9701 BLUE LARKSPUR LANE, MONTEREY, CALIFORNIA 93940

PREPARED FOR: NADER AGHA

MIRAVALE III SUBDIVISION
TENTATIVE MAP
SOLEDAD, CALIFORNIA
COUNTY OF MONTEREY, CALIFORNIA

SCALE: AS SHOWN
DATE: 8/7/06
SHEET: 1 OF 11
WO: 6310.00

L:\6310\dwgs\planshts\VTM-01.DWG – SBAJAF – AUG 14, 2006 – 11:15:11

THE USE OF THESE PLANS AND SPECIFICATIONS SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY WERE PREPARED AND PUBLICATION THEREOF IS EXPRESSLY LIMITED TO SUCH USE. REPRODUCTION, IN WHOLE OR IN PART, OF PROVIDED STYLE IN THE PLANS AND SPECIFICATIONS REMAIN IN THE OWNERSHIP OF BESTOR ENGINEERS. VERBAL CONTRACT WITH THESE PLANS AND SPECIFICATIONS SHALL CONSTITUTE PRIMA FACIE EVIDENCE OF THE ACCEPTANCE OF THESE RESTRICTIONS.

Comments on the NOP

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Sean Walsh
Director

Notice of Preparation

August 24, 2006

RECEIVED

AUG 3 0 2006

PLANNING DEPARTMENT

To: Reviewing Agencies

Re: Miravale Phase III Specific Plan
SCH# 2006081129

Attached for your review and comment is the Notice of Preparation (NOP) for the Miravale Phase III Specific Plan draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Don Fleming
City of Soledad
248 Main Street
Soledad, CA 93960

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Project Analyst, State Clearinghouse

Attachments
cc: Lead Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2006081129
Project Title Miravale Phase III Specific Plan
Lead Agency Soledad, City of

Type NOP Notice of Preparation

Description The Miravale Phase III Specific Plan project proposes a mixed-use development consisting of approximately 2,600 single-family residential units, 1,600 multi-family residential units, 300 senior housing units, 120 hotel rooms, 250,000 square feet of retail commercial space and an 18-hole golf course.

Lead Agency Contact

Name Don Fleming
Agency City of Soledad
Phone (831) 678-3963 **Fax**
email
Address 248 Main Street
City Soledad **State** CA **Zip** 93960

Project Location

County Monterey
City Soledad
Region
Cross Streets San Vicente Road, Orchard Lane
Parcel No. 417-151-082, 083, 084, 085; 257-081-005, 026, 027, 032
Township **Range** **Section** **Base**

Proximity to:

Highways 101
Airports
Railways Yes
Waterways
Schools Yes
Land Use Farmland and Permanent Grazing, 40 acre minimum [F/40 and PG/40], Central Salinas Valley Area Plan, Monterey County General Plan, City of Soledad General Plan.

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Cumulative Effects; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Geologic/Seismic; Growth Inducing; Landuse; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wildlife

---

Reviewing Agencies Resources Agency; Regional Water Quality Control Board, Region 3; Department of Parks and Recreation; Native American Heritage Commission; Department of Housing and Community Development; Department of Health Services; Office of Emergency Services; Office of Historic Preservation; Department of Fish and Game, Region 3; Department of Water Resources; Department of Conservation; California Highway Patrol; Caltrans, District 5; Department of Toxic Substances Control

---

Date Received 08/24/2006 **Start of Review** 08/24/2006 **End of Review** 09/22/2006

Note: Blanks in data fields result from insufficient information provided by lead agency.

NOP Distribution List

County: MONTEREY SCH# [illegible]

Resources Agency

- ■ Resources Agency
  Nadell Gayou
- ☐ Dept. of Boating & Waterways
  David Johnson
- ☐ California Coastal Commission
  Elizabeth A. Fuchs
- ☐ Colorado River Board
  Gerald R. Zimmerman
- ■ Dept. of Conservation
  Roseanne Taylor
- ☐ California Energy Commission
  Paul Richins
- ☐ Dept. of Forestry & Fire Protection
  Allen Robertson
- ■ Office of Historic Preservation
  Wayne Donaldson
- ■ Dept of Parks & Recreation
  Environmental Stewardship Section
- ☐ Reclamation Board
  DeeDee Jones
- ☐ S.F. Bay Conservation & Dev't. Comm.
  Steve McAdam
- ■ Dept. of Water Resources
  Resources Agency
  Nadell Gayou
- ☐ _____
  Conservancy

Fish and Game

- ☐ Depart. of Fish & Game
  Scott Flint
  Environmental Services Division
- ☐ Fish & Game Region 1
  Donald Koch
- ☐ Fish & Game Region 2
  Banky Curtis
- ■ Fish & Game Region 3
  Robert Floerke
- ☐ Fish & Game Region 4
  Julie Vance
- ☐ Fish & Game Region 5
  Don Chadwick
  Habitat Conservation Program
- ☐ Fish & Game Region 6
  Gabrina Gatchel
  Habitat Conservation Program
- ☐ Fish & Game Region 6 I/M
  Tammy Allen
  Inyo/Mono, Habitat Conservation Program
- ☐ Dept. of Fish & Game M
  George Isaac
  Marine Region

Other Departments

- ☐ Food & Agriculture
  Steve Shaffer
  Dept. of Food and Agriculture
- ☐ Depart. of General Services
  Public School Construction
- ☐ Dept. of General Services
  Robert Sleppy
  Environmental Services Section
- ■ Dept. of Health Services
  Veronica Malloy
  Dept. of Health/Drinking Water

Independent Commissions,Boards

- ☐ Delta Protection Commission
  Debby Eddy
- ■ Office of Emergency Services
  Dennis Castrillo
- ☐ Governor's Office of Planning & Research
  State Clearinghouse
- ■ Native American Heritage Comm.
  Debbie Treadway
- ☐ Public Utilities Commission
  Ken Lewis
- ☐ State Lands Commission
  Jean Sarino
- ☐ Tahoe Regional Planning Agency (TRPA)
  Cherry Jacques

Business, Trans & Housing

- ☐ Caltrans - Division of Aeronautics
  Sandy Hesnard
- ☐ Caltrans - Planning
  Terri Pencovic
- ■ California Highway Patrol
  Shirley Kelly
  Office of Special Projects
- ■ Housing & Community Development
  Lisa Nichols
  Housing Policy Division

Dept. of Transportation

- ☐ Caltrans, District 1
  Rex Jackman
- ☐ Caltrans, District 2
  Marcelino Gonzalez
- ☐ Caltrans, District 3
  Jeff Pulverman
- ☐ Caltrans, District 4
  Tim Sable
- ■ Caltrans, District 5
  David Murray
- ☐ Caltrans, District 6
  Marc Birnbaum
- ☐ Caltrans, District 7
  Cheryl J. Powell
- ☐ Caltrans, District 8
  Dan Kopulsky
- ☐ Caltrans, District 9
  Gayle Rosander
- ☐ Caltrans, District 10
  Tom Dumas
- ☐ Caltrans, District 11
  Mario Orso
- ☐ Caltrans, District 12
  Bob Joseph

Cal EPA

Air Resources Board

- ☐ Airport Projects
  Jim Lerner
  - ☐ Transportation Projects
    Ravi Ramalingam
  - ☐ Industrial Projects
    Mike Tollstrup
- ☐ California Integrated Waste Management Board
  Sue O'Leary
- ☐ State Water Resources Control Board
  Jim Hockenberry
  Division of Financial Assistance
- ☐ State Water Resources Control Board
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- ☐ State Water Resouces Control Board
  Steven Herrera
  Division of Water Rights
- ■ Dept. of Toxic Substances Control
  CEQA Tracking Center
- ☐ Department of Pesticide Regulation

Regional Water Quality Control Board (RWQCB)

- ☐ RWQCB 1
  Cathleen Hudson
  North Coast Region (1)
- ☐ RWQCB 2
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- ■ RWQCB 3
  Central Coast Region (3)
- ☐ RWQCB 4
  Teresa Rodgers
  Los Angeles Region (4)
- ☐ RWQCB 5S
  Central Valley Region (5)
  - ☐ RWQCB 5F
    Central Valley Region (5)
    Fresno Branch Office
  - ☐ RWQCB 5R
    Central Valley Region (5)
    Redding Branch Office
- ☐ RWQCB 6
  Lahontan Region (6)
  - ☐ RWQCB 6V
    Lahontan Region (6)
    Victorville Branch Office
- ☐ RWQCB 7
  Colorado River Basin Region (7)
- ☐ RWQCB 8
  Santa Ana Region (8)
- ☐ RWQCB 9
  San Diego Region (9)

☐ Other _____

Last Updated on 04/28/06

CC: DON

DEPARTMENT OF CONSERVATION

DIVISION OF LAND RESOURCE PROTECTION

801 K STREET • MS 18-01 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 324-0850 • FAX 916 / 327-3430 • TDD 916 / 324-2555 • WEBSITE conservation.ca.gov

RECEIVED

SEP 25 2006

CITY OF SOLEDAD

September 22, 2006

Don Fleming
City of Soledad
248 Main Street
Soledad, CA 93960

Subject: Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the Miravale Phase III Specific Plan **SCH# 2006081129**

Dear Mr. Fleming:

The Department of Conservation's Division of Land Resource Protection (Division) monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. The Division has reviewed the above NOP and offers the following recommendations for the DEIR with respect to the project's potential impacts on agricultural land.

The proposed project involves a mixed-use development of residential, hotel, retail/commercial, and golf course uses on a 920-acre site. Entitlements associated with the project include general plan amendment, specific plan, zone change, architectural review, sphere of influence amendment, annexation, tentative subdivision map and development agreements. The NOP notes that the site includes Prime Farmland, Farmland of Statewide Importance and lands under Williamson Act contract. Therefore, the Division recommends that, at a minimum, the following items be specifically addressed to document and treat the project impacts on agricultural land and Williamson Act lands.

Agricultural Setting of the Project

The DEIR should describe the project setting in terms of the actual and potential agricultural productivity of the land. The Division's Monterey County Important Farmland Map, which defines farmland according to soil attributes and land use, can be used for this purpose. In addition, we recommend including the following information to characterize the agricultural land resource setting of the project.

- Current and past agricultural use of the project area. Include data on the types of crops grown, and crop yields and farmgate sales values.

- To help describe the full agricultural resource value of the soils on the site, we recommend the use of economic multipliers to assess the total contribution of the site's potential or actual agricultural production to the local, regional and state economies. State and Federal agencies such as the UC Cooperative Extension Service and USDA are sources of economic multipliers.

Project Impacts on Agricultural Land

- Type, amount, and location of farmland conversion resulting directly and indirectly (growth-inducement) from project implementation.
- Impacts on current and future agricultural operations; e.g., land-use conflicts, increases in land values and taxes, vandalism, etc.
- Incremental project impacts leading to cumulatively considerable impacts on agricultural land. This would include impacts from the proposed project as well as impacts from past, current and probable future projects.

Impacts on agricultural resources may also be quantified and qualified by use of established thresholds of significance (California Code of Regulations Section 15064.7). The Division has developed a California version of the USDA Land Evaluation and Site Assessment (LESA) Model, a semi-quantitative rating system for establishing the environmental significance of project-specific impacts on farmland. The model may also be used to rate the relative value of alternative project sites. The LESA Model is available on the Division's website noted later in this letter.

Williamson Act Lands

A project is deemed to be of statewide, regional or area-wide significance if it will result in cancellation of a Williamson Act contract for a parcel of 100 or more acres [California Code of Regulations Section 15206(b)(3)]. Since lands under Williamson Act contract exist in or adjacent to the project site, the Department recommends that the following information be provided in the DEIR:

- A map detailing the location of agricultural preserves and contracted land within each preserve. The DEIR should also tabulate the number of Williamson Act acres, according to land type (e.g., prime or non-prime agricultural land), which could be impacted directly or indirectly by the project.
- A discussion of Williamson Act contracts that may be terminated in order to accommodate the project. The DEIR should discuss the impacts that termination of Williamson Act contracts would have on nearby properties also under contract; i.e., growth-inducing impacts (in the sense that the removal of contract protection not only lifts a barrier to development, but results in higher property taxes, and thus, an incentive to shift to a more intensive land use, such as urban development.)
- As a general rule, land can be withdrawn from Williamson Act contract only through the nine-year nonrenewal process. Immediate termination via cancellation is reserved for "extraordinary", unforeseen situations (See Sierra Club v. City of Hayward (1981) 28 Cal.3d 840, 852-855).

The City or County of jurisdiction must approve a request for contract cancellation, and base that approval on specific findings that are supported by substantial evidence (Government Code Section 51282). If Williamson Act contract cancellation is proposed, we recommend that a discussion of the findings be included in the DEIR. Finally, the notice of the hearing to approve the tentative cancellation, and a copy of the landowner's petition, must be mailed to the Director of the Department of Conservation ten (10) working days prior to the hearing. (The notice should be mailed to Bridgett Luther, Director, Department of Conservation, c/o Division of Land Resource Protection, 801 K Street MS 18-01, Sacramento, CA 95814-3528.)

- If the project site is under Williamson Act contract, and any part of the site is to continue under contract after project completion, the DEIR should discuss the proposed uses for those lands. Uses of contracted land must meet compatibility standards identified in Government Code Sections 51238 - 51238.3. Otherwise, contract termination (see paragraph above) must occur prior to the initiation of the land use. The DEIR should also discuss plans for the city to succeed to existing contracts in the annexation area unless conditions specified in Government Code Section 51243.5 apply.
- An agricultural preserve is a zone authorized by the Williamson Act, and established by the local government, to designate land qualified to be placed under the Act's 10-year contracts. Preserves are also intended to create a setting for contract-protected lands that is conducive to continuing agricultural use. The uses of agricultural preserve land must be restricted by zoning or other means so as not to be incompatible with the agricultural use of contracted land within the preserve (Government Code Section 51230). Therefore, the DEIR should discuss any proposed general plan designation or zoning within agricultural preserves affected by the project.

Mitigation Measures and Alternatives

Feasible alternatives to the project's location or configuration that would lessen or avoid farmland conversion impacts should be considered in the DEIR. Similarly, while the direct conversion of agricultural land is often deemed to be an unavoidable impact by California Environmental Quality Act (CEQA) analyses, mitigation measures must nevertheless be considered.

The Division recommends the purchase of agricultural conservation easements on land of at least equal quality and size as partial compensation for the direct loss of agricultural land, as well as for the mitigation of growth inducing and cumulative impacts on agricultural land. We highlight this measure because of its growing acceptance and use by lead agencies as mitigation under CEQA.

Mitigation using conservation easements can be implemented by at least two alternative approaches: the outright purchase of conservation easements tied to the project, or via the donation of mitigation fees to a local, regional or statewide organization or agency, including land trusts and conservancies, whose purpose includes the purchase, holding and maintenance of agricultural conservation easements.
Whatever the approach, the conversion of agricultural land should be deemed an impact of at least regional significance and the search for mitigation lands conducted regionally, and not limited strictly to lands within the Soledad area.

Information about conservation easements is available on the Division's website, or by contacting the Division at the address and phone number listed below. The Division's website address is:

http://www.conservation.ca.gov/DLRP/

Of course, the use of conservation easements is only one form of mitigation that should be considered. The following mitigation measures could also be considered:

- Increasing home density or clustering residential units to allow a greater portion of the development site to remain in agricultural production.
- Protecting nearby farmland from *premature* conversion through the use of less than permanent long-term restrictions on use such as 20-year Farmland Security Zone contracts (Government Code Section 51296) or 10-year Williamson Act contracts (Government Code Section 51200 et seq.).
- Establishing buffers such as setbacks, berms, greenbelts, and open space areas to separate farmland from incompatible urban uses.
- Investing in the commercial viability of the remaining agricultural land in the project area through a mitigation bank which invests in agricultural infrastructure, water supplies and marketing.

The Department believes that the most effective approach to farmland conservation and impact mitigation is one that is integrated with general plan policies. For example, the measures suggested above could be most effectively applied as part of a comprehensive agricultural land conservation element in the City's general plan. Mitigation policies could then be applied systematically toward larger goals of sustaining an agricultural land resource base and economy. Within the context of a general plan mitigation strategy, other measures could be considered, such as the use of transfer of development credits, mitigation banking, and economic incentives for continuing agricultural uses.

Thank you for the opportunity to comment on the NOP. If you have questions on our comments, or require technical assistance or information on agricultural land conservation, please contact the Division at 801 K Street, MS 18-01, Sacramento, California 95814; or, phone (916) 324-0850.

Sincerely,

Brian Leahy
Assistant Director

cc: Monterey County RCD
744 La Guardia Building A
Salinas, CA 93905

State of California – The Resources Agency
ARNOLD SCHWARZENEGGER, Governor
DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
POST OFFICE BOX 47
YOUNTVILLE, CALIFORNIA 94599
(707) 944-5500

RECEIVED
SEP 01 2006
PLANNING DEPARTMENT

August 30, 2006

Mr. Don Fleming
City of Soledad, City Hall
248 Main Street
Soledad, CA 93960

Dear Mr. Fleming:

Subject: Miravale Phase III Specific Plan, Soledad, Monterey County

The Department of Fish and Game (DFG) has reviewed the documents provided for the subject project and we have the following comments.

Please provide a complete assessment (including but not limited to type, quantity and locations) of the habitats, flora and fauna within and adjacent to the project area, including endangered, threatened, and locally unique species and sensitive habitats. The assessment should include the reasonably foreseeable direct and indirect changes (temporary and permanent) that may occur with implementation of the project. Rare, threatened and endangered species to be addressed should include all those which meet the California Environmental Quality Act (CEQA) definition (see CEQA Guidelines, Section 15380). DFG recommended survey and monitoring protocols and guidelines are available at http://www.dfg.ca.gov/hcpb/species/stds_gdl/survmonitr.shtml.

Please be advised that a California Endangered Species Act (CESA) Permit must be obtained if the project has the potential to result in take of species of plants or animals listed under CESA, either during construction or over the life of the project. Issuance of a CESA Permit is subject to CEQA documentation; therefore, the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the project will impact CESA listed species, early consultation is encouraged, as significant modification to the project and mitigation measures may be required in order to obtain a CESA Permit.

For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream, or use material from a streambed, DFG may require a Streambed Alteration Agreement (SAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. Issuance of SAAs is subject to CEQA. DFG, as a responsible agency under CEQA, will consider the CEQA document for the project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate

avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. To obtain information about the SAA notification process, please access our website at www.dfg.ca.gov/1600; or to request a notification package, contact the Streambed Alteration Program at (707) 944-5520.

If you have any questions, please contact Mr. Carl Wilcox, Habitat Conservation Manager, at (707) 944-5525.

Sincerely,

Cindy Catalano

Robert W. Floerke
Regional Manager
Central Coast Region

California Regional Water Quality Control Board
Central Coast Region

Linda Adams
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

Internet Address: http://www.swrcb.ca.gov/rwqcb3
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401
Phone (805) 549-3147 • FAX (805) 543-0397

August 29, 2006

RECEIVED
SEP 01 2006
PLANNING DEPARTMENT

Don Fleming
248 Main Street
Soledad, CA 93960

Dear Don Fleming,

RE: Notice of Preparation, Miravale Phase III Specific Plan, Monterey County SCH#2006081129

Thank you for the opportunity to review the above-referenced document. The Central Coast Regional Water Quality Control Board (Water Board) is a responsible agency under the California Environmental Quality Act (CEQA). Water Board staff understands that the project includes a mixed-use development consisting of approximately 2,600 single-family residential units, 1,600 multi-family residential units, 300 senior housing units, 120 hotel rooms, 250,000 square feet of retail space and an 18-hole golf course. We recommend you consider Low Impact Development (LID) design techniques for your proposed project. LID or equivalent methods are necessary to mitigate stormwater runoff pollution and stream erosion and sedimentation impacts that result from significantly increased downstream flows due to introduced impermeable surfaces.

LID is an alternative site design strategy that uses natural and engineered infiltration and storage techniques to control stormwater runoff where it is generated. The objective is to disperse LID devices uniformly across a site to minimize runoff. LID serves to preserve the hydrologic and environmental functions altered by conventional stormwater management. LID methods provide temporary retention areas; increase infiltration; allow for pollutant removal; and control the release of stormwater into adjacent waterways (Anne Guillette, Whole Building Design Guide). For further reference please see:

http://www.epa.gov/owow/nps/lid/

Eight Common LID Practices Include:

1. Site Design Layout to Reduce and Disconnect Impervious Surfaces
2. Native Vegetation Preservation
3. Bioretention
4. Tree Boxes to Capture and Infiltrate Street Runoff
5. Vegetated Swales, Buffers, and Strips
6. Roof Leader Flows Directed to Planter Boxes and Other Vegetated Areas
7. Permeable Pavement
8. Soil Amendments to Increase Infiltration Rates

Water Board staff considers a project that meets the following descriptions (inclusive) to be a "Low Impact Development" project:

A. Runoff Volume Control. The pre-development stormwater runoff volume is maintained by a combination of minimizing the site disturbance, and then providing distributed retention BMPs. Retention BMPs are structures that retain the excess (above pre-development project volumes) runoff resulting from the development for the design storm event (2-, 10-, and 25-year, 24-hour duration storm). Note that "retention" is required, as opposed to "detention"; retention may be achieved using infiltration methods, and capture-for-use methods. A "customized" or detailed runoff curve number (CN) evaluation is required to determine the required runoff volume. The storage required to maintain the pre-development volume may also be sufficient to maintain the pre-development peak rate.

B. Peak Runoff Rate Control. Low-impact development is designed to maintain the pre-development peak runoff discharge rate for the selected design storm events. This is done by maintaining the pre-development time of concentration and then using retention and/or detention BMPs (e.g., rain gardens, open drainage systems, etc.) that are distributed throughout the site. The goal is to use retention practices to control runoff volume and, if these retention practices are not sufficient to control the peak runoff rate, to use additional detention practices to control the peak runoff rate.

C. Flow Frequency Duration Control. Since low-impact development is designed to emulate the pre-development hydrologic regime through both volume and peak runoff rate controls, the flow frequency and duration for the post-development conditions must be identical (to the greatest degree possible) to those for the pre-development conditions. The impacts on the sediment and erosion and stream habitat potential at downstream reaches will then be minimized.

Your project may be subject to the NPDES Phase 2 Municipal Stormwater Permit (Permit). The Permit requires developments to meet Maximum Extent Practicable (MEP) standards to address urban runoff. In most cases, MEP standards are not met by conventional site layouts, construction methods, and storm water conveyance systems with "end of pipe" basins and treatment systems that do not address the changes in volume and rates of storm water runoff and urban pollutants (including thermal pollution). Low Impact Development does meet the MEP standard and is more effective at reducing pollutants in storm water runoff at a practicable cost.

Please consider these comments in the CEQA approval process for this project. If you have questions, please contact Donette Dunaway at (805) 549-3698.

Sincerely,

for Roger W. Briggs
Executive Officer

S:\CEQA\Comment Letters\Monterey County\Miravale Phase III Specific Plan SCH#2006081129.doc

State of California – The Resources Agency
ARNOLD SCHWARZENEGGER, Governor
DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
POST OFFICE BOX 47
YOUNTVILLE, CALIFORNIA 94599
(707) 944-5500

September 15, 2006

RECEIVED
SEP 19 2006
PLANNING DEPARTMENT

Mr. Don Fleming
City of Soledad
248 Main Street
Soledad, CA 93960

Dear Mr. Fleming:

Subject: Miravale Phase III Specific Plan, Soledad, Monterey County, SCH 2006081129

The Department of Fish and Game (DFG) has reviewed the documents provided for the subject project and we have the following comments.

Please provide a complete assessment (including but not limited to type, quantity and locations) of the habitats, flora and fauna within and adjacent to the project area, including endangered, threatened, and locally unique species and sensitive habitats. The assessment should include the reasonably foreseeable direct and indirect changes (temporary and permanent) that may occur with implementation of the project. Rare, threatened and endangered species to be addressed should include all those which meet the California Environmental Quality Act (CEQA) definition (see CEQA Guidelines, Section 15380). DFG recommended survey and monitoring protocols and guidelines are available at http://www.dfg.ca.gov/hcpb/species/stds_gdl/survmonitr.shtml.

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consider the CEQA document for the project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. To obtain information about the SAA notification process, please access our website at www.dfg.ca.gov/1600; or to request a notification package, contact the Streambed Alteration Program at (707) 944-5520.

If you have any questions, please contact, Mr. Carl Wilcox, Habitat Conservation Manager, at (707) 944-5525.

Sincerely,

for Scott Wilson

Robert W. Floerke
Regional Manager
Central Coast Region

cc: State Clearinghouse

SOLEDAD UNIFIED SCHOOL DISTRICT

Jorge Z. Guzmán District Superintendent

"Education for Life"

Soledad High School
425 Gabilan Drive
Soledad, CA 93960
(831) 678-6400

Community Education Center
690 Main Street
Soledad, CA 93960
(831) 678-6300

Main Street Middle School
441 Main Street
Soledad, CA 93960
(831) 678-6460

K-6
ELEMENTARY SCHOOLS

Gabilan School
330 N. Walker Drive
Soledad, CA 93960
(831) 678-6440

Rose Ferrero School
400 Entrada Drive
Soledad, CA 93960
(831) 678-6480

San Vicente School
1300 Metz Road
Soledad, CA 93960
(831) 678-6420

Frank Ledesma School
973 Vista de Soledad
Soledad, CA 93960
(831) 678-6320

Jack Franscioni School
779 Orchard Lane
Soledad, CA 93960
(831) 678-6340

RECEIVED
SEP 19 2006
PLANNING DEPARTMENT

September 18, 2006

Don Fleming, Planning and Development Director
City of Soledad
P.O. Box 156
Soledad, CA 93960

Dear Mr. Fleming:

RE: NOTICE OF PREPARATION RESPONSE: MIRAVALE PHASE III

Thank you for the opportunity to respond to the Notice of Preparation (NOP) for the Draft Environmental Impact Report for Miravale Phase III Specific Plan.

In regards to my response, the following items warrant your attention:

1. The Miravale III subdivision has two elementary, one middle school/adult education combination center and Future Farmers of America (FFA) sites designated and dedicated for future growth; considering the loading factors that are being used and the schools that will be constructed districtwide adequacy for facilities should be sufficient. We are working with our school facility consultants to re-examine the loading factors.

   The sites should meet the necessary California Department of Education established standards. They should be safe and free of environmental toxics.

2. Our current high school enrollment is 1,048 students with maximum capacity of 1,400 students. The existing site has adequate space to add portable buildings to accommodate the steady growth. We are in the process of placing (4) portables at the high school in the next two to three months. However, with pending and future projects, our high school will exceed capacity. It is my recommendation that the General Plan be amended to show and to have future developers designate a 40-acre additional high school site in the northwest or future expansion areas.

Please feel free to contact me if you have any questions and thank you for your attention to this matter and consideration to amend the General Plan to include another future high school for our community

Sincerely,

Jorge Z. Guzman
District Superintendent

C: Board of Trustees
Noelia Chapa, City Manager

AMBAG
ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

RECEIVED
SEP 19 2006
PLANNING DEPARTMENT

September 14, 2006

Mr. Don Fleming
City of Soledad
P.O. Box 156
Soledad, CA 93960

Re: MCH# 20060816 – Notice of Preparation
Miravale Phase 3

Dear Mr. Fleming:

AMBAG's Regional Clearinghouse circulated a summary of notice of your environmental document to our member agencies and interested parties for review and comment.

The AMBAG Board of Directors considered the project on September 13, 2006 and has no comments at this time.

Thank you for complying with the Clearinghouse process.

Sincerely,

Nicolas Papadakis
Executive Director

SERVING OUR REGIONAL COMMUNITY SINCE 1968
445 RESERVATION ROAD, SUITE G ✦ P. O. BOX 809 ✦ MARINA, CA 93933-0809
(831) 883-3750 ✦ FAX (831) 883-3755 ✦ www.ambag.org

RECEIVED

OCT 0 3 2006

PLANNING DEPARTMENT

LAFCO *of Monterey County*

LOCAL AGENCY FORMATION COMMISSION
P.O. Box 1369 132 W. Gabilan Street, Suite 102
Salinas, CA 93902 Salinas, CA 93901
Telephone (831) 754-5838 Fax (831) 754-5831

KATE McKENNA, AICP
Executive Officer

September 29, 2006

Mr. Don Fleming, Community Development Director
City Hall
City of Soledad
248 Main Street
Soledad, CA 93960

RE: Notice of Preparation for the Draft Environmental Impact Report for Miravale Phase III Specific Plan

Dear Mr. Fleming:

Thank you the courtesy shown by your staff in accommodating our request for an extension of time to submit comments for the Miravale III Notice of Preparation.

As you know, LAFCO has the statutory responsibility to make determinations regarding changes in local government boundaries. For purposes of CEQA compliance, we are a responsible agency for the Miravale project. LAFCO requests that analysis of the following issues be included in the environmental review process:

Open Space and Agricultural Resources

- A detailed review of the project's direct impact on open space and farmland mapped as prime and of statewide importance. The review should include a full assessment of recommendations for avoidance of impacts and mitigation of impacts, such as permanent conservation and agricultural buffers. Some examples of potential conservation actions are on-site open space and agricultural reserves, off-site replacement of agricultural lands, and payment of mitigation fees to a regional agricultural lands conservation bank program.

Land Use and Planning

- A review of the proposal's compatibility and compliance with the "factors to be considered in review of proposal" for LAFCO (see Section 56668 of the Government Code).
- A review of the proposal's compatibility and compliance with the adopted LAFCO of Monterey County's "Sphere Of Influence Policies and Criteria" (attached).

- A review of the proposal's compatibility and compliance with draft Sphere of Influence policies currently under consideration by LAFCO of Monterey County (attached).
- A review of compliance with regional population and employment forecasts and regional air quality plans.

Municipal Services

- A review of impacts on delivery of municipal services including water, sewer, fire, schools, police, emergency medical services, flood protection, parks and open space.

Cumulative Impact

- The cumulative impact to the Salinas Valley of the conversion of farmland mapped as prime and of statewide importance and any required mitigations.
- The cumulative impacts to regional roadways and regional jobs/housing balance.
- The cumulative impacts to the regional water supply.

Alternatives

- Alternatives that would avoid and lessen the project's direct and cumulative impacts, particularly to agricultural resources, availability of water, regional housing needs and regional traffic.

The Miravale III proposal will need to be considered as part of the City's comprehensive Sphere of Influence amendment proposal and subsequent annexation proposals. We extend an invitation to the City of Soledad to participate in LAFCO's preliminary review process as a way to promote early and informal dialogue, understanding and cooperation. The preliminary review process would consist of an informal presentation and discussion about the City's comprehensive growth plans as identified in the recently adopted General Plan. The Miravale III project would be part of that discussion. We encourage the City to take part in the preliminary review process prior to formal submittal of Soledad's comprehensive Sphere of Influence amendment proposal and annexation proposals to LAFCO.

In addition, please note the statutory requirement for early consultation between the City and County (Government Code Section 56425b) before the formal Sphere of Influence amendment is submitted to LAFCO.

We appreciate this opportunity to provide comments, and would be pleased to meet with your City staff and consultants for more detailed discussions.

Sincerely,

Kate McKenna

Kate McKenna, AICP
Executive Officer

Attachments (2)

LOCAL AGENCY FORMATION COMMISSION (LAFCO) OF MONTEREY COUNTY

SPHERE OF INFLUENCE POLICIES AND CRITERIA

April, 2003

I. LEGISLATIVE AUTHORITY

The State Legislature has provided Local Agency Formation Commissions (LAFCO's) with the following directions in the preparation of spheres of influence:

1. "Among the purposes of a Local Agency Formation Commission are the discouragement of urban sprawl and the encouragement of the orderly formation and development of local governmental agencies based upon local conditions and circumstances. One of the objects of the Local Agency Formation Commission is to make studies and to obtain and furnish information which will contribute to the logical and reasonable development of local governmental agencies so as to advantageously provide for the present and future needs of each County and its communities..."

2. "In order to carry out its purposes and responsibilities for planning and shaping the logical and orderly development and coordination of local governmental agencies so as to advantageously provide for the present and future needs of the County and its communities, the Local Agency Formation Commission shall develop and determine the sphere of influence of each governmental agency within the County. As used in this section, "sphere of influence" means a plan for the probable ultimate physical boundaries and service area of a local governmental agency. In determining the sphere of influence of each local governmental agency, the Commission shall consider and prepare a written statement of its determinations with respect to each of the following:

   a. The present and planned land uses in the area, including agricultural and open space lands.

   b. The present and probable need for public facilities and services in the area.

   c. The present capacity of public facilities and the adequacy of public services which the agency provides or is authorized to provide.

   d. The existence of any social or economic communities of interest in the area if the Commission determines that they are relevant to the agency."

3. Every determination made by a Commission involving proposals for changes of organization or reorganization shall be consistent with the spheres of influence of the local agencies affected by those determinations.

4. The Commission may recommend governmental reorganizations to particular agencies in the County, using spheres of influence as the basis for such recommendations."

II. DEFINITIONS

1. Agricultural Lands: Land currently used for the purpose of producing an agricultural commodity for commercial purposes, land left fallow under a crop rotational program, or land enrolled in an agricultural subsidy or set-aside program (Government Code Section 56016).

2. Agricultural Preserve: Lands subject to an existing land conservation agreement established pursuant to the California Land Conservation Act of 1965 (the Williamson Act, Government Code Section 51200 et seq.).

3. County: Monterey County.

4. Essential Services: Those basic services necessary to protect the health, safety, and general well-being of a community, including but not limited to police, fire, water, sanitation, etc.

5. General Purpose Government: A City or County government.

6. LAFCO: Monterey County Local Agency Formation Commission.

7. Local Agency: A City or special district.

8. Open Space Lands: Parcel or area of land or water which is substantially unimproved and devoted to open space use as defined in Government Code Section 65560.

9. Planning Concern Area: An area established by the Local Agency Formation Commission with the assistance of the appropriate cities and the County designating a general area of concern of a city for which planning decisions and other governmental actions of the County may have an impact on the city. A "Planning Concern Area" will usually be larger than the adopted sphere of influence boundary and may take into consideration the planning area of the city as identified within their local general plans.

10. Prime Agricultural Land: (A) Land that, if irrigated, qualifies for rating as Class I or II in the USDA Natural Resources Conservation Service land-use capacity classification, whether or not the land is actually irrigated, provided that irrigation is feasible; (B) land that qualifies for rating 80-100 in the Storie Index Rating; (C) land that supports livestock used for the production of food and fiber and that has an annual carrying capacity equivalent to at least one animal unit per acre; (D) land planted with fruit or nut-bearing trees, vines, bushes, or crops that have a non-bearing period of less than five years and that will return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than four hundred dollars ($400) per acre for three of the previous five calendar years; (E) Land that has returned

from the production of unprocessed agricultural plant products an annual gross value of not less than four hundred dollars ($400) per acre for three of the previous five calendar years. (Government Code Section 56064).

11. Regional Agencies: Association of Monterey Bay Area Governments (AMBAG), Regional Water Quality Control Board, Central Coast Regional Coastal Commission, Air Pollution Control Board, etc.

12. Sphere of Influence: A plan for the probable physical boundaries and service area of a local agency. The area around a local agency eligible for annexation and extension of urban service within a twenty-year period.

13. Sphere of Influence Boundary: Boundary, adopted by the Monterey County Local Agency Formation Commission, which delineates the limits beyond which a local governmental agency will not annex territory.

14. Urban Services: Those services which are provided to an urban area including, but not limited to, police, structural fire protection, non-agricultural water, sewer, drainage, street lighting, streets and roads.

15. Urban Service Districts: Special districts which are authorized to provide public sanitary sewer services or domestic water distribution services.

16. Urban Service Area: Urban developed areas within an urban service district or city sphere of influence, which is now served by existing urban facilities, utilities, and services or is proposed to be served by urban facilities, utilities and services within the next five years.

17. Urban Transition Area: Area within the spheres of influence boundaries of a city or an urban service district which is not programmed for urban facilities or utility extensions within the next five years. This area will most likely be used for urban expansion within approximately five to twenty years.

18. Future Study Area: Territory outside of an adopted sphere of influence that may warrant inclusion in the sphere in future years. Further study would have to be completed prior to inclusion.

19. Principal County: Principal County has the meaning contained in any definition of principal county, as set forth in the principal act. If the principal act has no definition of principal county, or if there is any inconsistency between the definitions contained in two or more applicable principal acts, principal county means the county having all or the greater portion of the entire assessed value, as shown on the last equalized assessment roll of the county or counties, of all taxable property within a district or districts for which a change of organization or reorganization is proposed.

III. POLICY GUIDELINES FOR SPHERES OF INFLUENCE

The Commission will generally apply the following policy guidelines in the spheres of influence program, in addition to the local conditions and circumstances of each local agency. The Monterey County Local Agency Formation Commission will consider the particular local conditions and circumstances of each agency and community.

1. LAFCO intends that its sphere of influence determination will serve as a master plan for the future organization of local government within the County. The spheres shall be used to discourage urban sprawl; limit proliferation of local governmental agencies; encourage efficiency, economy and orderly changes in local government; promote compact, community centered urban development; and minimize adverse impacts on lands classified as prime agriculture.

2. The sphere of influence lines shall be a declaration of policy which shall be a primary guide to LAFCO in the decision on any proposal under its jurisdiction. Every determination made by the Commission shall be consistent with the spheres of influence of the agencies affected by those determinations.

3. Any proposal which is inconsistent with an agency's adopted sphere of influence shall not be approved until the Commission, at a noticed public hearing, has considered an amendment or revision to that agency's sphere of influence.

4. Inclusion within an agency's sphere of influence does not assure annexation to that agency. The Commission shall evaluate boundary change proposals as they relate to all of the relevant factors listed in the Cortese-Knox Local Government Reorganization Act of 1985 (Government Code Section 56841 et seq.).

5. When possible, a single larger general purpose agency, rather than a number of adjacent smaller ones, established for a given service in the same general area will be preferred. Where an area could be assigned to the sphere of influence of more than one agency providing a particular needed service, the following hierarchy shall apply dependent upon ability to serve.

   a. Inclusion within a City sphere of influence.

   b. Inclusion within a multi-purpose district sphere of influence.

   c. Inclusion within a single-purpose district sphere of influence.

   In deciding which of two or more equally ranked agencies shall include an area within its sphere of influence, LAFCO shall consider the agencies' service and financial capabilities, social and economic interdependence, topographic factors, and the effect that eventual service extension will have on adjacent agencies.

6. Duplication of authority to perform similar functions in the same territory will be avoided. Sphere of influence boundaries shall not create islands or corridors unless it can be

demonstrated that the irregular boundaries represent the most logical and orderly service area of an agency.

7. The adopted sphere of influence shall reflect City and County General Plans, plans of regional agencies, growth management policies, annexation policies, resource management policies, and any other policies related to ultimate boundary or service area of an affected agency unless those plans or policies conflict with the legislative intent of the Cortese-Knox-Hertzberg Act of 2000 (Government Code Section 56000 et seq.).

   Where inconsistencies between plans exist, LAFCO shall rely upon that plan which most closely follows the Legislature's directive to discourage urban sprawl, direct development away from prime agricultural land and open-space lands, and encourage the orderly formation and development of local governmental agencies based upon local conditions and circumstances.

8. Extension of urban type services promotes urban development and such development belongs in cities or areas of development concentration in the unincorporated area of Monterey County. In evaluating proposals involving urban development requiring an urban level of governmental services, the Commission will discourage the formation of new special districts or premature annexation of territory within existing city spheres of influence or logical expansion area. The Commission will discourage boundary change proposals involving urban development outside adopted city spheres of influence that have the potential to negatively impact prime agriculture or open space lands, public service capacity, existing local governmental agencies, or generally represents illogical growth patterns.

9. This Commission, in recognition of the mandated requirements for considering impacts on open space lands and agricultural lands, will develop and determine spheres of influence for Cities and urban service districts in such a manner as to promote the long-term preservation and protection of this County's "Resources." The Commission believes the public interest will be best served by considering "Resources" in a broad sense to include open space, recreational opportunities, wildlife, and agricultural land. Sphere of influence determinations must conform with the Commission's Agricultural Preservation Policy adopted in November, 1979.

10. The Commission recognizes the many inter-relationships and impacts which one agency's land use, planning, and governmental decisions may have on other agencies even though they may be outside of the "sphere of influence" of the secondary agency. Consequently, this Commission, when necessary, will seek to establish and identify Areas of Planning Concern for each city within the County. The "Planning Concern Area" will seek to identify those areas which in a broad sense affect the city in terms of planning and land use decisions. Such "Planning Concern Areas" will be established with the assistance and guidance of the affected cities and the County. The "Planning Concern Area" normally will extend beyond the adopted "sphere of influence" of the city. Once established, the Commission will solicit the cooperation and involvement of the affected cities and the County to jointly involve one another in planning decisions for these areas.

IV. PROCEDURAL GUIDELINES

1. LAFCO will designate a sphere of influence for each local agency representing the agency's probable physical boundary within a zero to twenty year period.

2. LAFCO shall consider the following factors in determining or amending an agency's sphere of influence:

   a. Present and future need for agency services and the service levels specified for the subject area in applicable general plans, growth management plans, annexation policies, resource management plans, and any other plans or policies related to an agency's ultimate boundary and service area.

   b. Capability of the local agency to provide essential and urban services, taking into account evidence of resource capacity sufficient to provide for internal needs and urban expansion.

   c. The existence of agricultural preserves, agricultural lands and open space lands in the area and the effect that inclusion within a sphere of influence shall have on the physical and economic integrity of maintaining the land in non-urban use.

   d. Present and future cost and adequacy of services anticipated to be extended within the sphere of influence.

   e. Present and projected population growth, population densities, land uses, land area, ownership patterns, assessed valuations, and proximity to other populated area.

   f. The agency's capital improvement or other plans that delineate planned facility expansions and the timing of that expansion.

   g. Social or economic communities of interest in the area.

3. The Commission may establish an urban service area within an adopted sphere of influence to discourage urban sprawl and to promote compact growth patterns. Urban service areas consist of territory now served by urban facilities, utilities and services or proposed to be served within the next five years, and may include the following:

   a. Urbanized Areas. This includes all existing areas, either incorporated or unincorporated, developed to urban densities.

   b. Urban Expansion Areas. This consists of vacant land, either incorporated or unincorporated, which is capable of holding urban growth expected within the next five years.

   The territory included within urban service areas will be considered by LAFCO to be eligible for annexation within five years. Consideration will be given to city and special

district capability to provide needed services with related time schedules for planned expansion of services. Cities and special districts are encouraged to develop Capital Improvement Programs and other plans for the phased extension of services to assist LAFCO in determining logical urban service area boundaries.

4. The Commission may establish urban transition areas within adopted spheres of influence to discourage premature pressure for development. Transition areas consist of the residual lands between designated urban service areas and the ultimate sphere of influence boundary. This land will most likely be used for urban expansion within approximately five (5) to twenty (20) years. Territory included within urban transition areas, but not within urban service areas, generally will not be considered eligible for annexation to receive urban services within five years.

5. LAFCO may adopt a zero sphere of influence encompassing no territory for an agency. This occurs where LAFCO determines that the public service functions of the agency are either non-existent, no longer needed, or should be reallocated to some other agency of government.

   The local agency which has been assigned a zero sphere of influence should ultimately be dissolved. Special districts that lie substantially within the boundary or sphere of influence of a general purpose government which is capable of assuming the public service responsibilities and functions of that special district may be allocated a zero sphere of influence designation.

6. Territory not in need of urban services, including open space, agriculture, recreational, rural lands or residential rural areas, shall not be assigned to an agency's sphere of influence unless the area's exclusion would impede the planned, orderly and efficient development of an area.

7. LAFCO may adopt a sphere of influence that excludes territory currently within that agency's boundaries. This occurs where LAFCO determines that the territory consists of agricultural lands, open space lands or agricultural preserves whose preservation would be jeopardized by inclusion within the agency's sphere of influence. Exclusion of these areas from an agency's sphere of influence indicates that detachment is appropriate.

8. Two or more local agencies providing the same service(s) may be allocated a consolidated sphere of influence to include the areas served by both agencies. This would be the case where LAFCO believes that the particular service(s) should be provided to the entire area by a single local agency.

9. LAFCO may establish future study areas outside of adopted spheres of influence. These areas indicate territory which may ultimately be appropriate for inclusion within an agency's sphere upon future study or modified conditions.

10. LAFCO shall adopt, amend or revise sphere of influence determinations following the procedural steps set forth in the Cortese-Knox-Hertzberg Act of 2000 (Government Code Section 56076 et seq.).

11. LAFCO shall review sphere of influence determinations not less than every five years. If a local agency or the County desires amendment or revision of an adopted sphere of influence, the local agency by resolution may file such a request with the Executive Officer. The request shall state the nature of the proposed amendment and the reasons for the request, include a map of the proposed amendment, and contain additional data and information as may be required by the Executive Officer.

12. The Commission encourages any private individual desiring a revision of an adopted sphere of influence to request that the affected local agency initiate sphere reconsideration by resolution to promote consultation between the parties.

13. At least 30 days prior to submitting an application to the Commission for a determination of a new sphere of influence, or to update an existing sphere of influence for a city, representatives from the city shall meet with county representatives to discuss the proposed sphere, and its boundaries, and explore methods to reach agreement on the boundaries, development standards, and zoning requirements within the sphere to ensure that development within the sphere occurs in a manner that reflects the concerns of the affected city and is accomplished in a manner that promotes the logical and orderly development of areas within the sphere. If no agreement is reached between the city and county within 30 days, then the parties may, by mutual agreement, extend discussions for an additional period of 30 days. If an agreement is reached between the city and county regarding the boundaries, development standards, and zoning requirements within the proposed sphere, the agreement shall be forwarded to the Commission, and the Commission shall consider and adopt a sphere of influence for the city consistent with the policies adopted by the Commission pursuant to this section, and the Commission shall give great weight to the agreement in the Commission's final determination of the city sphere.

14. If the Commission's final determination is consistent with the agreement reached between the city and county pursuant to subdivision 13, the agreement shall be adopted by both the city and county after a noticed public hearing. Once the agreement has been adopted by the affected local agencies and their respective general plans reflect that agreement, then any development approved by the county within the sphere shall be consistent with the terms of that agreement.

15. If no agreement is reached pursuant to subdivision 13, the application may be submitted to the Commission and the Commission shall consider a sphere of influence for the city consistent with the policies adopted by the Commission pursuant to this section.

16. When adopting, amending, or updating a sphere of influence for a special district, the Commission shall do all of the following:

    a. Require existing districts to file written statements with the Commission specifying the functions or classes of services provided by those districts.

b. Establish the nature, location, and extent of any functions or classes of services provided by existing districts.

17. In order to prepare and to update spheres of influence in accordance with Section 56425, the Commission shall conduct a service review of the municipal services provided in the county or other appropriate area designated by the Commission. The Commission shall include in the area designated for service review the county, the region, the subregion, or any other geographic area as is appropriate for an analysis of the service or services to be reviewed, and shall prepare a written statement of its determinations with respect to each of the following:

    a. Infrastructure needs or deficiencies.

    b. Growth and population projections for the affected area.

    c. Financing constraints and opportunities.

    d. Cost avoidance opportunities.

    e. Opportunities for rate restructuring.

    f. Opportunities for shared facilities.

    g. Government structure options, including advantages and disadvantages of consolidation or reorganization of service providers.

    h. Evaluation of management efficiencies.

    i. Local accountability and governance.

18. In conducting a service review, the Commission shall comprehensively review all of the agencies that provide the identified service or services within the designated geographic area.

19. The Commission shall conduct a service review before, or in conjunction with, but no later than the time it is considering an action to establish a sphere of influence in accordance with Section 56425 or Section 56426.5 or to update a sphere of influence pursuant to Section 56425.

20. Individuals desiring LAFCO to initiate revision or amendment of an existing sphere of influence shall file a written request with the Executive Officer. The request shall state the nature of the proposed amendment and the reasons for the request, include a map of the proposed amendment area, and contain additional data and information as may be required by the Executive Officer.

21. The Executive Officer shall review each request for amendment, prepare a report and recommendation, and place the request on the agenda of the next meeting of the

Commission for which notice can be given after determining conformance with the California Environmental Quality Act. Copies of the Executive Officer report shall be provided to the person(s) making the request, each affected local agency, and each person who has filed a request for a report.

22. Any local agency, county, or private individual making such a request shall reimburse the Commission for the actual and direct costs incurred by the Commission. The Commission may waive such requirement if it finds that the request may be considered as part of its periodic review of spheres of influence.

23. The Monterey County Local Agency Formation Commission shall adopt, amend, or revise spheres of influence after a public hearing called and held for that purpose. At least 15 days prior to the date of any such hearing, the Executive Officer shall give mailed notice of the hearing to each affected local agency and the County, and to any interested party who has filed a written request for such notice with the Executive Officer. In addition, at least 15 days prior to the date of any such hearing, the Executive Officer shall cause notice of the hearing to be published in a newspaper of general circulation which is circulated within the territory affected by the sphere of influence proposed to be adopted or amended.

    LAFCO may continue from time to time any sphere of influence hearing. At any sphere of influence hearing, LAFCO shall hear and consider oral or written testimony presented by any affected local agency, the County, or any interested person who wishes to appear.

24. On the date and time set for hearing and provided in the notice, the Commission may, without further notice, consider the amendments to a sphere of influence or set a future date for the hearing on the request.

AGENDA
ITEM
NO. 8.c

LAFCO *of Monterey County*

LOCAL AGENCY FORMATION COMMISSION
P.O. Box 1369 132 W. Gabilan Street, Suite 102
Salinas, CA 93902 Salinas, CA 93901
Telephone (831) 754-5838 Fax (831) 754-5831
www. monterey.lafco.ca.gov

KATE McKENNA, AICP
Executive Officer

DATE: September 25, 2006

TO: Chair and Members of the Formation Commission

FROM: Kate McKenna, AICP, Executive Officer

SUBJECT: ANNEXATION AND SPHERE OF INFLUENCE POLICIES

SUMMARY OF RECOMMENDATIONS:

It is recommended that the Commission adopt a Resolution to revise local annexation and Sphere of Influence policies to include two new policies relating to regional traffic impact mitigation and urban development patterns.

EXECUTIVE OFFICER'S REPORT:

Commissioners Calcagno and DiMaggio have requested that the following draft policies be placed on the agenda for consideration:

1. For annexations and Spheres of Influence applications, LAFCO of Monterey County shall consider as part of its decision whether the proposal mitigates its regional traffic impacts by, for example, monetary contribution to a regional transportation improvement fund as established by the Transportation Agency of Monterey County or otherwise;

2. For annexations and Sphere of Influence applications, LAFCO of Monterey County shall consider as part of its decision whether the city in which the annexation or Sphere of Influence amendment is proposed has included certain goals, policies, and objectives into its General Plan that encourage mixed uses, mixed densities, and development patterns that will result in increased efficiency of land use, and that encourage and provide planned, well-ordered, efficient urban development patterns.

LAFCO counsel analyzed the proposed policies and determined that LAFCO has the statutory authority to adopt them. Counsel recommended minor changes in wording, reflected above. Authority is vested in at least two provisions of the Cortese-Knox-Hertzberg Act of 2000:

Government Code Sec. **56300(a)** -- "It is the intent of the Legislature that each commission, not later than January 1, 2002, shall establish written policies and procedures and exercise its powers pursuant to this part in a manner consistent with those policies and procedures and that encourages and provides planned, well-ordered, efficient urban development patterns ..."

Government Code Sec. **56668** -- "Factors to be considered in the review of a proposal shall include, but not be limited to, all of the following:

a) the likelihood of significant growth in the area, and in adjacent incorporated and unincorporated areas, during the next 10 years;
b) the present cost and adequacy of governmental services and controls in the area; probable future need for those services and controls ("services" are expressly defined to include "public facilities necessary to provide those services");
c) conformity of the proposal and of its anticipated effects with . . . adopted commission policies on providing planned, orderly, efficient patterns of urban development; and
d) consistency with city or county general plan and specific plans."

The proposed policy revisions are categorically exempt from the California Environmental Quality Act under Class 7 (protection of natural resources) and Class 8 (protection of the environment).

Respectfully submitted,

Kate McKenna

Kate McKenna, AICP
Executive Officer

Enclosure: Resolution

THE LOCAL AGENCY FORMATION COMMISSION
OF MONTEREY COUNTY

RESOLUTION NO. 06 – XX

RESOLUTION OF THE LOCAL AGENCY FORMATION COMMISSION ADOPTING REVISIONS TO ANNEXATION AND SPHERE OF INFLUENCE POLICIES

WHEREAS, these proceedings are taken in conformance with the provisions of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, Section 56300(a), and Section 56668 of the Government Code; and

WHEREAS, these proceedings were duly noticed in accordance with the requirements of Cortese-Knox-Hertzberg Act of 2000; and

WHEREAS, the Local Agency Formation Commission of Monterey County is required by the Cortese-Knox-Hertzberg Act of 2000 to establish written policies and procedures; and

WHEREAS, the Commission desires to revise its Annexation and Sphere of Influence policies; and

WHEREAS, regional traffic impacts of an annexation proposal or sphere of influence amendment can affect the adequacy and future needs of governmental services and facilities; and

WHEREAS, regional traffic impacts of an annexation proposal or sphere of influence amendment are reflective of whether or not the proposal promotes efficient patterns of urban development; and

WHEREAS, regional traffic impacts of an annexation proposal or sphere of influence amendment can affect the economic vitality of our agricultural natural resources; and

WHEREAS, regional traffic impacts of an annexation proposal or sphere of influence amendment can adversely affect the environment through air quality and noise impacts; and

WHEREAS, an annexation proposal or sphere of influence amendment for a city whose general plan includes goals, policies, and objectives that encourages mixed uses, and mixed densities encourages planned, well-ordered, efficient urban development patterns; and

WHEREAS, an annexation proposal or sphere of influence amendment for a city whose general plan includes goals, policies, and objectives that encourages mixed uses, and mixed densities is protective of our agricultural and open space resources; and

WHEREAS, an annexation proposal or sphere of influence amendment for a city whose general plan includes goals, policies, and objectives that encourages mixed uses, and mixed densities is protective of the environment;

NOW, THEREFORE, the Local Agency Formation Commission of Monterey County does HEREBY RESOLVE as follows:

That the policy revisions are exempt from CEQA based on class 7 and class 8 categorical exemptions; and

That the LAFCO Commission shall revise its Annexation and Sphere of Influence policies to include:

a) For annexations and Sphere of Influence applications, LAFCO of Monterey County shall consider as part of its decision whether the proposal mitigates its regional traffic impacts by, for example, monetary contribution to a regional transportation improvement fund as established by the Transportation Agency of Monterey County or otherwise, and

b) For annexations and Sphere of Influence applications, LAFCO of Monterey County shall consider as part of its decision whether the city in which the annexation or Sphere of Influence amendment is proposed has included certain goals, policies, and objectives into its General Plan that encourage mixed uses, mixed densities, and development patterns that will result in increased efficiency of land use, and that encourage and provide planned, well-ordered, efficient urban development patterns.

UPON MOTION OF Commissioner _____, seconded by Commissioner _____, the foregoing resolution is adopted this 25th day of September 2006 by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

ATTEST: I certify that the within instrument is a true and complete copy of the original resolution of said Commission on file within this office.

Witness my hand this ____ day of September, 2006

By: _____
Kate McKenna, AICP
Executive Officer

MONTEREY BAY
Unified Air Pollution Control District
serving Monterey, San Benito, and Santa Cruz counties

AIR POLLUTION CONTROL OFFICER
Douglas Quetin

24580 Silver Cloud Court • Monterey, California 93940 • 831/647-9411 • FAX 831/647-8501

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Santa Cruz County

Jerry Smith
Monterey County

September 19, 2006

RECEIVED
SEP 21 2006
PLANNING DEPARTMENT

Mr. Don Fleming, Community Development Director
City of Soledad
248 Main Street
Soledad, California 93960

SUBJECT: NOP FOR MIRAVALE PHASE III SPECIFIC PLAN

Dear Mr. Fleming:

Staff reviewed the referenced document and has the following suggestions for a scope of work for the air quality analysis:

Specific Plan's Cumulative Air Quality Impact on Regional Ozone
The District uses consistency with the 2004 Air Quality Management Plan (AQMP) for the North Central Coast Air Basin to determine a specific plan's cumulative impact on regional air quality (ozone levels). Please request a formal consistency determination from AMBAG for the proposed 4,500 residential units and include it in the Draft EIR.

Specific Plan's Localized Air Quality Impact on Carbon Monoxide Levels
Localized impact is evaluated by determining if build-out identified in the Specific Plan would create or substantially contribute to carbon monoxide "hotspots" (where federal or State ambient air quality standards are exceeded). If project or cumulative traffic would cause LOS to decline from D or better to E or F, dispersion modeling should be undertaken to determine if carbon monoxide concentrations would violate ambient air quality standards at sensitive receptor locations.

Odors, Nuisances and Sensitive Receptors
If the Specific Plan would revise land use designations that might result in development of odors, nuisances or sensitive receptors in adjacent land uses, the Draft EIR should include an assessment of those impacts. District Rule 402, Nuisances, should be reviewed for applicable requirements.

Mitigation Measures
Mitigation measures should be identified for any significant impacts on air quality. The Draft EIR should quantify the emission reduction effectiveness of each measure, identify the agencies responsible for implementation and monitoring, and determine whether mitigation measures reduce impacts to a less-than-significant level.

Projects Constructed in Accord with the Specific Plan

The Draft EIR should indicate that projects constructed in accord with the Specific Plan could have impacts on air quality, which would be evaluated when the projects are proposed. The District has established the following thresholds of significance for individual projects: 137 lbs/day for VOC or NO_x, 82 lbs/day for PM_{10}, 150 lbs/day for SO_x, a significant decline in LOS, and a cancer risk greater than 10 per 1,000,000 people. (Please refer to Table 5-3 on page 5-5, and page 9-2 of the District's CEQA Air Quality Guidelines, July 2004).

Siting New Sensitive Receptors within 500 Feet of Urban / Rural Roads

In April 2005, the California Environmental Protection Agency / California Air Resources Board published the "Air Quality and Land Use Handbook: A Community Health Perspective"[1]. Focusing on community health and prevention of exposure to air pollution that could be substantially elevated near freeways, it includes the following recommendations:

> *Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.*

If any of the proposed residential development might be located within 500 feet of a rural road with 50,000 vehicles per day, the District suggests that the Specific Plan address the recommendations cited above.

The District's CEQA Air Quality Guidelines may be found on the District's website at www.mbuapcd.org under "Air Quality Plan".

Thank you for the opportunity to review the document.

Sincerely,

Jean Getchell
Supervising Planner
Planning and Air Monitoring Division

cc: Todd Muck, AMBAG

1. Air Quality and Land Use Handbook: A Community Health Perspective. California Environmental Protection Agency, California Air Resources Board. April 2005.

CC: Susan

TAMC

TRANSPORTATION AGENCY
FOR MONTEREY COUNTY

Regional Transportation Planning Agency • Congestion Management Planning
Local Transportation Commission • Monterey County Service Authority for Freeways & Expressways

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SEP 25 2006

CITY OF SOLEDAD

September 20, 2006

Mr. Don Fleming
City of Soledad
City Hall
248 Main Street
Soledad, California 93930

SUBJECT: Comments on the Notice of Preparation for the Draft Environmental Impact Report for Miravale Phase III Specific Plan

Dear Mr. Fleming:

The Transportation Agency for Monterey County is the Regional Transportation Planning Agency and Congestion Management Agency for Monterey County. Transportation Agency staff has reviewed the Notice of Preparation for the Draft Environmental Impact Report for Miravale Phase III Specific Plan, a 920-acre project within unincorporated lands of Monterey County proposing a mixed-use development consisting of approximately 2,600 single-family residential units, 1,600 multi-family residential units, 300 senior housing units, 120 hotel rooms, 250,000 square feet of retail commercial space and an 18-hole golf course. Transportation Agency staff offers the following comments for your consideration:

Regional Road and Highway Impacts

1. The traffic analysis should evaluate the traffic impacts of the project to regional roads and highways under both "project-specific" and "cumulative" conditions, specifically US 101. The Transportation Agency and Caltrans consider payment of regional development impact fees, as identified in our Agency's *Nexus Study for a Regional Development Impact Fee,* on an ad hoc basis as adequate mitigation for new developments' cumulative impacts to state highways and regional roads across Monterey County. Under this program, regional impact fees would be discounted for any overlap with the City of Soledad's local impact fee program and for any affordable housing units that are included in the development.

Currently, the regional development impact fee is being updated to explore the implementation of zones for fee calculation based on geographic sub-regions, to utilize the most recent General Plan updates and land use assumptions, and to reevaluate the commercial trip generation rates. Taking these program refinements into consideration, the City of Greenfield Council at its August meeting adopted a Notice of Intent to adopt a regional development impact fee and to condition all new development projects with payment of the regional fee on a project-by-project basis. Transportation Agency staff will be presenting and asking for the adoption of the same Notice of Intent at the City of King Council this month, and will look to make a similar request to the City of Soledad Council in the near future.

2. The Level of Service for each regional roadway segment and intersection analyzed in the DEIR should be calculated under both project-specific and "cumulative conditions" and disclosed in the Draft Environmental Impact Report. "Cumulative conditions" should be clearly defined in the document. Roadway performance deficiencies and feasible mitigation measures under both scenarios should be identified.

3. If the development is to be located in a planned annexation area and construction is set to begin before the annexation is approved, the Transportation Agency recommends that the infrastructure, particularly roadways, sidewalks, and gutters, be constructed to a standard no less than what the City currently requires to ensure that the City or new residents will not have to bear the cost of upgrades once the annexation is complete.

Pedestrian, Bicycle, & Transit Travel

4. The Transportation Agency supports accommodation of alternative forms of transportation (rail, bus transit, bicycle and pedestrian transportation), both through the design of transportation facilities, and through the design and orientation of land uses. Our Agency urges that the attached list of alternative measures be considered and implemented by the development to promote alternatives to automobile travel and accommodate access to the project by transit, bicycle and foot. A discussion of any travel demand reduction measures to be implemented by the City of Soledad should be included in the Draft Environmental Impact Report. Monterey-Salinas Transit's *Designing for Transit* Guideline Manual should also be used as a resource for accommodating transit access to the project site.

Thank you for the opportunity to review this document. If you have any questions, please contact Michael Zeller of my staff at (831) 775-0903.

Sincerely,

Debra L. Hale
Executive Director

CC: Dave Murray, California Department of Transportation (Caltrans) District 5
Ron Lundquist, Monterey County Department of Public Works
Rob Russell, City of Salinas
Carl Sedoryk, Monterey-Salinas Transit
Nicholas Papadakis, AMBAG
Douglas Quentin, Monterey Bay Unified Air Pollution Control District

ATT: Transportation Agency Development Principles
List of Alternative Measures

Transportation Agency for Monterey County
Transportation-Related Principles for Community Development

Mission

The Transportation Agency for Monterey County aims to develop and maintain a multi-modal transportation system that enhances the mobility, safety, access, environmental quality, and economic activities in Monterey County.

The purpose of the following set of principles is to reduce future impacts to Monterey County's regional transportation system, reduce the cost of transportation infrastructure, and improve the Transportation Agency's ability to meet Monterey County's regional transportation needs. Our agency recommends that new land use development in the county adhere to the following set of principles, which emphasize developing a land use pattern that is supportive of non-single occupant auto modes of transportation so as to maximize the carrying-capacity of Monterey County's existing regional transportation infrastructure.

1. Land Use

- **1.a** Encourage mixed use developments to accommodate short trips by non-auto modes
- **1.b** Encourage growth in areas where transportation infrastructure exists or is most cost-effective to extend
- **1.c** Encourage a balance of employment and housing to reduce regional commute demands
- **1.d** Encourage higher residential densities in core areas or around transit stops to support regular transit service throughout the region
- **1.e** Encourage land use jurisdictions to utilize the Caltrans Traffic Impact Studies Guide or develop traffic impact study guidelines of their own when analyzing the impacts of growth on the regional transportation system
- **1.f** Require new development to pay for its proportional impact to the transportation system, preferably via regional and local fee programs, or on-street project construction

2. Street Network Design

- **2.a** Provide an interconnected street system for new development to facilitate short trips by non-auto modes of transportation using the following features:
  - **2.a.1** Provide a grid-based street network.
  - **2.a.2** Encourage short block lengths in new development
  - **2.a.3** Discourage cul-de-sac streets in new development unless they incorporate pedestrian and bike easements that reduce trip lengths
- **2.b** Incorporate traffic calming features into the street network to slow the flow of traffic and enhance the pedestrian environment:
  - **2.b.1** Provide curb bulb-outs at intersections to reduce the length of pedestrian crossings
  - **2.b.2** Allow on street parking to slow the flow of cars and create pedestrian/auto buffer
  - **2.b.3** Provide landscaped buffers between pedestrians and motorized traffic and provide pedestrian-scale street lighting no more than 15 feet high

- **2.c** Design streets to accommodate all modes of transportation
  - **2.c.1** Incorporate sidewalks and bicycle lanes into new street construction
  - **2.c.2** Accommodate safe bicycle travel by providing on-street bicycle lanes and routes instead of separated bicycle paths
  - **2.c.3** Incorporate bus pullouts, transit stops, transit shelters and other transit amenities to serve new development according to the MST Designing for Transit Handbook

3. Site Design

- **3.a** Orient buildings to face the street in new development to improve access for pedestrians from sidewalks
- **3.b** Incorporate residential uses over commercial uses in commercial areas to encourage trips by foot, bike, or transit and improve access by each of these modes
- **3.b** Incorporate reduced building setbacks, especially in commercial areas, to reduce the length of pedestrian trips and facilitate easy access
- **3.c** Locate on-site parking to the rear of structures or underground
- **3.d** Provide pedestrian facilities connecting building entrances with the street where parking is not provided to the rear of structures to enhance pedestrian access and safety
- **3.f** Incorporate bicycle storage facilities into site plans to accommodate access by bicyclists

4. Transportation Demand Management

- **4.a** Encourage telecommuting in non-residential development as a traffic mitigation measure
- **4.b** Encourage flexible work schedules for employees as a traffic mitigation measure
- **4.c** Encourage employers to utilize available rideshare programs or create their own
- **4.d** Encourage employers to offer transit incentives to employees to mitigate traffic impacts
- **4.e** Provide preferential carpool or vanpool parking in non-residential developments
- **4.e** Encourage large employers to offer child care facilities as resources allow and encourage all employers to provide information on nearby child care resources
- **4.f** Locate child care facilities near employment centers

SAMPLES OF ALTERNATIVE MEASURES

1. Provide ridesharing, public transportation and nearby licensed child care facility information to tenants/buyers as part of move-in materials.

2. Print transit information on promotional materials.

3. Install bicycle amenities, such as bicycle racks and bicycle lanes.

4. Provide bus pullouts, pedestrian access, transit stops, shelters and amenities as part of the site plan.

5. Provide locked and secure transportation information centers or kiosks with bus route/schedule information, in common areas.

6. Provide pedestrian facilities linking transit stops and common areas.

7. Provide resources for site amenities that reduce vehicular trip making.

8. Park-and-ride facilities.

9. On-site childcare facilities.

10. Shuttle bus service, bus pools or improved transit service as part of the development.

11. Facilities to encourage telecommuting.

12. Pedestrian and bicycle system improvements.

13. Transit oriented design and/or pedestrian oriented design.

14. Provide preferential carpool/vanpool parking spaces.

15. Implement a parking surcharge for single occupant vehicles.

16. Provide shower/locker facilities.

17. Employ or appoint a transportation/rideshare coordinator.

18. Implement a rideshare program.

19. Provide incentives for employees to rideshare or take public transportation.

20. Implement compressed work schedules.

SAMPLES OF STREET AND ROAD IMPROVEMENTS

1. Safety improvements
2. Traffic signal improvements.
3. Traffic signals.
4. Turning or auxiliary lanes.
5. Add travel lanes.
6. Improve highway interchange.
7. Construct interchange.
8. Construct new street or road.

DEPARTMENT OF TRANSPORTATION
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September 6, 2006

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PLANNING DEPARTMENT

MON-146-.24
SCH# 2006081129

Don Fleming
City of Soledad
248 Main Street
Soledad, CA 93960

Dear Mr. Fleming:

COMMENTS TO MIRAVALE PHASE III DEVELOPMENT NOTICE OF PREPARATION

The California Department of Transportation (Department), District 5, Development Review, has reviewed the above referenced Notice of Preparation and offers the following comments in preparing your Environmental Impact Report (EIR).

1. The Department supports local development that is consistent with State planning priorities intended to promote equity, strengthen the economy, protect the environment, and promote public health and safety. We accomplish this by working with local jurisdictions to achieve a shared vision of how the transportation system should and can accommodate interregional and local travel and development.

2. To ensure the traffic study in the Draft EIR includes the information needed by the Department to analyze the impacts (both cumulative and project-specific) of this project, it is recommended that the analysis be prepared in accordance with the Department's *"Guide for the Preparation of Traffic Impact Studies."* An alternative methodology that produces technically comparable results can also be used.

3. Because the Department is responsible for the safety, operations, and maintenance of the State transportation system, our Level of Service (LOS) standards should be used to determine the significance of the project's impact. We endeavor to maintain a target LOS at the transition between LOS C and LOS D on all State transportation facilities. In cases where a State facility is already operating at an unacceptable LOS, *any* additional trips added should be considered a significant cumulative traffic impact, and should be mitigated accordingly.

4. Our future comments to this, and any subsequent EIR for the project will stress the importance of using the Association of Monterey Bay Area Governments Model for traffic analysis, and to include all impacted transportation agencies early and often in the development discussions.

5. The traffic study should include information on existing traffic volumes within the study area, including the State transportation system, and should be based on recent traffic volumes less than two years old. Counts older than two years cannot be used. Feel free to contact us for assistance in acquiring the most recent count data available.

6. The methodologies used to calculate the LOS should be consistent with the methods in the current version of the Highway Capacity Manual. All LOS calculations should also be included in the Draft EIR's as an appendix made available for review.

7. The Transportation Agency for Monterey County (TAMC) has prepared a Nexus Study, dated September 2005, for a proposed Regional Development Impact Fee Program which identifies proposed regional transportation improvements. Based on the proposed TAMC program, this project should contribute a "fair share" contribution as mitigation for its' cumulative impacts to the regional transportation system as a condition of approval. The conditions of approval should also stipulate that if the TAMC program is not implemented by December 31, 2006, the fees identified for these developments will be transferred to Caltrans to help fund improvements, including, but not limited to, U.S. 101 corridor improvements.

8. Special attention should be focused on all roadway segments analyzed in the traffic study that have higher than statewide average collision rates. The EIR should identify these areas and specify special mitigation measures as a result of the increased traffic with this development.

9. At any time during the environmental review and approval process, the Department retains the statutory right to request a formal scoping meeting to resolve any issues of concern. Such formal scoping meeting requests are allowed per the provisions of the California Public Resources Code Section 21083.9 [a] [1].

10. The issuance of any encroachment permit will be based upon reviewing complete engineering drawings, traffic studies, hydraulic calculations, environmental reports, etc.

We look forward to receiving the Draft EIR, and providing comments from a more thorough analysis. District 5 staff has been, and will continue to be, committed to working very closely with you to achieve a shared vision of how the transportation system should and can accommodate interregional and local travel.

If you have any questions, or need further clarification on items discussed above, please don't hesitate to call me at (805) 542-4751.

Sincerely,

JOHN J. OLEJNIK
Associate Transportation Planner
District 5 Development Review Coordinator

cc: Ron Lundquist (Monterey Co DPW)
Debbie Hale (TAMC)

APPENDIX B

Specific Plan Permitted Uses

LDR & LDR-H / M3-R-1 Permitted Uses		
Category	**Regulation**	**Interpretation**
Land Use	Low Density Residential (LDR) Hillside Low Density Residential (LDR - H)	
Zoning District	M3-R-1	
Density Range	1 to 10	This zone is primarily 1-6 du/ac. Density above 6 du/ac is allowed in order to accommodate affordable duplex and triplex units.
Permitted Uses		
The following uses shall be permitted in the R-1 district:		
Single family dwellings Accessory Buildings (including garage) Churches	Duets, duplexes, or triplexes. Refer also to Section 17.10.020 of the Municipal Code	Home occupations, subject to Section 17.38.140 of the Municipal Code

VR/ M3-VR Permitted Uses		
VR/ M3-VR		
Category	**Restriction**	**Interpretation**
Land Use	Village Residential (VR)	
Zoning	Village Residential (M3-VR)	
Density Range	12-30 dwelling units / gross acre	
Permitted Uses		
Single-Family dwellings, duplexes, triplexes, apartments, clustered "pack" style homes, townhouses, condominiums, accessory buildings, neighborhood serving uses - including garages, and day nurseries. Any other uses that the Planning Commission finds to be consistent with the purpose of this section and the Specific Plan.		

C / M3-GC & M3-CC Permitted Uses

Category	Restriction	Interpretation
Land Use	Commercial (C)	
Zoning	(M3-GC & M3-VC)	Includes Village Commercial and Gateway Commercial
Permitted Uses		
Village Commercial (VC)		**Gateway Commercial (GC)**
Bakery goods, barbershop, beauty shop, bicycle shop, books, clothing store, deli, department store, drug store, dry cleaner, florist shop, furniture store, garden supplies, gift shops, grocery store, hardware store, health foods, hobby shops, ice cream, laundromats, meat market, music store, newspaper stand, pet shop, photographic supplies, electronic stores, restaurants, shoe repair store, sporting goods, stationary store, toy store, any other use which the planning commission finds to be consistent with the purposes of this section		Auto parts, bakery goods, barbershop, beauty shop, bicycle shop, books, clothing store, community center, day care, deli, department store, drug store, dry cleaner, florist shop, furniture store, garden supplies, gift shops, grocery store, gym, hardware store, health foods, hobby shops, ice cream, laundromats, meat market, music store, newspaper stand, pet shop, photographic supplies, electronic stores, restaurants, spa, shoe repair store, sporting goods, stationary store, toy store, specialty retail, art gallery, any other use which the planning commission finds to be consistent with the purposes of this section
Conditional Uses		
Village Commercial (VC)		**Gateway Commercial (GC)**
Banks and other financial institutions, buildings with more than 50,000sf of gross floor area (75,000 sf for two or more stories), bowling alleys, cocktail lounges, liquor products, pool and billiards, any use the planning commission determines consistent with the provisions of this section.		Antiques and the sales of used items, banks and other financial institutions, buildings with more than 10,000sf of gross floor area (15,000 sf for two or more stories), bowling alleys, cocktail lounges, liquor products, office, pool and billiards, hotel, wine tasting room, live music venues, all drive throughs, used items including furniture and clothing where owned and operated by a non-profit organization, and any use the planning commission determines consistent with the provisions of this section.
Prohibited Uses VC & GC		
Liquor stores as a principal use, bars, automobile body and paint shop, exclusive automobile repair; sheet metal shop; fortune tellers, adult entertainment; gambling; pawn shops, thrift shops, and flea markets. All drive throughs are prohibited in Village Commercial.		

APPENDIX C

Hillside Development Standards

City of Soledad Miravale III Specific Plan
Hillside Development Standards & Guidelines
December 19, 2006

I. Introduction

The City of Soledad is situated in the mid-Salinas Valley at the base of the Gabion Mountains. The mountains provide a backdrop to the City of Soledad. It is the intent to preserve this natural asset by assuring that development on the hillside:

- Maintains the existing open rural character,
- Is in harmony with the natural setting,
- Conserves land forms and other features of the natural landscape,
- Preserves wildlife habitat and movement corridors,
- Protects and preserves viewsheds of the mountains, and
- Promotes the establishment of native trees and shrubs.

A. Goal

The goal of the Hillside Development Standards and Guidelines is to work hand-in-hand with the city's discretionary development review process to achieve design excellence that fosters sustainable development and preserves the natural environment.

B. Location

These Hillside Development Standards and Guidelines apply to lots with an average slope of 30% or greater. Refer to the Land Use Figure 2-1.

C. Hillside Development Standards versus Guidelines

The Hillside Development Standards and Guidelines contain both standards and guidelines. Refer to the low density residential chapter for standards that are not addressed in this chapter.

- Standards -- Mandatory non-discretionary regulations that must be followed. The word "shall" or "prohibited" denotes a standard or mandatory regulation.

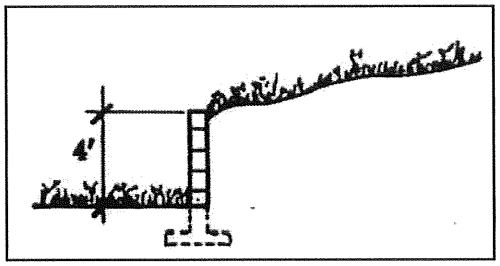
- Guidelines -- Discretionary statements that present good ideas or recommendations on how to achieve the objectives established by these Hillside Development Standards and Guidelines. The word "should" denotes that they are guidelines. Therefore. if a statement does not include the word "shall" or "prohibited", it is a guideline.

II. Site Planning

Increased lot sizes is the preferred approach in areas of 30% slope or greater. In areas with a 30% slope or greater, street sections should be reduced to two 10' travel lanes, parallel parking on one side of the street, and no sidewalks. This will help reduce the impacts of grading and create a more rural character.

A. Grading Design

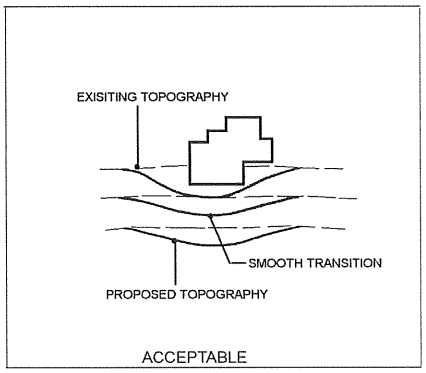
- Keep a low profile and conform to the natural slopes.
- Minimize grading on individual lots; generally, locate houses close to the street; minimize the grading of visible driveways.
- The grading plan shall minimize as much as possible erosion, sedimentation, fire, and water quality concerns.
- All cuts and fills shall be at 2:1 slope or less unless stabilized by a retaining wall or curbing as approved by the City Engineer.
- Retaining walls above 4' in height are discouraged.

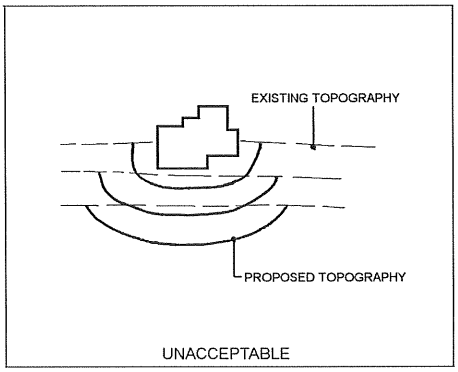


- Retaining walls more than 18" in height (measured from the immediate grade) shall be textured and colored to complement adjacent building surface or landscaping.
- To minimize grading and slope disturbance, stepped or raised foundation systems should be implemented where feasible. Raised foundations should be limited to 5' from existing grade.
- No cut slopes should be over 8' in height for homes and attached garages (this excludes cellars).
- No cut slopes should be over 4' in height for accessory buildings, tennis courts, pools, driveways, decks, and yards.
- No fill slopes should be over 3' in height.

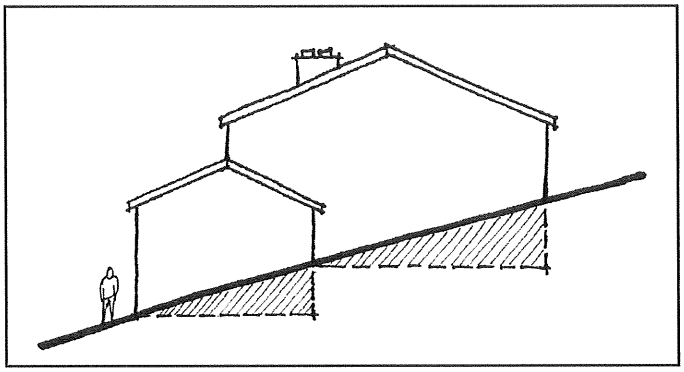
Preserve Natural Topography

- Grading transitions from existing to proposed land forms must be gradual and reflect the gradients of the existing natural slopes of the immediate area. Slopes should be rounded and contoured to blend with existing terrain.





- Grading should retain as much natural vegetation (especially trees) as possible.
- Development on hillsides shall accommodate a majority of the grade differential by stepping the buildings to reflect the slope of the natural topography.



Stepped Buildings are preferred on a hillside as opposed to large cuts or fills

- In sloped areas devoid of trees, native trees should be planted to help stabilize slope and promote the establishment of native trees.
- Attractive natural amenities such as rock outcroppings, vegetation, streams, and drainage areas should be incorporated into the development.
- Include planting that is compatible with native hillside vegetation and that provides a visual transition from developed to open areas.
- Grading plans shall include provisions for restoration of vegetation on cut and fill areas. Manufactured slopes shall be planted with fire-resistant plantings that will also help control erosion.
- Grading is not allowed during the rainy season (October 15 to April 15) unless approved by City Engineer. If grading is planned to occur between October 15 and April 15, interim provisions for erosion and sedimentation control shall be in place before grading begins in accordance with the city's storm water ordinance.

B. Fire Hazards

- A 100' buffer of irrigated landscaping shall be provided between open space areas and building structures, and may be a combination of private property and open spaces area.
- A landscape plan shall be provided and will be reviewed by the City Planning and Public Works Department and with input from the Fire Department.
- The landscape plan shall create a defensible space around the homes, and if there is a fire ladder on the property, it shall be eliminated in an environmentally sensitive manner.

- Hillside areas shall have adequate fire exits. Adequate and dependable water supplies for fire protection and suppression purposes shall be provided. If no public hydrant is available, there shall be an on-site water supply in a storage facility.
- Above-ground water tanks shall not be located in required setback areas.

C. Drainage

- Runoffs should be dispersed within a subject property to the extent possible.
- Upslope drainage is to be carefully considered during design in order to minimize impacts to downslope development.
- Manmade drainage channels shall receive a naturalizing treatment such as rock and landscaping so that the structure appears as a natural part of the environment.
- Comply with the city's storm water ordinance.
- Large drainage structures should be avoided.
- Manmade drainage channels should be placed in the least visible locations possible.

III. Building Design

- Structures should be designed to complement the site surroundings. Compatible colors and materials should be utilized.
- Foundations should step down slopes and conform to the terrain. Exposed pilings or structures cantilevered over slopes should be avoided when possible. If necessary, landscaping or other screening methods should be used to minimize visual impacts.
- Architectural features such as porches, balconies, chimneys, door placement, window proportions, dormers, wood detailing, fencing, siding, and color scheme should be used to complement the overall building design, site and neighborhood context.
- Exterior wall materials, trim and architectural details should be provided on all elevations. All elevations exposed to public rights-of-way should be architecturally enhanced.
- Building wall and roof planes should be varied and articulated into smaller modules and features to reduce the structures apparent bulk and size. Roofing colors should be soft earth tones to minimize reflective glare and visual impacts.
- Unsightly utility and mechanical equipment should be screened from view. Roof mounted air conditioners, coolers or antennas are discouraged.
- The prominence of the garage should be minimized to create a visual relationship between the front entrance of the home and the street.
- Orient upper floor, windows, decks, and balconies to avoid impacting the privacy of neighbors. Use landscaping to screen views to your neighbors living areas most sensitive to privacy.
- Buildings shall be designed to minimize bulk, mass, and volume so as to not be prominently visible from a distance or from surrounding properties.
- Buildings should be designed to conform to the natural topography of the site and run with contours. Blending with existing terrain reduces the appearance of bulk.
- Design structure to step up slope avoiding large blank walls or support columns.

A. Decks

- Decks which are attached to the ground (non-cantilevered decks) may not be higher than 5' above finish grade.
- If grade changes more than 5', decks may be stepped down slope with levels being no more than 5' in height above grade.
- Exposed deck supports are allowed on decks less than 5' in height above finish grade.

APPENDIX D

Miravale III Williamson Act Contract Information

First American Title Company

FAX COVER SHEET

DATE: 02/09/2005
TO: George Schroeder
FAX NO.: (831) 649-0566
ATTN:
FROM: Donald Turner

RE: File No.: 2701-1244859
Property: 32854 San Vicente Road, Soledad, CA 93960

SUBJECT:

Hello George
Herewith is the Williamson Act document.
It has a reference to an Assessor parcel number which no longer exists.
For your convenience I have included the current Assessor map as well as an enlarged portion that includes the property affected by the document, which is APN 257-081-026 and 257-081-027.
Let me know if you need anything further
Don Turner

This message is intended only for the use of the individual or entity to which it is addressed, and may contain information that is privileged or confidential. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return the original message to us at the above address via the U.S. Postal Service.

If you do not receive all pages as indicated or have problems in receiving this fax, please contact the above sender at: **(831) 784-7663** Our return fax number is: **(831) 424-0974**

REEL 830 PAGE 711

RECORDED AT REQUEST OF
COUNTY OF MONTEREY
FEB 28 3 33 PM '73
OFFICE OF RECORDER
COUNTY OF MONTEREY
SALINAS, CALIFORNIA

REEL 830 PAGE 711

Before the Board of Supervisors in and for the County of Monterey, State of California

RESOLUTION NO. 73-34-25

Establishing an Agricultural)
Preserve with Uniform Rules)
Including Compatible Uses. . .) Philip R. Kelsey

WHEREAS, the County of Monterey has been requested to establish the herein agricultural preserve; and

WHEREAS, the County of Monterey is authorized to establish agricultural preserves pursuant to the California Land Conservation Act of 1965; and

WHEREAS, the procedural requirements to establish an agricultural preserve as required by the Act have been followed; and

WHEREAS, the land to be included within the agricultural preserve is used for the purpose of producing agricultural commodities for commercial purposes and compatible uses; and

WHEREAS, no land is within one mile of any city in the County of Monterey at the time this preserve is created; and

WHEREAS, the following uniform rules shall apply within this preserve:

Compatible uses for land to be included within the agricultural preserve are found to be those set out in Exhibit "A" attached hereto, and made a part hereof.

Grounds for cancellation are those set out in the Land Conservation Act and no other.

NOW, THEREFORE, BE IT RESOLVED, that the following real property located in the County of Monterey, State of California, being within Monterey County Assessor's Parcel Number(s) 257-081-03

and being more particularly described in Exhibit "B" attached hereto and made a part hereof, is hereby designated and established as an agricultural preserve within the meaning of and pursuant to the Land Conservation Act of 1965 and shall be known as and referred to as Agricultural Preserve No. 73-25.

On motion of Supervisor Church, seconded by Supervisor Branson, the foregoing resolution is adopted this 23rd day of January, 1973, by the following vote:

AYES: Supervisors Church, Atteridge, Tavernetti, Branson.
NOES: None.
ABSENT: None. Supervisor Poyner abstains.

COUNTY OF MONTEREY, STATE OF CALIFORNIA } ss.

I, ERNEST A. MAGGINI, County Clerk and ex-officio Clerk of the Board of Supervisors of the County of Monterey, State of California, hereby certify that the foregoing is a full, true and correct copy of an original order of said Board of Supervisors duly made and entered in the minutes thereof at page — of Minute Book 28, on the 23rd day of January, 1973, and now remaining of record in my office.

Witness my hand and the seal of said Board of Supervisors this 23rd day of January, 1973.

ERNEST A. MAGGINI,
County Clerk and ex-officio Clerk of the Board of Supervisors, County of Monterey, State of California.

By [signature]
Deputy.

EXHIBIT "A"

LAND CONSERVATION AGREEMENT

COMPATIBLE USES

The following is a list of land uses determined to be compatible with the agricultural use of the land subject to this agreement:

1. The drying, packing or other processing of an agricultural commodity usually performed on the premises where it is produced but not including slaughter houses, fertilizer yards, bone yards or plants for the reduction of animal or vegetable matter.

2. Structures necessary and incidental to the agricultural use of the land.

3. Single family dwellings incidental to the agricultural use of the land for the residence of the owner, and the family of the owner.

Single family dwellings incidental to the agricultural use of the land for the residence of the lessee of the land and the family of the lessee.

4. Dwellings for persons employed by owner or lessee in the agricultural use of the land.

5. An aircraft landing strip incidental to the agricultural use of the land.

6. The erection, construction, alteration or maintenance of gas, electric, water or communication utility facilities.

7. The erection, construction, alteration or maintenance of radio, television or microwave antennas, transmitters and related facilities.

8. Public or private hunting of wildlife or fishing.

9. Public or private hunting clubs and accessory structures.

10. Public or private rifle and pistol practice range, trap or skeet field, archery range or other similar use.

11. Public or private riding or hiking trails.

EXHIBIT "B"

PARCEL I:

That certain real property, lying, being and situate in the Rancho San Vicente, in County of Monterey, State of California, being a portion of Subdivision C in Lot 2, as said subdivision and Lot are shown and so designated on map entitled, "MAP OF RE-SURVEY OF PART OF SAN VICENTE RANCHO", filed on the 8th day of June, 1918, in Volume 1 of Surveys, at page 94, Records of the said County of Monterey, said real property being particularly described as follows, to-wit:

BEGINNING at a one-inch diameter steel bar standing in the easterly boundary of said subdivision C, from which the original 4" x 4" post set in a rock mound at the northeast corner of said subdivision C bears N. 00° 00½' W., 4142.2 feet distant; thence along said easterly boundary S. 00° 00½' E., 2557.6 feet to a one inch diameter steel bar; thence leave said easterly boundary and running S. 89° 59½' W., 1681.4 feet to a one inch diameter steel bar; thence N. 00° 59' W., 2558.0 feet to a one inch diameter steel bar; thence N. 89° 59½' E., 1724.9 feet to the place of beginning.

CONTAINING an area of 100.00 acres of land; meridian conforming with the meridian shown on filed map hereinabove referred to.

PARCEL II:

Certain real property lying, being and situate in Rancho San Vicente in County of Monterey, State of California, being a portion of subdivision C in Lot 2, as said subdivision and Lot are shown and so designated on map entitled, "MAP OF RE-SURVEY OF PART OF SAN VICENTE RANCHO", filed on the 8th day of June 1918, in Volume 1 of Surveys, at page 94, Records of the said County of Monterey, said real property being particularly described as follows, to-wit:

BEGINNING at a one inch diameter steel bar standing in the easterly boundary of said subdivision C, from which the original 4" x 4" post set in a rock mound at the northeast corner of said subdivision C bears N. 00° 00½' W., 6699.8 feet distant; thence along said easterly boundary S. 00° 00½' E., 996.3 feet to a one inch diameter steel bar; thence leave said easterly boundary and running S. 89° 59½' W., 1664 4 feet to a one inch diameter steel bar; thence N. 0° 59' W., 996.4 feet to a one inch diameter steel bar; thence N. 89° 59½' E., 1681.4 feet to the place of beginning.

CONTAINING an area of 38.26 acres of land; meridian conforming to the meridian shown on filed map herein referred to.

Exhibit "[illegible]" - page 2

EXCEPTING FROM PARCEL II, the following described portion:

BEGINNING at a 1" diameter steel bar standing at the most Northeasterly corner of the hereinabove mentioned 38.26 acre tract of land from which the original 4" x 4" post set in a rock mound at the Northeast corner of said Subdivision C bears N. 0° 00½' W., 6699.8 feet distant; thence from said point of beginning, and running along the Easterly boundary of said 38.26 acre tract of land,

(1) S. 0° 00½' E., 996.3 feet to a 1" diameter steel bar standing at the most Southeasterly corner of said 38.26 acre tract of land; thence leave said Easterly boundary and running along the Southerly boundary of said 38.26 acre tract of land.

(2) S. 89° 59½' W., 1311.65 feet; thence leave said Southerly boundary and running

(3) N. 0° 00½' W., 996.3 feet to a point in the NOrtherly boundary of said 38.26 acre tract of land; thence along last mentioned boundary,

(4) N. 89° 59½' E., 1311.65 feet to the place of beginning.

CONTAINING an area of 30.0 acres of land.

Courses all true.

LAND CONSERVATION CONTRACT

THIS CONTRACT made and entered into this 27th day of February 1973, by and between the COUNTY OF MONTEREY, a political subdivision of the State of California, hereinafter called "County" and PHILLIP R. KELSEY hereinafter called "Owner".

WITNESSETH:

WHEREAS, Owner possesses certain real property located within the County of Monterey, State of California, which is presently devoted to the production of food and fibre and is described in Exhibit A attached hereto and made a part hereof; and

WHEREAS, the property is located in an agricultural preserve (No. 73-25) heretofore established by County by Resolution No. 73-54-25; and

WHEREAS, both Owner and County desire to limit the use of the property to agricultural and compatible uses;

NOW, THEREFORE, County and Owner agree as follows:

1. CONTRACT SUBJECT TO CALIFORNIA LAND CONSERVATION ACT OF 1965, AS AMENDED.

This contract is entered into pursuant to Chapter 7 (commencing with Section 51200) of Part 1, Division 1, Title 5 of the Government Code, which is known as the California Land Conservation Act of 1965, or as the Williamson Act. This contract is subject to all of the provisions of this act including any amendments thereto which may be enacted from time to time.

2. RESTRICTION ON USE OF PROPERTY

During the term of this contract, and any and all renewals thereof, the property described in Exhibit A shall not be used by Owner, or Owner's successors in interest, for any purpose other than the production of food and fibre for commercial purposes and uses compatible thereto. A list of all such compatible uses is set forth in Exhibit B, attached hereto and by this reference incorporated herein. County, by uniform rule adopted by the Board of Supervisors of County, may from time to time during the term of this contract and all renewals thereof, add to the list of compatible uses which shall be uniform throughout the agricultural preserve in which the property in Exhibit A is located; provided, however, County may not during the term of this contract or any renewal thereof, without the prior written consent of Owner, remove any of the compatible uses for the subject property which are set forth in Exhibit B. The provisions of this contract and any uniform rule supplementing the list of compatible uses are not intended to limit or supersede the planning and zoning powers of County.

3. TERM OF CONTRACT

This contract shall become effective on the 28th day of

February, 1973, and shall remain in full force and effect for an initial term of twenty years. The initial term of twenty years shall be measured commencing as of the first day of January next succeeding the date of execution. Each succeeding first day of January shall be deemed to be the annual renewal date of this contract. This contract shall be automatically renewed on each succeeding January 1 and one additional year shall be added automatically to the initial term unless notice of nonrenewal is given as provided in paragraph 4.

4. NOTICE OF NONRENEWAL

(a) If either party desires in any year not to renew this contract, that party shall serve written notice of nonrenewal upon the other party in advance of the annual renewal date of this contract. Unless such written notice of nonrenewal is served by Owner at least 90 days prior to the renewal date, or by County at least 60 days prior to the renewal date, this contract shall be considered renewed as provided in paragraph 3 above.

(b) If either party serves written notice of nonrenewal in any year within the time limits of (a) above, this contract shall remain in effect for the balance of the period remaining since the original execution or the last renewal of this contract, as the case may be.

5. NO COMPENSATION

Owner shall not receive any payment from County in consideration of the obligations imposed under this contract, it being recognized and agreed that the consideration for the execution of this contract is the substantial benefit to be derived therefrom, and the advantage that may accrue to Owner as a result of the effect upon the assessed value of the property on account of the restrictions on the use of the property contained herein.

6. SUCCESSORS IN INTEREST

This contract and the restrictions imposed hereunder shall run with the property described in Exhibit A and shall be binding upon the heirs, executors, administrators, trustees, successors, and assigns of Owner. This contract shall also be transferred from County to any succeeding city or county acquiring jurisdiction over the property described in Exhibit A. On the completion of annexation proceedings by a city, that city shall succeed to all rights, duties and powers of the County under this contract for that portion of the property described in Exhibit A annexed to the city.

7. DIVISION OF LAND

The property described in Exhibit A shall not be divided without the written approval of the County first had and obtained. This contract is divisible in the event the property described in Exhibit A is divided. Owner agrees to submit any proposed division to County for its approval and County, if it approves said division, shall, as a condition of its approval of the division, require the execution by Owner of contract identical to this contract on each parcel created by the division. Owner agrees to execute such contract.

8. CONDEMNATION

When any action in eminent domain for the condemnation of the fee title of any land described in Exhibit A is filed or when such

land is acquired in lieu of eminent domain for a public improvement by a public agency or person, or whenever there is any such action or acquisition by the federal government, or any person, instrumentality or agency acting under authority or power of the federal government, this contract becomes null and void as to the land actually being condemned or so acquired as of the date the action is filed or so acquired.

9. CANCELLATION

This contract may be cancelled by the mutual agreement of the parties hereto and the approval of the State of California in the manner provided in this paragraph. It is understood by the parties hereto that the existence of an opportunity for another use of the property shall not be sufficient reason for the cancellation of this contract. A potential alternative use of the property may be considered only if there is no proximate non-contracted land suitable for the use to which it is proposed that this property be put. The parties further understand that the uneconomic character of an existing agricultural use shall not be sufficient reason for cancellation of this contract, but may be considered only if there is no other reasonable or comparable agricultural use to which the land may be put.

(a) Upon the written request of Owner to cancel this contract, the Board of Supervisors of the County of Monterey may adopt a resolution consenting to such request. Prior to the adoption of a resolution consenting to the request of the landowner to cancel this contract, the Board of Supervisors of County shall hold a public hearing on the matter. Notice of the hearing shall be mailed to each and every owner of property under contract within the agricultural preserve in which the property described in Exhibit A is located, and shall be published pursuant to Section 6061 of the Government Code. If at the hearing, or prior thereto, the owners of 51 percent of the acreage under contract in the agricultural preserve protest the cancellation of this contract, the Board of Supervisors shall not consent to cancel this contract.

(b) If the Board of Supervisors adopts a resolution consenting to the request of Owner to cancel this contract, the parties shall request that the cancellation be approved by the State Director of Agriculture upon the recommendation of the State Board of Agriculture. The State Board of Agriculture may recommend and the State Director of Agriculture may approve the cancellation only if they find: (1) The cancellation is not inconsistent with the purposes of the California Land Conservation Act of 1965 as amended; and (2) the cancellation is in the public interest.

(c) The provisions of sub-paragraph (b) of this paragraph 9 relating to the State Board of Agriculture and the Director of Agriculture shall be applicable only if both the State Board and the State Director consent to act as described herein. If either the State Board or the State Director fail or refuse to act within 60 days after being requested to do so, the Board of Supervisors of the County of Monterey shall act in the place and stead of the State Board and State Director and shall make all findings and decisions required by sub-paragraph (b).

10. LIABILITY OF OWNER UPON CANCELLATION

(a) Prior to any action by the Board of Supervisors giving tentative approval to the cancellation of this contract, the County Assessor shall determine the full cash value of the land as though it were free of the contractual restrictions imposed by this contract. The Assessor shall multiply such value by the most recent county ratio announced pursuant to Section 401 of the Revenue and Taxation Code, and shall certify the product to the Board of Supervisors as the cancellation valuation of the land for the purpose of determining the cancellation fee. The Board of Supervisors shall thereafter and prior to giving tentative approval to the cancellation of this contract determine and certify to the County Auditor the amount of the cancellation fee which the Owner must pay the County Treasurer as deferred taxes upon cancellation. That fee shall be an amount equal to 50 percent of the cancellation value of the property; provided, however, if after the date this contract was initially entered into the publicly announced County ratio of assessed to full cash value is changed, the percentage payment shall be changed so no greater percent of full cash value will be paid than would have been paid had there been no change in ratio. It is agreed by the parties hereto that the publicly announced County ratio at the time this contract is executed is 25 percent of full cash value.

(b) If the State Board of Agriculture recommends that it is in the public interest to do so, and the State Director of Agriculture so finds, the Director may waive any such payment or any portion thereof, or may make such payment or portion thereof, contingent upon the future use made of the property and its economic return to Owner for a period of time not to exceed the unexpired term of the contract had it not been cancelled, provided: (i) the cancellation is caused by an involuntary transfer or change in the use which may be made of the property and the property is not immediately suitable, nor will be immediately used, for a purpose which produces a greater economic return to Owner; and (ii) County has recommended to the State Board of Agriculture that no such payment be required or that the deferment of such payment or portion thereof be allowed, and the board of Supervisors has determined it is in the best interests of the public conservation of agricultural land and that such payment be either deferred or not required.

(c) The provisions of sub-paragraph (b) of this paragraph 10 relating to the State Board of Agriculture and the Director of Agriculture shall be applicable only if the State Board and the State Director both consent to act as described herein. If either the State Board or the State Director fail or refuse to act within 60 days after being requested to do so, the Board of Supervisors of the County of Monterey shall act in the place and stead of the State Board and the State Director and shall make all findings and decisions required by sub-paragraph (b).

(d) Owner shall make payment of the cancellation fee in full prior to the cancellation becoming effective.

11. NOTICES

All notices required or permitted by this contract shall be given in writing and may be mailed or delivered in person. If mailed the address of Owner shall be the last known address on the assessment records of County, and County's address shall be In Care of Board of Supervisors, Courthouse, Salinas, California, and deposit in the mail, postage prepaid, shall be deemed receipt thereof.

12. COSTS OF LITIGATION

In case County shall, without any fault on its part, be made a party to any litigation commenced by or against Owner, then Owner shall and will pay all costs and reasonable attorneys' fees incurred by or imposed upon County by or in connection with such litigation, and owner shall and will pay all costs and reasonable attorneys' fees which may be incurred or paid by County in enforcing the covenants and agreements of this contract.

IN WITNESS WHEREOF the parties hereto have caused this contract to be executed; by Owner on February 15, 1973 and by County on February 27, 1973.

COUNTY OF MONTEREY

By [signature]
Chairman, Board of Supervisors

STATE OF CALIFORNIA }
COUNTY OF MONTEREY } ss

On this 27th day of February, 1973, before me, ERNEST A. MAGGINI, County Clerk of the County of Monterey, and ex-officio Clerk of the Board of Supervisors and of the Superior Court, in and for said County and State, personally appeared ELLIS P. TAVERNETTI, known to me to be the Chairman of said Board of Supervisors of the County of Monterey, and known to me to be the person who executed the within instrument on behalf of said political subdivision, and acknowledged to me that such County of Monterey executed the same.

ERNEST A. MAGGINI, County Clerk and ex-officio Clerk of the Board of Supervisors of Monterey County, State of California.

By [signature]
Deputy

[signature]
Philip R. Kelsey

Owner

REEL 830 PAGE 720

STATE OF CALIFORNIA }
COUNTY OF _____ } ss

On this 15 day of February, 19 73, before me Virginia Fernandez, A Notary Public in and for the County of Monterey, State of California, residing therein, duly commissioned and sworn, personally appeared Philip R. Kelsey

known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal in the County of Monterey the day and year in this certificate first above written.

Virginia D. Fernandez

Notary Public in and for the Monterey County of State of California.

My Commission Expires Feb 10, 1975

OFFICIAL SEAL
VIRGINIA FERNANDEZ
NOTARY PUBLIC-CALIFORNIA
MONTEREY COUNTY
My Commission Expires Feb. 10, 1975

EXHIBIT "A"

PARCEL I:

That certain real property, lying, being and situate in the Rancho San Vicente, in County of Monterey, State of California, being a portion of Subdivision C in Lot 2, as said subdivision and Lot are shown and so designated on map entitled, "MAP OF RE-SURVEY OF PART OF SAN VICENTE RANCHO", filed on the 8th day of June, 1918, in Volume 1 of Surveys, at page 94, Records of the said County of Monterey, said real property being particularly described as follows, to-wit:

BEGINNING at a one-inch diameter steel bar standing in the easterly boundary of said subdivision C, from which the original 4" x 4" post set in a rock mound at the northeast corner of said subdivision C bears N. 00° 00½' W., 4142.2 feet distant; thence along said easterly boundary S. 00° 00½' E., 2557.6 feet to a one inch diameter steel bar; thence leave said easterly boundary and running S. 89° 59½' W., 1681.4 feet to a one inch diameter steel bar; thence N. 00° 59' W., 2558.0 feet to a one inch diameter steel bar; thence N. 89° 59½' E., 1724.9 feet to the place of beginning.

CONTAINING an area of 100.00 acres of land; meridian conforming with the meridian shown on filed map hereinabove referred to.

PARCEL II:

Certain real property lying, being and situate in Rancho San Vicente in County of Monterey, State of California, being a portion of subdivision C in Lot 2, as said subdivision and Lot are shown and so designated on map entitled, "MAP OF RE-SURVEY OF PART OF SAN VICENTE RANCHO", filed on the 8th day of June 1918, in Volume 1 of Surveys, at page 94, Records of the said County of Monterey, said real property being particularly described as follows, to-wit:

BEGINNING at a one inch diameter steel bar standing in the easterly boundary of said subdivision C, from which the original 4" x 4" post set in a rock mound at the northeast corner of said subdivision C bears N. 00° 00½' W., 6699.8 feet distant; thence along said easterly boundary S. 00° 00½' E., 996.3 feet to a one inch diameter steel bar; thence leave said easterly boundary and running S. 89° 59½' W., 1664.4 feet to a one inch diameter steel bar; thence N. 0° 59' W., 996.4 feet to a one inch diameter steel bar; thence N. 89° 59½' E., 1681.4 feet to the place of beginning.

CONTAINING an area of 38.26 acres of land; meridian conforming to the meridian shown on filed map herein referred to.

EXCEPTING FROM PARCEL II, the following described portion:

BEGINNING at a 1" diameter steel bar standing at the most Northeasterly corner of the hereinabove mentioned 38.26 acre tract of land from which the original 4" x 4" post set in a rock mound at the Northeast corner of said Subdivision C bears N. 0° 00½' W., 6699.8 feet distant; thence from said point of beginning, and running along the Easterly boundary of said 38.26 acre tract of land,

(1) S. 0° 00½' E., 996.3 feet to a 1" diameter steel bar standing at the most Southeasterly corner of said 38.26 acre tract of land; thence leave said Easterly boundary and running along the Southerly boundary of said 38.26 acre tract of land.

(2) S. 89° 59½' W., 1311.65 feet; thence leave said Southerly boundary and running

(3) N. 0° 00½' W., 996.3 feet to a point in the NOrtherly boundary of said 38.26 acre tract of land; thence along last mentioned boundary,

(4) N. 89° 59½' E., 1311.65 feet to the place of beginning.

CONTAINING an area of 30.0 acres of land.

Courses all true.

EXHIBIT "B"

LAND CONSERVATION AGREEMENT

COMPATIBLE USES

The following is a list of land uses determined to be compatible with the agricultural use of the land subject to this agreement:

1. The drying, packing or other processing of an agricultural commodity usually performed on the premises where it is produced but not including slaughter houses, fertilizer yards, bone yards or plants for the reduction of animal or vegetable matter.

2. Structures necessary and incidental to the agricultural use of the land.

3. Single family dwellings incidental to the agricultural use of the land for the residence of the owner, and the family of the owner.

Single family dwellings incidental to the agricultural use of the land for the residence of the lessee of the land and the family of the lessee.

4. Dwellings for persons employed by owner or lessee in the agricultural use of the land.

5. An aircraft landing strip incidental to the agricultural use of the land.

6. The erection, construction, alteration or maintenance of gas, electric, water or communication utility facilities.

7. The erection, construction, alteration or maintenance of radio, television or microwave antennas, transmitters and related facilities.

8. Public or private hunting of wildlife or fishing.

9. Public or private hunting clubs and accessory structures.

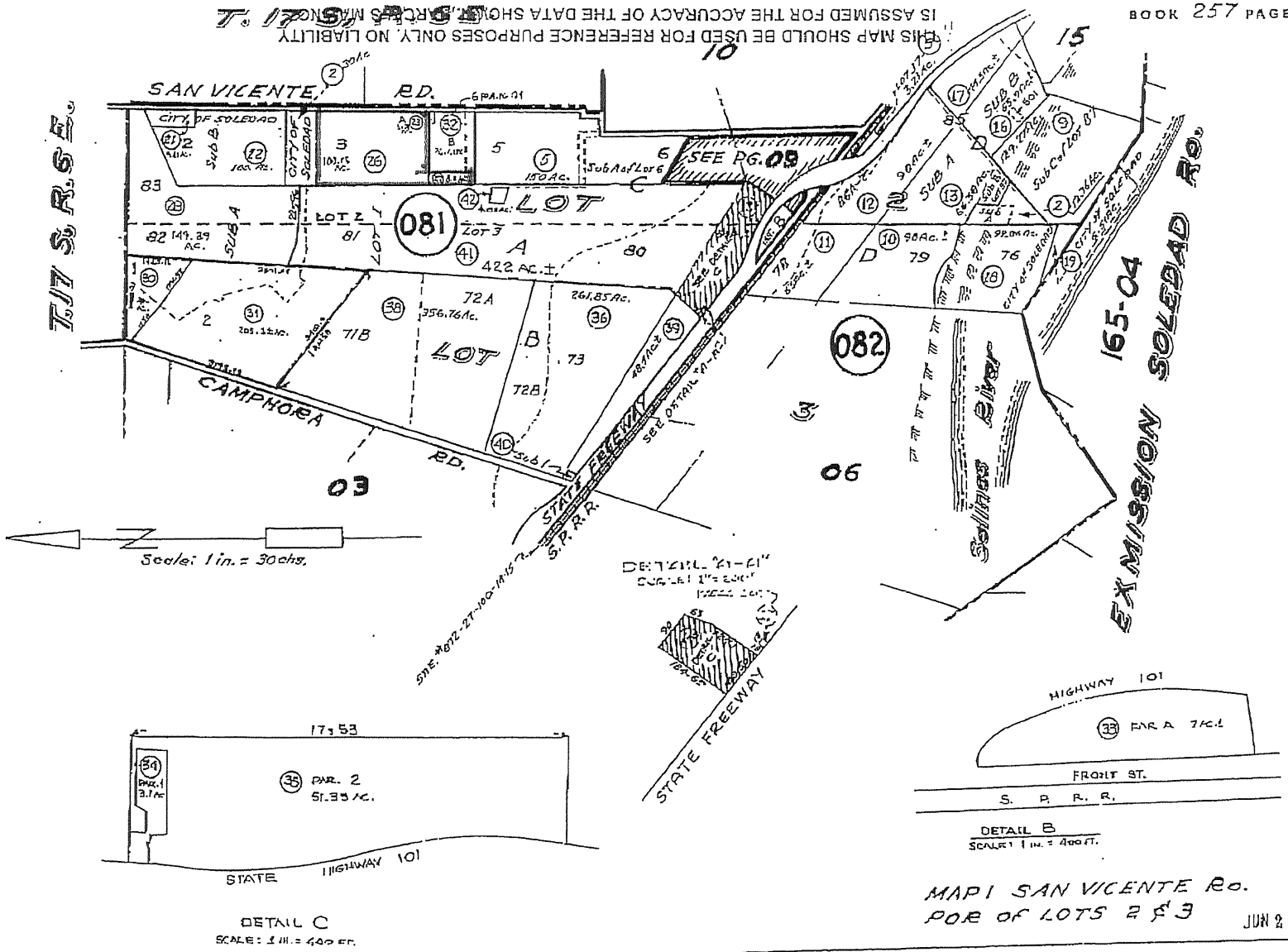
10. Public or private rifle and pistol practice range, trap or skeet field, archery range or other similar use.

11. Public or private riding or hiking trails.

END OF DOCUMENT

Description: Monterey,CA Assessor Map 257.8 Page: 1 of 1
Order: sdf Comment:

COUNTY OF MONTEREY
ASSESSOR'S MAP
BOOK 257 PAGE 08



FERENCE PURPOSES ONLY. NO LIABILITY
F THE DATA SHOWN. PARCELS MAY NOT
VISION OR BUILDING ORDINANCES.

WHEN RECORDED MAIL TO:

Darlene Drain

Clerk to the Board of Supervisors

168 W. Alisal Street, First Floor

Salinas, California 93901

Stephen L. Vagnini
Monterey County Recorder
Recorded at the request of
County of Monterey

CRLUCY
8/04/2006
15:37:29

DOCUMENT: **2006069093**

Titles: 1/ Pages: 5

Fees....
Taxes...
Other...
AMT PAID

THIS SPACE FOR RECORDER'S USE ONLY

NOTICE OF NON-RENEWAL

OF LAND CONSERVATION CONTRACT No. 73-25

(Agricultural Preserve No. 73-25)

(HMBY, L.P., a California Limited Partnership)

NOTICE OF NON-RENEWAL OF

LAND CONSERVATION CONTRACT NO. 73-25

NOTICE IS HEREBY GIVEN:

WHEREAS, the undersigned is the owner of land described under Land Conservation Contract No. 73-25 within Agricultural Preserve No. 73-25, established pursuant to Monterey County Board of Supervisors Resolution No. 73-34-25, recorded on February 28, 1973, Document No. G 07347, in the Office of the County Recorder, at Reel 830, Page 711;

WHEREAS, the Owner desires a non-renewal of Land Conservation Contract No. 73-25;

NOW, THEREFORE, the Owner declares the intent not to renew Land Conservation Contract No. 73-25 as it applies to the real property described in the Legal Description, attached hereto as Exhibit A and incorporated by this reference.

OWNER:

HMBY, L.P. a California Limited Partnership

By: Nader T. Agha

Nader T. Agha

Its: General Partner

STATE OF CALIFORNIA)
COUNTY OF MONTEREY)

On 8/2, 2006, before me, Natalie C. Bates, Notary Public, personally appeared Nader T. Agha, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

[SEAL]

Natalie C Bates

Notary Public

NATALIE C. BATES
Commission # 1582910
Notary Public - California
Monterey County
My Comm. Expires Feb 14, 2009

NOTICE OF NON-RENEWAL OF

LAND CONSERVATION CONTRACT NO. 73-25

(Signature continuation page)

Notice received:

By _____ Date: August 3 2006
CLERK OF THE BOARD OF SUPERVISORS

STATE OF CALIFORNIA)
COUNTY OF MONTEREY)

On AUGUST 3, 2006, before me, CYNTHIA JUAREZ, Notary Public, personally appeared DARLENE DRAIN, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

CYNTHIA JUAREZ
Commission # 1676446
Notary Public - California
Monterey County
My Comm. Expires Jun 14, 2010

WITNESS my hand and official seal.

Cynthia Juarez
Notary Public

[SEAL]

***Note to Clerk of the Board:** This document must be recorded, with the Monterey County Recorder's Office, within 20 days of receipt. A copy of the recorded document must be forwarded to the *Department of Conservation, Division of Land Resource Protection, Williamson Act Program, Attention: Dennis O'Bryant, Program Manager, 801 K Street, Sacramento, California 95814.* Also, please copy the Monterey County Agricultural Preserve Committee.

EXHIBIT "A"

NOTICE OF NONRENEWAL OF
LAND CONSERVATION CONTRACT NO. 73-25

LEGAL DESCRIPTION

PARCEL I

That certain real property , lying, being and situate in the Rancho San Vicente, in the County of Monterey, State of California, being a portion of Subdivision C in Lot 2, as said subdivision and Lot are shown and so designated on map entitled, "MAP OF RE-SURVEY OF PART OF SAN VICENTE RANCHO", filed on the 8th day of June, 1918, in Volume 1 of Surveys, at page 94, Records of the said County of Monterey, said real property being particularly described as follows, to-wit:

Beginning at a one-inch diameter steel bar standing in the easterly boundary of said subdivision C, from which the original 4" x 4" post sat in a rock mound at the northeast corner of said subdivision C bears N. 00° 00 ½′ W. 4142.2 feet distant; thence along said easterly boundary S. 00° ½ ′ E., 2557.6 feet to a one inch diameter steel bar; thence leave said easterly boundary and running S. 89° 59 ½′ W., 1681.4 feet to a one inch diameter steel bar; thence N. 00° 59′ W., 2558.0 feet to a one inch diameter steel bar; thence N. 89° 59 ½′ E., 1724.9 feet to the place of beginning.

CONTAINING an area of 100.00 acres of land; meridian conforming with the meridian shown on filed map hereinabove referred to.

PARCEL II:

Certain real property lying, being and situate in Rancho San Vicente in County of Monterey, State of California, being a portion of sub-division C in Lot 2, as said subdivision and Lot are shown and so designated on map entitled, "Map OF RE-SURVEY OF PART OF SAN VICENTE RANCHO", filed on the 8th day of June 1918, in Volume 1 of Surveys, at page 94, Records of the said County of Monterey, said real property being particularly described as follows, to-wit:

BEGINNING at a one inch diameter steel bar standing in the easterly boundary of said subdivision C, from which the original 4" x 4" post set in a rock mound at the northeast corner of said subdivision C bears N. 00° 00½′ W., 6699.8 feet distant: thence along said easterly boundary S. 00° 00½′ E., 996.3 feet to a one inch diameter steel bar; thence leave said easterly boundary and running S. 89° 59 ½′ W., 1664.4 feet to a one inch diameter steel bar; thence N. 0° 59′ W., 996.4 feet to a one inch steel bar; thence N. 89° 59 ½′ E., 1681.4 feet to the place of beginning.

CONTAINING and area of 38.26 acres of land; meridian conforming to the meridian shown on filed map herein referred to.

EXCEPTING FROM PARCEL II, the following described portion:

BEGINNING at a 1" diameter steel bar standing at the most North-easterly corner of the hereinabove mentioned 38.26 acre tract of land from which the original 4" x 4" post set in a rock mound at the Northeast corner of said Subdivision C bears N. 0° 00 ½′ W., 6699.8 feet distant; thence from said point of beginning, and running along the Easterly boundary of said 38.26 acre tract of land,

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(2) S. 89° 59 ½′ W., 1311.65 feet; thence leave said Southerly boundary and running

(3) N. 0° 00 ½′ W., 996.3 feet to a point in the Northerly boundary of said 38.26 acre tract of land; thence along the last mentioned boundary,

(4) N. 89° 59 ½′ E., 1311.65 feet to the place of beginning.

CONTAINING an area of 30.0 acres of land.

Courses all true.

END OF DOCUMENT.

APPENDIX E

Air Quality URBEMIS Table / AMBAG Letter

URBEMIS 2002 For Windows 8.7.0

File Name: \\Lance\f\I&R Docs\06-161 Miravale III\AQ\Urbemis\Miravale III Phase 3.urb
Project Name: Miravale III Phase 3
Project Location: North Central Coast (Monterey area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	216.26	31.52	65.11	0.57	0.26

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	80.82	89.69	860.93	2.25	357.66

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	297.08	121.21	926.04	2.82	357.92

URBEMIS 2002 For Windows 8.7.0

File Name: \\Lance\f\I&R Docs\06-161 Miravale III\AQ\Urbemis\Miravale III Phase 3.urb
Project Name: Miravale III Phase 3
Project Location: North Central Coast (Monterey area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	1,769.45	83.02	2,869.05	6.78	425.45

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	90.51	115.08	907.15	2.22	357.66

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	1,859.96	198.10	3,776.20	8.99	783.12

URBEMIS 2002 For Windows 8.7.0

File Name: \\Lance\f\I&R Docs\06-161 Miravale III\AQ\Urbemis\Miravale III Phase 3.urb
Project Name: Miravale III Phase 3
Project Location: North Central Coast (Monterey area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	2.39	31.25	15.04	0	0.06
Hearth	1,560.84	51.77	2,854.01	6.78	425.39
Landscaping - No winter emissions					
Consumer Prdcts	134.54	-	-	-	-
Architectural Coatings	71.68	-	-	-	-
TOTALS(lbs/day,unmitigated)	1,769.45	83.02	2,869.05	6.78	425.45

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	26.02	30.81	253.99	0.62	91.41
Apartments low rise	21.42	25.11	207.02	0.51	74.51
Hotel	3.04	4.11	31.07	0.08	13.32
Strip mall	40.03	55.04	415.07	1.01	178.43
TOTAL EMISSIONS (lbs/day)	90.51	115.08	907.15	2.22	357.66

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2025 Temperature (F): 50 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Single family housing	207.50	6.88 trips/dwelling unit	1,266.00	8,710.08
Apartments low rise	78.10	4.78 trips/dwelling unit	1,484.00	7,099.46
Hotel		7.58 trips/rooms	120.00	909.60
Strip mall		44.30 trips/1000 sq. ft.	275.00	12,182.50
		Sum of Total Trips		28,901.64
		Total Vehicle Miles Traveled		234,653.67

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.50	0.00	100.00	0.00
Light Truck < 3,750 lbs	15.70	0.00	99.40	0.60
Light Truck 3,751- 5,750	16.50	0.00	100.00	0.00
Med Truck 5,751- 8,500	7.50	0.00	98.70	1.30
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.90	0.00	22.20	77.80
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.50	40.00	60.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	2.00	0.00	90.00	10.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.0	5.0	6.5	9.6	9.6	9.6
Rural Trip Length (miles)	10.0	5.0	6.5	9.6	9.6	9.6
Trip Speeds (mph)	30.0	20.0	25.0	30.0	30.0	30.0
% of Trips - Residential	22.6	27.4	50.0			

% of Trips - Commercial (by land use)

Hotel	5.0	2.5	92.5
Strip mall	2.0	1.0	97.0

Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing
have changed from the defaults 9.57/422. to 6.88/207.5
The Trip Rate and/or Acreage values for Apartments low rise
have changed from the defaults 6.9/92.75 to 4.784/78.1

Changes made to the default values for Area

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2025.

URBEMIS 2002 For Windows 8.7.0

File Name: \\Lance\f\I&R Docs\06-161 Miravale III\AQ\Urbemis\Miravale III Phase 3.urb
Project Name: Miravale III Phase 3
Project Location: North Central Coast (Monterey area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	2.39	31.25	15.04	0	0.06
Hearth - No summer emissions					
Landscaping	7.65	0.27	50.07	0.57	0.20
Consumer Prdcts	134.54	-	-	-	-
Architectural Coatings	71.68	-	-	-	-
TOTALS(lbs/day,unmitigated)	216.26	31.52	65.11	0.57	0.26

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	24.76	24.02	239.98	0.64	91.41
Apartments low rise	21.72	19.58	195.60	0.52	74.51
Hotel	2.71	3.20	29.65	0.08	13.32
Strip mall	31.63	42.89	395.71	1.01	178.43
TOTAL EMISSIONS (lbs/day)	80.82	89.69	860.93	2.25	357.66

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2025 Temperature (F): 75 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Single family housing	207.50	6.88 trips/dwelling unit	1,266.00	8,710.08
Apartments low rise	78.10	4.78 trips/dwelling unit	1,484.00	7,099.46
Hotel		7.58 trips/rooms	120.00	909.60
Strip mall		44.30 trips/1000 sq. ft.	275.00	12,182.50
		Sum of Total Trips		28,901.64
		Total Vehicle Miles Traveled		234,653.67

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.50	0.00	100.00	0.00
Light Truck < 3,750 lbs	15.70	0.00	99.40	0.60
Light Truck 3,751- 5,750	16.50	0.00	100.00	0.00
Med Truck 5,751- 8,500	7.50	0.00	98.70	1.30
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.90	0.00	22.20	77.80
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.50	40.00	60.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	2.00	0.00	90.00	10.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.0	5.0	6.5	9.6	9.6	9.6
Rural Trip Length (miles)	10.0	5.0	6.5	9.6	9.6	9.6
Trip Speeds (mph)	30.0	20.0	25.0	30.0	30.0	30.0
% of Trips - Residential	22.6	27.4	50.0			

% of Trips - Commercial (by land use)

Hotel	5.0	2.5	92.5
Strip mall	2.0	1.0	97.0

Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing
have changed from the defaults 9.57/422. to 6.88/207.5
The Trip Rate and/or Acreage values for Apartments low rise
have changed from the defaults 6.9/92.75 to 4.784/78.1

Changes made to the default values for Area

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2025.

URBEMIS 2002 For Windows 8.7.0

File Name: \\Lance\f\I&R Docs\06-161 Miravale III\AQ\Urbemis\Miravale III Phase 2.urb
Project Name: Miravale III Phase 2
Project Location: North Central Coast (Monterey area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	167.67	25.26	51.91	0.44	0.20

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	98.28	116.62	1,101.64	1.98	319.78

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	265.95	141.88	1,153.55	2.42	319.98

URBEMIS 2002 For Windows 8.7.0

File Name: \\Lance\f\I&R Docs\06-161 Miravale III\AQ\Urbemis\Miravale III Phase 2.urb
Project Name: Miravale III Phase 2
Project Location: North Central Coast (Monterey area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	1,360.35	64.82	2,204.29	5.20	326.75

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	112.19	150.07	1,197.22	1.95	319.78

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	1,472.53	214.89	3,401.51	7.16	646.53

URBEMIS 2002 For Windows 8.7.0

File Name: \\Lance\f\I&R Docs\06-161 Miravale III\AQ\Urbemis\Miravale III Phase 2.urb
Project Name: Miravale III Phase 2
Project Location: North Central Coast (Monterey area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	1.91	25.04	12.40	0	0.05
Hearth	1,198.73	39.78	2,191.89	5.20	326.70
Landscaping - No winter emissions					
Consumer Prdcts	103.33	-	-	-	-
Architectural Coatings	56.38	-	-	-	-
TOTALS(lbs/day,unmitigated)	1,360.35	64.82	2,204.29	5.20	326.75

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	28.59	35.08	295.55	0.48	71.26
Apartments low rise	22.89	27.86	234.69	0.38	56.59
Hotel	4.27	6.06	46.44	0.08	13.34
Strip mall	56.43	81.07	620.54	1.01	178.59
TOTAL EMISSIONS (lbs/day)	112.19	150.07	1,197.22	1.95	319.78

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 50 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Single family housing	161.60	6.88 trips/dwelling unit	986.00	6,783.68
Apartments low rise	59.30	4.78 trips/dwelling unit	1,126.00	5,386.78
Hotel		7.58 trips/rooms	120.00	909.60
Strip mall		44.30 trips/1000 sq. ft.	275.00	12,182.50
		Sum of Total Trips		25,262.56
		Total Vehicle Miles Traveled		209,691.39

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.0	5.0	6.5	9.6	9.6	9.6
Rural Trip Length (miles)	10.0	5.0	6.5	9.6	9.6	9.6
Trip Speeds (mph)	30.0	20.0	25.0	30.0	30.0	30.0
% of Trips - Residential	22.6	27.4	50.0			

% of Trips - Commercial (by land use)

Hotel	5.0	2.5	92.5
Strip mall	2.0	1.0	97.0

Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing
have changed from the defaults 9.57/328.67 to 6.88/161.6
The Trip Rate and/or Acreage values for Apartments low rise
have changed from the defaults 6.9/70.38 to 4.784/59.3

Changes made to the default values for Area

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2020.

URBEMIS 2002 For Windows 8.7.0

File Name: \\Lance\f\I&R Docs\06-161 Miravale III\AQ\Urbemis\Miravale III Phase 2.urb
Project Name: Miravale III Phase 2
Project Location: North Central Coast (Monterey area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	1.91	25.04	12.40	0	0.05
Hearth - No summer emissions					
Landscaping	6.04	0.21	39.51	0.44	0.16
Consumer Prdcts	103.33	-	-	-	-
Architectural Coatings	56.38	-	-	-	-
TOTALS(lbs/day,unmitigated)	167.67	25.26	51.91	0.44	0.20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	26.96	27.28	270.89	0.50	71.26
Apartments low rise	22.97	21.66	215.11	0.39	56.59
Hotel	3.79	4.70	42.90	0.08	13.34
Strip mall	44.57	62.97	572.74	1.01	178.59
TOTAL EMISSIONS (lbs/day)	98.28	116.62	1,101.64	1.98	319.78

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 75 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Single family housing	161.60	6.88 trips/dwelling unit	986.00	6,783.68
Apartments low rise	59.30	4.78 trips/dwelling unit	1,126.00	5,386.78
Hotel		7.58 trips/rooms	120.00	909.60
Strip mall		44.30 trips/1000 sq. ft.	275.00	12,182.50
		Sum of Total Trips		25,262.56
		Total Vehicle Miles Traveled		209,691.39

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.0	5.0	6.5	9.6	9.6	9.6
Rural Trip Length (miles)	10.0	5.0	6.5	9.6	9.6	9.6
Trip Speeds (mph)	30.0	20.0	25.0	30.0	30.0	30.0
% of Trips - Residential	22.6	27.4	50.0			

% of Trips - Commercial (by land use)

Hotel	5.0	2.5	92.5
Strip mall	2.0	1.0	97.0

Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing
have changed from the defaults 9.57/328.67 to 6.88/161.6
The Trip Rate and/or Acreage values for Apartments low rise
have changed from the defaults 6.9/70.38 to 4.784/59.3

Changes made to the default values for Area

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2020.

URBEMIS 2002 For Windows 8.7.0

File Name: \\Lance\f\I&R Docs\06-161 Miravale III\AQ\Urbemis\Miravale III Phase 1.urb
Project Name: Miravale III Phase 1
Project Location: North Central Coast (Monterey area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	35.37	7.35	18.11	0.14	0.07

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	50.45	69.35	608.91	0.88	132.56

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	85.82	76.70	627.02	1.02	132.63

URBEMIS 2002 For Windows 8.7.0

File Name: \\Lance\f\I&R Docs\06-161 Miravale III\AQ\Urbemis\Miravale III Phase 1.urb
Project Name: Miravale III Phase 1
Project Location: North Central Coast (Monterey area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	246.10	14.54	393.58	0.93	58.04

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	60.73	89.15	657.74	0.78	132.56

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	306.83	103.69	1,051.32	1.71	190.60

URBEMIS 2002 For Windows 8.7.0

File Name: \\Lance\f\I&R Docs\06-161 Miravale III\AQ\Urbemis\Miravale III Phase 1.urb
Project Name: Miravale III Phase 1
Project Location: North Central Coast (Monterey area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.55	7.28	4.31	0	0.01
Hearth	212.85	7.26	389.27	0.93	58.02
Landscaping - No winter emissions					
Consumer Prdcts	18.35	-	-	-	-
Architectural Coatings	14.35	-	-	-	-
TOTALS(lbs/day,unmitigated)	246.10	14.54	393.58	0.93	58.04

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	12.18	15.81	126.35	0.15	22.00
Apartments low rise	1.99	2.57	20.52	0.02	3.57
Hotel	5.86	8.83	63.87	0.08	13.35
Strip mall	40.69	61.94	447.00	0.53	93.65
TOTAL EMISSIONS (lbs/day)	60.73	89.15	657.74	0.78	132.56

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2015 Temperature (F): 50 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Single family housing	49.83	6.88 trips/dwelling unit	304.00	2,091.52
Apartments low rise	3.74	4.78 trips/dwelling unit	71.00	339.66
Hotel		7.58 trips/rooms	120.00	909.60
Strip mall		44.30 trips/1000 sq. ft.	144.05	6,381.42
		Sum of Total Trips		9,722.20
		Total Vehicle Miles Traveled		86,962.14

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.0	5.0	6.5	9.6	9.6	9.6
Rural Trip Length (miles)	10.0	5.0	6.5	9.6	9.6	9.6
Trip Speeds (mph)	30.0	20.0	25.0	30.0	30.0	30.0
% of Trips - Residential	22.6	27.4	50.0			

% of Trips - Commercial (by land use)

Hotel	5.0	2.5	92.5
Strip mall	2.0	1.0	97.0

Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing
have changed from the defaults 9.57/101.33 to 6.88/49.83
The Trip Rate and/or Acreage values for Apartments low rise
have changed from the defaults 6.9/4.44 to 4.784/3.74

Changes made to the default values for Area

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2015.

URBEMIS 2002 For Windows 8.7.0

File Name: \\Lance\f\I&R Docs\06-161 Miravale III\AQ\Urbemis\Miravale III Phase 1.urb
Project Name: Miravale III Phase 1
Project Location: North Central Coast (Monterey area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.55	7.28	4.31	0	0.01
Hearth - No summer emissions					
Landscaping	2.12	0.07	13.80	0.14	0.05
Consumer Prdcts	18.35	-	-	-	-
Architectural Coatings	14.35	-	-	-	-
TOTALS(lbs/day,unmitigated)	35.37	7.35	18.11	0.14	0.07

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	11.35	12.30	116.25	0.16	22.00
Apartments low rise	1.96	2.00	18.88	0.03	3.57
Hotel	5.13	6.87	59.28	0.09	13.35
Strip mall	32.01	48.18	414.50	0.61	93.65
TOTAL EMISSIONS (lbs/day)	50.45	69.35	608.91	0.88	132.56

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2015 Temperature (F): 75 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Single family housing	49.83	6.88 trips/dwelling unit	304.00	2,091.52
Apartments low rise	3.74	4.78 trips/dwelling unit	71.00	339.66
Hotel		7.58 trips/rooms	120.00	909.60
Strip mall		44.30 trips/1000 sq. ft.	144.05	6,381.42
		Sum of Total Trips		9,722.20
		Total Vehicle Miles Traveled		86,962.14

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.0	5.0	6.5	9.6	9.6	9.6
Rural Trip Length (miles)	10.0	5.0	6.5	9.6	9.6	9.6
Trip Speeds (mph)	30.0	20.0	25.0	30.0	30.0	30.0
% of Trips - Residential	22.6	27.4	50.0			

% of Trips - Commercial (by land use)

Hotel	5.0	2.5	92.5
Strip mall	2.0	1.0	97.0

Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing
have changed from the defaults 9.57/101.33 to 6.88/49.83
The Trip Rate and/or Acreage values for Apartments low rise
have changed from the defaults 6.9/4.44 to 4.784/3.74

Changes made to the default values for Area

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2015.

URBEMIS 2002 For Windows 8.7.0

File Name: \\Lance\f\I&R Docs\06-161 Miravale III\AQ\Urbemis\Miravale III Phase 4.urb
Project Name: Miravale III Phase 4
Project Location: North Central Coast (Monterey area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	328.45	46.10	98.57	0.89	0.39

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	82.08	82.01	844.31	2.74	425.93

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	410.53	128.12	942.88	3.62	426.33

URBEMIS 2002 For Windows 8.7.0

File Name: \\Lance\f\I&R Docs\06-161 Miravale III\AQ\Urbemis\Miravale III Phase 4.urb
Project Name: Miravale III Phase 4
Project Location: North Central Coast (Monterey area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	2,700.45	124.81	4,380.05	10.35	649.78

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	90.67	105.34	887.03	2.69	425.93

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	2,791.12	230.15	5,267.08	13.04	1,075.72

URBEMIS 2002 For Windows 8.7.0

File Name: \\Lance\f\I&R Docs\06-161 Miravale III\AQ\Urbemis\Miravale III Phase 4.urb
Project Name: Miravale III Phase 4
Project Location: North Central Coast (Monterey area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	3.51	45.69	21.18	0	0.09
Hearth	2,383.83	79.12	4,358.88	10.35	649.70
Landscaping - No winter emissions					
Consumer Prdcts	205.48	-	-	-	-
Architectural Coatings	107.64	-	-	-	-
TOTALS(lbs/day,unmitigated)	2,700.45	124.81	4,380.05	10.35	649.78

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	24.81	27.29	238.06	0.72	106.06
Apartments low rise	26.42	28.79	251.12	0.76	111.88
Retirement community	4.08	4.38	38.25	0.12	17.04
Hotel	2.50	3.13	25.13	0.08	13.31
Strip mall	32.85	41.74	334.46	1.01	177.65
TOTAL EMISSIONS (lbs/day)	90.67	105.34	887.03	2.69	425.93

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2030 Temperature (F): 50 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Single family housing	241.00	6.88 trips/dwelling unit	1,470.00	10,113.60
Apartments low rise	117.40	4.78 trips/dwelling unit	2,230.00	10,668.32
Retirement community	26.30	3.25 trips/dwelling unit	500.00	1,625.00
Hotel		7.58 trips/rooms	120.00	909.60
Strip mall		44.30 trips/1000 sq. ft.	274.00	12,138.20
		Sum of Total Trips		35,454.72
		Total Vehicle Miles Traveled		279,481.51

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	52.50	0.00	100.00	0.00
Light Truck < 3,750 lbs	15.90	0.00	100.00	0.00
Light Truck 3,751- 5,750	16.70	0.00	100.00	0.00
Med Truck 5,751- 8,500	7.60	0.00	100.00	0.00
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.90	0.00	22.20	77.80
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.50	33.30	66.70	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	2.60	0.00	92.30	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.0	5.0	6.5	9.6	9.6	9.6
Rural Trip Length (miles)	10.0	5.0	6.5	9.6	9.6	9.6
Trip Speeds (mph)	30.0	20.0	25.0	30.0	30.0	30.0
% of Trips - Residential	22.6	27.4	50.0			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Strip mall				2.0	1.0	97.0

Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing
have changed from the defaults 9.57/490. to 6.88/241.
The Trip Rate and/or Acreage values for Apartments low rise
have changed from the defaults 6.9/139.38 to 4.784/117.4
The Trip Rate and/or Acreage values for Retirement community
have changed from the defaults 3.71/100. to 3.25/26.3

Changes made to the default values for Area

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2030.

URBEMIS 2002 For Windows 8.7.0

File Name: \\Lance\f\I&R Docs\06-161 Miravale III\AQ\Urbemis\Miravale III Phase 4.urb
Project Name: Miravale III Phase 4
Project Location: North Central Coast (Monterey area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	3.51	45.69	21.18	0	0.09
Hearth - No summer emissions					
Landscaping	11.83	0.41	77.39	0.89	0.31
Consumer Prdcts	205.48	-	-	-	-
Architectural Coatings	107.64	-	-	-	-
TOTALS(lbs/day,unmitigated)	328.45	46.10	98.57	0.89	0.39

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	23.22	21.24	225.79	0.74	106.06
Apartments low rise	26.22	22.41	238.17	0.79	111.88
Retirement community	4.40	3.41	36.28	0.12	17.04
Hotel	2.21	2.44	24.06	0.08	13.31
Strip mall	26.02	32.52	320.01	1.01	177.65
TOTAL EMISSIONS (lbs/day)	82.08	82.01	844.31	2.74	425.93

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2030 Temperature (F): 75 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Single family housing	241.00	6.88 trips/dwelling unit	1,470.00	10,113.60
Apartments low rise	117.40	4.78 trips/dwelling unit	2,230.00	10,668.32
Retirement community	26.30	3.25 trips/dwelling unit	500.00	1,625.00
Hotel		7.58 trips/rooms	120.00	909.60
Strip mall		44.30 trips/1000 sq. ft.	274.00	12,138.20

Sum of Total Trips 35,454.72
Total Vehicle Miles Traveled 279,481.51

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	52.50	0.00	100.00	0.00
Light Truck < 3,750 lbs	15.90	0.00	100.00	0.00
Light Truck 3,751- 5,750	16.70	0.00	100.00	0.00
Med Truck 5,751- 8,500	7.60	0.00	100.00	0.00
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.90	0.00	22.20	77.80
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.50	33.30	66.70	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	2.60	0.00	92.30	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.0	5.0	6.5	9.6	9.6	9.6
Rural Trip Length (miles)	10.0	5.0	6.5	9.6	9.6	9.6
Trip Speeds (mph)	30.0	20.0	25.0	30.0	30.0	30.0
% of Trips - Residential	22.6	27.4	50.0			

% of Trips - Commercial (by land use)

Hotel	5.0	2.5	92.5
Strip mall	2.0	1.0	97.0

Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing
have changed from the defaults 9.57/490. to 6.88/241.
The Trip Rate and/or Acreage values for Apartments low rise
have changed from the defaults 6.9/139.38 to 4.784/117.4
The Trip Rate and/or Acreage values for Retirement community
have changed from the defaults 3.71/100. to 3.25/26.3

Changes made to the default values for Area

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2030.

Attachment 2

AMBAG CONSISTENCY LETTER

AMBAG
ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

February 21, 2007

Alina Pommerenck
Illingworth & Rodkin, Inc.
505 Petaluma Boulevard South
Petaluma, CA 94952

Dear Ms. Pommerenck:

This letter is in response to your February 10, 2007 request for a determination of consistency of the Miravale Phase III Subdivision EIR with the *Air Quality Management Plan for the Monterey Bay Region* (AQMP).

Consistency of the institutional/commercial portions of this project are determined by comparing the estimated current population of the jurisdiction in which the project is located with the applicable population forecast in the AQMP. If the estimated current population does not exceed the forecast, indirect emissions associated with the project are deemed to be consistent with the AQMP.

As the current population of the nearest city, Soledad is 28,075 (1/1/06 Department of Finance estimate). The forecasted population for Soledad in the year 2010, the next forecasted year, is 32,413. As the current population of Soledad is less than the forecasted population, the institutional/commercial/industrial portion of the Miravale Phase III Subdivision EIR is **consistent** with the AQMP.

Consistency of housing projects with the AQMP is analyzed by comparing the total potential population growth facilitated by the project with the forecasted growth for Monterey County. The *2004 Population, Housing Unit, and Employment Forecasts* adopted by the AMBAG Board of Directors on April 14, 2004 are the forecasts used for this consistency determination.

AMBAG staff surveyed each jurisdiction in Monterey County to determine the number of housing units that jurisdictions have approved but have not yet received a building permit. The total number of units is 8,395. Building permit data was also collected. A total of 867 housing units have received building permits between January and December 2006. The California Department of Finance estimates there are 138,617 dwelling units in Monterey County as of 1/01/06. Combined, there are 147,879 existing, approved, and or permitted housing units in Monterey County as of 2006.

SERVING OUR REGIONAL COMMUNITY SINCE 1968
445 RESERVATION ROAD, SUITE G ✦ P. O. BOX 809 ✦ MARINA, CA 93933-0809
(831) 883-3750 ✦ FAX (831) 883-3755 ✦ www.ambag.org

APPENDIX F

Special-status Species Potentially Present in the Project Vicinity

Appendix F. Table of Special-status Species Potentially Present in the Project Vicinity. Sources: USFWS Listed Species in Monterey County, CNDDB occurrences from Soledad quad and all surrounding quads, published and unpublished data, and personal knowledge.

Species	Status (USFWS/ CDFG/ CNPS)	General Habitat	Potential Occurrence within Project Vicinity
MAMMALS			
Antrozous pallidus Pallid bat	--/CSC	A wide variety of habitat are utilized, including grasslands, shrublands, woodlands, and forest from sea level up through mixed conifer forests. Most common in open, dry habitats with rocky areas for roosting. Also relatively common on bridges.	**Medium.** No CNDDB occurrences within 10 miles of the project site. Appropriate foraging habitat and marginally appropriate roosting habitat is present within project boundaries.
Dipodomys elephantinus big-eared kangaroo rat	--/ CSC	Chaparral covered slopes of the southern part of the Gabilian Range, in the vicinity of the Pinnacles. Forages under shrubs and in open burrows for cover and nesting.	**Not Present.** Appropriate habitat not present. Species not captured during onsite small mammal trapping study.
Enhydra lutris nereis southern sea-otter	FT/	Found in nearshore marine habitats environments of California from Ano Nuevo to Point Sal. Often associated with giant kelp and bull kelp, these opportunistic foragers eat mainly abalones, sea urchins, crabs, and clams.	**Not Present.** Habitat absent.
Eumops perotis californicus Western mastiff-bat	FSC/ CSC	Many open habitats including conifer and deciduous woodlands, coastal scrub, grassland, and chaparral. Roost in crevices in cliff faces, high buildings, trees, and tunnels.	**Unlikely.** No CNDDB occurrences of this species within 10 miles of the project site. The project site supports marginally appropriate foraging and roosting habitat for this species.
Neotoma fuscipes luciana Monterey dusky-footed woodrat	--/ CSC	Dense chaparral, oak and riparian woodland, and in mixed coniferous forest that has a well developed understory. Prefers fairly moist habitat but is also found in drier habitats such as pinyon-juniper woodland.	**Not Present.** Appropriate habitat not present. No woodrat nests observed.
Perognathus inornatus psamnophilus Salinas pocket mouse	FSC/ CSC	Typically found in grasslands and blue oak savanna, needs friable soils.	**Present.** One male was captured during onsite small mammal sampling, and appropriate habitat is

Species	Status (USFWS/ CDFG/ CNPS)	General Habitat	Potential Occurrence within Project Vicinity
			present in foothill portions of the site.
Taxidea taxus American badger	--/CSC	dry, open grasslands, fields, and pastures	**Present.** CNDDB reports an occurrence of this species approximately 6 miles south of the project site. Appropriate habitat is present in foothill portions of the site. American badger dens observed near onsite reservoirs and in foothill habitats.
Vulpes macrotis mutica San Joaquin Kit fox	FE/ ST	Open, level areas with loose-textured soils supporting scattered, shrubby vegetation with little human disturbance. Live in annual grasslands or grassy open stages dominated by scattered brush, shrubs, and scrub.	**Present.** The CNDDB reports the presence of SJKF critical habitat within 2 km of project boundaries. Appropriate denning habitat is present in foothill portions of the site. Active and fallow agricultural lands may provide foraging and dispersal habitat for this species. This species is assumed present.
BIRDS			
Accipiter cooperii Cooper's hawk	--/ CSC	Resident throughout most of the wooded portion of the state. Dense stands of live oak, riparian deciduous, or other forest habitats near water used most frequently. Seldom found in areas without dense tree stands, or patchy woodland habitats.	**Low.** No CNDDB occurrences of this species within 10 miles of the project site. Appropriate nesting habitat not present within project boundaries.
Accipiter striatus sharp-shinned hawk	--/ CSC	Uses dense stands in close proximity to open areas. Roosts in intermediate to high-canopy forest. Nests in dense, even-aged, single-layered forest canopy. Winters in woodlands.	**Low.** No CNDDB occurrences of this species within 10 miles of the project site. Appropriate nesting habitat not present within project boundaries.

Species	Status (USFWS/ CDFG/ CNPS)	General Habitat	Potential Occurrence within Project Vicinity
Agelaius tricolor tricolored blackbird	--/ CSC	Nest in colonies in dense riparian vegetation, along rivers, lagoons, lakes, and ponds. Forages over grassland or aquatic habitats.	**Low.** No CNDDB occurrences within 10 miles of the project site. No tric's observed at the onsite reservoir and/or ag lands during multiple site visits by qualified biologists (Pers. Obs. David Keegan)
Aquila chrysaetos golden eagle	--/CSC	Use rolling foot-hills, mountain terrain, wide arid plateaus deeply cut by streams and canyons, open mountain slopes, cliffs, and rocky outcrops. Nest in secluded cliffs with overhanging ledges as well as large trees.	**Medium.** No CNDDB occurrences within 10 miles of the project site, however, appropriate foraging habitat is present throughout the project site. No nesting habitat present.
Athene cunicularia Western burrowing owl	FSC/ CSC	Burrows are protected. Require open grassland habitats with low-growing vegetation and abandoned burrows. Prefers these areas assoc. with some raised perches.	**Present.** No CNDDB occurrences within 10-miles of the project site, however, DD&A and Biosearch biologists have observed several burrowing owls and occupied burrows in the course of protocol-level surveys for this species.
Brachyramphus marmoratus marbled murrelet	FT/	Occur year-round in marine subtidal and pelagic habitats from the Oregon border to Point Sal. Partial to coastlines with stands of mature redwood and Douglas-fir. Requires dense mature forests of redwood and/or Douglas-fir for breeding and nesting.	**Not Present.** No appropriate habitat.
Buteo swainsoni Swainson's hawk	FSC/ ST	Generally found associate with plains, range, open hills, and sparse trees.	**Unlikley,** No CNDDB occurrences within 10-miles of the project site. This species typically forages in the vicinity of nesting habitat. No nesting habitat present within

Species	Status (USFWS/ CDFG/ CNPS)	General Habitat	Potential Occurrence within Project Vicinity
			or adjacent to the project site.
Circus cyaneus Northern harrier	--/ CSC	Generally found in flat open areas with tall, dense grasses, shrubs, and edges for cover and breeding. Use tall grasses in wetlands or at wetland borders for nesting.	**Present.** No CNDDB occurrences within 10-miles of the project site, however, appropriate foraging habitat is present, and one individual was observed foraging over foothill portions of the site.
Charadrius alexandrinus nivosus Western snowy plover	FT/ CSC	Sandy beaches on marine and estuarine shores, also salt pond levees and the shores of large alkali lakes. Requires sandy, gravelly or friable soil substrate for nesting.	**Not Present.** No habitat present.
Eremophila alpestris California horned lark	---/CSC	Variety of open habitats, usually where large trees and/or shrubs are absent. Found from grasslands along the coast to deserts at sea-level and alpine dwarf-shrub habitats are higher elevations. Builds open cup-like nests on the ground.	**Medium.** No CNDDB occurrences, but this species is often not reported. Appropriate habitat for this species is present within project boundaries, but none have been observed.
Elanus leucurus white-tailed kite	--/ CFP	Open groves, river valleys, marshes, and grasslands. Prefer such area with low roosts (fences etc.). Nest in shrubs and trees adjacent to grasslands.	**Present.** No CNDDB occurrences within 10-miles of the site, however, appropriate foraging habitat is present throughout grassland portions of the site, and DD&A and Biosearch biologists have observed this species within proposed development boundaries.
Falco columbarius Merlin	--/CSC	Uses a variety of habitats in both winter and during migration.	**Low.** No CNDDB occurrences within 10-miles of the site, however, appropriate foraging habitat is present throughout grassland portions of

Species	Status (USFWS/ CDFG/ CNPS)	General Habitat	Potential Occurrence within Project Vicinity
			the site. This species does not nest within Monterey County.
Falco peregrinus American Peregrine Falcon	FE/SE	Forages for other birds over a variety of habitats. Breeds primarily on rocky cliffs.	**Unlikely** No CNDDB occurrences within 10-miles of the site. No appropriate nesting habitat. Project site is >30 miles from the coast.
Riparian riparia bank swallow	--/ ST	Nest colonially in sand banks. Found near water; fields, marshes, streams, and lakes.	**Not Present.** Appropriate nesting habitat is not present within the project site or immediate vicinity (pers. comm. Don Roberson).
Sterna antillarum browni California least tern	FE/ SE	Sea beaches, bays; large rivers, bars.	**Not Present.** Appropriate habitat not present.
Vireo bellii pusillus Least Bell's vireo	FE/SE	Riparian habitats. Breed in willow riparian forest supporting a dense, shrubby understory. Oak woodland with a willow riparian understory is also used in some areas, and individuals sometimes enter adjacent chaparral, coastal sage scrub, or desert scrub habitats to forage.	**Not Present.** Appropriate habitat not present.
REPTILES AND AMPHIBIANS			
Ambystoma californiense California tiger salamander	FT/ CSC	Annual grassland and grassy understory of valley-foothill hardwood habitats in central and northern California. Need underground refuges and vernal pools or other seasonal water sources.	**Present.** CTS Critical Habitat is present within 5km of project boundaries. CTS occurrence records within 6 km. Project site is within historic distribution of the species, and DD&A biologists confirmed CTS breeding at the onsite Reservoir in the course of aquatic sampling for this species.
Gambelia silus blunt-nosed leopard lizard	FE/ SE	Suitable habitat for this species includes sparsely vegetated scrub and grassland habitats in areas of low topographic relief. In areas of high relief, distribution, distribution is usually confined	**Unlikely.** No CNDDB occurrences within 10-miles of the project site. Marginally appropriate habitat

Species	Status (USFWS/ CDFG/ CNPS)	General Habitat	Potential Occurrence within Project Vicinity
		to broad sandy washes. Found on alkali flats, large washes, arroyos, canyons, and low foothills from 100-3000ft.	present, but none observed during multiple site visits.
Phrynosoma coronatum frontale Coast horned lizard	--/ CSC	Associated with open patches of sandy soils in washes, chaparral, scrub, and grasslands.	**Medium.** No CNDDB occurrences within 10-miles of the site, however, appropriate habitat is present throughout the fallow and grassland portions of the site.
Rana aurora draytonii California red-legged frog	FT/ CSC	Lowlands and foothills in or near permanent or late-season sources of deep water with dense, shrubby, or emergent riparian vegetation. During late summer or fall adults are known to utilize a variety of upland habitats with leaf litter or mammal burrows.	**Low.** CRLF Critical Habitat is present within 10 km of project boundaries. CRLF occurrence records within 7 km. Project site is within historic distribution of the species, and supports appropriate aquatic breeding habitat and associated upland habitat at the "reservoir" and surrounding foothills. However, no CRLF eggs, larvae, or adults have been observed onsite in the course of multiple breeding season site visits by qualified biologists (David Keegan, Pers. Obs.).
Scaphiopus hammondii Western spadefoot	--/ CSC	Grasslands with shallow temporary pools are optimal habitats for the Western spadefoot. Occur primarily in grassland habitats, but can be found in valley and foothill woodlands. Vernal pools are essential for breeding and egg laying.	**Low.** CNDDB reports one occurrence of this species within 6 km of the site. Project site is within historic distribution of the species, and supports appropriate aquatic breeding habitat and associated upland habitat at the "reservoir" and surrounding foothills.

Species	Status (USFWS/ CDFG/ CNPS)	General Habitat	Potential Occurrence within Project Vicinity
			However, no WST eggs, larvae, or adults have been observed onsite in the course of multiple breeding season site visits by qualified biologists (David Keegan, Pers. Obs.).
Taricha torosa torosa coast range newt	CSC	Occurs mainly in valley-foothill hardwood, valley-foothill hardwood-conifer, coastal scrub, and mixed chaparral but is known to occur in grasslands and mixed conifer types. Seek cover under rocks and logs, in mammal burrows, rock fissures, or man-made structures such as wells. Breed in intermittent ponds, streams, lakes, and reservoir.	**Unlikely.** No CNDDB occurrences within 10-miles of the project site. Coast range newts are only known from locations south of Salinas River in Monterey County. Salinas River is >2.5 miles south of project site.
FISH			
Eucyclogobius newberryi tidewater goby	FE/ CSC	Brackish water habitats, found in shallow lagoons and lower stream reaches.	**Not Present.** No navigable waters present.
Oncorhynchus mykiss irideus Steelhead-Central California Coast.	FT/ CSC	Coastal perennial and near perennial streams, with suitable spawning and rearing habitat and no major barriers.	**Not Present.** No navigable waters present.
INVERTEBRATES			
Branchinecta conservatio Conservancy fairy shrimp	FE/	Require ephemeral pools with no flow. Grasslands of the northern two-thirds of the Central Valley, spanning a north-south distance of about 300 km, at elevations of 5-145 meters. Require ephemeral pools with no flow.	**Not Present.** No appropriate aquatic habitat present.
Branchinecta longiantenna longhorn fairy shrimp	FE/ none	Require ephemeral pools with no flow. Restricted distribution; Eastern edge of the Central Coast Mountains Region. Require ephemeral pools, typically associated with clear to turbid, clay and grass-bottomed pools.	**Not Present.** No appropriate aquatic habitat present.
Branchinecta lynchii vernal pool fairy shrimp	FT/ --	Require ephemeral pools with no flow. Associated with vernal pool/grasslands from near Red Bluff (Shasta County), through the central valley, and into the South Coast Mountains Region.	**Not Present.** No appropriate aquatic habitat present.

Species	Status (USFWS/ CDFG/ CNPS)	General Habitat	Potential Occurrence within Project Vicinity
		Require ephemeral pools with no flow.	
Danaus plexippus Monarch butterfly	--/--	Overwinters in coastal California using colonial roosts generally found in Eucalyptus, pine and acacia trees. Overwintering habitat for this species within the Coastal Zone represents ESHA. Local ordinances often protect this species as well.	**Not Present.** Appropriate habitat (groves and microclimate) present.
Euphilotes enoptes smithi Smith's blue butterfly	FE/--	Most commonly associated with coastal dunes and coastal sage scrub plant communities in Monterey and Santa Cruz Counties. Plant hosts are *Erigonum latifolium* and *E. Parvifolium*.	**Not Present.** Obligate host plants not present.
Linderiella occidentalis California linderiella fairy shrimp	FSC/	Ephemeral ponds with no flow. Generally associated with hardpans.	**Not Present.** No appropriate aquatic habitat present.
PLANTS			
Abies bracteata Bristlecone fir	--/1B	Endemic to the Santa Lucia Mountains.	**Not Present.** No fir present.
Arctostaphylos gabilanensis Gabilan Mountains manzanita	--/1B	Endemic to chaparral and chaparral/pine woodland habitats of the Gabilan Mountains of California, along the borders of San Benito and Monterey counties.	**Not Present.** No manzanita present.
Astragalus tener var. *tener* alkali milk-vetch	-- / SE / 1B	Playas, valley and foothill grassland (adobe clay), vernal pools/ alkaline; elevation 1-60 meters. Annual herb, blooms March-June.	**Not Present.** No appropriate habitat.
Caulanthus coulteri var. lemmoniii Lemmon's jewel flower	--/1B	Open, grassy areas; on hillside slopes and in fields, canyons, and arroyos. Soils include alkaline soils, shaley clay, sandstone talus, and decomposed serpentine. Predominantly found within Valley Grassland community, occasionally in Pinyon-Juniper Woodland. 80 - 1600 m. Annual herb; blooms March-May.	**Medium.** Marginally appropriate habitat present in the mixed grassland/rocky outcrop portions of the project site, and not identifiable at the time of the DD&A site assessments. Spring-time floristic survey or preconstruction survey recommended.
Centromadia parryi ssp. *congdonii* Congdon' tarplant	-- / -- /1B	Valley and foothill grassland (alkaline); elevation 1-230 meters.	**Not Present.** Lack of appropriate soils (lack of heavy

Species	Status (USFWS/ CDFG/ CNPS)	General Habitat	Potential Occurrence within Project Vicinity
		Annual herb, blooms June-November	soils).
Chorizanthe pungens var. pungens Monterey spineflower	FT/ 1B	Chaparral (maritime), cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland/ sandy; elevation 3-450 meters. Annual herb, blooms April-June.	**Not Present.** Lack of appropriate habitat (lack of sandy soils).
Chorizanthe robusta var. robusta robust spineflower	FE/ 1B	Cismontane woodland (openings), coastal dunes, coastal scrub/ sandy or gravelly; elevation 3-300 meters. Annual herb, blooms April-September.	**Not Present.** Lack of appropriate habitat (lack of sandy soils).
Cupressus goveniana ssp. goveniana gowen cypress	FT/ 1B	Closed cone coniferous forest, chaparral (maritime); elevation 30-300 meters. Tree (evergreen).	**Not Present.** Conspicuous species not present.
Eriogonum nortonii pinnacle buckwheat	FSC/ 1B	Chaparral, valley and foothill grassland/ sandy, often on recent burns; elevation 300-975 meters. Annual herb, blooms May-June.	**Not Present.** Conspicuous species not present.
Erysimum menziesii ssp. menziesii Menzie's wallflower	FE/ SE/ 1B	Coastal dunes. Perennial herb, blooms March-June.	**Not Present.** Appropriate habitat not present.
Holocarpha macradenia Santa Cruz tarplant	FT/ SE	Coastal prairies, valley foothill grasslands/ often clay. Annual herb, blooms June-October	**Not Present.** No mesic sites. No soils (lack of clay).
Layia carnosa Beach layia	FE/ SE/ 1B	Coastal dunes., coastal scrub (sandy; elevation 0-60 meters. Annual herb, blooms March-July.	**Not Present.** Appropriate habitat not present.
Lembertia congdonii San Joaquin wollythreads	FE/ 1B	Chenopod scrub, valley and foothill grassland (sandy); elevation 60-800 meters. Annual herb, blooms February-May	**Not Present.** No habitat. No soils (lack of sandy soils).
Lupinus tidestromii Tidestrom's lupine	FE/SE/1B	Coastal dunes; elevation 0-100 meters. Perennial herb (rhizomatous), blooms April-June.	**Not Present.** Appropriate habitat not present.

Species	Status (USFWS/ CDFG/ CNPS)	General Habitat	Potential Occurrence within Project Vicinity
Malacothamnus aboriginum indian valley bush mallow	FSC/ 1B	Chaparral, cimontane woodland/ rocky.	**Not Present.** Appropriate habitat not present.
Malacothrix saxatilis var. arachnoidea Carmel Valley macothrix	FSC/ 1B	Chaparral (rocky); elevation 25-335 meters. Perennial herb (rhizomatous), blooms March-December.	**Not Present.** Appropriate habitat not present.
Navarretia negelliformis ssp. radians shining navarretia	FSC/ 1B	Cismontane woodland, valley foothill grasslands, vernal pools	**Not Present.** Appropriate habitat not present.
Potentilla hickmanii Hickman's cinqufoil	FE/ SE / 1B	Coastal bluff scrub, closed cone coniferous forests, meadows(vernally mesic), marshes and swamps (freshwater). Perennial herb, blooms April-August.	**Not Present.** Appropriate habitat not present.
Yadon's rein orchid *Piperia yadonii*	FE/-- 1B	Sandy soils in coastal bluff scrub, closed-cone coniferous forest, and maritime chaparral. Annual.	**Not Present.** Appropriate habitat not present.
Plagiobothrys uncinatus Hooked popcorn flower	--/1B	Chaparral, Cismontane woodlands, Valley-foothill grasslands.	**Not Present.** No mesic habitat.
Texosporium sancti-jacobi woven-spored lichen	FSC/1B	Found in arid to semi-arid grasslands, shrublands, or savannas. Parent materials are noncalcareous, including basalt, granite, and mixed alluviums. Soils developed on these parent materials vary greatly, from very fine textured soils on basalt to sandy loams, to soils with a very high content of fine or coarse sand. Soil depth varies greatly.	**Not Present.** Appropriate habitat not present.

Unlikely: The project area and/or immediate vicinity do not provide suitable habitat for a part particular species. Project area is outside of the species range.

Low Potential: Project area and/or immediate vicinity provides only limited habitat for a particular species. The known range for a particular species may be outside of the project area.

Medium Potential: The project area and/or immediate vicinity provide suitable habitat for a particular species, though there are no known sightings in the area.

High potential: The project area and/or immediate vicinity provide ideal habitat conditions for a particular species and/or the species is known to occur in the area.

Key to Status Codes

CSC	CDFG Species of concern
FSC	Federal Species of concern
CFP	CDFG Fully Protected Animal
SE	State Endangered
ST	State Threatened
FE	Federal Endangered
FT	Federal Threatened
PT	Officially proposed as Threatened
PX	Proposed as critical habitat essential to species recovery
C	Candidate to be Proposed
1B	CNPS 1B Listed, Endangered, Threatened or Rare in California

APPENDIX G

City of Soledad Storm Drain Master Plan Appendix B
Engineering Results of the RM Associates, Storm Drain and HYDRA hydraulic analysis
for Miravale III

Appendix "B"
Mirevale III HYRDA Storm Water Calculation and Map of HYDRA Model

RM ASSOCIATES

RUBEN MORENO, P.E., J.D.
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ANDREW MORENO, M.A.
(JESS CASTANON, 1954-2000)

MEMORANDUM

SENT VIA FACSIMILE & U.S. MAIL

DATE: March 2, 2007

TO: Clifton Price, Public Works Director
Department of Public Works
City Of Soledad
248 Main Street
Soledad, CA 93690

FAX: (831) 678-3965

FROM: Robert T. James, P.E.
Dan Hinojosa, P.E.

RE: Storm Water Master Plan
City of Soledad
RMA Job No. 06712

SUBJECT: Hydraulic Analysis of the proposed storm drain system for the Miravale-III-Sub-division

RM-Associates (RMA) has developed a working model of the Miravale-III sub-division storm drain collection system using HYDRA software, version 6.4. HYDRA is a software product for the analysis, design, and management of storm, sanitary, and combined sewer systems. RMA employed it to analyze and critique the storm drain system being proposed by the developer. The following discusses the model's development, analysis, and conclusions:

A. Delineation of Collection System

RMA modeled the collection system from layout drawings obtained from others. For the purposes of this study, the collection system was divided into three sections (Systems 100, 200, 300; see attached drawing):

Collection System 100 encompasses the upper north-west section of the sub-division. This system is primarily catching offsite flows coming from the outside watersheds to the north. It also catches water from basins earmarked for future residential development as well as the Williamson Act property. The system outlets into a proposed intermediate 21 acre-feet (AF) basin. This basin in turn can discharge out into Collection System 200.

Collection System 200 encompasses the upper half of the sub-division. This system includes the residential areas that are in the foothill basins. This is the most difficult part of the drainage system hydraulically speaking. The system outlets into the proposed primary ponding basin (i.e., the golf course driving range) that is located at the south-west corner of the sub-division.

Collection System 300 encompasses the lower half of the sub-division. This system includes a portion of the residential areas in the foothill basins, as well as one catchment for offsite water coming in from the east. It also outlets into the proposed primary ponding basin.

The total number of pipes and manholes were quantified. Drain inlets that were in close proximity to each other and also drain into common manholes were ignored to simplify the modeling process (i.e, clustered drain inlets modeled as one). Manhole inlet rim and invert elevations were determined. Pipe lengths and size were also quantified. A uniform pipe roughness factor of 0.013 (concrete pipe) was used. Also, the maximum allowable flow through the pipe, (d/D) was set at 0.90.

B. Delineation of Drainage Basins

RMA developed the model's drainage basins by studying the drainage patterns of the collection system, land usage, and the Hydraulic Soil Group Classifications. Per city standard, the Modified SCS Method (Santa Barbara Urban Hydrograph Method) was deployed. HYDRA requires the following drainage basin data to execute the SCS Method:

- Basin area (acres)
- Time-of-concentration (Tc): For each individual basin, the time of concentration was measured from the most remote location, then along the gutter flow-line back to the catch basin.
- Runoff Curve Numbers: This was assigned after reviewing the basin's land usage in conjunction with its Hydrologic Soils Group classifications.

C. Collection System PASS/FAIL Criteria

The following specification was used to analyze the proposed storm drain collection system for the Miravale-III sub-division:

Storm Drain System Design Year Criteria:

Design storm (years)	Design Storm return period applied to:
2	(Not used)
5	(Not used)
10	Residential and "local", where local is defined as schools, parks, and the golf course.
20	(Not used)
25	Commercial/Industrial/Major trunk lines
100	Offsite runoff "Q" must be a 100-year storm event

COLLECTION SYSTEM "PASS/FAIL" CRITERIA

	PIPELINES
1	Residential: The hydraulic grade line (HGL) must be no higher than 0.5 feet below the gutter.
2	Commercial/Industrial: The HGL must be no more that 0.5' above the gutter.
3	Main Trunks: The HGL can be no more than 1.0' above the gutter.
4	Pipe velocities must be between the range of 2 to 8 fps.
5	New pipes must be less than running 100% full at the design storm.
	PONDING BASINS
6	Both the upper and lower retention basin must have enough capacity to hold runoff produced from a 100-year, 24 hour storm event.

D. Off-site Runoff "Q"

The storm flows emanating from offsite watersheds were added into the HYDRA model as a "flow injection". Based on the above specification, the primary trunk lines must be able to handle the following 100-year offsite flow:

Offsite Watershed Flows

Injection point	Peak Flow; Q_{100} (cfs)
1	82.5
2	22.6
3	87.4
4	236.0

E. Design Storm Development

Accepted engineering methodologies for a transient intensity design storm are (1) the SCS (NRCS) synthetic storm, and (2) the Alternating Block Method. RMA employed the SCS Method which is based on the following:

- The NRCS developed a series of synthetic distributions that can be used in the United States to create a 24-hour design storm. The NRCS rainfall distribution map shows Soledad as a "Type I" storm.
- The step duration (time increment) used was 15 minutes.
- The design intensity was derived from the City standard IDF curve "Soledad IDF Station". This produced the following total precipitation amounts for 24 hour storms:

Storm Intensity and Precipitation Totals

Design storm	Intensity (inches/hour)	Precipitation (inches)
10	0.09	2.16"
25	0.11	2.64"
100	0.14	3.36"

Design storm files for the 10, 25 and 100 year storm events were consequently developed to create "storm files" to be used by HYDRA. The program produces a "flow file" which links the

collection system to the drainage basins for scenario analysis. The "flow file" in turn runs along with a "storm file" to produce analysis results.

F. Results of the Model Analysis:

With all the above data entered into the HYDRA program, the following results were obtained (see attached System Summary and Reservoir Summary Results):

- Pipe Collection System 100 **"FAILS"**. Using the 10-year storm criteria with 100-year offsite point injections, the pipes are all running in excess of 100% capacity (all pipes in surcharge). In addition, all pipes except one have flow velocities over 8 fps, with pipe "110-03" hitting 26.4 fps. The hydraulic grade line (HGL) for about one quarter of the line is above the ground.

- The upper 21 acre-feet (AF) pond basin **"PASSES"**. Based on the 25-year storm volume criteria, the basin fills to 696,896 cf (16 AF), or 76% of capacity. The model still needs to be run with a 100-year storm, which may push the basin to capacity.

- Pipe Collection System 200 largely **"FAILS"**. Per specification, Collection System 200 must pass the 10-year storm criteria with 100-year offsite point injections. In addition, the main trunk line that borders the north side of the development must be able to pass the 25-year storm criteria with 100-year point injections. The model shows the majority of the pipeline in a surcharge condition. Also, the majority of the pipes are exhibiting excessive velocities, with pipe "220-08" hitting 21.8 fps for a 10-year storm and 34.2 fps during a 25-year storm event. The majority of the HGL is above the ground except for the pipeline in the vicinity of the primary ponding basin (lower branch of collection Section 200). None of the collection system passes all the stipulated specification.

- Collection System 300 **"PASS/FAILS"**. Per specification, Collection System 300 must pass the 10-year storm criteria (no offsite injections are applicable). In addition, the main trunk line that runs to the commercial area (a portion of collection system 340 and 351) as well as the main trunk line that borders the south side of the development (system 300) must be able to pass the 25-year storm criteria with the 100-year offsite point injection. About two-thirds of the system was able to pass the stipulated design storm. However, the majority of the pipes are displaying excessive velocities with pipe "300-05" hitting 19.7 fps during the 25-year storm event. The HGL is below the ground at all locations (PASS) except for pipe section "342". A portion of the pipes in Collection System 300 passed all the stipulated specification (Collection Systems 310, 330, ½ of 360, 370, 341, 343, 348, and 351).

- The primary ponding basin **"FAILS"**. Using the 25-year retention specification, the basin must hold 12.2 million cubic feet (281 AF). RMA estimates the basin capacity at about 106 AF, therefore it is about 2.6 times too small. The model still needs to be run with a 100-year storm flow.

G. Observations taken from the model:

The HYDRA model also suggests the following:

- The proposed design has not adequately addressed the upper basins in the north-east portion of the proposed sub-division (foothills), including the immediate offsite up hill drainage areas. The steeper slopes are problematic; manhole turbulence, excessive velocities, street flooding, etc. Without some type of diversion to deal with water coming off the immediate offsite drainage areas, these basins must drain into the sub-division and into the proposed on-site collection system.

- The temporary drainage channel being proposed through the parcels labeled "future housing" is a concern. There is the legal issue of passing pubic water through a private development. Also, the additional water may push the upper ponding basin past its capacity.

- The overflow at the main ponding basin will be producing high overflows into the adjacent properties to the north during large storm events. The 25-year storm model calculated an extremely high "Q" overflow of 448 cfs. The potential for flooding the downstream adjacent property owner(s) needs to be addressed.

H. Model Limitations

Limitations to the computer model include:

- The model does not take into account the quality of storm water discharge in a 24-hour period into under laying soil through percolation. Please refer to the soils report which indicates perch groundwater beneath the large basin.

- The proposed design shows two "end-of-the-line" tie-in diversions into the existing San Vicente Boulevard trunk main. An upper diversion proposes to allow a maximum 60 cfs into the city system. The model as now run did not allow any water from this point. For the lower diversion, the design did not quantify a proposed maximum flow. Based on the hydraulics of a 24" diversion pipe, RMA modeled the lower diversion using a maximum flow rate of 15 cfs. (See additional discussion, Hydraulic analysis of existing storm drain system for upper San Vicente Basin.)

- The program models the hydraulic grade line starting from the invert of the pipe that outlet into the ponding basins. The HGL elevations shown on the report were calculated from this starting point. The user must manually input a higher HGL at the pipe outlet to model a ponding basin at ½ full, ¾ full, etc. A higher HGL starting point will only create even higher hydraulic grade lines upstream.

I. Conclusion/Recommendations

- The HYDRA model suggests serious problems with the proposed storm drain collection system for the Miravale-III sub-division. RMA recommends that the City ask the developer to perform additional engineering on the entire system to insure that it will perform to an acceptable standard.

- RMA requests instructions from the City on exactly what additional engineering oversight would be appropriate on this project.

Respectfully Submitted,

Robert T. James, P.E.
Project Manager

Daniel R. Hinojosa, P.E.
Staff Engineer

Cc: Ruben Moreno, Principal

Proj/Corr/Engr Files

25yPF
stem Summary

2/28/2007 1:30:14 PM

UserID SEQ	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
						200					
MV3		MAN	5.00	471.00	467.00			3.16		744.40	273.4
135	409			471.00	466.94			0.00		744.40	
MV3-20-01		EPI	600.00	471.00	467.00	0.0667	15	3.16	16.658	744.40	Yes
136	365			432.00	427.00			8.77	13.498	742.97	
MV3		MAN	5.00	432.00	427.00			6.07		742.97	310.97
143	410			432.00	426.95			0.00		742.97	
MV3-20-03		EPI	514.00	432.00	427.00	0.0535	15	6.07	14.923	742.97	Yes
144	366			406.70	399.50			9.92	8.855	738.46	
MV3		MAN	5.00	406.70	399.50			8.63		738.46	331.76
145	455			406.70	399.40			0.00		738.46	
MV3-20-91		EPI	276.40	406.70	399.50	0.0568	15	8.63	15.376	738.46	Yes
146	454			388.80	383.80			11.27	6.748	733.55	
MV3		MAN	5.00	406.70	399.50			9.50		733.55	326.85
149	411			406.70	399.40			0.00		733.55	
MV3-20-03		EPI	535.00	388.80	383.80	0.0669	18	9.50	27.138	733.55	Yes
150	367			354.00	348.00			11.91	17.643	729.20	
MV3		MAN	5.00	388.80	383.80			11.37		729.20	340.4
151	412			388.80	383.70			0.00		729.20	
MV3-20-04		EPI	696.00	354.00	348.00	0.0417	18	11.37	21.415	729.20	Yes
5	368			324.00	319.0[illegible]			10.69	10.050	721.09	
[illegible]		MAN	5.00	324.00	319.00			20.99		721.09	397.09
167	413			324.00	318.90			0.00		721.09	
MV3-20-05		EPI	650.00	324.00	319.00	0.0231	15	20.99	9.801	721.09	Yes
168	369			309.00	304.00			17.13	-11.193	652.75	
MV3		MAN	5.00	309.00	304.00			26.76		652.75	343.75
169	414			309.00	303.90			0.00		652.75	
MV3-20-06		EPI	600.00	309.00	304.00	0.0267	15	26.76	10.535	652.75	Yes
170	370			293.00	288.00			21.81	-16.225	550.26	
MV3		MAN	5.00	293.00	288.00			27.77		550.26	257.26
171	415			293.00	287.90			0.00		550.26	
MV3-20-07		EPI	650.00	293.00	288.00	0.0071	18	27.77	8.826	550.26	Yes
172	371			289.80	283.40			15.72	-18.949	505.03	
MV3		MAN	5.00	289.80	283.40			36.60		505.03	215.23
173	416			289.80	283.30			0.00		505.03	
MV3-20-08		EPI	700.00	289.80	283.40	0.007	18	38.55	8.777	505.03	Yes
174	372			283.50	278.50			21.82	-29.775	411.19	
MV3		MAN	5.00	283.50	278.50			46.25		411.19	127.69
175	417			283.50	278.40			0.00		411.19	
MV3-20-09		EPI	140.00	283.50	278.50	0.025	21	46.25	25.021	411.19	Yes
176	373			280.20	275.00			19.23	-21.226	399.32	
MV3		MAN	5.00	280.20	275.00			46.13		399.32	119.12
177	418			280.20	274.90			0.00		399.32	
MV3-20-10		EPI	840.00	280.20	275.00	0.0244	21	46.13	24.722	399.32	Yes
178	374			259.00	254.50			19.18	-21.407	328.47	

rID .Q	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
MV3 179	419	MAN	5.00	259.00 259.00	254.50 254.40			47.29 0.00		328.47 328.47	69.47
MV3-20-11 180	375	EPI	190.00	259.00 256.00	254.50 251.30	0.0168	24	47.29 15.05	29.322 -17.969	326.47 320.20	Yes
MV3 181	420	MAN	5.00	256.00 256.00	251.30 251.20			49.03 0.00		320.20 320.20	64.2
MV3-20-12 182	376	EPI	500.00	256.00 247.60	251.30 242.60	0.0174	24	49.93 15.89	29.803 -20.128	320.20 295.97	Yes
MV3 183	421	MAN	5.00	247.60 247.60	242.60 242.50			50.07 0.00		295.97 295.97	48.36
MV3-20-13 184	377	EPI	920.00	247.60 230.00	242.60 225.00	0.0191	24	50.07 15.94	31.250 -18.823	295.97 251.11	Yes
MV3 185	422	MAN	5.00	230.00 230.00	225.00 224.90			54.27 0.00		251.11 251.11	21.11
MV3-20-14 186	378	EPI	160.00	230.00 227.70	225.00 222.70	0.0144	24	54.27 17.28	27.089 -27.184	251.11 241.95	Yes
MV3 187	423	MAN	5.00	227.70 227.70	222.70 222.60			56.04 0.00		241.95 241.95	14.25
MV3-20-15 188	379	EPI	410.00	227.70 221.10	222.70 215.00	0.0188	27	56.04 14.09	42.389 -13.651	241.95 228.59	Yes
MV3 189	424	MAN	5.00	221.10 221.10	215.00 214.90			62.55 0.00		228.59 228.59	7.49
MV3-20-16 190	380	EPI	160.00	221.10 219.00	215.00 213.50	0.0094	27	62.55 15.73	29.949 -32.602	228.59 222.10	Yes
[illegible] 191	425	MAN	5.00	219.00 219.00	213.50 213.40			170.72 0.00		222.10 222.10	3.1
MV3-20-17 192	381	EPI	540.00	219.00 208.60	213.50 203.60	0.0183	45	170.72 15.46	163.539 -7.183	222.10 211.39	Yes
MV3 193	426	MAN	5.00	208.60 208.60	203.60 203.50			169.70 0.00		211.39 211.39	2.79
MV3-20-18 194	382	EPI	550.00	208.60 197.90	203.60 192.90	0.0195	45	169.70 15.36	168.466 -1.231	211.39 200.62	Yes
MV3 195	427	MAN	5.00	197.90 197.90	192.90 192.80			168.54 0.00		200.62 200.62	2.72
MV3-20-19 196	383	EPI	470.00	197.90 191.00	192.90 184.00	0.0189	42	168.54 17.52	138.276 -30.264	199.09 187.50	Yes
MV3 203	428	MAN	5.00	191.00 191.00	184.00 183.90			173.99 0.00		186.82 186.82	-4.18
MV3-20-20 204	384	EPI	220.00	191.00 188.50	184.00 177.80	0.0282	48	173.99 18.48	240.841 66.855	186.82 181.54	No
MV3 205	429	MAN	5.00	188.50 188.50	177.80 177.70			175.65 0.00		181.54 181.54	-6.96
MV3-20-21 206	385	EPI	420.00	188.50 190.00	177.80 173.80	0.0095	54	175.65 12.44	191.673 16.020	181.54 177.54	No
MV3 207	430	MAN	5.00	190.00 190.00	173.80 173.70			174.85 0.00		177.44 177.44	-12.56
MV3-20-22 208	386	EPI	430.00	190.00 181.00	173.80 169.40	0.0102	54	174.85 12.76	198.677 23.826	177.44 173.08	No
MV3 [illegible]	431	MAN	5.00	181.00 181.00	169.40 169.30			173.52 0.00		173.08 173.08	-7.92

IO25yPF
System Summary

erID / I	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
MV3-20-23		EPI	450.00	181.00	169.40	0.0098	54	173.52	194.211	173.08	No
210	387			170.00	165.00			12.53	20.693	168.68	
MV3		MAN	5.00	190.00	165.00			172.05		165.03	-24.97
211	432			190.00	164.90			0.00		165.03	
670		EPI	233.09	190.00	162.23	0.001	500	175.84	23,476.954	165.00	No
212	670			190.00	162.00			4.50	23,301.117	165.00	
						205					
MV3		MAN	5.00	406.20	404.00			1.09		464.22	58.02
137	433			406.20	403.90			0.00		464.22	
MV3-21-01		EPI	190.00	466.20	464.00	0.1474	12	1.55	13.660	464.22	No
138	388			440.00	436.00			8.88	12.574	436.24	
MV3		MAN	5.00	440.00	436.00			1.06		436.24	-3.76
139	434			440.00	435.90			0.00		436.24	
MV3-21-02		EPI	80.00	440.00	436.00	0.1	12	1.06	11.252	436.24	Yes
140	389			432.00	428.00			7.67	10.194	432.00	
MV3		MAN	5.00	432.00	428.00			1.03		432.00	No
141	435			432.00	427.90			0.00		743.01	
MV3-21-03		EPI	30.00	432.00	428.00	0.0333	12	1.36	6.496	743.01	Yes
142	390			432.00	427.00			5.56	5.136	742.97	
						210					
MV3		MAN	5.00	404.60	400.60			1.08		733.58	328.98
147	436			404.60	400.50			0.00		733.58	
MV3-21-14		EPI	170.00	404.60	400.60	0.0988	15	1.08	20.281	733.58	Yes
[illegible]	391			388.80	383.8[illegible]			7.4[illegible]	19.200	733.55	
						215					
MV3		MAN	5.00	367.00	363.00			1.23		724.98	357.98
157	439			367.00	362.90			0.00		724.98	
MV3-22-01		EPI	320.00	367.00	363.00	0.0531	15	1.54	14.870	724.98	Yes
158	394			351.00	346.00			6.72	13.333	724.79	
MV3		MAN	5.00	351.00	346.00			1.53		724.79	373.79
159	440			351.00	345.90			0.00		724.79	
MV3-22-02		EPI	290.00	351.00	346.00	0.0155	15	2.44	8.037	724.79	Yes
160	395			346.00	341.50			4.67	5.600	724.38	
MV3		MAN	5.00	346.00	341.50			4.32		724.38	378.38
161	441			346.00	341.40			0.00		724.38	
MV3-22-21		EPI	350.00	346.00	341.50	0.0286	18	4.32	17.733	724.38	Yes
162	396			335.00	331.50			7.01	13.411	723.81	
MV3		MAN	5.00	356.60	351.60			1.53		723.91	367.31
163	443			356.60	351.50			0.00		723.91	
MV3-22-11		EPI	600.00	356.60	351.60	0.0335	18	1.53	19.202	723.91	Yes
164	397			335.00	331.50			5.64	17.677	723.81	
MV3		MAN	5.00	335.00	331.50			9.43		723.81	388.81
165	442			335.00	331.40			0.00		723.81	
MV3-22-22		EPI	372.00	335.00	331.50	0.0336	18	9.43	19.231	723.81	Yes
166	398			324.00	319.00			9.35	9.805	721.09	

I025yPF
System Summary

rID / G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ / Vel	MaxQ / ExcessQ	HGL Up/Dn	Surchg
					220					
MV3	MAN	5.00	240.50	235.50			3.07		252.04	11.54
153 437			240.50	235.40			0.00		252.04	
MV3-23-01	EFI	350.00	240.50	235.50	0.026	18	3.07	10.403	252.04	Yes
154 392			234.00	229.00			6.30	7.331	251.48	
MV3	MAN	5.00	234.00	229.00			4.99		251.48	17.48
155 438			234.00	228.90			0.00		251.48	
MV3-23-02	EFI	170.00	234.00	229.00	0.0235	18	4.98	16.092	251.48	Yes
156 393			230.00	225.00			6.84	11.117	251.11	
					230					
MV3	MAN	5.00	288.00	271.00			105.70		290.69	2.68
121 447			288.00	270.90			0.00		290.69	
MV3-24-01	EFI	220.00	288.00	271.00	0.02	36	105.70	94.208	290.69	Yes
122 402			276.00	266.60			14.93	-11.494	285.19	
MV3	MAN	5.00	276.00	266.60			105.70		285.19	9.15
123 448			276.00	266.50			0.00		285.19	
MV3-24-02	EFI	520.00	276.00	266.60	0.0137	36	105.70	77.839	283.92	Yes
124 403			263.20	259.30			14.93	-27.860	273.30	
MV3	MAN	5.00	283.20	259.50			110.02		273.30	-9.9
125 449			283.20	259.40			0.00		273.30	
MV3-24-03	EFI	750.00	263.20	259.50	0.0127	36	110.02	74.973	263.41	Yes
126 404			254.00	250.00			15.56	-35.046	253.00	
MV3	MAN	5.00	254.00	250.00			109.75		252.22	-1.78
45.			254.00	249.9			0.00		252.22	
-24-04	EFI	500.00	254.00	250.00	0.032	42	109.75	179.752	252.18	Yes
128 405			241.00	234.00			17.18	69.998	236.32	
MV3	MAN	5.00	241.00	234.00			109.46		238.32	-2.68
129 453			241.00	233.90			0.00		238.32	
MV3-24-05	EFI	450.00	241.00	234.00	0.0111	42	109.40	105.920	238.32	Yes
130 406			235.00	229.00			11.38	-3.537	233.24	
MV3	MAN	5.00	235.00	229.00			108.91		233.24	-1.76
131 452			235.00	228.90			0.00		233.24	
MV3-24-06	EFI	510.00	235.00	229.00	0.0173	42	108.91	131.994	233.24	Yes
132 407			227.80	220.20			13.79	23.085	227.43	
MV3	MAN	5.00	227.80	220.20			108.35		227.43	-0.37
133 453			227.80	220.10			0.00		227.43	
MV3-24-07	EFI	470.00	227.80	220.20	0.0143	42	108.35	119.974	227.43	Yes
134 408			219.00	213.50			12.83	11.620	222.10	

erID /	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
						240					
MV3		MAN	5.00	194.00	190.00			2.23		190.48	-3.52
197	444			194.00	189.90			0.00		190.48	
MV3-25-01		EPI	180.00	194.00	190.00	0.0222	15	2.23	9.617	190.48	No
198	399			190.00	186.00			5.46	7.385	186.91	
MV3		MAN	5.00	190.00	186.00			2.20		186.91	-3.09
199	445			190.00	185.90			0.00		186.91	
MV3-25-02		EPI	40.00	190.00	186.00	0.0125	15	2.20	7.213	186.91	Yes
200	400			190.00	185.50			4.37	5.016	186.87	
MV3		MAN	5.00	190.00	185.50			2.18		186.87	-3.14
201	446			190.00	185.40			0.00		186.87	
MV3-25-03		EPI	40.00	190.00	185.50	0.0375	15	2.18	12.493	186.87	Yes
202	401			191.00	184.00			6.58	10.316	186.82	

erID D	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
						300					
MV3 1	273	MAN	5.00	333.00 333.00	328.00 327.90			236.60 0.00		331.46 331.46	-1.54
MV300-03 2	198	EPI	140.00	333.00 332.00	328.00 325.00	0.0214	54	236.60 18.11	287.509 50.909	331.46 328.46	No
MV3 15	274	MAN	5.00	332.00 332.00	325.00 324.90			236.60 0.00		328.28 328.28	-3.72
MV300-03 16	199	EPI	240.00	332.00 327.00	325.00 319.00	0.025	54	236.60 19.12	310.545 73.945	328.28 322.60	No
MV3 17	275	MAN	5.00	327.00 327.00	319.00 318.90			236.60 0.00		322.60 322.60	-4.4
MV300-04 18	200	EPI	520.00	327.00 318.30	319.00 309.00	0.0192	54	236.60 17.42	272.366 35.768	322.60 312.60	No
MV3 45	276	MAN	5.00	318.30 318.30	309.00 308.90			236.62 0.00		312.20 312.20	-6.1
MV300-05 46	201	EPI	990.00	318.30 291.00	309.00 282.00	0.0273	54	236.62 19.74	324.354 87.738	312.20 285.36	No
MV3 47	277	MAN	5.00	291.00 291.00	282.00 281.90			236.44 0.00		285.36 285.36	-5.64
MV300-06 48	202	EPI	980.00	291.00 267.00	282.00 259.20	0.0233	54	236.44 18.64	299.577 63.140	285.36 262.56	No
MV3 67	278	MAN	5.00	267.00 267.00	259.20 259.10			236.08 0.00		261.20 261.20	-5.8
MV300-07	203	EPI	1,090.00	267.00 239.60	258.00 228.70	0.0269	54	236.08 19.60	322.014 85.936	261.20 231.90	No
MV3 77	335	MAN	5.00	232.90 232.90	228.50 228.40			3.28 0.00		230.40 230.40	-2.5
MV330-04 78	259	EPI	220.00	232.90 232.00	229.90 218.00	0.0541	32	3.28 8.48	8.276 4.993	229.90 221.64	No
MV3 247	279	MAN	5.00	239.60 239.60	228.70 228.60			236.61 0.00		231.56 231.56	-8.04
MV300-08 248	204	EPI	400.00	239.60 232.00	228.70 218.00	0.0267	66	236.61 19.01	548.555 311.947	231.56 221.64	No
MV3 249	280	MAN	5.00	232.00 232.00	218.00 217.90			236.24 0.00		221.64 221.64	-10.36
MV300-09 250	205	EPI	840.00	232.00 215.00	218.00 208.30	0.0115	66	236.24 14.22	360.416 124.173	221.64 211.94	No
MV3 251	281	MAN	5.00	215.00 215.00	208.30 208.20			235.80 0.00		211.32 211.32	-3.68
MV300-10 252	206	EPI	550.00	215.00 208.00	208.30 197.90	0.0189	72	235.80 16.61	581.653 345.849	208.30 201.20	No
MV3 253	282	MAN	5.00	208.00 208.00	201.30 201.20			235.27 0.00		201.20 201.20	-6.8
MV300-11 254	207	EPI	530.00	208.00 202.20	197.90 184.50	0.0253	72	235.27 18.38	672.579 437.310	200.68 187.42	No
MV3 255	283	MAN	5.00	202.00 202.00	184.50 184.40			234.80 0.00		187.42 187.42	-14.58
MV300-12 256	208	EPI	520.00	202.00 190.00	184.50 173.40	0.0213	72	234.86 17.34	618.000 383.135	187.40 177.00	No

erID / I	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
MV3		MAN	5.00	190.00	173.40			237.27		177.00	-13
257	284			190.00	173.30			0.00		177.00	
MV300-12b		EPI	920.00	190.00	173.40	0.0091	76	237.27	466.865	177.00	No
258	209			179.50	165.00			12.85	229.597	168.60	
MV3		RES	0.00	165.00	165.00			15.29		165.00	No
259	285			165.00	165.00			0.00		165.00	
671		EPI	372.92	190.00	185.30	0.0008	300	15.29	5,393.522	190.00	No
260	671			190.00	185.00			2.19	5,378.231	190.00	
677		MAN	5.00	190.00	185.30			15.29		190.00	No
261	677			190.00	185.20			0.00		191.98	
673		EPI	426.99	190.00	185.30	0.003	24	15.44	12.467	191.84	Yes
262	673			190.00	184.00			4.91	-2.973	190.00	
678		MAN	5.00	190.00	184.00			15.43		190.00	No
263	678			190.00	183.90			0.00		593.29	
675		EPI	227.24	190.00	184.00	0.0031	24	272.56	12.540	593.29	Yes
264	675			194.80	183.30			86.76	-260.020	265.05	
					310						
MV3		MAN	5.00	382.30	258.30			1.03		358.56	-23.74
13	302			382.30	258.20			0.00		358.56	
MV310-02		EPI	600.00	362.30	358.30	0.0555	16	1.03	16.053	358.30	No
14	226			332.00	325.00			6.18	17.027	328.28	
					320						
MV3		MAN	5.00	476.00	472.00			0.99		472.18	-3.82
	319			476.00	471.90			0.00		472.18	
20-02		EPI	320.00	476.00	472.00	0.3	12	0.99	19.489	472.18	No
40	243			380.00	376.00			11.35	18.503	376.22	
MV3		MAN	5.00	380.00	376.00			1.26		376.22	-3.78
41	320			380.00	375.90			0.00		376.22	
MV320-03		EPI	190.00	380.00	376.00	0.2053	12	1.26	16.121	376.22	No
42	244			342.00	337.00			10.48	14.864	337.46	
MV3		MAN	5.00	342.00	337.00			2.64		337.46	-4.54
43	321			342.00	336.90			0.00		337.46	
MV320-04		EPI	730.00	342.00	337.00	0.0384	15	2.64	12.635	337.04	Yes
44	245			318.00	309.00			7.00	9.997	312.20	
					330						
MV3		MAN	5.00	287.00	282.00			0.45		282.50	-4.5
61	328			287.00	281.90			0.00		282.50	
MV330-03		EPI	830.00	287.00	282.00	0.0225	15	2.44	9.761	282.50	No
62	252			268.00	263.00			5.66	7.324	263.88	
MV3		MAN	5.00	268.00	263.00			3.80		263.88	-4.12
63	329			268.00	262.90			0.00		263.88	
MV330-04		EPI	550.00	268.00	263.00	0.0069	15	3.80	5.363	263.00	No
64	253			267.00	259.20			4.21	1.567	261.20	
MV3		MAN	5.00	266.00	260.00			4.34		262.78	-3.22
65	330			266.00	259.90			0.00		262.78	
MV330-05		EPI	370.00	266.00	260.00	0.0047	12	4.34	2.441	261.20	No
66	254			267.00	259.20			5.52	-1.898	261.20	

rID / G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
					340					
MV3 19 303	MAN	5.00	573.00 573.00	569.00 568.90			2.12 0.00		569.28 569.28	-3.72
MV340-02 20 237	EPI	340.00	573.00 448.00	569.00 444.00	0.3676	8	2.12 15.34	7.318 5.195	569.28 444.36	No
MV3 21 304	MAN	5.00	448.00 448.00	444.00 443.90			2.11 0.00		444.36 444.36	-3.64
MV340-03 22 228	EPI	480.00	448.00 371.00	444.00 368.00	0.1583	8	2.11 11.58	4.802 2.690	444.36 368.56	No
MV3 23 305	MAN	5.00	371.00 371.00	368.00 367.90			2.08 0.00		368.56 368.56	-2.44
MV340-04 24 229	EPI	200.00	371.00 364.00	368.00 360.50	0.0375	8	2.08 6.94	2.337 0.255	368.56 361.06	No
MV3 219 306	MAN	5.00	364.00 364.00	360.00 359.90			4.41 0.00		360.46 360.46	-3.54
MV340-05 220 230	EPI	900.00	364.00 297.50	360.00 293.00	0.0744	18	4.41 9.95	28.624 24.215	360.46 293.62	No
MV3 221 307	MAN	5.00	297.50 297.50	293.00 292.90			5.22 0.00		293.62 293.62	-3.88
MV340-06 222 231	EPI	380.00	297.50 284.00	293.00 280.00	0.0342	18	5.22 7.97	19.404 14.186	293.60 285.30	Yes
MV3 223 308	MAN	5.00	384.00 384.00	280.00 279.90			17.88 0.00		285.30 285.30	-98.7
40-07 232	EPI	200.00	284.00 282.00	280.00 276.00	0.02	18	20.74 11.74	14.837 -5.905	285.30 277.54	Yes
MV3 225 293	MAN	5.00	282.00 282.00	276.00 275.90			31.13 0.00		277.54 277.54	-4.46
MV340-08 226 235	EPI	370.00	282.00 277.00	276.00 271.50	0.0122	48	38.29 8.78	158.216 119.931	277.50 275.13	No
MV3 227 292	MAN	5.00	277.00 277.00	271.50 271.40			40.70 0.00		275.13 275.13	-1.87
MV340-09 228 216	EPI	1,000.00	277.00 281.00	271.50 269.50	0.002	48	41.54 4.76	64.160 22.623	275.13 274.30	Yes
MV3 229 293	MAN	5.00	281.00 281.00	271.50 271.40			45.56 0.00		274.30 274.30	-6.7
MV340-10 230 217	EPI	280.00	281.00 274.60	272.20 269.60	0.0093	36	45.56 8.73	64.192 18.631	274.30 271.70	No
MV3 231 294	MAN	5.00	274.60 274.60	269.60 269.50			50.50 0.00		271.12 271.12	-3.48
MV340-11 232 218	EPI	250.00	274.60 268.80	269.60 263.00	0.0264	42	50.50 12.65	163.268 112.769	271.12 264.58	No
MV3 233 295	MAN	5.00	268.80 268.80	263.00 262.90			55.84 0.00		264.58 264.58	-4.22
MV340-12 234 219	EPI	180.00	268.80 264.60	263.00 258.00	0.0278	42	55.84 13.26	167.474 111.639	264.58 259.94	No
MV3 235 296	MAN	5.00	264.60 264.60	258.00 257.90			56.55 0.00		259.94 259.94	-4.66
MV340-13 236 220	EPI	250.00	264.60 262.00	258.00 254.30	0.0148	42	58.96 10.86	122.245 63.286	259.94 256.36	No

I025yPF
System Summary

rID .Q	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
MV3 237	297	MAN	5.00	262.00 262.00	254.30 254.20			58.57 0.00		256.36 256.36	-5.64
MV340-14 238	221	EPI	280.00	262.00 262.00	254.30 251.00	0.0118	42	58.57 10.02	109.088 50.517	256.36 253.06	No
MV3 239	298	MAN	5.00	262.00 262.00	251.00 250.90			58.16 0.00		252.94 252.94	-9.06
MV340-15 240	222	EPI	150.00	262.00 264.90	251.00 248.80	0.0147	42	58.16 10.81	121.693 63.534	252.94 250.74	No
MV3 241	299	MAN	5.00	264.90 264.90	248.90 248.80			59.50 0.00		250.68 250.68	-14.22
MV340-16 242	223	EPI	340.00	264.90 262.50	248.80 244.20	0.0135	48	59.50 10.34	166.873 107.368	250.68 246.16	No
MV3 243	300	MAN	5.00	262.50 262.50	244.20 244.10			58.51 0.00		246.16 246.16	-16.34
MV340-17 244	224	EPI	830.00	262.50 241.00	244.20 232.30	0.0143	42	58.51 10.75	120.319 61.809	246.16 234.74	No
MV3 245	301	MAN	5.00	241.00 241.00	232.30 232.20			72.33 0.00		234.74 234.74	-6.26
MV340-18 246	225	EPI	540.00	241.00 239.60	232.30 228.70	0.0067	54	74.36 8.51	160.365 86.004	232.58 231.56	No
					341						
MV341-02 218	235	EPI	280.00	388.70 364.00	382.70 360.00	0.0811	15	0.00 0.20	18.370 18.370	382.70 360.46	No
					342						
MV3 25	311	MAN	5.00	312.00 312.00	307.00 306.90			2.70 0.00		307.50 307.50	-4.5
MV342-02 26	236	EPI	320.00	312.00 304.00	307.00 299.00	0.025	15	2.70 5.92	10.201 7.500	307.50 299.50	No
MV3 27	312	MAN	5.00	304.00 304.00	299.00 298.90			2.54 0.00		299.50 299.50	-4.5
MV342-03 28	237	EPI	270.00	304.00 298.00	299.00 293.00	0.0222	15	2.54 5.58	9.617 7.078	299.17 298.75	Yes
					343						
MV343-02 213	233	EPI	970.00	388.70 298.00	382.70 293.00	0.0925	15	0.00 0.20	19.619 19.619	382.70 298.75	No
MV3 214	310	MAN	5.00	298.00 298.00	293.00 292.90			4.68 0.00		298.75 298.75	0.75
MV343-03 215	349	EPI	395.00	298.00 288.00	293.00 283.00	0.0253	18	4.68 6.85	16.692 12.011	298.75 297.97	Yes
					344						
MV3 29	313	MAN	5.00	301.50 301.50	295.50 295.40			7.05 0.00		303.55 303.55	2.05
MV344-02 30	238	EPI	470.00	301.50 288.00	295.50 283.00	0.0266	15	7.05 8.09	10.521 3.470	303.55 297.97	Yes
MV3 216	314	MAN	5.00	288.00 288.00	283.00 282.90			11.82 0.00		297.97 297.97	9.97
MV342-05 7	234	EPI	380.00	288.00 284.00	283.00 280.00	0.0079	15	11.82 9.63	5.732 -6.093	297.97 285.30	Yes

IO25yPF
System Summary

rID /	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
					345						
MV3 3	286	MAN	5.00	548.00 548.00	542.00 541.90			0.33 0.00		542.16 542.16	-5.84
MV345-02 4	210	EPI	630.00	548.00 510.00	542.00 504.00	0.0603	12	0.33 4.77	8.739 8.413	542.16 504.34	No
MV3 5	0	MAN	5.00	510.00 510.00	504.00 503.90			0.32 0.00		504.34 504.34	-5.66
MV345-03 6	211	EPI	580.00	510.00 411.30	504.00 405.30	0.1702	12	2.79 12.16	14.678 11.885	504.34 405.66	No
MV3 7	288	MAN	5.00	411.30 411.30	405.30 405.20			2.90 0.00		405.66 405.66	-5.64
MV345-04 8	212	EPI	370.00	411.30 352.00	405.30 345.00	0.163	12	3.12 12.29	14.365 11.245	405.66 345.46	No
MV3 9	289	MAN	5.00	352.00 352.00	345.00 344.90			2.94 0.00		345.46 345.46	-6.54
MV345-05 10	213	EPI	400.00	352.00 312.50	345.00 305.00	0.1	12	3.59 11.03	11.252 7.663	345.46 305.74	No
MV3 11	290	MAN	5.00	312.50 312.50	305.00 304.90			3.55 0.00		305.74 305.74	-6.76
MV345-06 12	214	EPI	420.00	312.50 282.00	305.00 276.00	0.069	15	8.88 12.25	16.953 8.071	305.74 277.54	Yes
					346						
MV3	315	MAN	5.00	331.00 331.00	326.00 325.90			0.57 0.00		326.18 326.18	-4.82
.46-02 32	239	EPI	300.00	331.00 306.70	326.00 303.70	0.0743	18	0.57 5.99	28.603 28.036	326.16 303.96	No
MV3 35	316	MAN	5.00	306.70 306.70	303.70 303.60			1.49 0.00		303.96 303.96	-2.74
MV346-03 36	240	EPI	350.00	306.70 283.00	303.70 277.00	0.0763	18	1.49 7.35	28.976 27.483	303.94 277.74	No
MV3 37	317	MAN	5.00	283.00 283.00	277.00 276.90			2.71 0.00		277.74 277.74	-5.26
MV346-04 38	241	EPI	350.00	283.00 282.00	277.00 276.00	0.0029	18	2.71 2.73	5.608 2.897	277.74 277.54	Yes
					347						
MV3 33	318	MAN	5.00	340.00 340.00	336.00 335.90			0.97 0.00		336.20 336.20	-3.8
MV347-02 34	242	EPI	190.00	340.00 306.70	336.00 303.70	0.17	12	0.97 9.05	14.671 13.698	336.20 303.96	No

›rID / ı	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
						348					
MV3		MAN	5.00	305.10	300.00			1.24		300.46	-4.64
55	326			305.10	299.90			0.00		300.46	
MV348-02		EPI	250.00	305.10	300.00	0.008	15	1.24	5.770	300.46	No
56	250			301.00	298.00			3.20	4.527	298.46	
MV3		MAN	5.00	301.00	298.00			1.77		298.40	-2.6
57	327			301.00	297.90			0.00		298.40	
MV3		EPI	500.00	301.00	298.00	0.03	15	1.77	11.174	298.40	No
58	251			287.00	283.00			5.73	9.403	283.66	
MV3		MAN	5.00	287.00	283.00			5.03		283.66	-3.34
59	325			287.00	282.90			0.00		283.66	
MV348-04		EPI	460.00	287.00	283.00	0.0235	18	5.03	16.075	283.64	Yes
60	249			281.00	272.20			6.83	11.046	274.30	
						349					
MV3		MAN	5.00	290.90	285.00			1.14		285.44	-5.46
53	324			290.90	284.90			0.00		285.44	
MV349-02		EPI	260.00	290.90	285.00	0.007[illegible]	15	1.14	5.658	285.44	No
54	248			287.00	283.00			3.06	4.518	283.66	
						350					
MV3		MAN	5.00	272.60	266.60			1.21		269.12	-3.48
49	322			272.60	266.50			0.00		269.12	
MV350-02		EPI	250.00	272.60	266.60	0.002	15	2.08	2.885	269.12	Yes
[illegible]	246			272.10	266.10			2.27	0.805	268.86	
		MAN	5.00	272.10	266.10			4.58		268.86	-3.24
[illegible]	323			272.10	266.00			0.00		268.86	
MV350-03		EPI	870.00	272.10	266.10	0.0039	15	4.58	3.851	267.99	Yes
52	247			268.80	263.00			3.74	-0.734	264.56	
						351					
MV3		MAN	5.00	257.00	252.00			4.79		252.80	-4.2
69	331			257.00	251.90			0.00		252.80	
MV351-02		EPI	450.00	257.00	252.00	0.0156	18	5.90	13.085	252.80	No
70	255			250.00	245.00			6.19	7.183	246.10	
MV3		MAN	5.00	250.00	245.00			10.28		246.10	-3.9
71	332			250.00	244.90			0.00		246.10	
MV351-03		EPI	260.00	250.00	245.00	0.0143	21	11.37	18.914	246.10	No
72	256			246.00	241.00			7.19	7.544	242.34	
MV3		MAN	5.00	246.00	241.00			12.96		242.34	-3.60
73	333			246.00	240.90			0.00		242.34	
MV351-04		EPI	410.00	246.00	241.00	0.0073	24	12.96	19.327	242.34	No
74	257			241.00	238.00			5.80	6.366	239.34	
MV3		MAN	5.00	241.00	238.00			15.59		239.06	-1.92
75	334			241.00	237.90			0.00		239.06	
MV351-05		EPI	250.00	241.00	238.00	0.0228	24	15.59	34.116	239.06	Yes
76	258			241.00	232.30			9.14	18.529	234.74	

I025yPF
System Summary

rID G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
				360						
MV3 79 336	MAN	5.00	255.60 255.60	250.60 250.50			5.46 0.00		251.20 251.20	-4.4
MV360-02 80 260	EPI	280.00	255.60 248.50	250.60 243.20	0.0264	24	5.46 7.09	36.731 31.274	251.20 243.80	No
MV3 81 337	MAN	5.00	248.50 248.50	243.00 242.90			7.63 0.00		243.76 243.76	-4.74
MV360-03 82 261	EPI	190.00	248.50 244.00	243.00 238.90	0.0216	24	7.63 7.33	33.190 25.559	243.76 239.68	No
MV3 83 338	MAN	5.00	244.00 244.00	238.90 238.80			8.49 0.00		239.68 239.68	-4.32
MV360-04 84 262	EPI	260.00	244.00 238.00	238.90 232.90	0.0231	24	8.48 7.67	34.323 25.839	239.68 233.76	No
MV3 85 339	MAN	5.00	238.00 238.00	232.90 232.80			10.19 0.00		233.76 233.76	-4.24
MV360-05 86 263	EPI	260.00	238.00 232.00	232.90 227.00	0.0227	24	10.19 8.03	34.035 23.846	233.76 228.00	No
MV3 87 340	MAN	5.00	232.00 232.00	227.00 226.90			13.05 0.00		228.00 228.00	-4
MV360-06 88 264	EPI	40.00	232.00 231.60	227.00 226.30	0.0175	27	13.05 7.77	40.918 27.869	228.00 227.32	No
MV3 89 341	MAN	5.00	231.60 231.60	226.30 226.20			12.98 0.00		227.32 227.32	-4.28
360-07 265	EPI	140.00	231.60 230.00	226.30 224.00	0.0164	27	12.98 7.63	39.646 26.671	227.32 225.02	No
MV3 91 342	MAN	5.00	230.00 230.00	224.00 223.90			12.94 0.00		224.98 224.98	-5.02
MV360-08 92 266	EPI	340.00	230.00 223.60	224.00 218.70	0.0150	30	12.94 7.34	51.147 38.207	224.98 219.68	No
MV3 93 343	MAN	5.00	223.60 223.60	218.70 218.60			12.84 0.00		219.50 219.50	-4.1
MV360-09 94 267	EPI	220.00	223.60 220.00	218.70 211.50	0.0327	30	12.84 9.50	74.110 61.266	219.50 212.30	No
MV3 97 344	MAN	5.00	220.00 220.00	211.50 211.40			14.70 0.00		212.26 212.26	-7.74
MV360-10 98 268	EPI	250.00	220.00 215.00	211.50 208.30	0.0128	30	16.08 7.30	46.347 30.263	211.50 211.32	No
				361						
MV3 95 345	MAN	5.00	221.60 221.60	216.60 216.50			2.17 0.00		217.24 217.24	-4.36
MV360-11 96 269	EPI	320.00	221.60 220.00	216.60 214.50	0.0066	15	2.17 3.47	5.226 3.060	217.24 215.14	No

IO25yPF
System Summary

·rID / G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ / Vel	MaxQ / ExcessQ	HGL Up/Dn	Surchg
				370						
MV3	MAN	5.00	215.80	210.00			2.67		210.66	-5.14
99 346			215.80	209.90			0.00		210.66	
MV370-2	EPI	220.00	215.80	210.00	0.0045	24	2.67	15.233	210.66	No
.100 270			214.00	209.00			3.10	12.564	209.86	
MV3	MAN	5.00	214.00	209.00			7.82		209.86	-4.14
101 347			214.00	208.90			0.00		209.86	
MV370-03	EPI	380.00	214.00	209.00	0.0132	24	7.82	25.917	209.86	No
102 271			208.00	204.00			6.13	18.093	204.86	
MV3	MAN	5.00	208.00	204.00			7.36		204.78	-3.22
103 348			208.00	203.90			0.00		204.78	
MV370-04	EPI	150.00	208.00	204.00	0.018	24	7.36	30.313	204.78	No
104 272			208.00	201.30			6.78	22.954	202.08	
				Lateral Starting at Entity 357						
2	MAN	5.00	366.00	365.00			83.01		366.00	No
105 357			366.00	364.90			0.00		367.46	
MV3-100-01	EPI	362.09	368.00	365.00	0.0193	36	83.01	92.622	366.73	Yes
106 350			362.00	358.00			13.46	9.612	361.15	
3	MAN	5.00	362.00	358.00			83.01		361.15	-0.85
107 358			362.00	357.90			0.00		361.15	
MV3-100-02	EPI	399.19	362.00	358.00	0.02	36	83.01	94.304	360.58	Yes
108 351			355.00	350.00			13.62	11.294	355.00	
5	MAN	5.00	355.00	350.00			83.01		355.00	No
359			355.00	349.90			0.00		355.[illegible]	
3-100-03	EPI	457.43	355.00	350.00	0.1071	24	83.01	73.948	351.52	Yes
110 352			306.00	301.00			26.42	-9.062	305.18	
7	MAN	5.00	306.00	301.00			85.84		305.18	-0.82
111 360			306.00	300.90			0.00		305.18	
MV3-100-04	EPI	978.64	306.00	301.00	0.0041	48	85.84	91.720	305.18	Yes
112 353			302.00	297.00			7.58	5.878	302.00	
				Lateral Starting at Entity 364						
15	MAN	5.00	305.50	301.00			87.24		305.50	No
113 364			305.50	300.90			0.00		314.66	
MV3-100-10	EPI	281.25	305.50	301.00	0.0142	30	87.24	48.854	314.66	Yes
114 356			302.00	297.00			17.77	-38.366	302.00	
9	MAN	5.00	302.00	297.00			169.29		302.00	No
115 361			302.00	296.90			0.00		303.39	
MV3-100-21	EPI	706.22	302.00	297.00	0.0241	42	169.29	155.902	302.60	Yes
116 354			288.20	280.00			17.60	-13.387	283.50	
11	MAN	5.00	288.20	280.00			169.68		282.12	-6.08
117 362			288.20	279.90			0.00		282.12	
MV3-100-22	EPI	106.08	288.20	280.00	0.0896	42	169.68	300.705	282.12	No
118 355			288.20	270.50			28.06	131.022	272.62	
13	RES	0.00	270.50	270.50			105.84		270.50	No
119 363			270.50	270.47			0.00		270.50	
676	EPI	506.46	288.00	274.00	0.001	500	105.84	23,470.612	290.69	No
120 676			288.00	273.49			3.87	23,364.768	290.69	

25y100PF
Item Summary

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UserID SEQ	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
						200					
MV3		MAN	5.00	471.00	467.00			6.06		1,500.25	1029.25
135	409			471.00	466.90			0.00		1,500.25	
MV3-20-02		EPI	600.00	471.00	467.00	0.0667	18	6.06	16.658	1,500.25	Yes
136	365			432.00	427.00			10.69	10.594	1,494.98	
MV3		MAN	5.00	432.00	427.00			10.63		1,494.98	1062.98
143	410			432.00	426.90			0.00		1,494.98	
MV3-20-03		EPI	514.00	432.00	427.00	0.0535	18	10.63	14.923	1,494.98	Yes
144	366			406.70	399.50			11.72	4.290	1,481.12	
MV3		MAN	5.00	406.70	399.50			14.81		1,481.12	1074.42
145	455			406.70	399.40			0.00		1,481.12	
MV3-20-93		EPI	276.40	406.70	399.50	0.0568	15	14.81	15.376	1,481.12	Yes
146	454			388.80	383.80			13.16	0.570	1,466.67	
MV3		MAN	5.00	406.70	399.50			16.06		1,466.67	1059.97
149	411			406.70	399.40			0.00		1,466.67	
MV3-20-03		EPI	535.00	388.80	383.80	0.0669	18	16.06	27.138	1,466.67	Yes
150	367			354.00	348.00			14.02	11.080	1,454.22	
MV3		MAN	5.00	388.80	383.80			18.83		1,454.22	1065.42
151	412			388.80	383.70			0.00		1,454.22	
MV3-20-04		EPI	696.00	354.00	348.00	0.0417	18	18.83	21.415	1,454.22	Yes
[illegible]	368			324.00	319.00			12.41	2.587	1,431.97	
		MAN	5.00	324.00	319.00			33.37		1,431.97	1107.97
[illegible]	413			324.00	318.90			0.00		1,431.97	
MV3-20-05		EPI	650.00	324.00	319.00	0.0231	15	33.37	9.801	1,431.97	Yes
168	369			309.00	304.00			27.20	-23.573	1,259.27	
MV3		MAN	5.00	309.00	304.00			41.73		1,259.27	950.27
169	414			309.00	303.90			0.00		1,259.27	
MV3-20-06		EPI	600.00	309.00	304.00	0.0267	15	41.73	10.535	1,257.28	Yes
170	370			293.00	288.00			34.00	-31.195	1,010.04	
MV3		MAN	5.00	293.00	288.00			43.27		1,010.04	717.04
171	415			293.00	287.90			0.00		1,010.04	
MV3-20-07		EPI	650.00	293.00	288.00	0.0071	18	43.27	8.826	1,009.03	Yes
172	371			289.80	283.40			24.48	-34.441	902.76	
MV3		MAN	5.00	289.80	283.40			57.12		902.76	612.96
173	416			289.80	283.30			0.00		902.76	
MV3-20-08		EPI	700.00	289.80	283.40	0.007	18	60.47	8.777	899.69	Yes
174	372			283.50	278.50			34.22	-51.688	681.59	
MV3		MAN	5.00	283.50	278.50			72.45		681.59	398.09
175	417			283.50	278.40			0.00		681.59	
MV3-20-09		EPI	140.00	283.50	278.50	0.025	21	72.45	25.021	681.59	Yes
176	373			280.20	275.00			30.12	-47.430	654.74	
MV3		MAN	5.00	280.20	275.00			70.86		654.74	374.54
177	418			280.20	274.90			0.00		654.74	
MV3-20-10		EPI	840.00	280.20	275.00	0.0244	21	70.86	24.722	654.74	Yes
178	374			259.00	254.50			29.46	-46.143	494.16	

erID / G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ / Vel	MaxQ / ExcessQ	HGL Up/Dn	Surchg
MV3	MAN	5.00	259.00	254.50			71.97		494.16	235.16
179 419			259.00	254.40			0.00		494.16	
MV3-20-11	EPI	190.00	259.00	254.50	0.0168	24	71.97	29.322	494.16	Yes
180 375			256.00	251.30			22.91	-42.645	475.18	
MV3	MAN	5.00	256.00	251.30			74.40		475.18	219.18
181 420			256.00	251.20			0.00		475.18	
MV3-20-12	EPI	500.00	256.00	251.30	0.0[illegible]	24	75.86	29.803	475.18	Yes
182 376			247.60	242.60			24.15	-46.059	419.23	
MV3	MAN	5.00	247.60	242.60			76.68		419.23	171.63
183 421			247.60	242.50			0.00		419.23	
MV3-20-13	EPI	920.00	247.60	242.60	0.0192	24	76.68	31.250	419.23	Yes
184 377			230.00	225.00			24.41	-45.433	314.04	
MV3	MAN	5.00	230.00	225.00			83.67		314.04	84.04
185 422			230.00	224.90			0.00		314.04	
MV3-20-14	EPI	160.00	230.00	225.00	0.0144	24	83.67	27.089	314.04	Yes
186 378			227.70	222.70			26.63	-56.576	292.26	
MV3	MAN	5.00	227.70	222.70			86.44		292.26	64.56
187 423			227.70	222.60			0.00		292.26	
MV3-20-15	EPI	410.00	227.70	222.70	0.0188	27	86.44	42.389	292.26	Yes
188 379			221.10	215.00			21.74	-44.049	260.46	
MV3	MAN	5.00	221.10	215.00			96.22		260.46	39.38
189 424			221.10	214.90			0.00		260.46	
MV3-20-16	EPI	160.00	221.10	215.00	0.0094	27	96.22	29.949	260.46	Yes
190 380			219.00	213.50			24.20	-66.270	245.12	
	MAN	5.00	219.00	213.50			212.85		245.12	26.12
425			219.00	213.40			0.00		245.12	
MV3-20-17	EPI	540.00	219.00	213.50	0.0183	45	212.85	163.539	245.12	Yes
192 381			208.60	203.60			19.27	-49.308	228.48	
MV3	MAN	5.00	208.60	203.60			212.24		228.48	19.88
193 426			208.60	203.50			0.00		228.48	
MV3-20-18	EPI	550.00	208.60	203.60	0.0195	45	212.24	168.466	228.48	Yes
194 382			197.90	192.90			19.22	-43.778	211.63	
MV3	MAN	5.00	197.90	192.90			211.61		211.63	13.72
195 427			197.90	192.80			0.00		211.63	
MV3-20-19	EPI	470.00	197.90	192.90	0.0189	42	211.61	138.276	211.63	Yes
196 383			191.00	184.00			21.99	-73.330	190.94	
MV3	MAN	5.00	191.00	184.00			220.12		190.94	-0.06
203 428			191.00	183.90			0.00		190.94	
MV3-20-20	EPI	220.00	191.00	184.00	0.0201	48	220.12	240.841	190.94	Yes
204 384			188.50	177.80			19.78	20.723	185.81	
MV3	MAN	5.00	188.50	177.80			222.35		185.81	-2.69
205 429			188.50	177.70			0.00		185.81	
MV3-20-21	EPI	420.00	188.50	177.80	0.0095	54	222.35	191.673	185.81	Yes
206 385			190.00	173.80			13.98	-30.680	180.47	
MV3	MAN	5.00	190.00	173.80			221.47		180.47	-9.54
207 430			190.00	173.70			0.00		180.47	
MV3-20-22	EPI	430.00	190.00	173.80	0.0100	54	221.47	198.677	180.47	Yes
208 386			181.00	169.40			13.93	-22.797	175.04	
MV3	MAN	5.00	181.00	169.40			218.80		175.04	-5.96
209 431			181.00	169.30			0.00		175.04	

‘erID Q	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
MV3-20-23		EPI	450.00	181.00	169.40	0.0098	54	218.80	194.211	174.31	Yes
210	367			170.00	165.00			13.76	-24.590	169.50	
MV3		MAN	5.00	190.00	165.00			215.95		165.35	-24.65
211	432			190.00	164.90			0.00		165.35	
670		EPI	233.09	190.00	162.23	0.001	500	221.44	23,476.954	165.35	No
212	670			190.00	162.00			4.80	23,255.514	165.12	
						205					
MV3		MAN	5.00	406.20	404.00			1.54		464.26	58.06
137	433			406.20	403.90			0.00		464.26	
MV3-21-01		EPI	190.00	466.20	464.00	0.1474	12	1.54	13.660	464.26	No
138	388			440.00	436.00			9.74	12.117	436.28	
MV3		MAN	5.00	440.00	436.00			1.50		436.28	-3.72
139	434			440.00	435.90			0.00		436.28	
MV3-21-02		EPI	80.00	440.00	436.00	0.1	12	1.50	11.252	436.22	Yes
140	389			432.00	428.00			8.36	9.748	432.00	
MV3		MAN	5.00	432.00	428.00			1.47		432.00	No
141	435			432.00	427.90			0.00		1,495.09	
MV3-21-03		EPI	30.00	432.00	428.00	0.0333	12	2.26	6.496	1,495.09	Yes
142	390			432.00	427.00			6.53	4.238	1,494.98	
						210					
MV3		MAN	5.00	404.60	400.60			1.56		1,466.73	1062.13
147	436			404.60	400.50			0.00		1,466.73	
MV3-21-14		EPI	170.00	404.60	400.60	0.0988	15	1.56	20.281	1,466.73	Yes
[illegible]	391			388.80	383.80			8.53	18.720	1,466.67	
						215					
MV3		MAN	5.00	367.00	363.00			2.07		1,441.22	1074.22
157	439			367.00	362.90			0.00		1,441.22	
MV3-22-01		EPI	320.00	367.00	363.00	0.0531	15	2.77	14.870	1,441.22	Yes
156	394			351.00	346.00			7.83	12.103	1,440.72	
MV3		MAN	5.00	351.00	346.00			2.59		1,440.72	1089.71
159	440			351.00	345.90			0.00		1,440.72	
MV3-22-02		EPI	290.00	351.00	346.00	0.0155	15	4.23	8.037	1,440.72	Yes
160	395			346.00	341.50			5.83	3.826	1,439.57	
MV3		MAN	5.00	346.00	341.50			7.07		1,439.57	1093.57
161	441			346.00	341.40			0.00		1,439.57	
MV3-22-21		EPI	350.00	346.00	341.50	0.0286	18	7.07	17.733	1,439.57	Yes
162	396			335.00	331.50			8.14	10.659	1,438.15	
MV3		MAN	5.00	356.60	351.60			2.28		1,438.35	1081.75
163	443			356.60	351.50			0.00		1,438.35	
MV3-22-11		EPI	600.00	356.60	351.60	0.0335	18	2.28	19.202	1,438.35	Yes
164	397			335.00	331.50			6.17	16.918	1,438.15	
MV3		MAN	5.00	335.00	331.50			14.56		1,438.15	1103.15
165	442			335.00	331.40			0.00		1,438.15	
MV3-22-22		EPI	372.00	335.00	331.50	0.0336	18	14.56	19.231	1,438.15	Yes
166	398			324.00	319.00			10.69	4.672	1,431.97	

erID / G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ / Vel	MaxQ / ExcessQ	HGL Up/Dn	Surchg
					220					
MV3	MAN	5.00	240.50	235.50			4.88		316.21	75.71
153 437			240.50	235.40			0.00		316.21	
MV3-23-01	EPI	250.00	240.50	235.50	0.026	15	4.88	10.403	316.21	Yes
154 392			234.00	229.00			7.17	5.518	314.88	
MV3	MAN	5.00	234.00	229.00			7.76		314.88	80.88
155 438			234.00	228.90			0.00		314.88	
MV3-23-02	EPI	170.00	234.00	229.00	0.0235	18	7.76	16.092	314.88	Yes
156 393			230.00	225.00			7.83	8.333	314.04	
					230					
MV3	MAN	5.00	288.00	271.00			106.12		306.97	18.97
121 447			288.00	270.90			0.00		306.97	
MV3-24-01	EPI	220.00	288.00	271.00	0.02	36	106.12	94.206	306.97	Yes
122 402			276.00	266.60			15.01	-11.915	302.32	
MV3	MAN	5.00	276.00	266.60			106.12		302.32	26.32
123 448			276.00	266.50			0.00		302.32	
MV3-24-02	EPI	520.00	276.00	266.60	0.0137	36	106.12	77.839	302.32	Yes
124 403			263.20	259.50			15.01	-28.281	291.33	
MV3	MAN	5.00	283.20	259.50			116.44		291.33	8.13
125 449			283.20	259.40			0.00		291.33	
MV3-24-03	EPI	750.00	263.20	259.50	0.0127	36	116.44	74.973	291.33	Yes
126 404			254.00	250.00			16.47	-41.466	270.38	
MV3	MAN	5.00	254.00	250.00			117.19		270.38	16.38
[illegible] 450			254.00	249.90			0.00		270.38	
-24-04	EPI	500.00	254.00	250.00	0.032	42	117.19	179.752	270.38	Yes
128 405			241.00	234.00			17.52	62.558	263.84	
MV3	MAN	5.00	241.00	234.00			116.72		263.84	22.84
129 451			241.00	233.90			0.00		263.84	
MV3-24-05	EPI	450.00	241.00	234.00	0.0111	42	116.72	105.920	263.84	Yes
130 406			235.00	229.00			12.13	-10.796	257.96	
MV3	MAN	5.00	235.00	229.00			115.96		257.96	22.96
131 452			235.00	228.90			0.00		257.96	
MV3-24-06	EPI	510.00	235.00	229.00	0.0173	42	115.96	131.994	257.96	Yes
132 407			227.80	220.20			14.00	16.032	251.28	
MV3	MAN	5.00	227.80	220.20			115.49		251.28	23.48
133 453			227.80	220.10			0.00		251.28	
MV3-24-07	EPI	470.00	227.80	220.20	0.0143	42	115.49	119.974	251.28	Yes
134 408			219.00	213.50			13.06	4.488	245.12	

25y100PF
System Summary

erID D	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
						240					
MV3 197	444	MAN	5.00	194.00 194.00	190.00 189.90			3.64 0.00		191.76 191.76	-2.24
MV3-25-01 198	399	EPI	180.00	194.00 190.00	190.00 186.00	0.0222	15	3.64 6.28	9.617 5.980	191.76 191.19	Yes
MV3 199	445	MAN	5.00	190.00 190.00	186.00 185.90			3.62 0.00		191.19 191.19	1.19
MV3-25-02 200	400	EPI	40.00	190.00 190.00	186.00 185.50	0.0125	15	3.62 5.13	7.213 3.592	191.19 191.07	Yes
MV3 201	446	MAN	5.00	190.00 190.00	185.50 185.40			3.60 0.00		191.07 191.07	1.07
MV3-25-03 202	401	EPI	40.00	190.00 191.00	185.50 184.00	0.0375	15	3.60 7.57	12.493 8.891	191.07 190.94	Yes

erID / G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
					300					
MV3	MAN	5.00	333.00	328.00			236.60		331.46	-1.54
1 273			333.00	327.90			0.00		331.46	
MV300-02	EPI	140.00	333.00	328.00	0.0214	54	236.60	287.509	331.46	No
2 198			332.00	325.00			18.11	50.909	328.46	
MV3	MAN	5.00	332.00	325.00			236.60		328.28	-3.72
15 274			332.00	324.90			0.00		328.28	
MV300-03	EPI	240.00	332.00	325.00	0.025	54	236.60	310.545	328.28	No
16 199			327.00	319.00			19.12	73.942	322.60	
MV3	MAN	5.00	327.00	319.00			236.60		322.60	-4.4
17 275			327.00	318.90			0.00		322.60	
MV300-04	EPI	520.00	327.00	319.00	0.0192	54	236.60	272.366	322.60	No
18 200			318.30	309.00			17.42	35.765	312.60	
MV3	MAN	5.00	318.30	309.00			236.68		312.20	-6.1
45 276			318.30	308.90			0.00		312.20	
MV300-05	EPI	990.00	318.30	309.00	0.0273	54	236.68	324.354	312.20	No
46 201			291.00	282.00			19.74	87.671	285.36	
MV3	MAN	5.00	291.00	282.00			236.50		285.36	-5.64
47 277			291.00	281.90			0.00		285.36	
MV300-06	EPI	980.00	291.00	282.00	0.0233	54	236.50	299.577	285.36	No
48 202			267.00	259.20			18.64	63.073	262.56	
MV3	MAN	5.00	267.00	259.20			236.19		261.20	-5.8
67 278			267.00	259.10			0.00		261.20	
[illegible]300-07	EPI	1,090.00	267.00	258.00	0.0269	54	236.19	322.014	261.20	No
203			239.60	228.70			19.60	85.825	231.90	
[illegible]3	MAN	5.00	232.90	228.50			4.92		230.54	-2.36
77 335			232.90	228.40			0.00		230.54	
MV330-04	EPI	220.00	232.90	229.90	0.0541	12	4.92	8.276	230.48	Yes
76 259			232.00	218.00			9.72	3.359	221.82	
MV3	MAN	5.00	239.60	228.70			251.20		231.66	-7.94
247 279			239.60	228.60			0.00		231.66	
MV300-08	EPI	400.00	239.60	228.70	0.0267	66	251.20	548.555	231.66	No
248 204			232.00	218.00			19.40	297.350	221.82	
MV3	MAN	5.00	232.00	218.00			254.66		221.82	-10.18
249 280			232.00	217.90			0.00		221.82	
MV300-09	EPI	840.00	232.00	218.00	0.0115	66	254.66	360.416	221.82	No
250 205			215.00	208.30			14.53	105.752	212.12	
MV3	MAN	5.00	215.00	208.30			281.18		211.62	-3.38
251 281			215.00	208.20			0.00		211.62	
MV300-10	EPI	550.00	215.00	208.30	0.0189	72	281.18	581.653	211.62	No
252 206			208.00	197.90			17.56	300.473	201.22	
MV3	MAN	5.00	208.00	201.30			293.31		201.20	-6.8
253 282			208.00	201.20			0.00		201.20	
MV300-11	EPI	530.00	208.00	197.90	0.0253	72	294.86	672.579	201.06	No
254 207			202.20	184.50			19.73	377.715	187.80	
MV3	MAN	5.00	202.00	184.50			293.80		187.80	-14.2
255 283			202.00	184.40			0.00		187.80	
MV300-12	EPI	520.00	202.00	184.50	0.0213	72	293.80	618.000	187.80	No
256 208			190.00	173.40			18.59	324.201	177.56	

erID	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
MV3		MAN	5.00	190.00	173.40			301.31		177.56	-12.44
257	284			190.00	173.30			0.00		177.56	
MV300-12b		EPI	920.00	190.00	173.40	0.0091	76	301.31	466.865	177.56	No
258	209			179.50	165.00			13.84	165.558	169.16	
MV3		RES	0.00	165.00	165.00			15.29		165.00	No
259	285			165.00	165.00			0.00		165.00	
671		EPI	372.92	190.00	185.30	0.0008	300	15.29	5,393.522	190.00	No
260	671			190.00	185.00			2.19	5,378.231	190.00	
677		MAN	5.00	190.00	185.30			15.29		190.00	No
261	677			190.00	185.20			0.00		192.01	
673		EPI	426.99	190.00	185.30	0.003	24	15.54	12.467	191.77	Yes
262	673			190.00	184.00			4.95	-3.077	190.00	
678		MAN	5.00	190.00	184.00			15.53		190.00	No
263	678			190.00	183.90			0.00		891.75	
675		EPI	227.24	190.00	184.00	0.0031	24	352.79	12.540	891.75	Yes
264	675			194.80	183.30			112.30	-340.253	341.81	
						310					
MV3		MAN	5.00	382.30	258.30			1.85		358.64	-23.66
13	302			382.30	258.20			0.00		358.64	
MV310-02		EPI	600.00	362.30	358.30	0.0555	16	1.85	18.053	358.30	No
14	226			332.00	325.00			7.16	16.202	328.28	
						320					
MV3		MAN	5.00	476.00	472.00			1.34		472.20	-3.8
	319			476.00	471.90			0.00		472.20	
.20-02		EPI	320.00	476.00	472.00	0.3	12	1.34	19.489	472.20	No
40	243			380.00	376.00			12.02	18.152	376.28	
MV3		MAN	5.00	380.00	376.00			2.02		376.28	-3.72
41	320			380.00	375.90			0.00		376.28	
MV320-03		EPI	190.00	380.00	376.00	0.2053	12	2.02	16.121	376.28	No
42	244			342.00	337.00			11.98	14.104	337.56	
MV3		MAN	5.00	342.00	337.00			4.08		337.56	-4.44
43	321			342.00	336.90			0.00		337.56	
MV320-04		EPI	730.00	342.00	337.00	0.0384	15	4.08	12.635	337.06	Yes
44	245			318.00	309.00			7.83	8.553	312.20	
						330					
MV3		MAN	5.00	287.00	282.00			0.77		282.62	-4.38
61	328			287.00	281.90			0.00		282.62	
MV330-03		EPI	830.00	287.00	282.00	0.0229	15	3.74	9.761	282.62	Yes
62	252			268.00	263.00			6.37	6.020	264.84	
MV3		MAN	5.00	268.00	263.00			5.78		264.84	-3.16
63	329			268.00	262.90			0.00		264.84	
MV330-04		EPI	550.00	268.00	263.00	0.0069	15	5.78	5.363	263.00	No
64	253			267.00	259.20			4.71	-0.422	261.20	
MV3		MAN	5.00	266.00	260.00			6.50		266.01	0.01
65	330			266.00	259.90			0.00		266.01	
MV330-05		EPI	170.00	266.00	260.00	0.0047	12	6.50	2.441	261.20	No
66	254			267.00	259.20			8.27	-4.057	261.20	

erID / I	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
						340					
MV3		MAN	5.00	573.00	569.00			3.83		569.40	-3.6
19	303			573.00	568.90			0.00		569.40	
MV340-02		EPI	340.00	573.00	569.00	0.3676	8	3.83	7.318	569.40	No
20	227			448.00	444.00			18.73	3.490	444.50	
MV3		MAN	5.00	448.00	444.00			3.72		444.50	-3.5
21	304			448.00	443.90			0.00		444.50	
MV340-03		EPI	480.00	448.00	444.00	0.1583	8	3.72	4.802	444.50	Yes
22	228			371.00	368.00			13.64	1.087	379.73	
MV3		MAN	5.00	371.00	368.00			3.69		379.73	8.73
23	305			371.00	367.90			0.00		379.73	
MV340-04		EPI	200.00	371.00	368.00	0.0375	8	3.69	2.337	377.71	Yes
24	229			364.00	360.50			10.57	-1.352	361.17	
MV3		MAN	5.00	364.00	360.00			7.06		360.58	-3.42
219	306			364.00	359.90			0.00		360.58	
MV340-05		EPI	900.00	364.00	360.00	0.0744	18	7.06	28.624	360.58	Yes
220	230			297.50	293.00			11.32	21.560	297.62	
MV3		MAN	5.00	297.50	293.00			8.32		297.62	0.12
221	307			297.50	292.90			0.00		297.62	
MV340-06		EPI	380.00	297,50	293.00	0.0342	18	8.32	19.404	297.62	Yes
222	231			284.00	280.00			9.04	11.087	295.25	
MV3		MAN	5.00	384.00	280.00			27.08		295.25	-88.76
223	308			384.00	279.90			0.00		295.25	
[illegible]340-07		EPI	200.00	284.00	280.00	0.02	18	31.36	14.837	293.33	Yes
	232			282.00	276.00			17.75	-16.526	277.71	
[illegible]3		MAN	5.00	282.00	276.00			47.57		277.71	-4.29
225	291			282.00	275.90			0.00		277.71	
MV340-08		EPI	370.00	282.00	276.00	0.0122	48	57.76	158.216	277.71	Yes
226	235			277.00	271.50			9.86	100.456	277.19	
MV3		MAN	5.00	277.00	271.50			60.70		277.19	0.19
227	292			277.00	271.40			0.00		277.19	
MV340-09		EPI	1,000.00	277.00	271.50	0.002	48	62.14	64.160	277.19	Yes
228	216			281.00	269.50			5.36	2.022	275.43	
MV3		MAN	5.00	281.00	271.50			67.27		275.43	-5.57
229	293			281.00	271.40			0.00		275.43	
MV340-10		EPI	280.00	281.00	272.20	0.0093	36	67.27	64.192	275.43	Yes
230	217			274.60	269.60			9.52	-3.082	272.60	
MV3		MAN	5.00	274.60	269.60			74.49		271.48	-3.12
231	294			274.60	269.50			0.00		271.48	
MV340-11		EPI	250.00	274.60	269.60	0.0264	42	74.49	163.266	271.48	No
232	218			268.80	263.00			14.24	88.777	264.96	
MV3		MAN	5.00	268.80	263.00			82.17		264.96	-3.84
233	295			268.80	262.90			0.00		264.96	
MV340-12		EPI	180.00	268.80	263.00	0.0278	42	82.17	167.474	264.96	No
234	219			264.60	258.00			14.96	85.301	260.46	
MV3		MAN	5.00	264.60	258.00			83.21		260.46	-4.14
235	296			264.60	257.90			0.00		260.46	
MV340-13		EPI	250.00	264.60	258.00	0.0148	42	87.38	122.245	260.46	No
236	220			262.00	254.30			12.23	34.867	256.94	

UserID / ID	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ / Vel	MaxQ / ExcessQ	HGL Up/Dn	Surchg
MV3		MAN	5.00	262.00	254.30			86.94		256.94	-5.06
237	297			262.00	254.20			0.00		256.94	
MV340-14		EPI	280.00	262.00	254.30	0.0118	42	86.94	109.088	256.94	No
238	221			262.00	251.00			11.27	22.147	253.64	
MV3		MAN	5.00	262.00	251.00			86.45		253.44	-8.56
239	298			262.00	250.90			0.00		253.44	
MV340-15		EPI	150.00	262.00	251.00	0.0147	42	86.45	121.693	253.44	No
240	222			264.90	248.80			12.13	35.242	251.24	
MV3		MAN	5.00	264.90	248.90			88.83		251.14	-13.76
241	299			264.90	248.80			0.00		251.14	
MV340-16		EPI	340.00	264.90	248.80	0.0135	48	88.83	166.873	251.14	No
242	223			262.50	244.20			11.70	78.045	246.70	
MV3		MAN	5.00	262.50	244.20			88.26		246.70	-15.8
243	300			262.50	244.10			0.00		246.70	
MV340-17		EPI	830.00	262.50	244.20	0.0143	42	88.26	120.319	246.70	No
244	224			241.00	232.30			12.13	32.060	235.38	
MV3		MAN	5.00	241.00	232.30			107.82		235.38	-5.62
245	301			241.00	232.20			0.00		235.38	
MV340-18		EPI	540.00	241.00	232.30	0.0067	54	110.77	160.365	235.38	No
246	225			239.60	228.70			9.59	49.593	231.78	
					341						
MV341-02		EPI	280.00	388.70	382.70	0.0811	15	0.00	18.370	382.70	No
218	235			364.00	360.00			0.20	18.370	360.58	
					342						
		MAN	5.00	312.00	307.00			4.05		324.79	12.79
25	311			312.00	306.90			0.00		324.79	
MV342-02		EPI	320.00	312.00	307.00	0.025	15	4.05	10.201	324.79	Yes
26	236			304.00	299.00			6.76	6.156	323.54	
MV3		MAN	5.00	304.00	299.00			3.81		323.54	19.54
27	312			304.00	298.90			0.00		323.54	
MV342-03		EPI	270.00	304.00	299.00	0.0222	15	3.81	9.617	323.54	Yes
28	237			298.00	293.00			6.39	5.804	322.60	
					343						
MV343-02		EPI	970.00	388.70	382.70	0.0925	15	0.00	19.619	382.70	No
233	233			298.00	293.00			0.20	19.619	322.60	
MV3		MAN	5.00	298.00	293.00			7.13		322.60	24.6
214	310			298.00	292.90			0.00		322.60	
MV343-03		EPI	395.00	298.00	293.00	0.0253	18	7.13	16.692	322.60	Yes
215	349			288.00	283.00			7.78	9.562	320.79	
					344						
MV3		MAN	5.00	301.50	295.50			9.29		330.48	28.98
29	313			301.50	295.40			0.00		330.48	
MV344-02		EPI	470.00	301.50	295.50	0.0266	15	9.29	10.521	330.48	Yes
30	238			288.00	283.00			6.79	1.227	320.79	
MV3		MAN	5.00	288.00	283.00			16.79		320.79	32.79
231	314			288.00	282.90			0.00		320.79	
MV342-05		EPI	380.00	288.00	283.00	0.0079	15	16.79	5.732	320.79	Yes
217	234			284.00	280.00			13.68	-11.055	295.25	

›rID / ɹ	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
					345						
MV3		MAN	5.00	548.00	542.00			0.57		542.20	-5.6
3	286			548.00	541.90			0.00		542.20	
MV345-02		EPI	630.00	548.00	542.00	0.0603	12	0.57	8.739	542.20	No
4	210			510.00	504.00			5.39	8.165	504.42	
MV3		MAN	5.00	510.00	504.00			0.53		504.42	-5.58
5	0			510.00	503.90			0.00		504.42	
MV345-03		EPI	580.00	510.00	504.00	0.1702	12	3.96	14.678	504.42	No
6	211			411.30	405.30			13.68	10.723	405.76	
MV3		MAN	5.00	411.30	405.30			4.36		405.76	-5.54
7	288			411.30	405.20			0.00		405.76	
MV345-04		EPI	370.00	411.30	405.30	0.163	12	4.74	14.365	405.76	No
8	212			352.00	345.00			14.07	9.621	345.58	
MV3		MAN	5.00	352.00	345.00			4.63		345.58	-6.42
9	289			352.00	344.90			0.00		345.58	
MV345-05		EPI	400.00	352.00	345.00	0.1	12	5.71	11.252	345.58	No
10	213			312.50	305.00			12.56	5.544	305.94	
MV3		MAN	5.00	312.50	305.00			5.39		305.94	-6.56
11	290			312.50	304.90			0.00		305.94	
MV345-06		EPI	420.00	312.50	305.00	0.069	15	13.45	16.953	305.88	Yes
12	214			282.00	276.00			13.71	3.503	277.71	
					346						
MV3		MAN	5.00	331.00	326.00			0.93		326.22	-4.78
	315			331.00	325.90			0.00		326.22	
346-02		EPI	300.00	331.00	326.00	0.0743	18	0.93	28.603	326.22	No
32	239			306.70	303.70			6.62	27.671	304.06	
MV3		MAN	5.00	306.70	303.70			2.73		304.06	-2.64
35	316			306.70	303.60			0.00		304.06	
MV346-03		EPI	350.00	306.70	303.70	0.0763	18	2.73	28.976	304.06	No
36	240			283.00	277.00			8.78	26.241	278.40	
MV3		MAN	5.00	283.00	277.00			4.68		278.40	-4.6
37	317			283.00	276.90			0.00		278.40	
MV346-04		EPI	350.00	283.00	277.00	0.0029	18	4.68	5.608	278.40	Yes
38	241			282.00	276.00			3.21	0.928	277.71	
					347						
MV3		MAN	5.00	340.00	336.00			1.91		336.28	-3.72
33	318			340.00	335.90			0.00		336.28	
MV347-02		EPI	190.00	340.00	336.00	0.17	12	1.91	14.671	336.28	No
34	242			306.70	303.70			10.90	12.763	304.06	

›rID / G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ / Vel	MaxQ / ExcessQ	HGL Up/Dn	Surchg
					348					
MV3	MAN	5.00	305.10	300.00			1.66		300.56	-4.54
55 326			305.10	299.90			0.00		300.56	
MV348-02	EPI	250.00	305.10	300.00	0.008	15	1.66	5.770	300.56	No
56 250			301.00	298.00			3.57	3.909	298.56	
MV3	MAN	5.00	301.00	298.00			2.66		298.48	-2.52
57 327			301.00	297.90			0.00		298.48	
MV3	EPI	500.00	301.00	298.00	0.03	15	2.66	11.174	298.48	No
58 251			287.00	283.00			6.34	8.516	283.82	
MV3	MAN	5.00	287.00	283.00			7.55		283.82	-3.18
59 328			287.00	282.90			0.00		283.82	
MV348-04	EPI	460.00	287.00	283.00	0.0235	18	7.55	16.075	283.78	Yes
60 249			281.00	272.20			7.71	8.529	275.43	
					349					
MV3	MAN	5.00	290.90	285.00			1.71		285.54	-5.36
53 324			290.90	284.90			0.00		285.54	
MV349-02	EPI	260.00	290.90	285.00	0.0077	15	1.71	5.658	285.54	No
54 248			287.00	283.00			3.43	3.951	283.82	
					350					
MV3	MAN	5.00	272.60	266.60			1.75		274.40	1.8
49 322			272.60	266.50			0.00		274.40	
MV350-02	EPI	250.00	272.60	266.60	0.002	15	2.98	2.885	274.40	Yes
50 246			272.10	266.10			2.43	-0.098	273.86	
	MAN	5.00	272.10	266.10			6.57		273.86	1.76
323			272.10	266.00			0.00		273.86	
MV350-03	EPI	870.00	272.10	266.10	0.0036	15	6.57	3.851	271.65	Yes
52 247			268.80	263.00			5.56	-2.722	264.96	
					351					
MV3	MAN	5.00	257.00	252.00			6.40		252.96	-4.04
69 331			257.00	251.90			0.00		252.96	
MV351-02	EPI	450.00	257.00	252.00	0.0156	18	8.07	13.085	252.96	No
70 255			250.00	245.00			6.83	5.016	246.36	
MV3	MAN	5.00	250.00	245.00			13.91		246.36	-3.64
71 332			250.00	244.90			0.00		246.36	
MV351-03	EPI	280.00	250.00	245.00	0.0143	21	15.55	18.914	246.36	No
72 256			246.00	241.00			7.91	3.361	242.70	
MV3	MAN	5.00	246.00	241.00			18.03		242.70	-3.3
73 333			246.00	240.90			0.00		242.70	
MV351-04	EPI	410.00	246.00	241.00	0.0073	24	18.03	19.327	242.70	No
74 257			241.00	238.00			6.40	1.297	239.70	
MV3	MAN	5.00	241.00	238.00			22.32		239.00	-2
75 334			241.00	237.90			0.00		239.00	
MV351-05	EPI	250.00	241.00	238.00	0.0228	24	22.32	34.116	237.50	Yes
76 258			241.00	232.30			10.16	11.794	235.36	

›rID /	G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ Vel	MaxQ ExcessQ	HGL Up/Dn	Surchg
						360					
MV3		MAN	5.00	255.60	250.60			8.17		251.34	-4.26
79	336			255.60	250.50			0.00		251.34	
MV360-02		EPI	280.00	255.60	250.60	0.0264	24	8.17	36.731	251.34	No
80	260			248.50	243.20			7.98	28.559	243.94	
MV3		MAN	5.00	248.50	243.00			11.45		243.92	-4.58
81	337			248.50	242.90			0.00		243.92	
MV360-03		EPI	190.00	248.50	243.00	0.0216	24	11.45	33.190	243.92	No
82	261			244.00	238.90			8.13	21.740	239.86	
MV3		MAN	5.00	244.00	238.90			12.76		239.86	-4.14
83	338			244.00	238.80			0.00		239.86	
MV360-04		EPI	260.00	244.00	238.90	0.0231	24	12.76	34.323	239.66	No
84	262			238.00	232.90			8.60	21.564	233.98	
MV3		MAN	5.00	238.00	232.90			15.35		233.98	-4.02
85	339			238.00	232.80			0.00		233.98	
MV360-05		EPI	260.00	238.00	232.90	0.0227	24	15.35	34.035	233.98	No
86	263			232.00	227.00			9.12	18.681	228.26	
MV3		MAN	5.00	232.00	227.00			20.09		228.26	-3.74
87	340			232.00	226.90			0.00		228.26	
MV360-06		EPI	40.00	232.00	227.00	0.0175	27	20.09	40.918	228.26	No
88	264			231.60	226.30			8.85	20.829	227.56	
MV3		MAN	5.00	231.60	226.30			19.62		227.56	-4.04
89	341			231.60	226.20			0.00		227.56	
360-07		EPI	140.00	231.60	226.30	0.0164	27	19.02	39.646	227.56	No
	265			230.00	224.00			8.57	20.022	225.28	
MV3		MAN	5.00	230.00	224.00			19.19		225.22	-4.78
91	342			230.00	223.90			0.00		225.22	
MV360-08		EPI	340.00	230.00	224.00	0.0156	30	19.19	51.147	225.22	No
92	266			223.60	218.70			8.28	31.957	219.97	
MV3		MAN	5.00	223.60	218.70			18.79		219.68	-3.92
93	343			223.60	218.60			0.00		219.68	
MV360-09		EPI	220.00	223.60	218.70	0.0327	30	18.79	74.110	219.68	No
94	267			220.00	211.50			10.63	55.319	212.48	
MV3		MAN	5.00	220.00	211.50			21.50		212.46	-7.54
97	344			220.00	211.40			0.00		212.46	
MV360-10		EPI	250.00	220.00	211.50	0.0128	30	23.83	46.347	212.46	Yes
98	268			215.00	208.30			8.25	22.538	211.62	
						361					
MV3		MAN	5.00	221.60	216.60			3.24		217.40	-4.2
95	345			221.60	216.50			0.00		217.40	
MV360-11		EPI	320.00	221.60	216.60	0.0066	15	3.24	5.226	217.40	No
96	269			220.00	214.50			3.93	1.982	215.30	

rID / G_ID	Type	Length	Ground Up/Dn	Invert Up/Dn	Slope	Diam	DesignQ / Vel	MaxQ / ExcessQ	HGL Up/Dn	Surchg
				370						
MV3	MAN	5.00	215.80	210.00			4.00		210.80	-5
99 346			215.80	209.90			0.00		210.80	
MV370-3	EPI	220.00	215.80	210.00	0.0045	24	4.00	15.233	210.80	No
100 270			214.00	209.00			3.45	11.236	210.08	
MV3	MAN	5.00	214.00	209.00			11.73		210.08	-3.92
101 347			214.00	208.90			0.00		210.08	
MV370-03	EPI	380.00	214.00	209.00	0.0132	24	11.73	25.917	210.08	No
102 271			208.00	204.00			6.94	14.189	205.08	
MV3	MAN	5.00	208.00	204.00			11.06		204.96	-3.04
103 348			208.00	203.90			0.00		204.96	
MV370-04	EPI	150.00	208.00	204.00	0.018	24	11.06	30.313	204.96	No
104 272			208.00	201.30			7.60	19.252	202.26	
				Lateral Starting at Entity 357						
2	MAN	5.00	366.00	365.00			83.01		366.00	No
105 357			366.00	364.90			0.00		367.46	
MV3-100-01	EPI	362.09	368.00	365.00	0.0193	36	83.01	92.622	366.73	Yes
106 350			362.00	358.00			13.46	9.612	361.15	
3	MAN	5.00	362.00	358.00			83.01		361.15	-0.85
107 358			362.00	357.90			0.00		361.15	
MV3-100-02	EPI	399.19	362.00	358.00	0.02	36	83.01	94.304	360.58	Yes
108 351			355.00	350.00			13.62	11.294	355.00	
6	MAN	5.00	355.00	350.00			83.01		355.00	No
359			355.00	349.90			0.00		365.66	
MV3-100-03	EPI	457.43	355.00	350.00	0.1071	24	83.01	73.948	351.52	Yes
110 352			306.00	301.00			26.42	-9.062	305.18	
7	MAN	5.00	306.00	301.00			85.84		305.18	-0.82
111 360			306.00	300.90			0.00		305.18	
MV3-100-04	EPI	978.64	306.00	301.00	0.0041	48	85.84	91.720	305.18	Yes
112 353			302.00	297.00			7.58	5.876	302.00	
				Lateral Starting at Entity 364						
35	MAN	5.00	305.50	301.00			87.24		305.50	No
113 364			305.50	300.90			0.00		314.66	
MV3-100-10	EPI	281.25	305.50	301.00	0.0142	30	87.24	48.854	314.66	Yes
114 356			302.00	297.00			17.77	-38.386	302.00	
9	MAN	5.00	302.00	297.00			169.30		302.00	No
115 361			302.00	296.90			0.00		303.39	
MV3-100-21	EPI	706.22	302.00	297.00	0.0241	42	169.30	155.902	302.60	Yes
116 354			288.20	280.00			17.60	-13.393	283.50	
11	MAN	5.00	288.20	280.00			170.01		282.12	-6.08
117 362			288.20	279.90			0.00		282.12	
MV3-100-22	EPI	106.08	288.20	280.00	0.0896	42	170.01	300.705	282.12	No
118 355			288.20	270.50			28.06	130.692	272.62	
13	RES	0.00	270.50	270.50			106.21		270.50	No
119 363			270.50	270.40			0.00		270.50	
67	EPI	506.46	288.00	274.00	0.003	50	106.21	23,470.612	306.97	No
120 676			288.00	273.49			3.87	23,364.400	306.97	

RM-ASSOCIATES
MIRAVALLE III Job #06712
MV3 Basin 25yr Storm & 100yr Point_Flow TST2

25yPF2

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Reservoirs - Sorted by User's ID

UserID SEQ	G_ID	Rim Elev	Inverts In/Over/Out	Over ID	DesignQ In/Over/Out	Reservoir Cap Max/Stored	HGL Up/Dn	Surcharge
Pond 1		270.50	270.50	0	169.97	,000,000,000.00	270.50	No
119	162		274.00		0.00	696,895.58	270.50	
			274.00		106.21			
Pond2 3		165.00	165.00	0	518.34	,000,000,000.00	165.00	No
259	285		185.30		0.00	12,242,606.00	165.00	
			185.30		75.92			

RM-ASSOCIATES
MIRAVALLE III Job #06712
MV3 Basin 25yr Storm & 100yr Point_Flow TST3

25yPF3 2/28/2007 4:03:51 PM

Reservoirs - Sorted by User's ID

UserID SEQ	G_ID	Rim Elev	Inverts In/Over/Out	Over ID	DesignQ In/Over/Out	Reservoir Cap Max/Stored	HGL Up/Dn	Surcharge
Pond 1		270.50	270.50	127	160.97	914,760.00	270.50	No
119	363		274.00		0.00	696,895.58	270.50	
			274.00		106.21			
Pond2 3		165.00	165.00	263	518.34	4,600,000.00	165.00	No
259	285		185.30		447.85	4,600,000.00	165.00	
			185.30		11.48			

APPENDIX H

Miravale Phase III Development Standards

Table 2-4

LDR & LDR-H / M3-R-1 Development Standards

Category	Regulation	Interpretation
Land Use	Low Density Residential (LDR) Hillside Low Density Residential (LDR - H)	
Zoning District	M3-R-1	
Density Range	1 to 10	This zone is primarily 1-6 du/ac. Density above 6 du/ac is allowed in order to accommodate affordable duplex and triplex units.
Permitted Uses		
The following uses shall be permitted in the R-1 district:		
Single family dwellings Accessory Buildings (including garage) Churches	Duets, duplexes, or triplexes. Refer also to Section 17.10.020 of the Municipal Code	Home occupations, subject to Section 17.38.140 of the Municipal Code
Lot Configuration		
Lot Area	5,000sf minimum	
Corner Lot	6,000sf minimum	
Width		
Interior Lot	50 feet minimum	
Corner Lot	60 feet minimum	
Depth		
Local Street frontage	100 feet minimum	
Collector Street frontage	100 feet minimum	
Curved / Cul-de-sac Frontage	40 feet minimum	
Building Massing		
Lot Coverage	40% maximum	Roof overhangs, patio overhangs, unenclosed shade structures and the like are exempt from the building covereage calculation.
Building Height	2 stories maximum	
Accessory Building*	14 feet maximum	1 story maximum
	**Accessory structures contingent on appropriate design as defined in the CC&R's.*	
Setbacks		
Front Yard		
Living Space	15 feet minimum	Architectural features may extend up to 2.5' into the adjacent setback.
Porch	9 feet minimum	Porches and balconies may extend 6' into required front and rear yards, 2' into side yards.
Garage	20 feet minimum	
Side Yards		
Interior	5 feet minimum	
Exterior	10 feet minimum	
Side Loaded Garage	25 feet minimum	
Rear Yard		
Primary Building	20 feet minimum	A minimum of 1,000 sf open space/yard shall be provided to the side or rear of the main dwelling or in an "L" or "U" design.
Accessory Building	5 feet minimum	
Off Street Parking		
Parking Requirements	2 spaces/ unit minimum	Minimum two covered spaces within a garage or carport

Table 2-5 VR/ M3-VR Development Standards

VR/ M3-VR		
Category	**Restriction**	**Interpretation**
Land Use	Village Residential (VR)	
Zoning	Village Residential (M3-VR)	
Density Range	12-30 dwelling units / gross acre	
Permitted Uses		
Single-Family dwellings, duplexes, triplexes, apartments, clustered "pack" style homes, townhouses, condominiums, accessory buildings, neighborhood serving uses - including garages, and day nurseries. Any other uses that the Planning Commission finds to be consistent with the purpose of this section and the Specific Plan.		
Lot Configuration		
Lot Area	2,000 sf minimum 6,000 sf minimum for apartments	Lot area may be reduce up to 10% in constrained locations provided all setback and usable rear yard area requirements are met.
Width		
Interior Lot	35' feet minimum	
Exterior Lot	40' feet minimum	
Depth	65' feet minimum	
Curve / Cul-De-Sac Frontage	30' feet minimum	Measured at property line. May have a lot frontage less than specified provided all setback and rear yard area requirements are met.
Building Massing		
Lot Coverage	65% of lot maximum	Roof overhangs, patio covers, unenclosed shade structures and the like are exempt from the building coverage calculation.
Height	3 stories maximum	
Setbacks		
Front		
Living Space	10' minimum	Architectural features may extend up to 2.5' into the adjacent setback.
Porch	5' minimum	Porches and balconies may extend 5' into required front and rear yards, 2' into side yards.
Garage	20' minimum	

Side		
Interior	5' minimum	
Exterior	10' minimum	
Rear		
Residential	10' minimum	A 100' wide landsscaped buffer strip irrigated with recycled water is required measured from the structure on the lot closest to the open space.
Accessory Structure	5' minimum per story	Rear loading attached garages shall provide a 5' minimum setback.
Distance Between Buildings		
Residential Buildings	10' minimum	
Accessory Structures	6' minimum	
Fencing	Refer to Section 17.36.010 of the Municipal Code	
Landscaping & Open Space		
Private/Common Open Space		
Townhomes / Condos	500 sf minimum	
Apartments	300 sf minimum for studio 350 sf minimum for 1 bedroom 50 sf additional per bedroom > 1 bedroom	A portion of the required usable open space shall be private*, otherwise it shall be shared in common space *Private open space includes: patios, porches, balconies, terraces, and decks. A minimum of 80 sf for ground floor units and 48 sf for units located on the second level or above.
4+ Units	Provide a landscaped 4' wide minimum strip along the periphery of the project site. The front yard setback shall contain a varying landscaped strip varying in width from 6' wide to 10' wide.	
Parking	Refer to Section 17.36.020 of the Municipal Code	
Signage	Refer to Section 17.36.030 of the Municipal Code	

Table 2-6

C / M3-GC & M3-CC Development Standards

Category	Restriction	Interpretation
Land Use Zoning	Commercial (C) (M3-GC & M3-VC)	Includes Village Commercial and Gateway Commercial
Permitted Uses		
Village Commercial (VC)		Gateway Commercial (GC)
Bakery goods, barbershop, beauty shop, bicycle shop, books, clothing store, deli, department store, drug store, dry cleaner, florist shop, furniture store, garden supplies, gift shops, grocery store, hardware store, health foods, hobby shops, ice cream, laundromats, meat market, music store, newspaper stand, pet shop, photographic supplies, electronic stores, restaurants, shoe repair store, sporting goods, stationary store, toy store, any other use which the planning commission finds to be consistent with the purposes of this section		Auto parts, bakery goods, barbershop, beauty shop, bicycle shop, books, clothing store, community center, day care, deli, department store, drug store, dry cleaner, florist shop, furniture store, garden supplies, gift shops, grocery store, gym, hardware store, health foods, hobby shops, ice cream, laundromats, meat market, music store, newspaper stand, pet shop, photographic supplies, electronic stores, restaurants, spa, shoe repair store, sporting goods, stationary store, toy store, specialty retail, art gallery, any other use which the planning commission finds to be consistent with the purposes of this section
Conditional Uses		
Village Commercial (VC)		Gateway Commercial (GC)
Banks and other financial institutions, buildings with more than 50,000sf of gross floor area (75,000 sf for two or more stories), bowling alleys, cocktail lounges, liquor products, pool and billiards, any use the planning commission determines consistent with the provisions of this section.		Antiques and the sales of used items, banks and other financial institutions, buildings with more than 10,000sf of gross floor area (15,000 sf for two or more stories), bowling alleys, cocktail lounges, liquor products, office, pool and billiards, hotel, wine tasting room, live music venues, all drive throughs, used items including furniture and clothing where owned and operated by a non-profit organization, and any use the planning commission determines consistent with the provisions of this section.
Prohibited Uses VC & GC		
Liquor stores as a principal use, bars, automobile body and paint shop, exclusive automobile repair; sheet metal shop; fortune tellers, adult entertainment; gambling; pawn shops, thrift shops, and flea markets. All drive throughs are prohibited in Village Commercial.		
Lot Configuration VC & GC		
Landscape Area Coverage	10% of lot minimum	Area between front/street side property line and the building, excluding driveways, shall be landscaped. Parking lot areas shall be planted to reduce the impact of large paving areas.

Building Massing			
Village Commercial (VC)		Gateway Commercial (GC)	
Lot Coverage	No limitation	Lot Coverage	No Limitation
Height	3 stories maximum	Height	4 stories maximum
		Hotel	7 stories maximum
Setbacks		Setbacks	
Front	sidewalk	Front	0' for buildings fronting sidewalk
Side		Side	
Streetside	10' minimum	Streetside	10' minimum
Interior	0' minimum	Interior	0' minimum
Rear		Rear	0' minimum
Commercial	0' minimum		
Residential	20' minimum		
Distance Between Buildings	10' minimum	Distance Between Buildings	10' minimum
Parking	Refer to Section 17.36.020 of the Municipal Code		
Signage	Refer to Section 17.36.030 of the Municipal Code		

APPENDIX I

LAFCO Compatibility Table

Project Compatibility with Relevant Monterey County LAFCO Policies			
Policy Number	**Policy Summary**	**Applicable Specific Plan Policy Number**	**Compatibility**
Monterey County LAFCO			
Adopted Sphere of Influence Policies			
1	LAFCO intends that its sphere of influence determination will serve as a master plan for the future organization of local government within the County. The spheres shall be used to discourage urban sprawl; limit proliferation of local governmental agencies; encourage efficiency, economy and orderly changes in local government; promote compact, community centered urban development; and minimize adverse impacts on lands classified as prime agriculture.	N/A	As outlined within Program 2.1 of the 2005 City of Soledad General Plan the City intends to apply to LAFCO for a comprehensive amendment of its sphere of influence that will be consistent with the 2005 General Plan and compatible with the City's ability to provide the full range of public services, including water supply; wastewater collection and treatment; storm drainage; and police and fire protection to the proposed Specific Plan area. The Miravale III Specific Plan will be included within this proposal.
2	The sphere of influence lines shall be a declaration of policy which shall be a primary guide to LAFCO in the decision on any proposal under its jurisdiction. Every determination made by the Commission shall be consistent with the spheres of influence of the agencies affected by those determinations.	N/A	The Miravale III Specific Plan incorporates city centered growth principles; project approval would ultimately allow for the expansion of the urbanized area of the City of Soledad where urban services are available to support such development.
3	Any proposal which is inconsistent with an agency's adopted sphere of influence shall not be approved until the Commission, at a noticed public hearing, has considered an amendment or revision to that agency's sphere of influence.	N/A	The proposed project is located outside of the City's current Sphere of Influence. Development of the project site would require an application to amend the City's Sphere of Influence to include the project area, which is identified in the Soledad General Plan as an area of future urban expansion.
4	Inclusion within an agency's sphere of influence does not assure annexation to that agency. The Commission shall evaluate boundary change proposals as they relate to all of the relevant factors listed in the Cortese-Knox Local Government Reorganization Act of 1985 (Government Code	N/A	Not applicable.

Project Compatibility with Relevant Monterey County LAFCO Policies			
Policy Number	**Policy Summary**	**Applicable Specific Plan Policy Number**	**Compatibility**
	Section 56841 et seq.).		
5	When possible, a single larger general purpose agency, rather than a number of adjacent smaller ones, established for a given service in the same general area will be preferred. Where an area could be assigned to the sphere of influence of more than one agency providing a particular needed service, the following hierarchy shall apply dependent upon ability to serve. a. Inclusion within a City sphere of influence. b. Inclusion within a multi-purpose district sphere of influence. c. Inclusion within a single-purpose district sphere of influence. In deciding which of two or more equally ranked agencies shall include an area within its sphere of influence, LAFCO shall consider the agencies' service and financial capabilities, social and economic interdependence, topographic factors, and the effect that eventual service extension will have on adjacent agencies.	N/A	When the outward urban expansion of the City occurs as contemplated by the General Plan and detailed within the Miravale Phase III Specific Plan, the City will petition LAFCO to detach the Specific Plan area from all underlying service providers and for the area to be served by the City. A comprehensive service plan for the Specific Plan area will be available concurrently or in advance of such reorganization.
6	Duplication of authority to perform similar functions in the same territory will be avoided. Sphere of influence boundaries shall not create islands or corridors unless it can be demonstrated that the irregular boundaries represent the most logical and orderly service area of an agency.	N/A	The extension of the City of Soledad's Sphere of Influence would not create any "islands" and/or corridors. The proposed project site is contiguous to the existing City.
7	The adopted sphere of influence shall reflect City and County General Plans, plans of regional agencies, growth management policies, annexation policies, resource management policies, and any other policies related to ultimate boundary or service area of an affected agency unless those plans or policies conflict with the legislative	N/A	The Miravale Specific Plan is intended to implement the City of Soledad's General Plan land use and development provisions pertaining to designated Expansion Areas in an orderly and comprehensive manner. The Specific Plan accomplishes this through the establishment of land use, infrastructure, public services and financing provisions and

Project Compatibility with Relevant Monterey County LAFCO Policies			
Policy Number	**Policy Summary**	**Applicable Specific Plan Policy Number**	**Compatibility**
	intent of the Cortese-Knox Act of 1985 (Government Code Section 56000 et seq.). Where inconsistencies between plans exist, LAFCO shall rely upon that plan which most closely follows the Legislature's directive to discourage urban sprawl, direct development away from prime agricultural land and open-space lands, and encourage the orderly formation and development of local governmental agencies based upon local conditions and circumstances.		programs to direct future development. The Specific Plan ensures a balance between growth and public infrastructure and services by ensuring that development pays its fair share of infrastructure and pubic service and facility costs, and that such infrastructure and services are in place as needed by each planned phase of development.
8	Extension of urban type services promotes urban development and such development belongs in cities or areas of development concentration in the unincorporated area of Monterey County. In evaluating proposals involving urban development requiring an urban level of governmental services, the Commission will discourage the formation of new special districts or premature annexation of territory within existing city spheres of influence or logical expansion area. The Commission will discourage boundary change proposals involving urban development outside adopted city spheres of influence that have the potential to negatively impact prime agriculture or open space lands, public service capacity, existing local governmental agencies, or generally represents illogical growth patterns.	Policies 5.1.1.1-5.1.3 5.1.2.1-5.1.2-2 5.1.3.1-5.1.3.5 5.1.4.1-5.1.4.11 5.2.1.1-5.2.1.4 5.2.2.1-5.2.2-8	The proposed project site is located adjacent to existing residential development within the City of Soledad and is identified as a future expansion area under the City's General Plan. As demonstrated in **Sections 4.12 Public Services** and **4.14 Utilities and Service Systems** adequate services and utilities are available or would be provided to serve the proposed development. While the project would result in the loss of agricultural lands classified as "prime farmland" the project site is identified as a future area of urban expansion. Moreover, development and annexation of the project site would not create any "islands" and/or corridors.
9	This Commission, in recognition of the mandated requirements for considering impacts on open space lands and agricultural lands, will develop and determine spheres of influence for Cities and urban service districts in such a manner as to promote the long-term preservation and protection of this County's "Resources." The Commission believes the public interest will be best served by considering "Resources" in a broad sense to include open space,	Policies 4.1.2.1- 4.1.2.12	According to the City of Soledad General Plan, the project site is located within an area identified for future expansion. The proposed project, which includes residential, commercial, recreational, and public uses, would be consistent with the City's General Plan upon project approval. As identified in **Section 4.12 Public Services** development of the proposed project would provide open space opportunities for area residents, in addition to improved public parkland. While the

Project Compatibility with Relevant Monterey County LAFCO Policies			
Policy Number	**Policy Summary**	**Applicable Specific Plan Policy Number**	**Compatibility**
	recreational opportunities, wildlife, and agricultural land. Sphere of influence determinations must conform with the Commission's Agricultural Preservation Policy adopted in November, 1979.		proposed project would result in the permanent conversion of agricultural land into an urban use, this area was contemplated under the 2005 General Plan as a future area of commercial and residential development. For more information regarding the project's impacts on agricultural resources, please refer to **Section 4.2 Agricultural Resources.**
Draft Sphere of Influence Policies			
1	For annexations and Spheres of Influence applications, LAFCO of Monterey County shall consider as part of its decision whether the proposal mitigates its regional traffic impacts by, for example, monetary contribution to regional transportation improvement fund as established by the Transportation Agency of Monterey County or otherwise:	Please refer to Section 3.1 of the Miravale Phase III Specific Plan	As indicated in **Section 4.13 Traffic and Circulation,** development of the proposed project would be required to mitigate regional transportation impacts through the payment of regional impact fees.
2	For annexations and Sphere of Influence applications, LAFCO of Monterey County shall consider as part of its decision whether the city in which the annexation or Sphere of Influence amendment is proposed has included certain goals, policies, and objectives into its General Plan that encourage mixed uses, mixed densities, and development patterns that will result in increased efficiency of land use, and that encourage and provide planned, well-ordered, efficient urban development patterns.	Policies 2.6.a-2.6.j 2.7.a-2.7.g 2.8.a-2.8.o	The City's adopted General Plan, as well as, the Miravale Phase III Specific Plan contain specific policies and measures to insure that development of the project site provides a mix of densities types, and development patterns to increase the efficiency of land use by providing commercial, recreational, residential, and public land uses within the project area.
Government Code Section 56668 "Factors to be considered in the review of a proposal"			
a	Population and population density; land area and land use; per capita assessed valuation; topography, natural boundaries, and drainage basins; proximity to other populated areas; the likelihood of significant growth in the area, and in adjacent incorporated and unincorporated areas, during the next 10 years.	Policies 4.1.2.1-4.1.2.12 2.6.a-2.6.j 2.7.a-2.7.g 2.8.a-2.8.o	The proposed project site is adjacent to existing residential neighborhoods located within the City of Soledad. For more information regarding population, land use, topography, natural boundaries, drainage basins, and other information,, please refer to **Sections 4.4 Biological Resources, 4.8 Hydrology and Water Quality,** and **4.11 Population and Housing.**

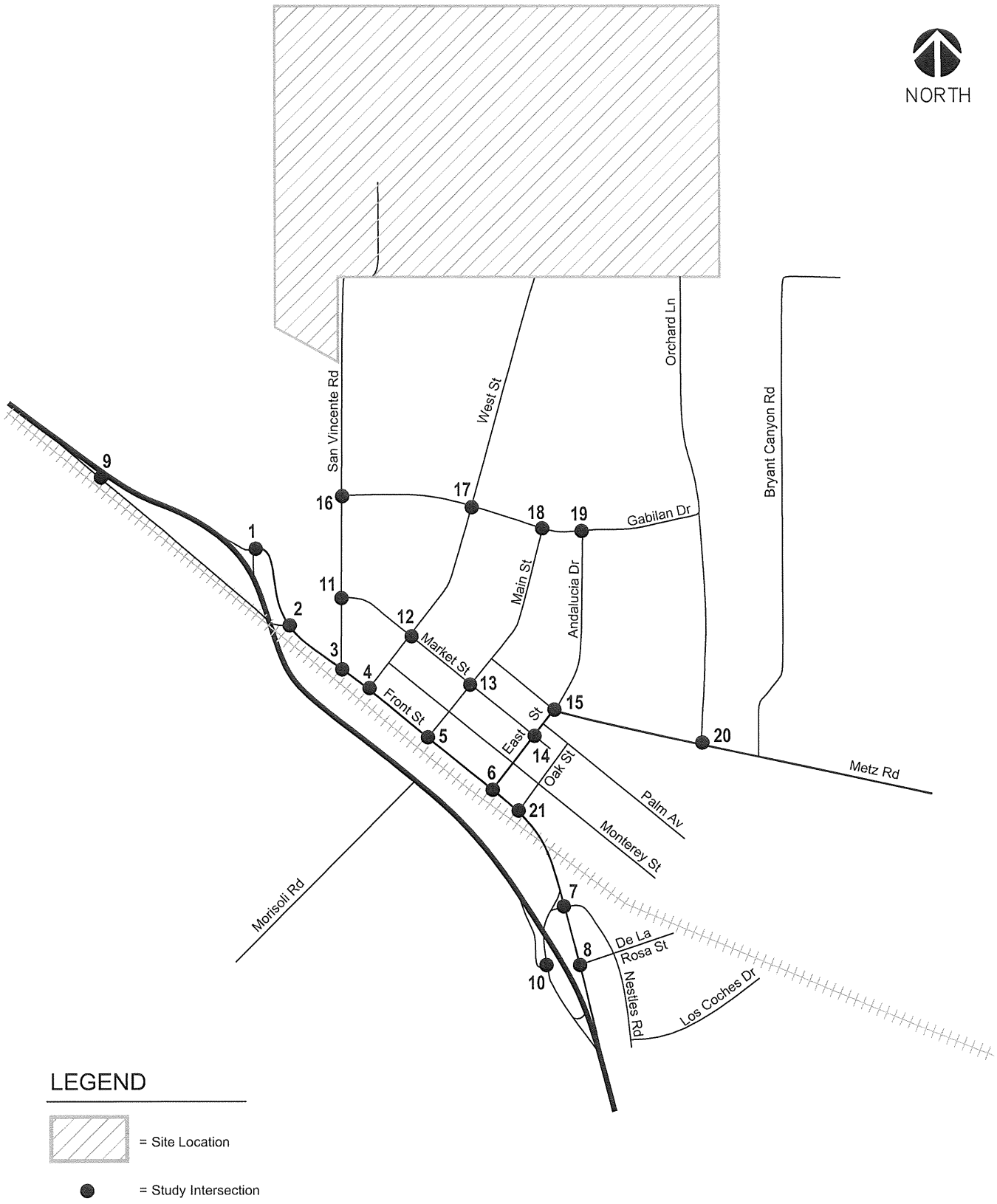
Project Compatibility with Relevant Monterey County LAFCO Policies			
Policy Number	**Policy Summary**	**Applicable Specific Plan Policy Number**	**Compatibility**
b	Need for organized community services; the present cost and adequacy of governmental services and controls in the area; probable future needs for those services and controls; probable effect of the proposed incorporation, formation, annexation, or exclusion and of alternative courses of action on the cost and adequacy of services and controls in the area and adjacent areas. "Services," as used in this subdivision, refers to governmental services whether or not the services are services which would be provided by local agencies subject to this division, and includes the public facilities necessary to provide those services.	Policies 5.1.1.1-5.1.3 5.1.2.1-5.1.2-2 5.1.3.1-5.1.3.5 5.1.4.1-5.1.4.11 5.2.1.1-5.2.1.4 5.2.2.1-5.2.2-8	As discussed in **Section 4.12 Public Services** and **Section 4.14 Utilities and Services Systems** the proposed project would be served by adequate facilities. Existing services would be extended to the project site and final design of all project infrastructure would be subject to the review and approval of the City of Soledad.
c	The effect of the proposed action and of alternative actions, on adjacent areas, on mutual social and economic interests, and on the local governmental structure of the county.	N/A	Information currently not available.
d	The conformity of both the proposal and its anticipated effects with both the adopted commission policies on providing planned, orderly, efficient patterns of urban development, and the policies and priorities set forth in Section 56377.	N/A	The project site is located within an area identified in the Soledad General Plan as a future expansion area. This area is intended to accommodate projected growth as identified in the General Plan. Adequate services and public facilities would be provided as part of project development. Further, the Miravale Phase III Specific Plan identifies policies and guidelines to insure the orderly and efficient development of the project site consistent with the needs of the City.
e	The effect of the proposal on maintaining the physical and economic integrity of agricultural lands, as defined by Section 56016.	See Section 6.0 of the Miravale Phase III Specific Plan.	Development of the proposed project would occur in approximately four phases over approximately 20 years. The project site has been identified as a future expansion area under the City's General Plan. Portions of the project site currently under a Williamson Act contract would remain undeveloped until such time that the contract expires. For more information regarding the projects impact on agricultural resources, please refer to **Section 4.2 Agricultural Resources.**

Project Compatibility with Relevant Monterey County LAFCO Policies			
Policy Number	**Policy Summary**	**Applicable Specific Plan Policy Number**	**Compatibility**
f	The definiteness and certainty of the boundaries of the territory, the nonconformance of proposed boundaries with lines of assessment or ownership, the creation of islands or corridors of unincorporated territory, and other similar matters affecting the proposed boundaries.	N/A	The proposed project site is adjacent to and contiguous with existing residential development within the City of Soledad. Amending the City's Sphere of Influence to include the project site would not result in the creation of any islands and/or corridors that would not be contiguous to the existing City. Moreover, adequate services would be extended to the project site to accommodate project development.
g	Consistency with city or county general and specific plans.	N/A	The project, as proposed, would be consistent with the City's General Plan. More specifically, the proposed project includes several General Plan amendments to insure that development of the site is consistent with the City's vision of the project area. The Miravale Phase III Specific Plan was prepared to insure a consistent and orderly vision of development within the project area.
h	The sphere of influence of any local agency which may be applicable to the proposal being reviewed.	N/A	The project site is immediately adjacent to the City of Soledad and is located within an area identified for future expansion.
i	The comments of any affected local agency or other public agency.	N/A	Not applicable at this time.
J	The ability of the newly formed or receiving entity to provide the services which are the subject of the application to the area, including the sufficiency of revenues for those services following the proposed boundary change.	N/A	As discussed in **Section 4.12 Public Services** and **Section 4.14 Utilities and Services Systems** the proposed project would be served by adequate facilities. Existing services would be extended to the project site and final design of all project infrastructure would be subject to the review and approval of the City of Soledad.
k	Timely availability of water supplies adequate for projected needs as specified in Section 65352.5.	N/A	As discussed in **Section 4.14 Utilities and Services Systems** the City has adequate water supply available to support full buildout of the General Plan, including the proposed project. According to the Water Supply Assessment prepared for the project, adequate water is available to accommodate project

Project Compatibility with Relevant Monterey County LAFCO Policies			
Policy Number	**Policy Summary**	**Applicable Specific Plan Policy Number**	**Compatibility**
			development.
l	The extent to which the proposal will affect a city or cities and the county in achieving their respective fair shares of the regional housing needs as determined by the appropriate council of governments consistent with Article 10.6 (commencing with Section 65580) of Chapter 3 of Division 1 of Title 7.	N/A	Development of the proposed project would provide approximately 4,200 residential units, including low, medium, and high density units. As identified in **Section 4.11 Population and Housing,** development of the proposed project would allow the City to achieve their fair share of the regional housing needs. Please refer to that section for further discussion.
m	Any information or comments from the landowner or owners.	N/A	Not applicable at this time.
n	Any information relating to existing land use designations.	N/A	According to the Monterey County General Plan, the project site is currently designated as Farmland and Permanent Grazing. Upon annexation, the project site would be designated for commercial, residential, recreational, and open space uses. Please see **Section 4.9 Land Use and Planning** for further information.

APPENDIX J

Traffic Impact Analysis



LEGEND

= Site Location

= Study Intersection

Figure 1

SITE LOCATION AND STUDY INTERSECTIONS

Soledad Miravale

Hexagon Transportation Consultants, Inc.

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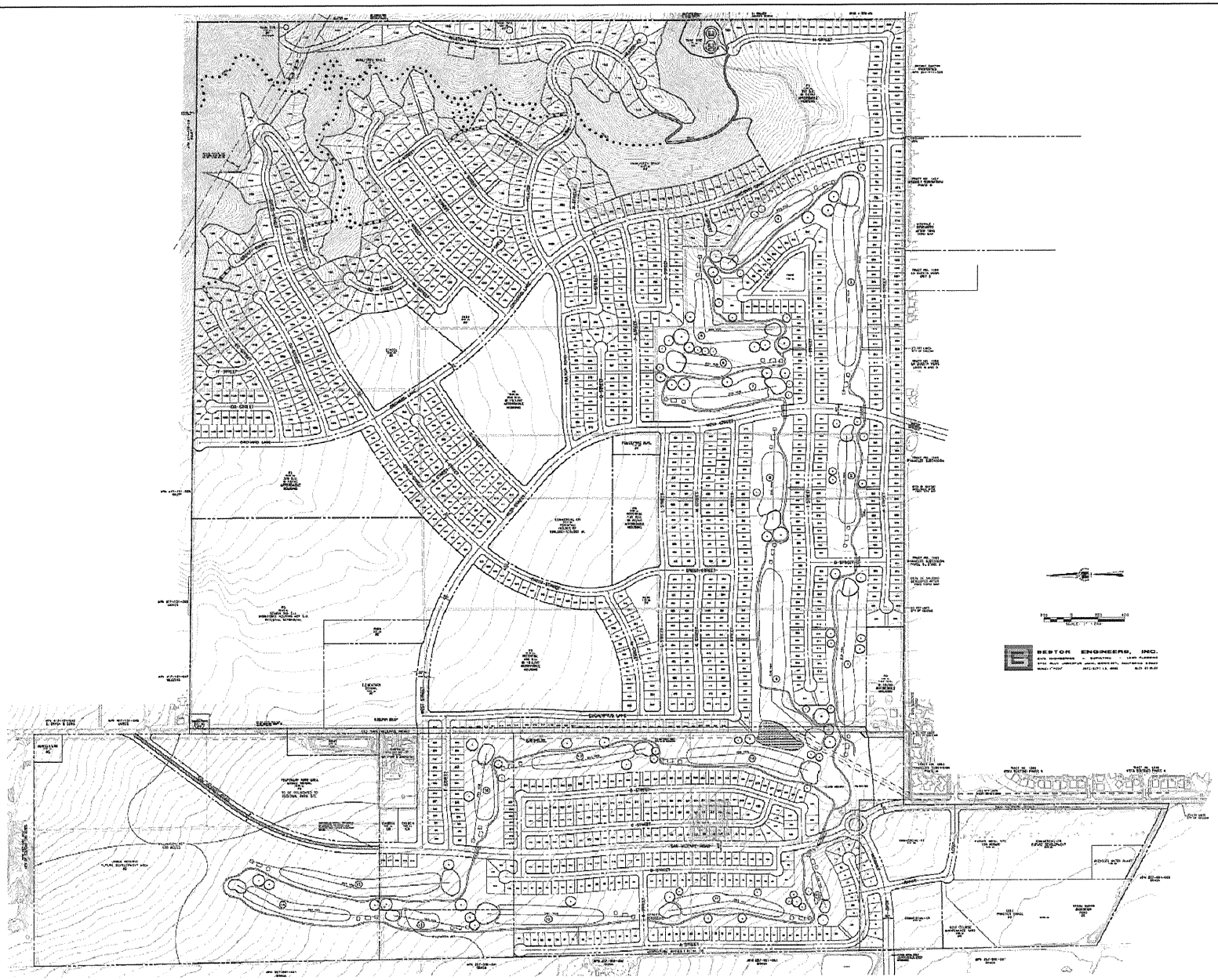

Figure 2

SITE PLAN

Soledad Miravale

Hexagon
Transportation Consultants, Inc.

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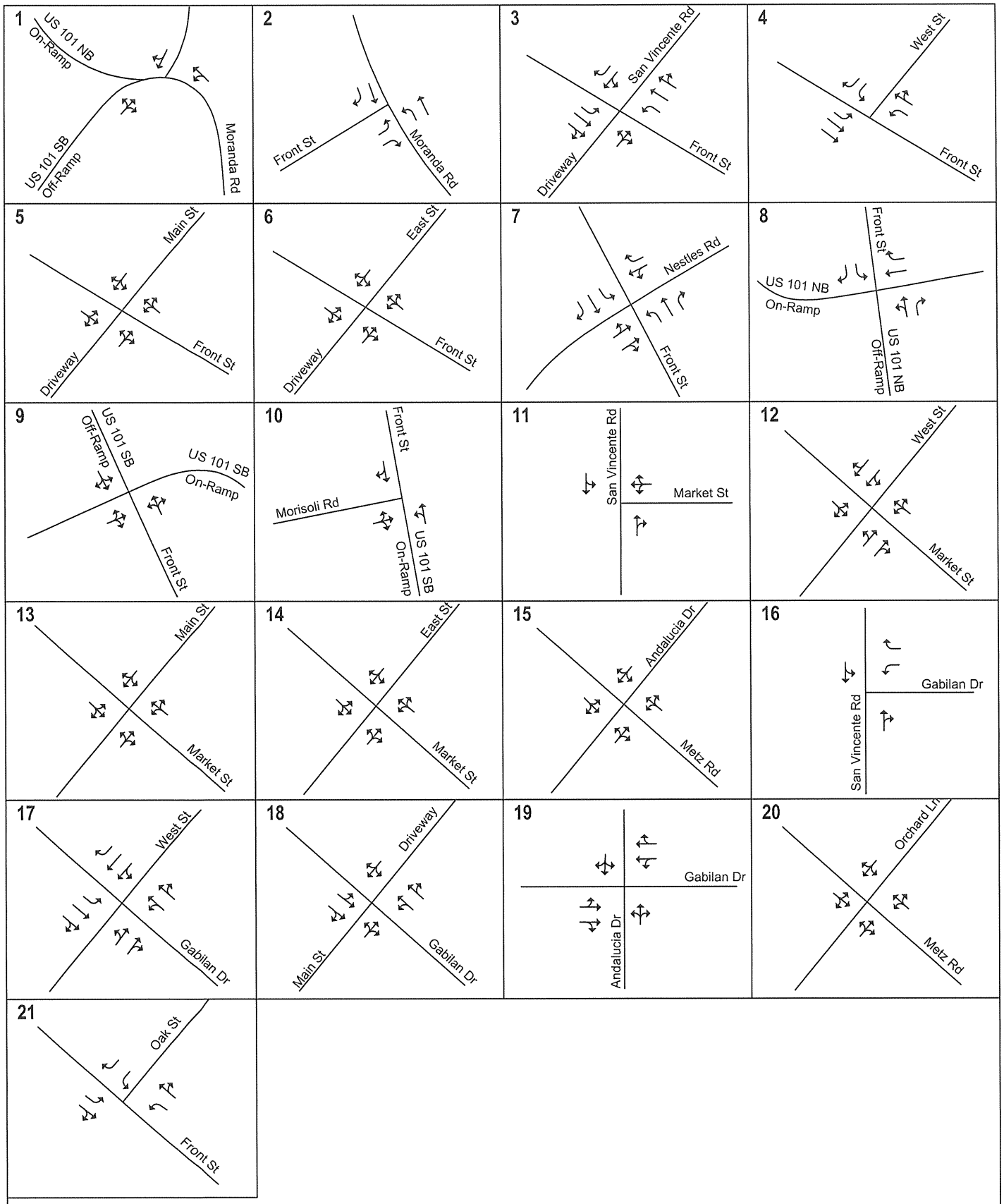

Figure 3

EXISTING LANE CONFIGURATIONS

Soledad Miravale

Hexagon
Transportation Consultants, Inc.

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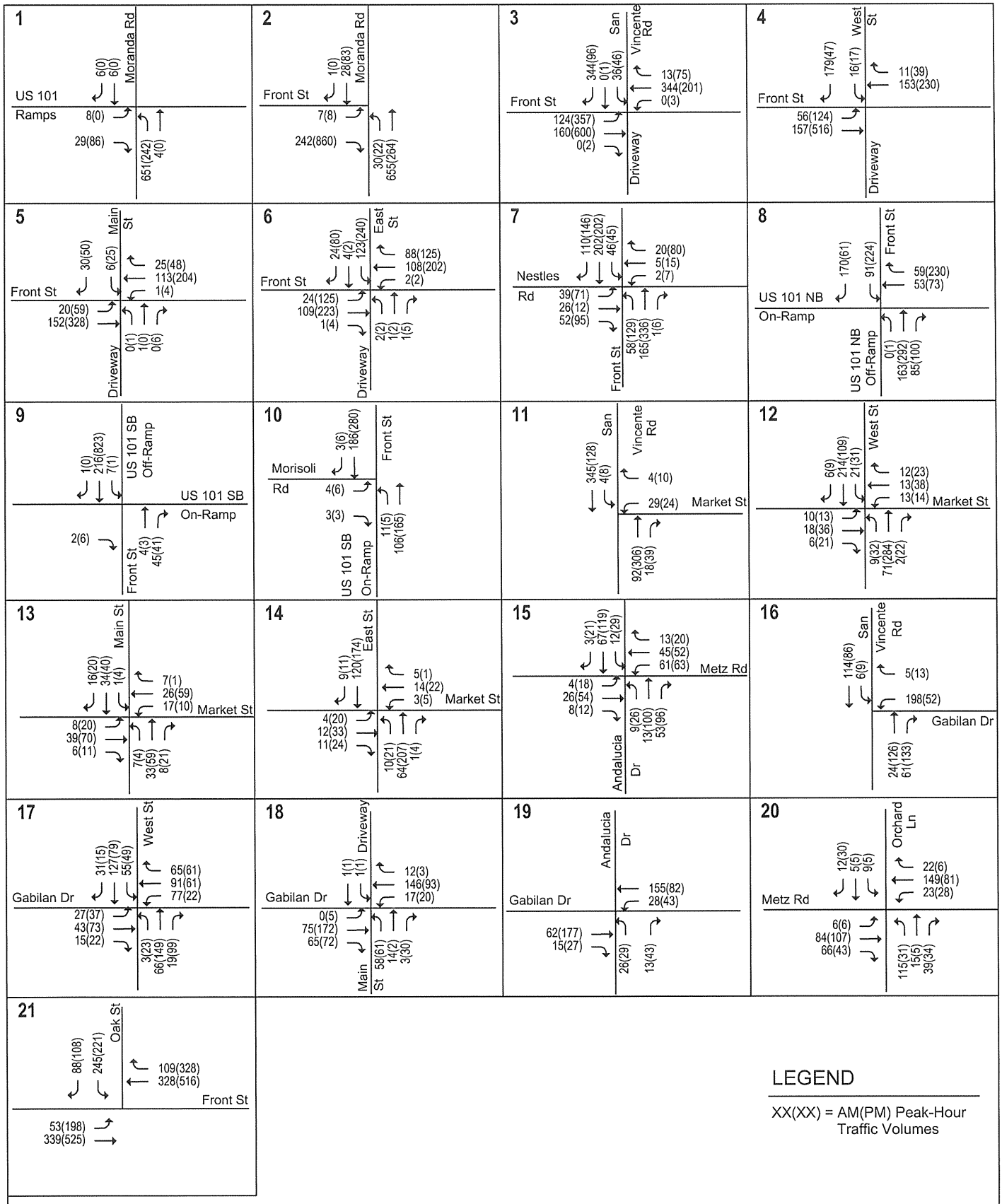

Figure 4

EXISTING TRAFFIC VOLUMES

Soledad Miravale

Hexagon Transportation Consultants, Inc.

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Table ES 1
Intersection Levels of Service Summary

Intersection	Intersection Control	Peak Hour	Count Date	Existing Conditions Ave. Delay	Existing Conditions LOS	Background Conditions Ave. Delay	Background Conditions LOS	Background with Improvements Ave. Delay	Background with Improvements LOS	Project Conditions Ave. Delay	Project Conditions LOS	Project Mitigated Ave. Delay	Project Mitigated LOS	Project With Gabilan Ext. Ave. Delay	Project With Gabilan Ext. LOS	No Project Cumulative Conditions Ave. Delay	No Project Cumulative Conditions LOS	With Project: Cumulative Conditions Ave. Delay	With Project: Cumulative Conditions LOS	With Project: Cumulative With Gabilan Ext. Ave. Delay	With Project: Cumulative With Gabilan Ext. LOS
1 Moranda Road and US 101 NB Ramps	TWSC	AM	7/26/06	16	C	33	D			**425**	**F**	13	B	18	B	8	A	14	B	18	B
		PM	7/26/06	11	B	14	B			**72**	**F**	12	B	10	B	15	B	16	B	10	B
2 Moranda Road and Front Street	TWSC	AM	7/26/06	10	A	***11***	***B***	14	B	**172**	**F**	7	A	14	B	10	A	5	A	15	B
		PM	7/26/06	28	D	***102***	***F***	21	C	**189**	**F**	6	A	13	B	18	B	11	B	14	B
3 San Vicente Road and Front Street	AWSC	AM	7/26/06	12	B	***22***	***C***	19	B	**143**	**F**	12	B	16	B	19	B	13	B	16	B
		PM	7/26/06	14	B	***40***	***E***	18	B	**146**	**F**	15	B	16	B	20	C	17	B	19	B
4 West Street and Front Street	AWSC	AM	7/26/06	9	A	10	A			***18***	***C***	18	B	15	B	11	B	19	B	14	B
		PM	7/26/06	11	B	13	B			***34***	***D***	20	B	12	B	25	C	34	C	13	B
5 Main Street and Front Street	AWSC	AM	7/27/06	8	A	9	A			11	B	19	B	10	B	9	A	23	C	21	C
		PM	7/27/06	10	B	12	B			***28***	***D***	23	C	17	C	24	C	22	C	23	C
6 East Street and Front Street	AWSC	AM	7/27/06	9	A	***14***	***B***	19	B	22	C			22	C	20	B	24	C	23	C
		PM	7/27/06	14	B	***73***	***F***	23	C	27	C			24	C	25	C	38	D	32	C
7 Front Street and Nestles Road	TWSC	AM	7/26/06	14	B	23	C	14	B	14	B			19	B	17	B	20	B	21	C
		PM	7/26/06	23	C	***300***	***F***	16	B	26	C			22	C	24	C	42	D	42	D
8 Front Street and US 101 NB Ramps	AWSC	AM	7/26/06	9	A	9	A	20	C	10	B			11	B	20	C	10	A	12	B
		PM	7/26/06	12	B	***14***	***B***	20	B	25	C			23	C	19	B	25	C	23	C
9 Front Street and US 101 SB Ramps	TWSC	AM	7/26/06	9	A	11	B			13	B	7	A	7	A	11	B	7	A	7	A
		PM	7/26/06	15	B	19	C			**62**	**F**	8	A	8	A	21	C	12	B	13	B
10 Front Street and Morisoli Road	TWSC	AM	7/27/06	10	A	11	B			14	B			14	B	11	B	14	B	14	B
		PM	7/27/06	11	B	13	B			17	C			16	C	14	B	18	C	18	C
11 San Vicente Road and Market Street	TWSC	AM	7/26/06	11	B	15	B			**47**	**E**	7	A	12	B	14	B	8	A	11	B
		PM	7/26/06	11	B	16	C			**114**	**F**	8	A	15	B	34	D	10	B	11	B
12 West Street and Market Street	AWSC	AM	7/27/06	8	A	8	A			12	B	5	A	10	A	9	A	6	A	10	A
		PM	7/27/06	9	A	9	A			***15***	***C***	7	A	11	B	11	B	9	A	11	B
13 Main Street and Market Street	AWSC	AM	7/25/06	7	A	8	A			9	A			8	A	8	A	9	A	8	A
		PM	7/26/06	8	A	8	A			10	A			9	A	9	A	11	B	9	A
14 East Street and Market Street	AWSC	AM	7/27/06	8	A	10	B			25	C	5	A	5	A	11	B	5	A	5	A
		PM	7/27/06	9	A	16	C			***95***	***F***	6	A	6	A	34	D	9	A	8	A
15 East Street and North Street/Metz Road	AWSC	AM	7/27/06	8	A	11	B	13	B	16	B			14	B	13	B	16	B	14	B
		PM	7/27/06	9	A	***21***	***C***	15	B	15	B			15	B	15	B	16	B	16	B
16 San Vicente Road and Gabilan Drive	TWSC	AM	7/26/06	11	B	13	B			***375***	***F***	15	B	15	B	18	B	21	C	16	B
		PM	7/26/06	10	B	13	B			***395***	***F***	12	B	18	B	19	B	23	C	27	C
17 West Street and Gabilan Drive	AWSC	AM	7/27/06	9	A	10	B			***26***	***D***	26	C	29	C	11	B	27	C	30	C
		PM	7/27/06	9	A	11	B			***58***	***F***	37	D	37	D	13	B	39	D	38	D
18 Main Street and Gabilan Drive	AWSC	AM	7/27/06	8	A	9	A			10	A	12	B	11	B	9	A	12	B	10	A
		PM	7/27/06	8	A	9	A			***12***	***B***	16	B	13	B	10	B	16	B	15	B
19 Andalucia Drive and Gabilan Drive	TWSC	AM	7/27/06	10	A	14	B			15	B	20	B	20	B	12	B	20	B	20	B
		PM	7/27/06	10	B	16	C			***18***	***C***	23	C	22	C	16	C	23	C	23	C
20 Orchard Lane and Metz Road	TWSC	AM	N/A	6	B	15	C			***37***	***E***	14	B	18	B	17	C	36	D	18	B
		PM	N/A	4	A	9	B			***17***	***C***	24	C	18	B	11	C	32	C	20	B
21 Front Street and Oak Street	TWSC	AM	N/A	***33***	***D***	***134***	***F***	12	B	20	B	12	B	12	B	12	B	12	B	12	B
		PM	N/A	***473***	***F***	***1247***	***F***	14	B	**74**	**E**	12	B	12	B	26	C	13	B	12	B

Notes:
1. Intersection control based on existing conditions
   -TWSC = Two-way stop-controlled intersection
   -AWSC = Four-way stop-controlled intersection
2. Significant impacts are shown in **BOLD** and boxed.
3. *Italics* and **BOLD** indicates signal warrant met.

Table ES 2

Signal Warrant Results Summary

Study Number	Intersection Name	Scenario: Existing Conditions AM	Existing Conditions PM	Background Conditions AM	Background Conditions PM	Project Conditions AM	Project Conditions PM	Cumulative Conditions AM	Cumulative Conditions PM
Existing Unsignalized Intersections									
1	Moranda Road & US 101 NB Ramps	No	No	No	No	No	No	**Yes**	**Yes**
2	Moranda Road & Front Street	No	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
3	San Vicente Road & Front Street	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
4	West Street & Front Street	No	No	No	No	**Yes**	**Yes**	**Yes**	**Yes**
5	Main Street & Front Street	No	No	No	No	No	**Yes**	No	**Yes**
6	East Street & Front Street	No	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
7	Front Street & Nestles Road	No	No	No	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
8	Front Street & US 101 NB Ramps	No	No	No	**Yes**	No	**Yes**	No	**Yes**
9	Front Street & US 101 SB Ramps	No	No	No	No	No	No	No	No
10	Front Street & Morisoli Road	No	No	No	No	No	No	No	No
11	San Vicente Road & Market Street	No	No	No	No	No	No	No	**Yes**
12	West Street & Market Street	No	No	No	No	No	**Yes**	No	**Yes**
13	Main Street & Market Street	No	No	No	No	No	No	No	No
14	East Street & Market Street	No	No	No	No	No	**Yes**	No	**Yes**
15	East Street & North Street/Metz Road	No	No	No	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
16	San Vicente Road & Gabilan Drive	No	No	No	No	**Yes**	**Yes**	**Yes**	**Yes**
17	West Street & Gabilan Drive	No	No	No	No	**Yes**	**Yes**	**Yes**	**Yes**
18	Main Street & Gabilan Drive	No	No	No	No	No	**Yes**	No	**Yes**
19	Andalucia Drive & Gabilan Drive	No	No	No	No	No	**Yes**	No	**Yes**
20	Orchard Street & Metz Road	No	No	No	No	**Yes**	**Yes**	**Yes**	**Yes**
21	Oak Street & Front Street	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Notes:
1. Signal warrant analysis based on Caltrans Peak Hour Signal Warrant #11.

Table ES 3
Project Freeway Segment Level of Service Summary

Segment	Direction	# Of Lanes	Capacity (vph) /a/	Background Conditions						Project Trips				Project Conditions					
				AM Peak-Hour			PM Peak-Hour			AM Peak-Hour		PM Peak-Hour		AM Peak-Hour			PM Peak-Hour		
				Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase	Volume	V/C	LOS	Volume	V/C	LOS
US 101																			
North Gonzales and Gonzales-5th Street	Both	4	9,600	4,791	0.499	B	4,903	0.511	B	1,837	38.34%	1,688	34.44%	6,628	0.690	C	6,591	0.687	C
	NB	2	4,800	2,863	0.597	C	1,985	0.413	B	**1,019**	**35.60%**	1,266	63.80%	**3,883**	**0.809**	**D**	3,251	0.677	C
	SB	2	4,800	1,928	0.402	B	2,918	0.608	C	818	42.41%	422	14.47%	2,746	0.572	C	3,340	0.696	C
Gonzales-5th Street and Gloria Road	Both	4	9,600	4,697	0.489	B	4,824	0.503	B	2,099	44.69%	1,930	40.00%	6,796	0.708	C	6,754	0.704	C
	NB	2	4,800	2,805	0.584	C	1,957	0.408	B	**1,165**	**41.52%**	1,447	73.96%	**3,970**	**0.827**	**D**	3,404	0.709	C
	SB	2	4,800	1,892	0.394	B	2,868	0.597	C	934	49.39%	482	16.82%	2,826	0.589	C	3,350	0.698	C
Gloria Road and Soledad Prison	Both	4	9,600	3,853	0.401	B	3,996	0.416	B	2,362	61.29%	2,171	54.32%	6,215	0.647	C	6,167	0.642	C
	NB	2	4,800	2,297	0.479	B	1,629	0.339	A	1,310	57.05%	1,628	99.95%	3,608	0.752	C	3,257	0.679	C
	SB	2	4,800	1,556	0.324	A	2,367	0.493	B	1,051	67.56%	543	22.92%	2,607	0.543	B	2,910	0.606	C
Soledad Prison and Camphora	Both	4	9,600	3,681	0.383	B	3,832	0.399	B	2,493	67.72%	2,291	59.79%	6,174	0.643	C	6,124	0.638	C
	NB	2	4,800	2,193	0.457	B	1,565	0.326	A	1,383	63.07%	1,719	109.82%	3,576	0.745	C	3,284	0.684	C
	SB	2	4,800	1,488	0.310	A	2,267	0.472	B	1,110	74.57%	573	25.27%	2,598	0.541	B	2,840	0.592	C
Camphora and North Soledad	Both	4	9,600	4,859	0.506	B	5,018	0.523	B	1,456	29.97%	1,809	36.05%	6,315	0.658	C	6,827	0.711	C
	NB	2	4,800	2,899	0.604	C	2,041	0.425	B	**1,168**	**40.29%**	603	29.54%	**4,067**	**0.847**	**D**	2,644	0.551	C
	SB	2	4,800	1,960	0.408	B	2,977	0.620	C	288	14.69%	**1,206**	**40.51%**	2,248	0.468	B	**4,183**	**0.871**	**D**
North Soledad and South Soledad	Both	4	9,600	3,954	0.412	B	3,994	0.416	B	374	9.46%	465	11.64%	4,328	0.451	B	4,459	0.464	B
	NB	2	4,800	2,379	0.496	B	1,601	0.334	A	250	10.51%	189	11.81%	2,629	0.548	B	1,790	0.373	B
	SB	2	4,800	1,575	0.328	A	2,393	0.499	B	124	7.87%	276	11.53%	1,699	0.354	A	2,669	0.556	C
South Soledad and Arroyo Seco Road	Both	4	9,600	3,861	0.402	B	3,909	0.407	B	416	10.77%	517	13.23%	4,277	0.446	B	4,426	0.461	B
	NB	2	4,800	2,104	0.438	B	1,780	0.371	B	82	3.90%	345	19.38%	2,186	0.455	B	2,125	0.443	B
	SB	2	4,800	1,757	0.366	B	2,129	0.444	B	334	19.01%	172	8.08%	2,091	0.436	B	2,301	0.479	B
Arroyo Seco Road and North Greenfield	Both	4	9,600	3,703	0.386	B	3,749	0.390	B	395	10.67%	491	13.10%	4,098	0.427	B	4,240	0.442	B
	NB	2	4,800	2,018	0.420	B	1,707	0.356	A	78	3.86%	328	19.20%	2,096	0.437	B	2,035	0.424	B
	SB	2	4,800	1,685	0.351	A	2,042	0.425	B	317	18.83%	163	8.00%	2,002	0.417	B	2,205	0.459	B
North Greenfield and Walnut Avenue	Both	4	9,600	3,187	0.332	A	3,228	0.336	A	354	11.10%	439	13.62%	3,540	0.369	B	3,667	0.382	B
	NB	2	4,800	1,736	0.362	B	1,470	0.306	A	70	4.01%	293	19.95%	1,806	0.376	B	1,764	0.367	B
	SB	2	4,800	1,451	0.302	A	1,757	0.366	B	284	19.57%	146	8.32%	1,735	0.361	B	1,904	0.397	B
Walnut Avenue and Oak Avenue	Both	4	9,600	2,971	0.309	A	3,007	0.313	A	312	10.50%	388	12.90%	3,283	0.342	A	3,395	0.354	A
	NB	2	4,800	1,619	0.337	A	1,369	0.285	A	62	3.80%	259	18.90%	1,681	0.350	A	1,628	0.339	A
	SB	2	4,800	1,352	0.282	A	1,638	0.341	A	251	18.53%	129	7.88%	1,602	0.334	A	1,767	0.368	B
South Greenfield and Oak Avenue	Both	4	9,600	2,455	0.256	A	2,486	0.259	A	270	11.02%	336	13.52%	2,725	0.284	A	2,822	0.294	A
	NB	2	4,800	1,337	0.279	A	1,132	0.236	A	53	3.99%	224	19.81%	1,391	0.290	A	1,357	0.283	A
	SB	2	4,800	1,117	0.233	A	1,354	0.282	A	217	19.43%	112	8.26%	1,334	0.278	A	1,465	0.305	A

Notes:
/a/ Capacity of freeway lanes based on assumed capacity of 2,400 vphpl, as prescribed by the Highway Capacity Manual
/b/ Data provided by Caltrans Data System Unit 2005, Route 101 District 5.

Table ES 4

Freeway Ramp Analysis Summary

					Background Conditions						Project Trips				Project Conditions					
					AM Peak-Hour			PM Peak-Hour			AM Peak-Hour		PM Peak-Hour		AM Peak-Hour			PM Peak-Hour		
Interchange	Direction	# Of Lanes	Type	Capacity (vph)	Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase	Volume	V/C	LOS	Volume	V/C	LOS
US 101																				
Camphora Road	SB to Camphora Road	1	Diagonal	1,500	24	0.016	A	30	0.020	A	0	0.00%	0	0.00%	24	0.016	A	30	0.020	A
	NB from Camphora Road	1	Diagonal	1,500	40	0.027	A	32	0.021	A	0	0.00%	0	0.00%	40	0.027	A	32	0.021	A
	SB from Camphora Road	1	Diagonal	1,500	88	0.059	A	115	0.077	A	14	15.91%	60	52.17%	102	0.068	A	175	0.117	A
	NB to Camphora Road	1	Diagonal	1,500	96	0.064	A	80	0.053	A	58	60.42%	30	37.50%	154	0.103	A	110	0.073	A
Moranda Road	SB to Moranda Road	1	Diagonal	1,500	408	0.272	A	1107	0.738	C	230	56.37%	**965**	**87.17%**	638	0.425	B	**2072**	**1.381**	**F**
	NB from Moranda Road	1	Loop	1,500	877	0.585	C	482	0.321	A	**935**	**106.61%**	482	100.00%	**1812**	**1.208**	**F**	964	0.643	C
	SB from Moranda Road	1	Loop	1,500	52	0.035	A	42	0.028	A	67	128.85%	34	80.95%	119	0.079	A	76	0.051	A
	NB to Moranda Road	1	Loop	1,500	37	0.025	A	86	0.057	A	16	43.24%	69	80.23%	53	0.035	A	155	0.103	A
Front Street	SB to Front Street	1	Loop	1,500	162	0.108	A	283	0.189	A	58	35.80%	241	85.16%	220	0.147	A	524	0.349	A
	NB from Front Street	1	Loop	1,500	322	0.215	A	216	0.144	A	234	72.67%	121	56.02%	556	0.371	B	337	0.225	A
	SB from Front Street	1	Diagonal	1,500	281	0.187	A	376	0.251	A	267	95.02%	138	36.70%	548	0.365	B	514	0.343	A
	NB to Front Street	1	Diagonal	1,500	317	0.211	A	508	0.339	A	66	20.82%	276	54.33%	383	0.255	A	784	0.523	B
Arroyo Seco Road	SB to Arroyo Seco Road	1	Diagonal	1,500	75	0.050	A	93	0.062	A	17	22.67%	9	9.68%	92	0.061	A	102	0.068	A
	NB from Arroyo Seco Road	1	Diagonal	1,500	91	0.061	A	76	0.051	A	4	4.40%	17	22.37%	95	0.063	A	93	0.062	A

Notes:
1. Capacity for all ramps based on assumed capacity of 1,500 vphpl, as prescribed by the Highway Capacity Manual

Table ES 5
Year 2030 Freeway Segment Analysis Summary

				Year 2030 Conditions						Miravale Phase III Project Trips			
		# Of	Capacity	AM Peak-Hour			PM Peak-Hour			AM Peak-Hour		PM Peak-Hour	
Segment	Direction	Lanes	(vph)	Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase
US 101													
Soledad Prison and Camphora	NB	2	4,800	**4,170**	**0.869**	**D**	2,920	0.608	C	**770**	**18%**	150	5%
	SB	2	4,800	2,920	0.608	C	**4,170**	**0.869**	**D**	150	5%	**770**	**18%**
Camphora and North Soledad	NB	2	4,800	3,300	0.688	C	2,310	0.481	B	250	8%	50	2%
	SB	2	4,800	2,190	0.456	B	3,130	0.652	C	0	0%	0	0%
North Soledad and South Soledad	NB	2	4,800	2,760	0.575	C	1,930	0.402	B	40	1%	200	10%
	SB	2	4,800	1,880	0.392	B	2,690	0.560	C	0	0%	0	0%
South Soledad and Arroyo Seco Road	NB	2	4,800	2,750	0.573	C	1,930	0.402	B	60	2%	320	17%
	SB	2	4,800	1,930	0.402	B	2,750	0.573	C	320	17%	60	2%
Arroyo Seco Road and North Greenfield	NB	2	4,800	2,700	0.563	C	1,890	0.394	B	60	2%	290	15%
	SB	2	4,800	1,890	0.394	B	2,700	0.563	C	290	15%	60	2%

Notes:
1. Capacity of freeway lanes based on assumed capacity of 2,400 vphpl, as prescribed by the Highway Capacity Manual
2. Year 2030 traffic volumes based on projections produced by Omni Means, March 27, 2007
3. Miravale Phase III project trips based on Year 2030 projections produced by Omni Means, Miravale III Future Traffic Volume, March 27, 2007

Table ES 6
Year 2030 Freeway Ramp Analysis Summary

					Year 2030 Conditions						Miravale Phase III Year 2030 Project Trips			
		# Of		Capacity	AM Peak-Hour			PM Peak-Hour			AM Peak-Hour		PM Peak-Hour	
Interchange	Direction	Lanes	Type	(vph)	Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase
US 101														
Camphora Road	SB to Camphora Road	1	Diagonal	1,500	900	0.600	C	**1290**	**0.860**	**D**	150	17%	**770**	**60%**
	NB from Camphora Road	1	Diagonal	1,500	970	0.647	C	680	0.453	B	520	54%	100	15%
	SB from Camphora Road	1	Diagonal	1,500	180	0.120	A	250	0.167	A	0	0%	0	0%
	NB to Camphora Road	1	Diagonal	1,500	100	0.067	A	70	0.047	A	0	0%	0	0%
Moranda Road	SB to Moranda Road	1	Diagonal	1,500	390	0.260	A	550	0.367	B	0	0%	0	0%
	NB from Moranda Road	1	Loop	1,500	830	0.553	C	580	0.387	B	250	30%	50	9%
	SB from Moranda Road	1	Loop	1,500	80	0.053	A	110	0.073	A	0	0%	0	0%
	NB to Moranda Road	1	Loop	1,500	290	0.193	A	200	0.133	A	40	14%	200	100%
Front Street	SB to Front Street	1	Loop	1,500	220	0.147	A	320	0.213	A	0	0%	0	0%
	NB from Front Street	1	Loop	1,500	360	0.240	A	250	0.167	A	0	0%	20	8%
	SB from Front Street	1	Diagonal	1,500	270	0.180	A	380	0.253	A	320	119%	60	16%
	NB to Front Street	1	Diagonal	1,500	350	0.233	A	250	0.167	A	30	9%	140	56%
Arroyo Seco Road	SB to Arroyo Seco Road	1	Diagonal	1,500	110	0.073	A	150	0.100	A	30	27%	10	7%
	NB from Arroyo Seco Road	1	Diagonal	1,500	150	0.100	A	110	0.073	A	10	7%	30	27%

Notes:
1. Capacity of freeway lanes based on assumed capacity of 1,500 vphpl for all ramps, as prescribed by the Highway Capacity Manual
2. Year 2030 traffic volumes based on projections produced by Omni Means, March 27, 2007
3. Miravale Phase III project trips based on Year 2030 projections produced by Omni Means, Miravale III Future Traffic Volume, March 27, 2007

Table 4
Existing Intersection Levels of Service

	Intersection	Intersection Control	Peak Hour	Count Date	Ave. Delay	LOS
1	Moranda Road and US 101 NB Ramps	TWSC	AM	07/26/06	16	C
			PM	07/26/06	11	B
2	Moranda Road and Front Street	TWSC	AM	07/26/06	10	A
			PM	07/26/06	28	D
3	San Vicente Road and Front Street	AWSC	AM	07/26/06	12	B
			PM	07/26/06	14	B
4	West Street and Front Street	AWSC	AM	07/26/06	9	A
			PM	07/26/06	11	B
5	Main Street and Front Street	AWSC	AM	07/27/06	8	A
			PM	07/27/06	10	B
6	East Street and Front Street	AWSC	AM	07/27/06	9	A
			PM	07/27/06	14	B
7	Front Street and Nestles Road	TWSC	AM	07/26/06	14	B
			PM	07/26/06	23	C
8	Front Street and US 101 NB Ramps	AWSC	AM	07/26/06	9	A
			PM	07/26/06	12	B
9	Front Street and US 101 SB Ramps	TWSC	AM	07/26/06	9	A
			PM	07/26/06	15	B
10	Front Street and Morisoli Road	TWSC	AM	07/27/06	10	A
			PM	07/27/06	11	B
11	San Vicente Road and Market Street	TWSC	AM	07/26/06	11	B
			PM	07/26/06	11	B
12	West Street and Market Street	AWSC	AM	07/27/06	8	A
			PM	07/27/06	9	A
13	Main Street and Market Street	AWSC	AM	07/25/06	7	A
			PM	07/26/06	8	A
14	East Street and Market Street	AWSC	AM	07/27/06	8	A
			PM	07/27/06	9	A
15	East Street and North Street/Metz Road	AWSC	AM	07/27/06	8	A
			PM	07/27/06	9	A
16	San Vicente Road and Gabilan Drive	TWSC	AM	07/26/06	11	B
			PM	07/26/06	10	B
17	West Street and Gabilan Drive	AWSC	AM	07/27/06	9	A
			PM	07/27/06	9	A
18	Main Street and Gabilan Drive	AWSC	AM	07/27/06	8	A
			PM	07/27/06	8	A
19	Andalucia Drive and Gabilan Drive	TWSC	AM	07/27/06	10	A
			PM	07/27/06	10	B
20	Orchard Lane and Metz Road	TWSC	AM	N/A	6	B
			PM	N/A	4	A
21	Front Street and Oak Street	TWSC	AM	N/A	***33***	***D***
			PM	N/A	***473***	***F***

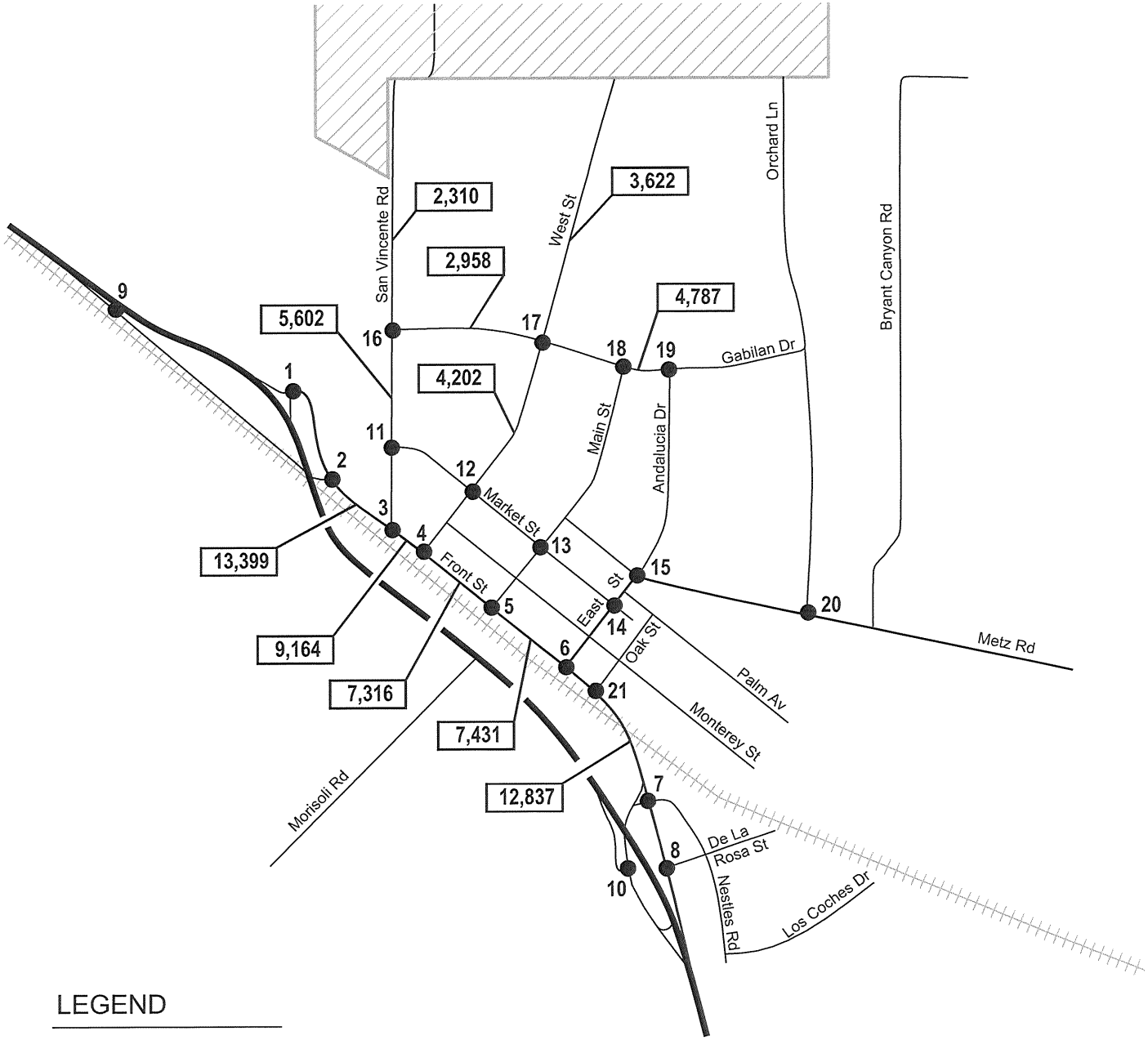
Notes:
TWSC = Two-way stop-controlled intersection
AWSC = Four-way stop-controlled intersection

Table 5

Signal Warrant Results Summary

Study Number	Intersection Name	Existing Conditions AM	Existing Conditions PM
Existing Unsignalized Intersections			
1	Moranda Road & US 101 NB Ramps	No	No
2	Moranda Road & Front Street	No	**Yes**
3	San Vicente Road & Front Street	**Yes**	**Yes**
4	West Street & Front Street	No	No
5	Main Street & Front Street	No	No
6	East Street & Front Street	No	**Yes**
7	Front Street & Nestles Road	No	No
8	Front Street & US 101 NB Ramps	No	No
9	Front Street & US 101 SB Ramps	No	No
10	Front Street & Morisoli Road	No	No
11	San Vicente Road & Market Street	No	No
12	West Street & Market Street	No	No
13	Main Street & Market Street	No	No
14	East Street & Market Street	No	No
15	East Street & North Street/Metz Road	No	No
16	San Vicente Road & Gabilan Drive	No	No
17	West Street & Gabilan Drive	No	No
18	Main Street & Gabilan Drive	No	No
19	Andalucia Drive & Gabilan Drive	No	No
20	Orchard Street & Metz Road	No	No
21	Oak Street & Front Street	**Yes**	**Yes**

Notes:
1. Signal warrant analysis based on Caltrans Peak Hour Signal Warrant #11.



LEGEND

= Site Location

Table 6
Existing Roadway Segment Analysis

Segment	Direction	# Of Lanes	Capacity (vph)	24-Hr Tot. Volume	AM Peak-Hr Volume	AM Peak-Hr V/C	AM Peak-Hr LOS	PM Peak-Hr Volume	PM Peak-Hr V/C	PM Peak-Hr LOS
Front St										
Moranda Rd and San Vicente Rd	EB	2	2,400	7,335	289	0.120	A	971	0.405	A
	WB	2	2,400	6,064	756	0.315	A	360	0.150	A
San Vicente Rd and West St	EB	2	2,400	4,981	211	0.088	A	635	0.265	A
	WB	2	2,400	4,183	436	0.182	A	278	0.116	A
West St and Main St	EB	1	1,200	3,888	197	0.164	A	476	0.397	A
	WB	1	1,200	3,428	195	0.163	A	283	0.236	A
Main St and East St	EB	1	1,200	3,767	237	0.198	A	408	0.340	A
	WB	1	1,200	3,664	260	0.217	A	352	0.293	A
East St and Nestles Rd	EB	1	1,200	6,686	470	0.392	A	495	0.413	A
	WB	1	1,200	6,151	393	0.328	A	568	0.473	A
Gabilan Dr										
San Vicente Rd and West St	EB	2	2,400	1,339	79	0.033	A	146	0.061	A
	WB	2	2,400	1,619	201	0.084	A	93	0.039	A
West St and Andalucia Dr	EB	2	2,400	2,308	146	0.061	A	231	0.096	A
	WB	2	2,400	2,479	261	0.109	A	196	0.082	A
San Vicente Rd										
Market St and Gabilan Dr	NB	1	1,200	2,698	109	0.091	A	341	0.284	A
	SB	1	1,200	2,904	355	0.296	A	165	0.138	A
North of Gabilan Dr	NB	1	1,200	1,189	61	0.051	A	134	0.112	A
	SB	1	1,200	1,121	127	0.106	A	77	0.064	A
West St										
Market St and Gabilan Dr	NB	2	2,400	2,168	101	0.042	A	253	0.105	A
	SB	2	2,400	2,034	215	0.090	A	125	0.052	A
North of Gabilan Dr	NB	2	2,400	1,834	151	0.063	A	200	0.083	A
	SB	2	2,400	1,788	205	0.085	A	134	0.056	A

Notes:
1. Capacity of roadways based on assumed capacity of 1,200 vphpl and existing lanes on roadways.
2. Volumes based on 24 hour tube counts collected in July 2006

Table 7
Existing Freeway Segment Analysis

Segment	Direction	# Of Lanes	Capacity (vph) /a/	24-Hr Tot. Volume /b/	AM Peak-Hr Volume /b/	AM Peak-Hr V/C	AM Peak-Hr LOS	PM Peak-Hr Volume /b/	PM Peak-Hr V/C	PM Peak-Hr LOS
US 101										
North Gonzales and Gonzales-5th Street	Both	4	9,600	40,500	4,400	0.458	B	4,400	0.458	B
	NB	2	4,800	20,250	2,640	0.550	C	1,760	0.367	B
	SB	2	4,800	20,250	1,760	0.367	B	2,640	0.550	C
Gonzales-5th Street and Gloria Road	Both	4	9,600	38,000	4,250	0.443	B	4,250	0.443	B
	NB	2	4,800	19,000	2,550	0.531	B	1,700	0.354	A
	SB	2	4,800	19,000	1,700	0.354	A	2,550	0.531	B
Gloria Road and Soledad Prison	Both	4	9,600	40,500	3,350	0.349	A	3,350	0.349	A
	NB	2	4,800	20,250	2,010	0.419	B	1,340	0.279	A
	SB	2	4,800	20,250	1,340	0.279	A	2,010	0.419	B
Soledad Prison and Camphora	Both	4	9,600	38,000	3,150	0.328	A	3,150	0.328	A
	NB	2	4,800	19,000	1,890	0.394	B	1,260	0.263	A
	SB	2	4,800	19,000	1,260	0.263	A	1,890	0.394	B
Camphora and North Soledad	Both	4	9,600	39,000	4,300	0.448	B	4,300	0.448	B
	NB	2	4,800	19,500	2,580	0.538	B	1,720	0.358	A
	SB	2	4,800	19,500	1,720	0.358	A	2,580	0.538	B
North Soledad and South Soledad	Both	4	9,600	34,000	3,800	0.396	B	3,800	0.396	B
	NB	2	4800	17,000	2,280	0.475	B	1,520	0.317	A
	SB	2	4,800	17,000	1,520	0.317	A	2,280	0.475	B
South Soledad and Arroyo Seco Road	Both	4	9,600	34,000	3,700	0.385	B	3,700	0.385	B
	NB	2	4,800	17,000	2,035	0.424	B	1,665	0.347	A
	SB	2	4,800	17,000	1,665	0.347	A	2,035	0.424	B
Arroyo Seco Road and North Greenfield	Both	4	9,600	33,000	3,550	0.370	B	3,550	0.370	B
	NB	2	4,800	16,500	1,953	0.407	B	1,598	0.333	A
	SB	2	4,800	16,500	1,598	0.333	A	1,953	0.407	B
North Greenfield and Walnut Avenue	Both	4	9,600	30,000	3,050	0.318	A	3,050	0.318	A
	NB	2	4,800	15,000	1,678	0.349	A	1,373	0.286	A
	SB	2	4,800	15,000	1,373	0.286	A	1,678	0.349	A
Walnut Avenue and Oak Avenue	Both	4	9,600	28,000	2,850	0.297	A	2,850	0.297	A
	NB	2	4,800	14,000	1,568	0.327	A	1,283	0.267	A
	SB	2	4,800	14,000	1,283	0.267	A	1,568	0.327	A
South Greenfield and Oak Avenue	Both	4	9,600	23,500	2,350	0.245	A	2,350	0.245	A
	NB	2	4,800	11,750	1,293	0.269	A	1,058	0.220	A
	SB	2	4,800	11,750	1,058	0.220	A	1,293	0.269	A

Notes:
/a/ Capacity of freeway lanes based on assumed capacity of 2,400 vphpl, as prescribed by the Highway Capacity Manual
/b/ Data provided by Caltrans Data System Unit 2005, Route 101 District 5.

Table 8
Existing Freeway Ramp Analysis

Interchange	Direction	# Of Lanes	Type	Capacity (vph)	Existing AM Peak-Hour Volume	AM Peak-Hour V/C	AM Peak-Hour LOS	Existing PM Peak-Hour Volume	PM Peak-Hour V/C	PM Peak-Hour LOS
US 101										
Camphora Road	SB to Camphora Road	1	Diagonal	1,500	24	0.016	A	30	0.020	A
	NB from Camphora Road	1	Diagonal	1,500	40	0.027	A	32	0.021	A
	SB from Camphora Road	1	Diagonal	1,500	76	0.051	A	95	0.063	A
	NB to Camphora Road	1	Diagonal	1,500	80	0.053	A	64	0.043	A
Moranda Road	SB to Moranda Road	1	Diagonal	1,500	224	0.149	A	824	0.549	B
	NB from Moranda Road	1	Loop	1,500	657	0.438	B	242	0.161	A
	SB from Moranda Road	1	Loop	1,500	52	0.035	A	42	0.028	A
	NB to Moranda Road	1	Loop	1,500	37	0.025	A	86	0.057	A
Front Street	SB to Front Street	1	Loop	1,500	107	0.071	A	170	0.113	A
	NB from Front Street	1	Loop	1,500	223	0.149	A	135	0.090	A
	SB from Front Street	1	Diagonal	1,500	189	0.126	A	283	0.189	A
	NB to Front Street	1	Diagonal	1,500	248	0.165	A	393	0.262	A
Arroyo Seco Road	SB to Arroyo Seco Road	1	Diagonal	1,500	70	0.047	A	88	0.059	A
	NB from Arroyo Seco Road	1	Diagonal	1,500	88	0.059	A	70	0.047	A

Notes:
1. Capacity for all ramps based on assumed capacity of 1,500 vphpl, as prescribed by the Highway Capacity Manual

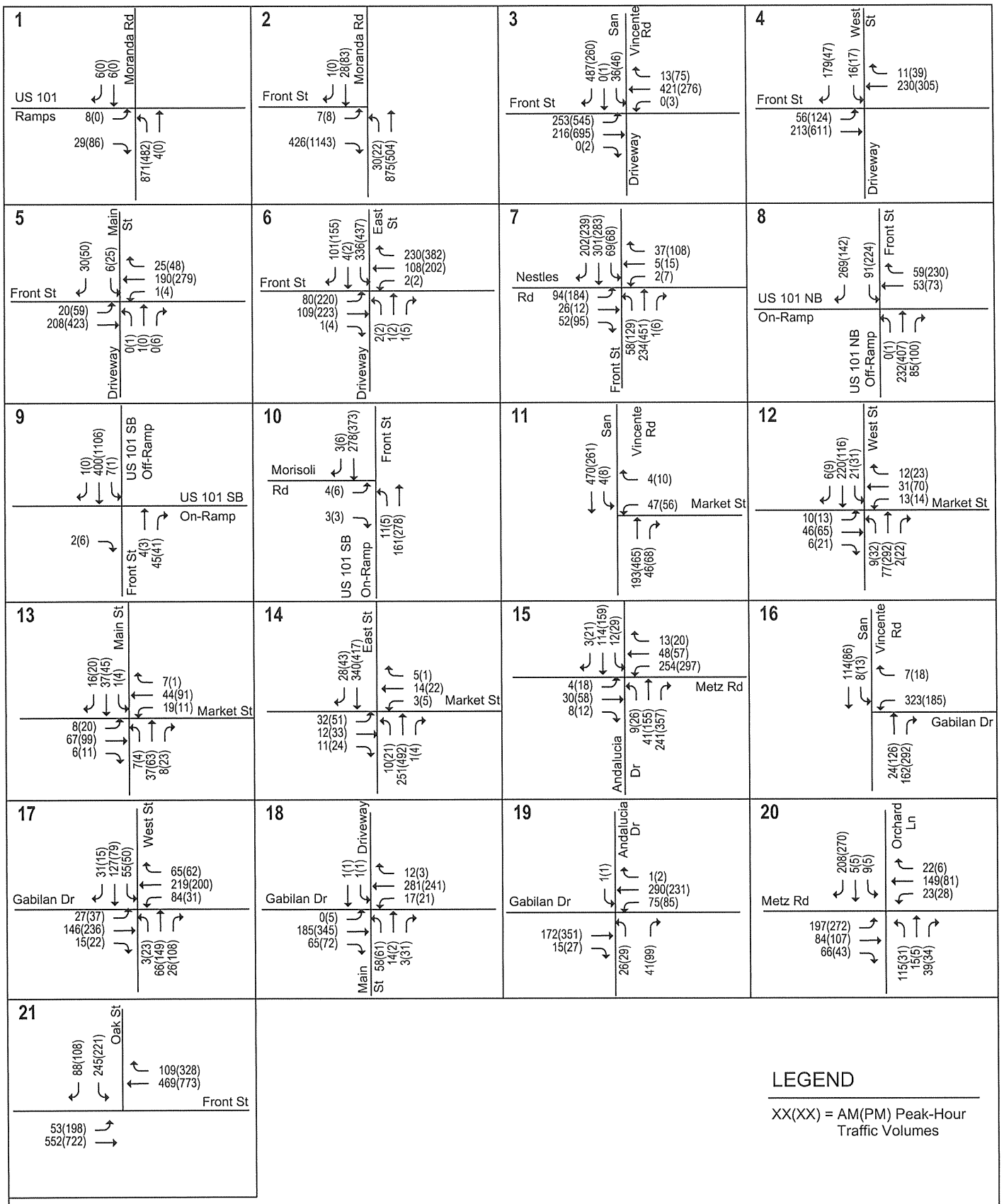
Table 9

Approved Project Trip Generation Estimates

		Daily		AM Peak Hour				PM Peak Hour			
Land Use	Size	Rate /a/	Trips	Rate /a/	In	Out	Total	Rate /a/	In	Out	Total
Miravale II											
Residential - Homes /b/	453 sfdu's	9.57	4,335	0.75	207	133	340	1.01	220	238	458
Residential - Townhomes /c/	323 units	5.86	1,893	0.44	24	118	142	0.52	113	55	168
Totals			6,228		231	250	482		332	293	625
Gabilan											
Gabilan Square Commercial /d/	9,960 s.f.	44.32	441	1.35	6	7	13	2.71	12	15	27
Gabilan Square Town Homes /c/	15 units	5.86	88	0.44	1	5	7	0.52	5	3	8
Gabilan Apartments /e/	88 units	6.72	591	0.51	8	37	45	0.62	37	18	55
Gabilan Townhomes /c/	80 units	5.86	469	0.44	6	29	35	0.52	28	14	42
Totals			1,589		21	79	100		82	49	131
Orchard Villas											
Residential /b/	172 sfdu's	9.57	1,646	0.75	79	50	129	1.01	83	90	174
Monterey Street Public Housing Facility											
Residential /e/	143 units	6.72	961	0.51	12	61	73	0.62	59	29	89
Residential /e/	52 units	6.72	349	0.51	5	22	27	0.62	22	11	32
Totals			1,310		17	83	99		81	40	121
Total All Approved Projects			**10,774**		**348**	**462**	**810**		**578**	**473**	**1,051**

Notes:
/a/ Rates expressed in trips per dwelling units.
/b/ Trip Generation rates for single-family detached housing (ITE Land Use #210) used for this project.
/c/ Trip Generation rates for residential condominium/townhouse (ITE Land Use #230) used for this project.
/d/ Trip Generation rates for specialty retail center (ITE Land Use #814) used for this project.
/e/ Trip Generation rates for apartment (ITE Land Use #220) used for this project.

Source for rates: *ITE Trip Generation, Seventh Edition.*



LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 6

BACKGROUND TRAFFIC VOLUMES

Soledad Miravale

Hexagon Transportation Consultants, Inc.

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Table 10
Background Intersection Levels of Service

	Intersection	Intersection Control	Peak Hour	Count Date	Existing Conditions Ave. Delay	Existing Conditions LOS	Background Conditions Ave. Delay	Background Conditions LOS
1	Moranda Road and US 101 NB Ramps	TWSC	AM	07/26/06	16	C	33	D
			PM	07/26/06	11	B	14	B
2	Moranda Road and Front Street	TWSC	AM	07/26/06	10	A	***11***	***B***
			PM	07/26/06	28	D	**102**	**F**
3	San Vicente Road and Front Street	AWSC	AM	07/26/06	12	B	***22***	***C***
			PM	07/26/06	14	B	**40**	**E**
4	West Street and Front Street	AWSC	AM	07/26/06	9	A	10	A
			PM	07/26/06	11	B	13	B
5	Main Street and Front Street	AWSC	AM	07/27/06	8	A	9	A
			PM	07/27/06	10	B	12	B
6	East Street and Front Street	AWSC	AM	07/27/06	9	A	***14***	***B***
			PM	07/27/06	14	B	***73***	***F***
7	Front Street and Nestles Road	TWSC	AM	07/26/06	14	B	23	C
			PM	07/26/06	23	C	***300***	***F***
8	Front Street and US 101 NB Ramps	AWSC	AM	07/26/06	9	A	9	A
			PM	07/26/06	12	B	***14***	***B***
9	Front Street and US 101 SB Ramps	TWSC	AM	07/26/06	9	A	11	B
			PM	07/26/06	15	B	19	C
10	Front Street and Morisoli Road	TWSC	AM	07/27/06	10	A	11	B
			PM	07/27/06	11	B	13	B
11	San Vicente Road and Market Street	TWSC	AM	07/26/06	11	B	15	B
			PM	07/26/06	11	B	16	C
12	West Street and Market Street	AWSC	AM	07/27/06	8	A	8	A
			PM	07/27/06	9	A	9	A
13	Main Street and Market Street	AWSC	AM	07/25/06	7	A	8	A
			PM	07/26/06	8	A	8	A
14	East Street and Market Street	AWSC	AM	07/27/06	8	A	10	B
			PM	07/27/06	9	A	16	C
15	East Street and North Street/Metz Road	AWSC	AM	07/27/06	8	A	11	B
			PM	07/27/06	9	A	***21***	***C***
16	San Vicente Road and Gabilan Drive	TWSC	AM	07/26/06	11	B	13	B
			PM	07/26/06	10	B	13	B
17	West Street and Gabilan Drive	AWSC	AM	07/27/06	9	A	10	B
			PM	07/27/06	9	A	11	B
18	Main Street and Gabilan Drive	AWSC	AM	07/27/06	8	A	9	A
			PM	07/27/06	8	A	9	A
19	Andalucia Drive and Gabilan Drive	TWSC	AM	07/27/06	10	A	14	B
			PM	07/27/06	10	B	16	C
20	Orchard Lane and Metz Road	TWSC	AM	N/A	6	B	15	C
			PM	N/A	4	A	9	B
21	Front Street and Oak Street	TWSC	AM	N/A	***33***	***D***	***134***	***F***
			PM	N/A	***473***	***F***	***1247***	***F***

Notes:
1. Intersection control based on existing conditions
   -TWSC = Two-way stop-controlled intersection
   -AWSC = Four-way stop-controlled intersection
2. Significant impacts are shown in **BOLD** and boxed.
3. *Italics* and **BOLD** indicates signal warrant met.

Table 11

Background Intersection Signal Warrant Analysis

Study Number	Intersection Name	Existing Conditions AM	Existing Conditions PM	Background Conditions AM	Background Conditions PM
Existing Unsignalized Intersections					
1	Moranda Road & US 101 NB Ramps	No	No	No	No
2	Moranda Road & Front Street	No	**Yes**	**Yes**	**Yes**
3	San Vicente Road & Front Street	**Yes**	**Yes**	**Yes**	**Yes**
4	West Street & Front Street	No	No	No	No
5	Main Street & Front Street	No	No	No	No
6	East Street & Front Street	No	**Yes**	**Yes**	**Yes**
7	Front Street & Nestles Road	No	No	No	**Yes**
8	Front Street & US 101 NB Ramps	No	No	No	**Yes**
9	Front Street & US 101 SB Ramps	No	No	No	No
10	Front Street & Morisoli Road	No	No	No	No
11	San Vicente Road & Market Street	No	No	No	No
12	West Street & Market Street	No	No	No	No
13	Main Street & Market Street	No	No	No	No
14	East Street & Market Street	No	No	No	No
15	East Street & North Street/Metz Road	No	No	No	**Yes**
16	San Vicente Road & Gabilan Drive	No	No	No	No
17	West Street & Gabilan Drive	No	No	No	No
18	Main Street & Gabilan Drive	No	No	No	No
19	Andalucia Drive & Gabilan Drive	No	No	No	No
20	Orchard Street & Metz Road	No	No	No	No
21	Oak Street & Front Street	**Yes**	**Yes**	**Yes**	**Yes**

Notes:
1. Signal warrant analysis based on Caltrans Peak Hour Signal Warrant #11.

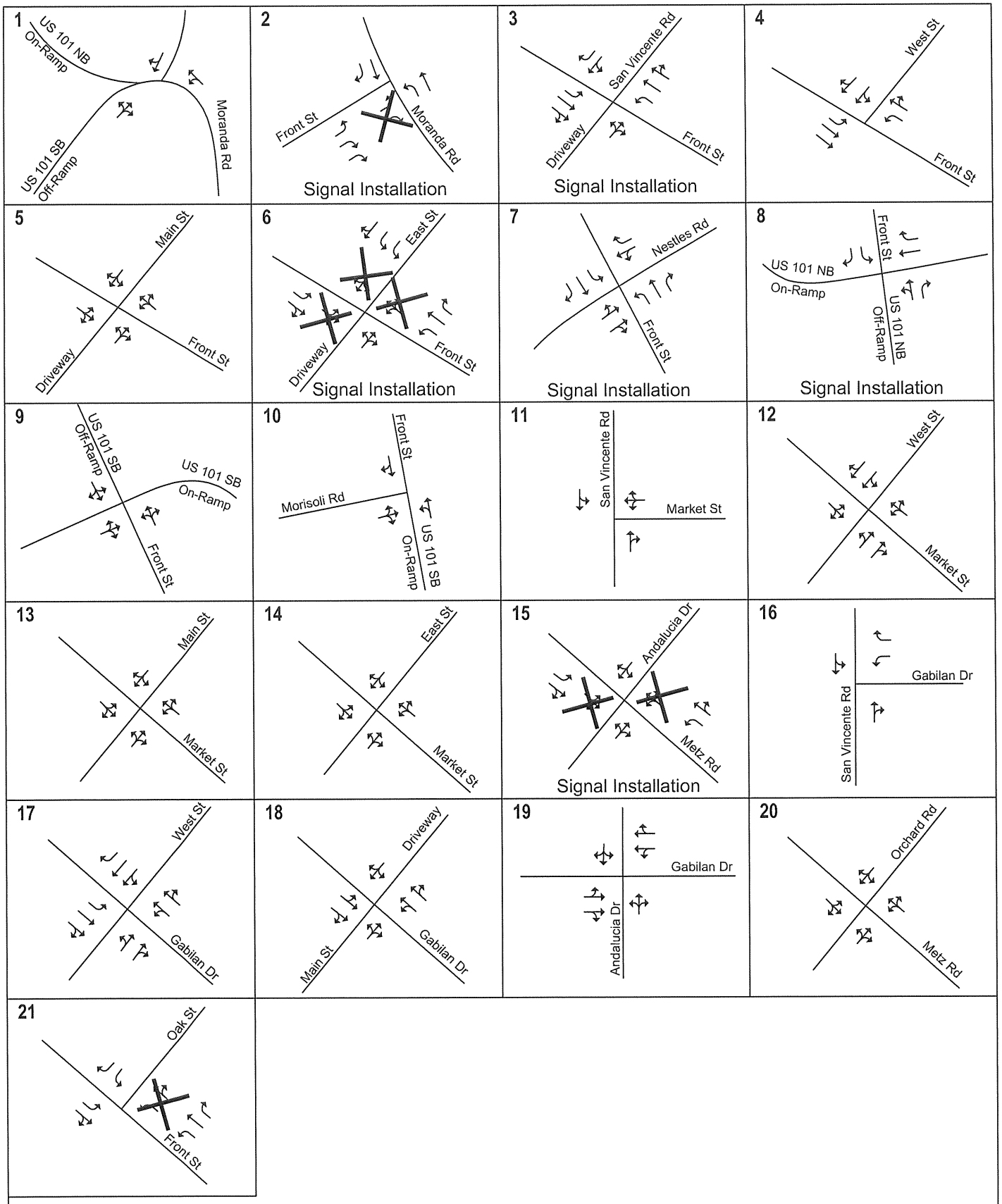

Figure 7

BACKGROUND CONDITIONS NECESSARY IMPROVEMENTS

Soledad Miravale

Hexagon
Transportation Consultants, Inc.

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Table 12
Background Roadway Segment Analysis

				Existing Conditions						Approved Project Trips				Background Conditions					
		# Of	Capacity	AM Peak-Hr			PM Peak-Hr			AM Peak-Hr		PM Peak-Hr		AM Peak-Hr			PM Peak-Hr		
Segment	Direction	Lanes	(vph)	Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase	Volume	V/C	LOS	Volume	V/C	LOS
Front St																			
Moranda Rd and San Vicente Rd	EB	2	2,400	289	0.120	A	971	0.405	A	185	64.01%	283	29.15%	474	0.198	A	1,254	0.523	A
	WB	2	2,400	756	0.315	A	360	0.150	A	220	29.10%	240	66.67%	976	0.407	A	600	0.250	A
San Vicente Rd and West St	EB	2	2,400	211	0.088	A	635	0.265	A	56	26.54%	95	14.96%	267	0.111	A	730	0.304	A
	WB	2	2,400	436	0.182	A	278	0.116	A	77	17.66%	75	26.98%	513	0.214	A	353	0.147	A
West St and Main St	EB	1	1,200	197	0.164	A	476	0.397	A	56	28.43%	95	19.96%	253	0.211	A	571	0.476	A
	WB	1	1,200	195	0.163	A	283	0.236	A	77	39.49%	75	26.50%	272	0.227	A	358	0.298	A
Main St and East St	EB	1	1,200	237	0.198	A	408	0.340	A	56	23.63%	95	23.28%	293	0.244	A	503	0.419	A
	WB	1	1,200	260	0.217	A	352	0.293	A	77	29.62%	75	21.31%	337	0.281	A	427	0.356	A
East St and Nestles Rd	EB	1	1,200	470	0.392	A	495	0.413	A	213	45.32%	197	39.80%	683	0.569	A	692	0.577	A
	WB	1	1,200	393	0.328	A	568	0.473	A	141	35.88%	257	45.25%	534	0.445	A	825	0.688	B
Gabilan Dr																			
San Vicente Rd and West St	EB	2	2,400	79	0.033	A	146	0.061	A	103	130.38%	163	111.64%	182	0.076	A	309	0.129	A
	WB	2	2,400	201	0.084	A	93	0.039	A	128	63.68%	138	148.39%	329	0.137	A	231	0.096	A
West St and Andalucia Dr	EB	2	2,400	146	0.061	A	231	0.096	A	110	75.34%	174	75.32%	256	0.107	A	405	0.169	A
	WB	2	2,400	261	0.109	A	196	0.082	A	135	51.72%	148	75.51%	396	0.165	A	344	0.143	A
San Vicente Rd																			
Market St and Gabilan Dr	NB	1	1,200	109	0.091	A	341	0.284	A	101	92.66%	159	46.63%	210	0.175	A	500	0.417	A
	SB	1	1,200	355	0.296	A	165	0.138	A	125	35.21%	133	80.61%	480	0.400	A	298	0.248	A
North of Gabilan Dr	NB	1	1,200	61	0.051	A	134	0.112	A	2	3.28%	5	3.73%	63	0.053	A	139	0.116	A
	SB	1	1,200	127	0.106	A	77	0.064	A	2	1.57%	4	5.19%	129	0.108	A	81	0.068	A
West St																			
Market St and Gabilan Dr	NB	2	2,400	101	0.042	A	253	0.105	A	6	5.94%	8	3.16%	107	0.045	A	261	0.109	A
	SB	2	2,400	215	0.090	A	125	0.052	A	6	2.79%	7	5.60%	221	0.092	A	132	0.055	A
North of Gabilan Dr	NB	2	2,400	151	0.063	A	200	0.083	A	0	0.00%	1	0.50%	151	0.063	A	201	0.084	A
	SB	2	2,400	205	0.085	A	134	0.056	A	0	0.00%	1	0.75%	205	0.085	A	135	0.056	A

Notes:
1. Capacity of roadways based on assumed capacity of 1,200 vphpl and existing lanes on roadways.

Table 13
Background Freeway Segment Analysis

				Existing Conditions						Approved Project Trips				Background Conditions					
		# Of	Capacity	AM Peak-Hour			PM Peak-Hour			AM Peak-Hour		PM Peak-Hour		AM Peak-Hour			PM Peak-Hour		
Segment	Direction	Lanes	(vph) /a/	Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase	Volume	V/C	LOS	Volume	V/C	LOS
US 101				/b/			/b/												
North Gonzales and Gonzales-5th Street	Both	4	9,600	4,400	0.458	B	4,400	0.458	B	391	8.89%	503	11.42%	4,791	0.499	B	4,903	0.511	B
	NB	2	4,800	2,640	0.550	C	1,760	0.367	B	223	8.46%	225	12.77%	2,863	0.597	C	1,985	0.413	B
	SB	2	4,800	1,760	0.367	B	2,640	0.550	C	168	9.55%	278	10.53%	1,928	0.402	B	2,918	0.608	C
Gonzales-5th Street and Gloria Road	Both	4	9,600	4,250	0.443	B	4,250	0.443	B	447	10.52%	574	13.52%	4,697	0.489	B	4,824	0.503	B
	NB	2	4,800	2,550	0.531	B	1,700	0.354	A	255	10.01%	257	15.11%	2,805	0.584	C	1,957	0.408	B
	SB	2	4,800	1,700	0.354	A	2,550	0.531	B	192	11.29%	318	12.45%	1,892	0.394	B	2,868	0.597	C
Gloria Road and Soledad Prison	Both	4	9,600	3,350	0.349	A	3,350	0.349	A	503	15.02%	646	19.29%	3,853	0.401	B	3,996	0.416	B
	NB	2	4,800	2,010	0.419	B	1,340	0.279	A	287	14.28%	289	21.56%	2,297	0.479	B	1,629	0.339	A
	SB	2	4,800	1,340	0.279	A	2,010	0.419	B	216	16.12%	357	17.78%	1,556	0.324	A	2,367	0.493	B
Soledad Prison and Camphora	Both	4	9,600	3,150	0.328	A	3,150	0.328	A	531	16.86%	682	21.65%	3,681	0.383	B	3,832	0.399	B
	NB	2	4,800	1,890	0.394	B	1,260	0.263	A	303	16.03%	305	24.20%	2,193	0.457	B	1,565	0.326	A
	SB	2	4,800	1,260	0.263	A	1,890	0.394	B	228	18.10%	377	19.96%	1,488	0.310	A	2,267	0.472	B
Camphora and North Soledad	Both	4	9,600	4,300	0.448	B	4,300	0.448	B	559	13.00%	718	16.70%	4,859	0.506	B	5,018	0.523	B
	NB	2	4,800	2,580	0.538	B	1,720	0.358	A	319	12.36%	321	18.66%	2,899	0.604	C	2,041	0.425	B
	SB	2	4,800	1,720	0.358	A	2,580	0.538	B	240	13.95%	397	15.39%	1,960	0.408	B	2,977	0.620	C
North Soledad and South Soledad	Both	4	9,600	3,800	0.396	B	3,800	0.396	B	154	4.05%	194	5.11%	3,954	0.412	B	3,994	0.416	B
	NB	2	4,800	2,280	0.475	B	1,520	0.317	A	99	4.34%	81	5.33%	2,379	0.496	B	1,601	0.334	A
	SB	2	4,800	1,520	0.317	A	2,280	0.475	B	55	3.62%	113	4.96%	1,575	0.328	A	2,393	0.499	B
South Soledad and Arroyo Seco Road	Both	4	9,600	3,700	0.385	B	3,700	0.385	B	161	4.35%	209	5.65%	3,861	0.402	B	3,909	0.407	B
	NB	2	4,800	2,035	0.424	B	1,665	0.347	A	69	3.39%	115	6.91%	2,104	0.438	B	1,780	0.371	B
	SB	2	4,800	1,665	0.347	A	2,035	0.424	B	92	5.53%	94	4.62%	1,757	0.366	B	2,129	0.444	B
Arroyo Seco Road and North Greenfield	Both	4	9,600	3,550	0.370	B	3,550	0.370	B	153	4.31%	199	5.59%	3,703	0.386	B	3,749	0.390	B
	NB	2	4,800	1,953	0.407	B	1,598	0.333	A	66	3.36%	109	6.84%	2,018	0.420	B	1,707	0.356	A
	SB	2	4,800	1,598	0.333	A	1,953	0.407	B	87	5.47%	89	4.57%	1,685	0.351	A	2,042	0.425	B
North Greenfield and Walnut Avenue	Both	4	9,600	3,050	0.318	A	3,050	0.318	A	137	4.49%	178	5.82%	3,187	0.332	A	3,228	0.336	A
	NB	2	4,800	1,678	0.349	A	1,373	0.286	A	59	3.50%	98	7.12%	1,736	0.362	B	1,470	0.306	A
	SB	2	4,800	1,373	0.286	A	1,678	0.349	A	78	5.70%	80	4.76%	1,451	0.302	A	1,757	0.366	B
Walnut Avenue and Oak Avenue	Both	4	9,600	2,850	0.297	A	2,850	0.297	A	121	4.24%	157	5.50%	2,971	0.309	A	3,007	0.313	A
	NB	2	4,800	1,568	0.327	A	1,283	0.267	A	52	3.30%	86	6.73%	1,619	0.337	A	1,369	0.285	A
	SB	2	4,800	1,283	0.267	A	1,568	0.327	A	69	5.38%	71	4.50%	1,352	0.282	A	1,638	0.341	A
South Greenfield and Oak Avenue	Both	4	9,600	2,350	0.245	A	2,350	0.245	A	105	4.45%	136	5.78%	2,455	0.256	A	2,486	0.259	A
	NB	2	4,800	1,293	0.269	A	1,058	0.220	A	45	3.47%	75	7.07%	1,337	0.279	A	1,132	0.236	A
	SB	2	4,800	1,058	0.220	A	1,293	0.269	A	60	5.65%	61	4.73%	1,117	0.233	A	1,354	0.282	A

Notes:
/a/ Capacity of freeway lanes based on assumed capacity of 2,400 vphpl, as prescribed by the Highway Capacity Manual
/b/ Data provided by Caltrans Data System Unit 2005, Route 101 District 5

Table 14

Background Freeway Ramp Analysis

					Existing						Approved Trips				Background Conditions					
		# Of		Capacity	AM Peak-Hour			PM Peak-Hour			AM Peak-Hour		PM Peak-Hour		AM Peak-Hour			PM Peak-Hour		
Interchange	Direction	Lanes	Type	(vph)	Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase	Volume	V/C	LOS	Volume	V/C	LOS
US 101																				
Camphora Road	SB to Camphora Road	1	Diagonal	1,500	24	0.016	A	30	0.020	A	0	0.00%	0	0.00%	24	0.016	A	30	0.020	A
	NB from Camphora Road	1	Diagonal	1,500	40	0.027	A	32	0.021	A	0	0.00%	0	0.00%	40	0.027	A	32	0.021	A
	SB from Camphora Road	1	Diagonal	1,500	76	0.051	A	95	0.063	A	12	15.79%	20	21.05%	88	0.059	A	115	0.077	A
	NB to Camphora Road	1	Diagonal	1,500	80	0.053	A	64	0.043	A	16	20.00%	16	25.00%	96	0.064	A	80	0.053	A
Moranda Road	SB to Moranda Road	1	Diagonal	1,500	224	0.149	A	824	0.549	B	184	82.14%	283	34.34%	408	0.272	A	1107	0.738	C
	NB from Moranda Road	1	Loop	1,500	657	0.438	B	242	0.161	A	220	33.49%	240	99.17%	877	0.585	C	482	0.321	A
	SB from Moranda Road	1	Loop	1,500	52	0.035	A	42	0.028	A	0	0.00%	0	0.00%	52	0.035	A	42	0.028	A
	NB to Moranda Road	1	Loop	1,500	37	0.025	A	86	0.057	A	0	0.00%	0	0.00%	37	0.025	A	86	0.057	A
Front Street	SB to Front Street	1	Loop	1,500	107	0.071	A	170	0.113	A	55	51.40%	113	66.47%	162	0.108	A	283	0.189	A
	NB from Front Street	1	Loop	1,500	223	0.149	A	135	0.090	A	99	44.39%	81	60.00%	322	0.215	A	216	0.144	A
	SB from Front Street	1	Diagonal	1,500	189	0.126	A	283	0.189	A	92	48.68%	93	32.86%	281	0.187	A	376	0.251	A
	NB to Front Street	1	Diagonal	1,500	248	0.165	A	393	0.262	A	69	27.82%	115	29.26%	317	0.211	A	508	0.339	A
Arroyo Seco Road	SB to Arroyo Seco Road	1	Diagonal	1,500	70	0.047	A	88	0.059	A	5	7.14%	5	5.68%	75	0.050	A	93	0.062	A
	NB from Arroyo Seco Road	1	Diagonal	1,500	88	0.059	A	70	0.047	A	3	3.41%	6	8.57%	91	0.061	A	76	0.051	A

Notes:
1. Capacity for all ramps based on assumed capacity of 1,500 vphpl, as prescribed by the Highway Capacity Manual

Table 15
Trip Generation Estimates

				AM Peak Hour						PM Peak Hour						
		Daily	Daily	Pk-Hr	Splits		Trips			Pk-Hr	Splits		Pass-By			
Land Use	Size	Trip Rates	Trips	Rate	In	Out	In	Out	Total	Rate	In	Out	Red. /e/	In	Out	Total
Proposed Uses																
Single-Family Homes/a/	1,470 Units	9.57	14,068	0.75	25%	75%	276	827	1,103	1.01	63%	37%		935	549	1,485
Multi-Family/b/	2,230 Units	6.72	14,986	0.51	20%	80%	227	910	1,137	0.62	65%	35%		899	484	1,383
Senior Housing/c/	500 Units	3.48	1,740	0.08	45%	55%	18	22	40	0.11	61%	39%		34	21	55
Hotel/d/	120 Units	8.92	1,070	0.67	58%	42%	47	34	80	0.70	49%	51%		41	43	84
			31,864				568	1,792	2,360					1,909	1,098	3,006
			-9,196				-157	-123	-280					-186	-236	-422
			22,668				411	1,669	2,080					1,723	861	2,585
Retail "A"/e/	175,000 s.f.	44.3	7,756	1.35	56%	44%	132	104	236	2.71	44%	56%	25%	157	199	356
Retail "B"/e/	100,000 s.f.	44.3	4,432	1.35	56%	44%	76	59	135	2.71	44%	56%	25%	89	114	203
			12,188				208	163	371					246	313	559
			34,856				**619**	**1,833**	**2,451**					**1,969**	**1,174**	**3,143**

Source:
ITE Trip Generation, 7th Edition

Notes:
/a/ Single-Family Detached Housing (210) average rates used for proposed single-family units
/b/ Apartment (220) average rates used for proposed multi-family units
/c/ Senior Adult Housing-Attached (252) average rates used for proposed senior housing units
/d/ Hotel (310) average rates used for proposed hotel units
/e/ Specialty Retail Center (814) average rates used for proposed retail space. No AM peak hour rates are available for Specialty Retail, therefore half of the PM peak hour rates were assumed for the AM peak hour.
/f/ A reduction of of residential trips equal to 90% of Retail "A" and 50% of Retail "B" was applied for internalization of retail/residential uses.
/e/ A reduction of 25% to account for pass-by trips was applied to retail use during the PM peak hour

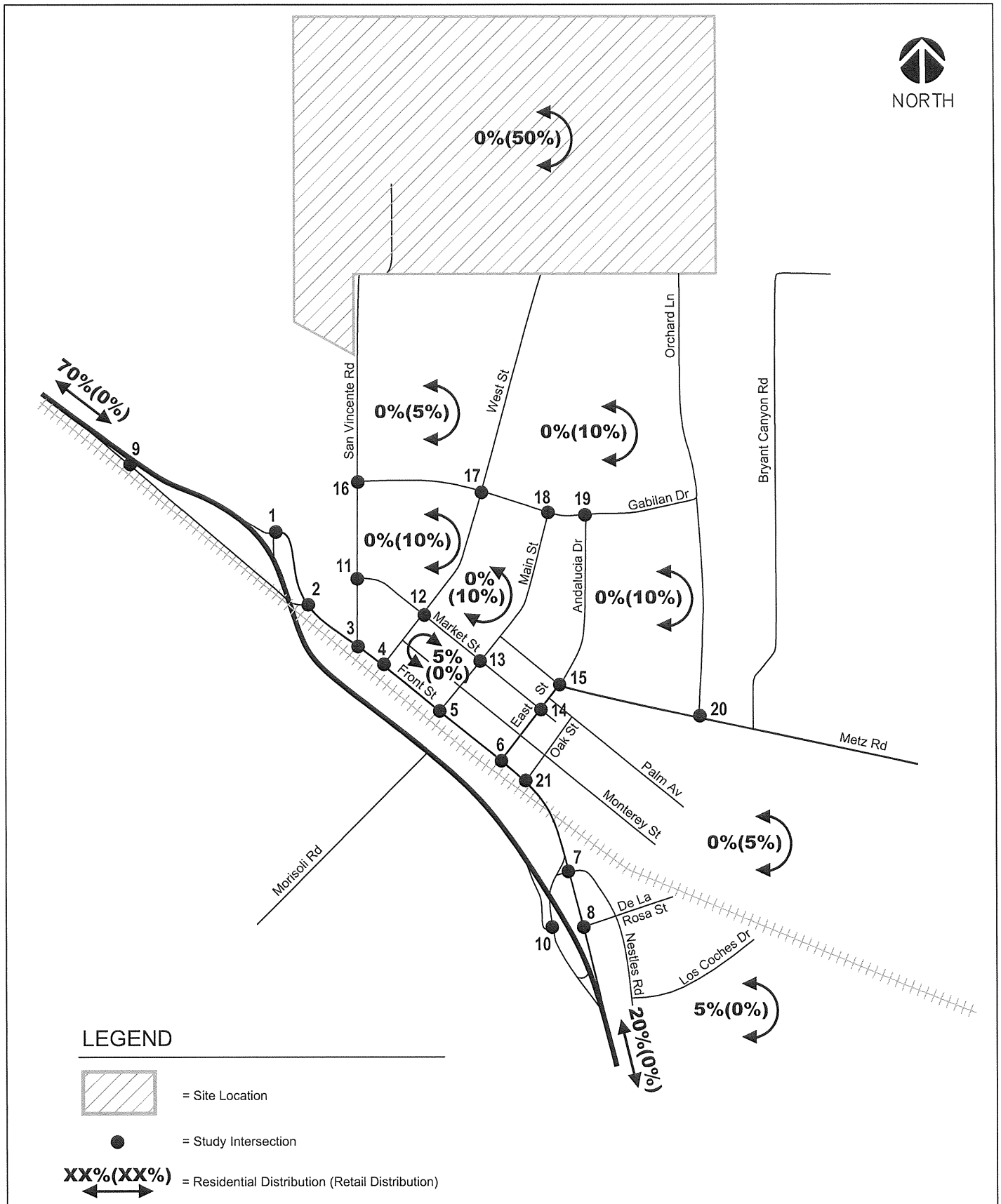


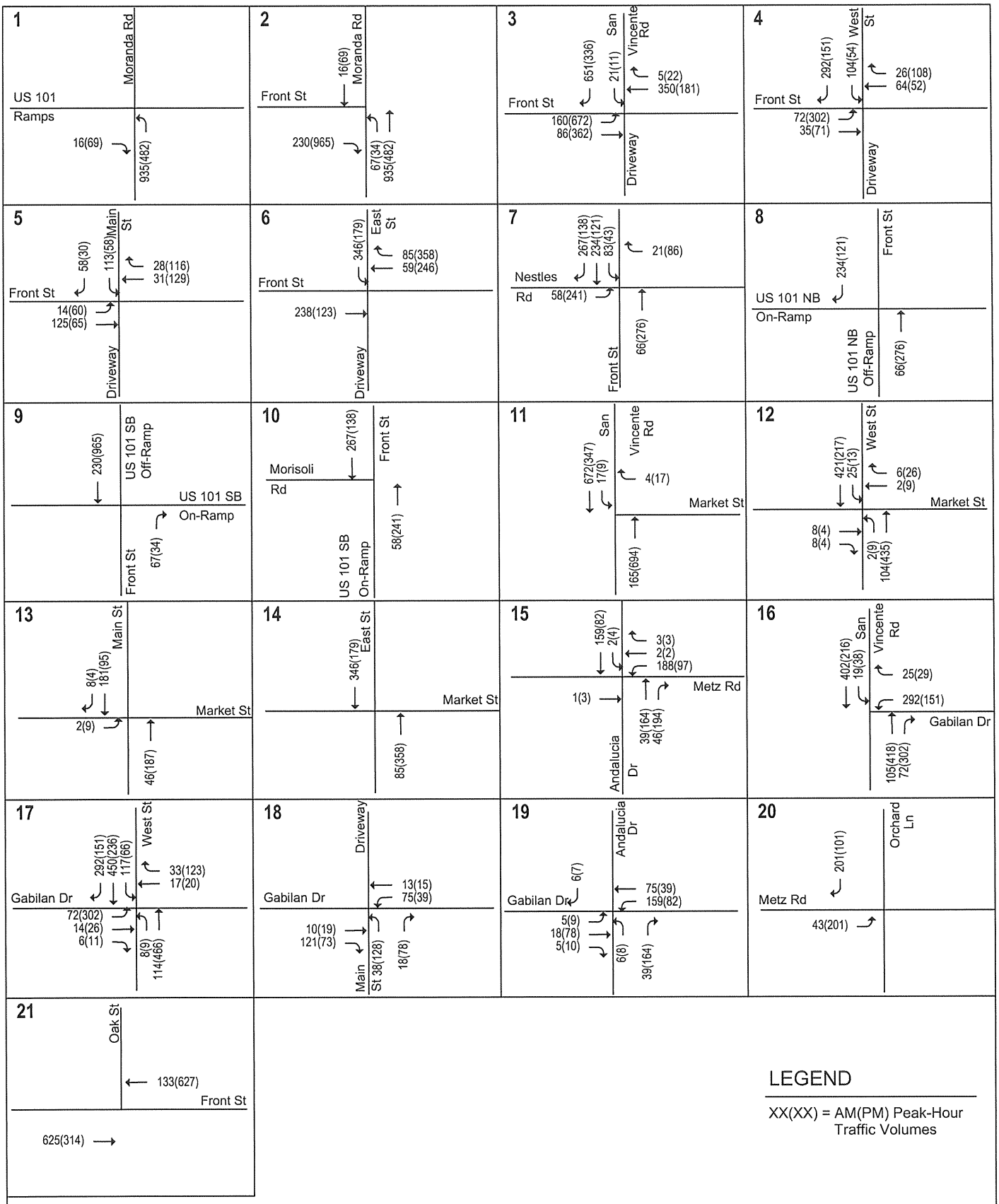
Figure 8

PROJECT TRIP DISTRIBUTION

Soledad Mirevale

Hexagon
Transportation Consultants, Inc.

JH D:\Projects\Soledad Mirevale\Fig 8.dwg



LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 9

PROJECT TRIP ASSIGNMENT

Soledad Miravale

Hexagon Transportation Consultants, Inc.

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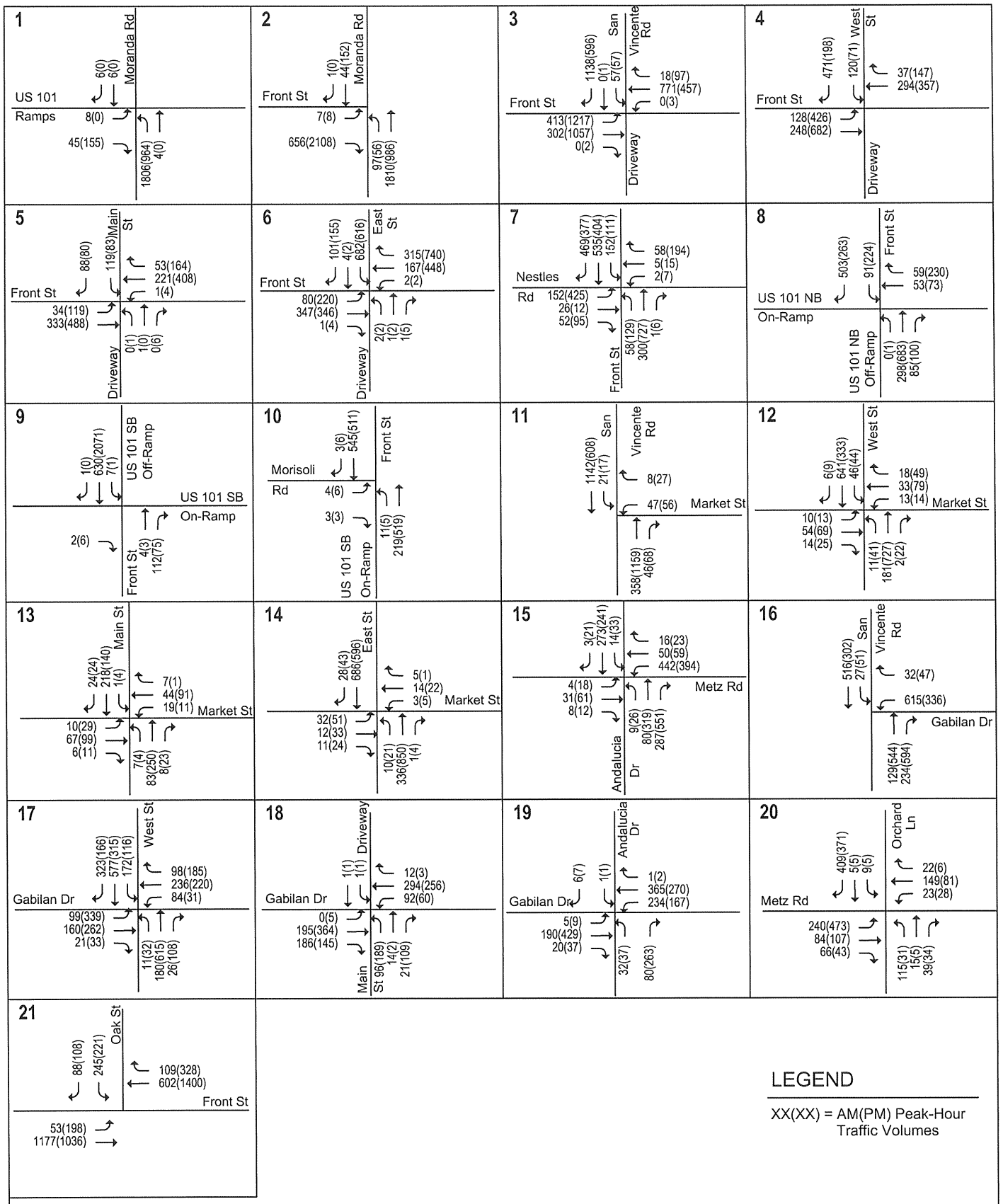

Figure 10

PROJECT PLUS BACKGROUND TRAFFIC VOLUMES

Hexagon
Transportation Consultants, Inc.

Soledad Miravale

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Table 16
Project Intersection Levels of Service

	Intersection	Intersection Control	Peak Hour	Background Conditions Ave. Delay	Background Conditions LOS	Project Conditions Ave. Delay	Project Conditions LOS
1	Moranda Road and US 101 NB Ramps	TWSC	AM	33	D	**425**	**F**
			PM	14	B	**72**	**F**
2	Moranda Road and Front Street	Signal	AM	14	B	**172**	**F**
			PM	21	C	**189**	**F**
3	San Vicente Road and Front Street	Signal	AM	19	B	**143**	**F**
			PM	18	B	**146**	**F**
4	West Street and Front Street	AWSC	AM	10	A	***18***	***C***
			PM	13	B	***34***	***D***
5	Main Street and Front Street	AWSC	AM	9	A	11	B
			PM	12	B	***28***	***D***
6	East Street and Front Street	Signal	AM	19	B	22	C
			PM	23	C	27	C
7	Front Street and Nestles Road	Signal	AM	14	B	14	B
			PM	16	B	26	C
8	Front Street and US 101 NB Ramps	Signal	AM	20	C	10	B
			PM	20	B	25	C
9	Front Street and US 101 SB Ramps	TWSC	AM	11	B	13	B
			PM	19	C	**62**	**F**
10	Front Street and Morisoli Road	TWSC	AM	11	B	14	B
			PM	13	B	17	C
11	San Vicente Road and Market Street	TWSC	AM	15	B	**47**	**E**
			PM	16	C	**114**	**F**
12	West Street and Market Street	AWSC	AM	8	A	12	B
			PM	9	A	***15***	***C***
13	Main Street and Market Street	AWSC	AM	8	A	9	A
			PM	8	A	10	A
14	East Street and Market Street	AWSC	AM	10	B	25	C
			PM	16	C	***95***	***F***
15	East Street and North Street/Metz Road	Signal	AM	13	B	16	B
			PM	15	B	15	B
16	San Vicente Road and Gabilan Drive	TWSC	AM	13	B	***375***	***F***
			PM	13	B	***395***	***F***
17	West Street and Gabilan Drive	AWSC	AM	10	B	26	D
			PM	11	B	***58***	***F***
18	Main Street and Gabilan Drive	AWSC	AM	9	A	10	A
			PM	9	A	***12***	***B***
19	Andalucia Drive and Gabilan Drive	TWSC	AM	14	B	15	B
			PM	16	C	***18***	***C***
20	Orchard Lane and Metz Road	TWSC	AM	15	C	***37***	***E***
			PM	9	B	***17***	***C***
21	Front Street and Oak Street	TWSC	AM	12	B	20	B
			PM	14	B	***74***	***E***

Notes:
1. Intersection control based on background wth improvements conditions
   -TWSC = Two-way stop-controlled intersection
   -AWSC = Four-way stop-controlled intersection
2. Significant impacts are shown in **BOLD** and boxed.
3. *Italics* and **BOLD** indicates signal warrant met.

Table 17
Project Intersection Signal Warrant Analysis

Study Number	Intersection Name	Existing Conditions AM	Existing Conditions PM	Background Conditions AM	Background Conditions PM	Project Conditions AM	Project Conditions PM
Existing Unsignalized Intersections							
1	Moranda Road & US 101 NB Ramps	No	No	No	No	No	No
2	Moranda Road & Front Street	No	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
3	San Vicente Road & Front Street	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
4	West Street & Front Street	No	No	No	No	**Yes**	**Yes**
5	Main Street & Front Street	No	No	No	No	No	**Yes**
6	East Street & Front Street	No	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
7	Front Street & Nestles Road	No	No	No	**Yes**	**Yes**	**Yes**
8	Front Street & US 101 NB Ramps	No	No	No	**Yes**	No	**Yes**
9	Front Street & US 101 SB Ramps	No	No	No	No	No	No
10	Front Street & Morisoli Road	No	No	No	No	No	No
11	San Vicente Road & Market Street	No	No	No	No	No	No
12	West Street & Market Street	No	No	No	No	No	**Yes**
13	Main Street & Market Street	No	No	No	No	No	No
14	East Street & Market Street	No	No	No	No	No	**Yes**
15	East Street & North Street/Metz Road	No	No	No	**Yes**	**Yes**	**Yes**
16	San Vicente Road & Gabilan Drive	No	No	No	No	**Yes**	**Yes**
17	West Street & Gabilan Drive	No	No	No	No	**Yes**	**Yes**
18	Main Street & Gabilan Drive	No	No	No	No	No	**Yes**
19	Andalucia Drive & Gabilan Drive	No	No	No	No	No	**Yes**
20	Orchard Street & Metz Road	No	No	No	No	**Yes**	**Yes**
21	Oak Street & Front Street	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Notes:
1. Signal warrant analysis based on Caltrans Peak Hour Signal Warrant #11.

Table 18
Project Roadway Segment Analysis

				Background Conditions						Project Trips				Project Conditions					
		# Of	Capacity	AM Peak-Hr			PM Peak-Hr			AM Peak-Hr		PM Peak-Hr		AM Peak-Hr			PM Peak-Hr		
Segment	Direction	Lanes	(vph)	Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase	Volume	V/C	LOS	Volume	V/C	LOS
Front St																			
Moranda Rd and San Vicente Rd	EB	2	2,400	474	0.198	A	1,254	0.523	A	247	52.11%	**1,034**	**82.46%**	721	0.300	A	**2,288**	**0.953**	**E**
	WB	2	2,400	976	0.407	A	600	0.250	A	1,001	102.56%	517	86.17%	1,977	0.824	D	1,117	0.465	A
San Vicente Rd and West St	EB	2	2,400	267	0.111	A	730	0.304	A	107	40.07%	373	51.10%	374	0.156	A	1,103	0.460	A
	WB	2	2,400	513	0.214	A	353	0.147	A	356	69.40%	202	57.22%	869	0.362	A	555	0.231	A
West St and Main St	EB	1	1,200	253	0.211	A	571	0.476	A	140	55.34%	125	21.89%	393	0.328	A	696	0.580	A
	WB	1	1,200	272	0.227	A	358	0.298	A	89	32.72%	159	44.41%	361	0.301	A	517	0.431	A
Main St and East St	EB	1	1,200	293	0.244	A	503	0.419	A	238	81.23%	123	24.45%	531	0.443	A	626	0.522	A
	WB	1	1,200	337	0.281	A	427	0.356	A	59	17.51%	246	57.61%	396	0.330	A	673	0.561	A
East St and Nestles Rd	EB	1	1,200	683	0.569	A	692	0.577	A	**584**	**85.51%**	301	43.50%	**1,267**	**1.056**	**F**	993	0.828	D
	WB	1	1,200	534	0.445	A	825	0.688	B	144	26.97%	**603**	**73.09%**	678	0.565	A	**1,428**	**1.190**	**F**
Gabilan Dr																			
San Vicente Rd and West St	EB	2	2,400	182	0.076	A	309	0.129	A	91	50.00%	339	109.71%	273	0.114	A	648	0.270	A
	WB	2	2,400	329	0.137	A	231	0.096	A	317	96.35%	180	77.92%	646	0.269	A	411	0.171	A
West St and Andalucia Dr	EB	2	2,400	256	0.107	A	405	0.169	A	130	50.78%	92	22.72%	386	0.161	A	497	0.207	A
	WB	2	2,400	396	0.165	A	344	0.143	A	51	12.88%	143	41.57%	447	0.186	A	487	0.203	A
San Vicente Rd																			
Market St and Gabilan Dr	NB	1	1,200	210	0.175	A	500	0.417	A	170	80.95%	**711**	**142.20%**	380	0.317	A	**1,211**	**1.009**	**F**
	SB	1	1,200	480	0.400	A	298	0.248	A	**688**	**143.33%**	355	119.13%	**1,168**	**0.973**	**E**	653	0.544	A
North of Gabilan Dr	NB	1	1,200	63	0.053	A	139	0.116	A	130	206.35%	447	321.58%	193	0.161	A	586	0.488	A
	SB	1	1,200	129	0.108	A	81	0.068	A	422	327.13%	254	313.58%	551	0.459	A	335	0.279	A
West St																			
Market St and Gabilan Dr	NB	2	2,400	107	0.045	A	261	0.109	A	110	102.80%	461	176.63%	217	0.090	A	722	0.301	A
	SB	2	2,400	221	0.092	A	132	0.055	A	446	201.81%	230	174.24%	667	0.278	A	362	0.151	A
North of Gabilan Dr	NB	2	2,400	151	0.063	A	201	0.084	A	219	145.03%	890	442.79%	370	0.154	A	1,091	0.455	A
	SB	2	2,400	205	0.085	A	135	0.056	A	858	418.54%	453	335.56%	1,063	0.443	A	588	0.245	A

Notes:
1. Capacity of roadways based on assumed capacity of 1,200 vphpl and existing lanes on roadways.
2. **BOLD** indictaes significant increase in roadway segment volume and LOS.

Table 19
Project Freeway Segment Analysis

Segment	Direction	# Of Lanes	Capacity (vph) /a/	Background Conditions						Project Trips				Project Conditions					
				AM Peak-Hour			PM Peak-Hour			AM Peak-Hour		PM Peak-Hour		AM Peak-Hour			PM Peak-Hour		
				Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase	Volume	V/C	LOS	Volume	V/C	LOS
US 101																			
North Gonzales and Gonzales-5th Street	Both	4	9,600	4,791	0.499	B	4,903	0.511	B	1,837	38.34%	1,688	34.44%	6,628	0.690	C	6,591	0.687	C
	NB	2	4,800	2,863	0.597	C	1,985	0.413	B	**1,019**	**35.60%**	1,266	63.80%	**3,883**	**0.809**	**D**	3,251	0.677	C
	SB	2	4,800	1,928	0.402	B	2,918	0.608	C	818	42.41%	422	14.47%	2,746	0.572	C	3,340	0.696	C
Gonzales-5th Street and Gloria Road	Both	4	9,600	4,697	0.489	B	4,824	0.503	B	2,099	44.69%	1,930	40.00%	6,796	0.708	C	6,754	0.704	C
	NB	2	4,800	2,805	0.584	C	1,957	0.408	B	**1,165**	**41.52%**	1,447	73.96%	**3,970**	**0.827**	**D**	3,404	0.709	C
	SB	2	4,800	1,892	0.394	B	2,868	0.597	C	934	49.39%	482	16.82%	2,826	0.589	C	3,350	0.698	C
Gloria Road and Soledad Prison	Both	4	9,600	3,853	0.401	B	3,996	0.416	B	2,362	61.29%	2,171	54.32%	6,215	0.647	C	6,167	0.642	C
	NB	2	4,800	2,297	0.479	B	1,629	0.339	A	1,310	57.05%	1,628	99.95%	3,608	0.752	C	3,257	0.679	C
	SB	2	4,800	1,556	0.324	A	2,367	0.493	B	1,051	67.56%	543	22.92%	2,607	0.543	B	2,910	0.606	C
Soledad Prison and Camphora	Both	4	9,600	3,681	0.383	B	3,832	0.399	B	2,493	67.72%	2,291	59.79%	6,174	0.643	C	6,124	0.638	C
	NB	2	4,800	2,193	0.457	B	1,565	0.326	A	1,383	63.07%	1,719	109.82%	3,576	0.745	C	3,284	0.684	C
	SB	2	4,800	1,488	0.310	A	2,267	0.472	B	1,110	74.57%	573	25.27%	2,598	0.541	B	2,840	0.592	C
Camphora and North Soledad	Both	4	9,600	4,859	0.506	B	5,018	0.523	B	1,456	29.97%	1,809	36.05%	6,315	0.658	C	6,827	0.711	C
	NB	2	4,800	2,899	0.604	C	2,041	0.425	B	**1,168**	**40.29%**	603	29.54%	**4,067**	**0.847**	**D**	2,644	0.551	C
	SB	2	4,800	1,960	0.408	B	2,977	0.620	C	288	14.69%	**1,206**	**40.51%**	2,248	0.468	B	**4,183**	**0.871**	**D**
North Soledad and South Soledad	Both	4	9,600	3,954	0.412	B	3,994	0.416	B	374	9.46%	465	11.64%	4,328	0.451	B	4,459	0.464	B
	NB	2	4,800	2,379	0.496	B	1,601	0.334	A	250	10.51%	189	11.81%	2,629	0.548	B	1,790	0.373	B
	SB	2	4,800	1,575	0.328	A	2,393	0.499	B	124	7.87%	276	11.53%	1,699	0.354	A	2,669	0.556	C
South Soledad and Arroyo Seco Road	Both	4	9,600	3,861	0.402	B	3,909	0.407	B	416	10.77%	517	13.23%	4,277	0.446	B	4,426	0.461	B
	NB	2	4,800	2,104	0.438	B	1,780	0.371	B	82	3.90%	345	19.38%	2,186	0.455	B	2,125	0.443	B
	SB	2	4,800	1,757	0.366	B	2,129	0.444	B	334	19.01%	172	8.08%	2,091	0.436	B	2,301	0.479	B
Arroyo Seco Road and North Greenfield	Both	4	9,600	3,703	0.386	B	3,749	0.390	B	395	10.67%	491	13.10%	4,098	0.427	B	4,240	0.442	B
	NB	2	4,800	2,018	0.420	B	1,707	0.356	A	78	3.86%	328	19.20%	2,096	0.437	B	2,035	0.424	B
	SB	2	4,800	1,685	0.351	A	2,042	0.425	B	317	18.83%	163	8.00%	2,002	0.417	B	2,205	0.459	B
North Greenfield and Walnut Avenue	Both	4	9,600	3,187	0.332	A	3,228	0.336	A	354	11.10%	439	13.62%	3,540	0.369	B	3,667	0.382	B
	NB	2	4,800	1,736	0.362	B	1,470	0.306	A	70	4.01%	293	19.95%	1,806	0.376	B	1,764	0.367	B
	SB	2	4,800	1,451	0.302	A	1,757	0.366	B	284	19.57%	146	8.32%	1,735	0.361	B	1,904	0.397	B
Walnut Avenue and Oak Avenue	Both	4	9,600	2,971	0.309	A	3,007	0.313	A	312	10.50%	388	12.90%	3,283	0.342	A	3,395	0.354	A
	NB	2	4,800	1,619	0.337	A	1,369	0.285	A	62	3.80%	259	18.90%	1,681	0.350	A	1,628	0.339	A
	SB	2	4,800	1,352	0.282	A	1,638	0.341	A	251	18.53%	129	7.88%	1,602	0.334	A	1,767	0.368	B
South Greenfield and Oak Avenue	Both	4	9,600	2,455	0.256	A	2,486	0.259	A	270	11.02%	336	13.52%	2,725	0.284	A	2,822	0.294	A
	NB	2	4,800	1,337	0.279	A	1,132	0.236	A	53	3.99%	224	19.81%	1,391	0.290	A	1,357	0.283	A
	SB	2	4,800	1,117	0.233	A	1,354	0.282	A	217	19.43%	112	8.26%	1,334	0.278	A	1,465	0.305	A

Notes:
/a/ Capacity of freeway lanes based on assumed capacity of 2,400 vphpl, as prescribed by the Highway Capacity Manual
/b/ Data provided by Caltrans Data System Unit 2005, Route 101 District 5.

Table 20
Freeway Ramp Analysis

					Background Conditions						Project Trips				Project Conditions					
					AM Peak-Hour			PM Peak-Hour			AM Peak-Hour		PM Peak-Hour		AM Peak-Hour			PM Peak-Hour		
Interchange	Direction	# Of Lanes	Type	Capacity (vph)	Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase	Volume	V/C	LOS	Volume	V/C	LOS
US 101																				
Camphora Road	SB to Camphora Road	1	Diagonal	1,500	24	0.016	A	30	0.020	A	0	0.00%	0	0.00%	24	0.016	A	30	0.020	A
	NB from Camphora Road	1	Diagonal	1,500	40	0.027	A	32	0.021	A	0	0.00%	0	0.00%	40	0.027	A	32	0.021	A
	SB from Camphora Road	1	Diagonal	1,500	88	0.059	A	115	0.077	A	14	15.91%	60	52.17%	102	0.068	A	175	0.117	A
	NB to Camphora Road	1	Diagonal	1,500	96	0.064	A	80	0.053	A	58	60.42%	30	37.50%	154	0.103	A	110	0.073	A
Moranda Road	SB to Moranda Road	1	Diagonal	1,500	408	0.272	A	1107	0.738	C	230	56.37%	**965**	**87.17%**	638	0.425	B	**2072**	**1.381**	**F**
	NB from Moranda Road	1	Loop	1,500	877	0.585	C	482	0.321	A	**935**	**106.61%**	482	100.00%	**1812**	**1.208**	**F**	964	0.643	C
	SB from Moranda Road	1	Loop	1,500	52	0.035	A	42	0.028	A	67	128.85%	34	80.95%	119	0.079	A	76	0.051	A
	NB to Moranda Road	1	Loop	1,500	37	0.025	A	86	0.057	A	16	43.24%	69	80.23%	53	0.035	A	155	0.103	A
Front Street	SB to Front Street	1	Loop	1,500	162	0.108	A	283	0.189	A	58	35.80%	241	85.16%	220	0.147	A	524	0.349	A
	NB from Front Street	1	Loop	1,500	322	0.215	A	216	0.144	A	234	72.67%	121	56.02%	556	0.371	B	337	0.225	A
	SB from Front Street	1	Diagonal	1,500	281	0.187	A	376	0.251	A	267	95.02%	138	36.70%	548	0.365	B	514	0.343	A
	NB to Front Street	1	Diagonal	1,500	317	0.211	A	508	0.339	A	66	20.82%	276	54.33%	383	0.255	A	784	0.523	B
Arroyo Seco Road	SB to Arroyo Seco Road	1	Diagonal	1,500	75	0.050	A	93	0.062	A	17	22.67%	9	9.68%	92	0.061	A	102	0.068	A
	NB from Arroyo Seco Road	1	Diagonal	1,500	91	0.061	A	76	0.051	A	4	4.40%	17	22.37%	95	0.063	A	93	0.062	A

Notes:
1. Capacity for all ramps based on assumed capacity of 1,500 vphpl, as prescribed by the Highway Capacity Manual

Table 21
Project Intersection Levels of Service with Mitigation

	Intersection	Peak Hour	Background Conditions Ave. Delay	Background Conditions LOS	Project Conditions Ave. Delay	Project Conditions LOS	Project Mitigated Ave. Delay	Project Mitigated LOS	Project With Gabilan Ext. Ave. Delay	Project With Gabilan Ext. LOS
1	Moranda Road and US 101 NB Ramps	AM	33	D	**425**	**F**	13	B	18	B
		PM	14	B	**72**	**F**	12	B	10	B
2	Moranda Road and Front Street	AM	14	B	**172**	**F**	7	A	14	B
		PM	21	C	**189**	**F**	6	A	13	B
3	San Vicente Road and Front Street	AM	19	B	**143**	**F**	12	B	16	B
		PM	18	B	**146**	**F**	15	B	16	B
4	West Street and Front Street	AM	10	A	***18***	***C***	18	B	15	B
		PM	13	B	***34***	***D***	20	B	12	B
5	Main Street and Front Street	AM	9	A	11	B	19	B	10	B
		PM	12	B	***28***	***D***	23	C	17	C
6	East Street and Front Street	AM	19	B	22	C			22	C
		PM	23	C	27	C			24	C
7	Front Street and Nestles Road	AM	14	B	14	B			19	B
		PM	16	B	26	C			22	C
8	Front Street and US 101 NB Ramps	AM	20	C	10	B			11	B
		PM	20	B	25	C			23	C
9	Front Street and US 101 SB Ramps	AM	11	B	13	B	7	A	7	A
		PM	19	C	**62**	**F**	8	A	8	A
10	Front Street and Morisoli Road	AM	11	B	14	B			14	B
		PM	13	B	17	C			16	C
11	San Vicente Road and Market Street	AM	15	B	**47**	**E**	7	A	12	B
		PM	16	C	**114**	**F**	8	A	15	B
12	West Street and Market Street	AM	8	A	12	B	5	A	10	A
		PM	9	A	***15***	***C***	7	A	11	B
13	Main Street and Market Street	AM	8	A	9	A			8	A
		PM	8	A	10	A			9	A
14	East Street and Market Street	AM	10	B	25	C			5	A
		PM	16	C	***95***	***F***			6	A
15	East Street and North Street/Metz Road	AM	13	B	16	B			14	B
		PM	15	B	15	B			15	B
16	San Vicente Road and Gabilan Drive	AM	13	B	***375***	***F***	15	B	15	B
		PM	13	B	***395***	***F***	12	B	18	B
17	West Street and Gabilan Drive	AM	10	B	***26***	***D***	26	C	29	C
		PM	11	B	***58***	***F***	37	D	37	D
18	Main Street and Gabilan Drive	AM	9	A	10	A	12	B	11	B
		PM	9	A	***12***	***B***	16	B	13	B
19	Andalucia Drive and Gabilan Drive	AM	14	B	15	B			20	B
		PM	16	C	***18***	***C***			22	C
20	Orchard Lane and Metz Road	AM	15	C	***37***	***E***			18	B
		PM	9	B	***17***	***C***			18	B
21	Front Street and Oak Street	AM	12	B	20	B			12	B
		PM	14	B	**74**	**E**			12	B

Notes:
1. Significant impacts are shown in **BOLD** and boxed.
2. *Italics* and **BOLD** indicates signal warrant met.

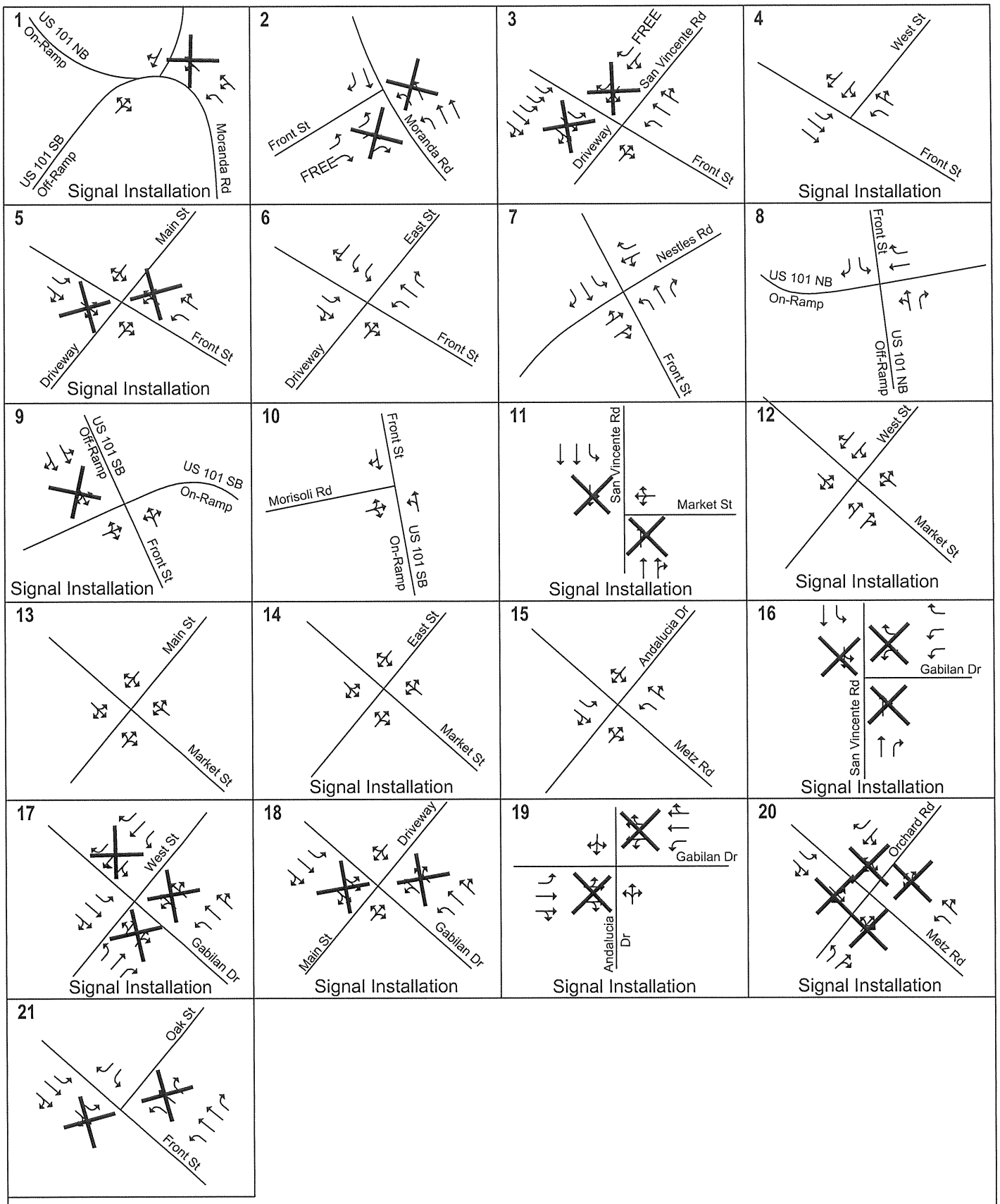

Figure 11

PROJECT MITIGATION MEASURES

Soledad Miravale

Hexagon
Transportation Consultants, Inc.

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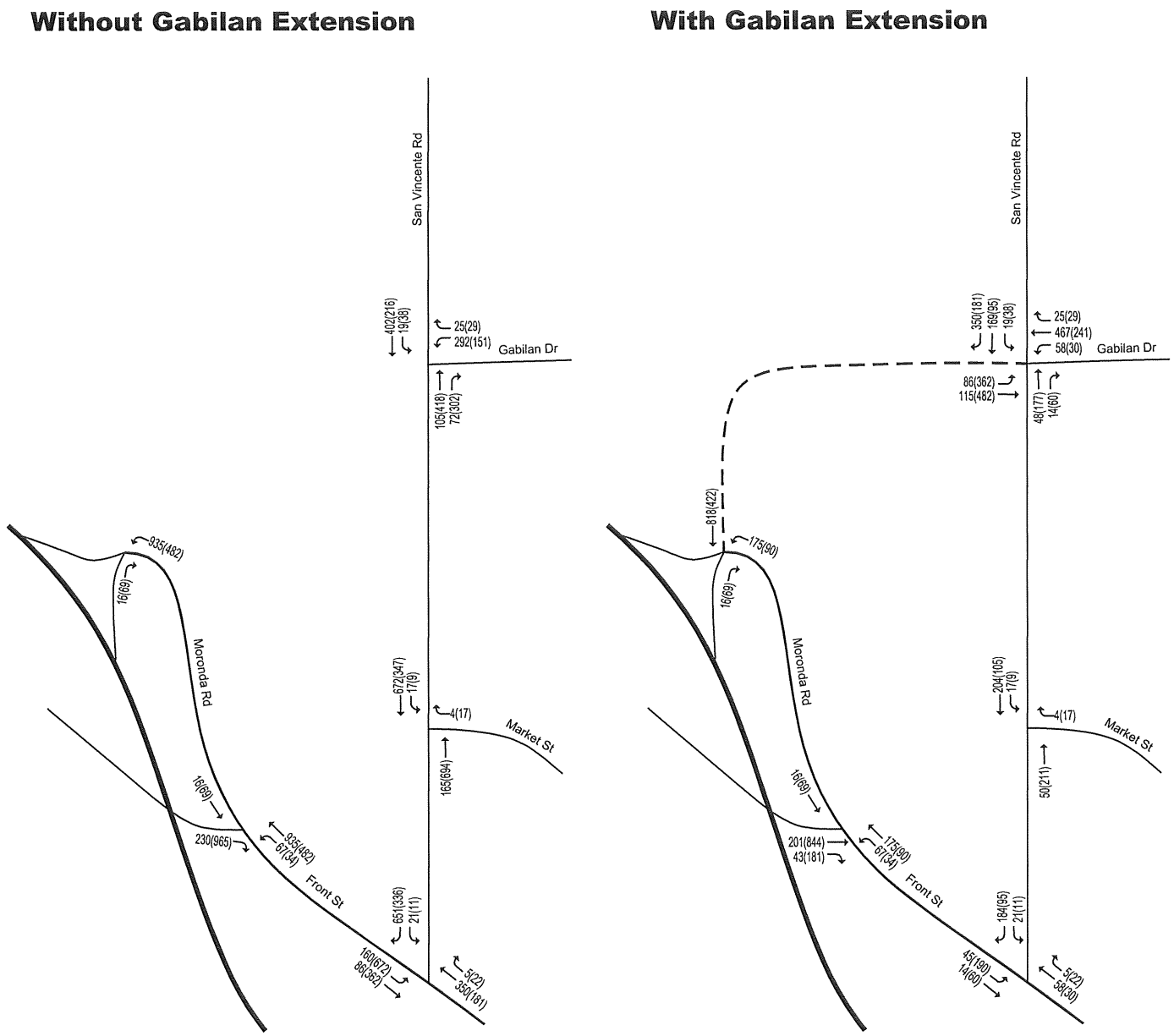

LEGEND

XX(XX) = AM(PM) Traffic Volumes

Figure 12

PROJECT TRIPS WITH AND WITHOUT GABILAN EXTENSION

Soledad Miravale

Hexagon
Transportation Consultants, Inc.

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Table 22
Miravale Site Roadway Segment Volumes

		Project Trips				Cumulative Trips				Future Total Trips				
Segment	Direction	AM Peak	AM Peak Tot. Volume	PM Peak	PM Peak Tot. Volume	AM Peak	AM Peak Tot. Volume	PM Peak	PM Peak Tot. Volume	AM Peak	PM Peak	Maximum Tot. Volume	**Daily Volume**	**Roadway Designation**
San Vicente Road Between														
Vista de Soledad and Miravale Road	NB	135	561	454	714	21	54	106	202	615	916	916	**9,160**	**Collector**
	SB	426		260		33		96						
Miravale Road and West Street	NB	141	357	257	460	5	13	25	47	370	507	507	**5,070**	**Collector**
	SB	216		203		8		22						
West Street Between														
Cuesta Street and H Street	NB	225	1,087	895	1,355	49	125	249	473	1,212	1,828	1,828	**18,280**	**Arterial**
	SB	862		460		76		224						
H Street and I Street	NB	202	909	743	1,144	23	58	115	218	967	1,362	1,362	**13,620**	**Arterial**
	SB	707		401		35		103						
I Street and J Street	NB	165	661	532	846	18	46	90	171	707	1,017	1,017	**10,170**	**Collector**
	SB	496		314		28		81						
J Street and L Street	NB	162	638	511	816	18	46	90	171	684	987	987	**9,870**	**Collector**
	SB	476		305		28		81						
L Street and Hilltop Road	NB	158	608	486	781	17	44	87	165	652	946	946	**9,460**	**Collector**
	SB	450		295		27		78						
Hilltop Road and S Street	NB	154	484	371	633	12	31	62	118	515	751	751	**7,510**	**Collector**
	SB	330		262		19		56						
S Street and Crest Street	NB	108	398	315	504	7	19	38	72	417	576	576	**5,760**	**Collector**
	SB	290		189		12		34						
Crest Street and Eucalyptus Lane	EB	146	323	221	422	2	5	10	19	328	441	441	**4,410**	**Collector**
	WB	177		201		3		9						
Eucalyptus Lane and San Vicente Road	EB	153	354	247	462	5	13	25	47	367	509	509	**5,090**	**Collector**
	WB	201		215		8		22						
Orchard Road Between														
Terraza Street and H Street	NB	104	524	434	651	11	27	53	101	551	752	752	**7,520**	**Collector**
	SB	420		217		16		48						
H Street and Hilltop Street	NB	87	437	362	543	18	46	90	171	483	714	714	**7,140**	**Collector**
	SB	350		181		28		81						
Hilltop Street and S Street	NB	51	175	135	220	15	38	74	140	213	360	360	**3,600**	**Collector**
	SB	124		85		23		66						
S Street and Crest Street	NB	49	165	126	207	15	38	74	140	203	347	347	**3,470**	**Collector**
	SB	116		81		23		66						
Crest Street Between														
L Street and West Street	NB	35	70	54	102	1	2	3	6	72	108	108	**1,080**	**Local**
	SB	35		48		1		3						
West Street and Orchard Lane	EB	86	363	301	466	8	20	40	76	383	542	542	**5,420**	**Collector**
	WB	277		165		12		36						
Eucalyptus Lane Between														
L Street and West Street	NB	24	31	14	40	4	7	13	27	38	67	67	**670**	**Local**
	SB	7		26		3		14						
Hilltop Road Between														
West Street and Orchard Lane	EB	50	197	161	252	5	13	25	47	210	299	299	**2,990**	**Collector**
	WB	147		91		8		22						
S Street Between														
West Street and Orchard Lane	EB	18	50	42	71	5	13	25	47	63	118	118	**1,180**	**Local**
	WB	32		29		8		22						

Notes:
1. Peak Hour volumes obtained from Trip assignments created for the Miravale Phase III project by Hexagon.
2. Daily volumes estimated by multiplying larger of either the AM or PM peak hour volume on each segment, total of both directions of travel, by 10.
3. Roadway designations based on City of Soledad General Plan, 2005 Existing Roadway and Capacities.

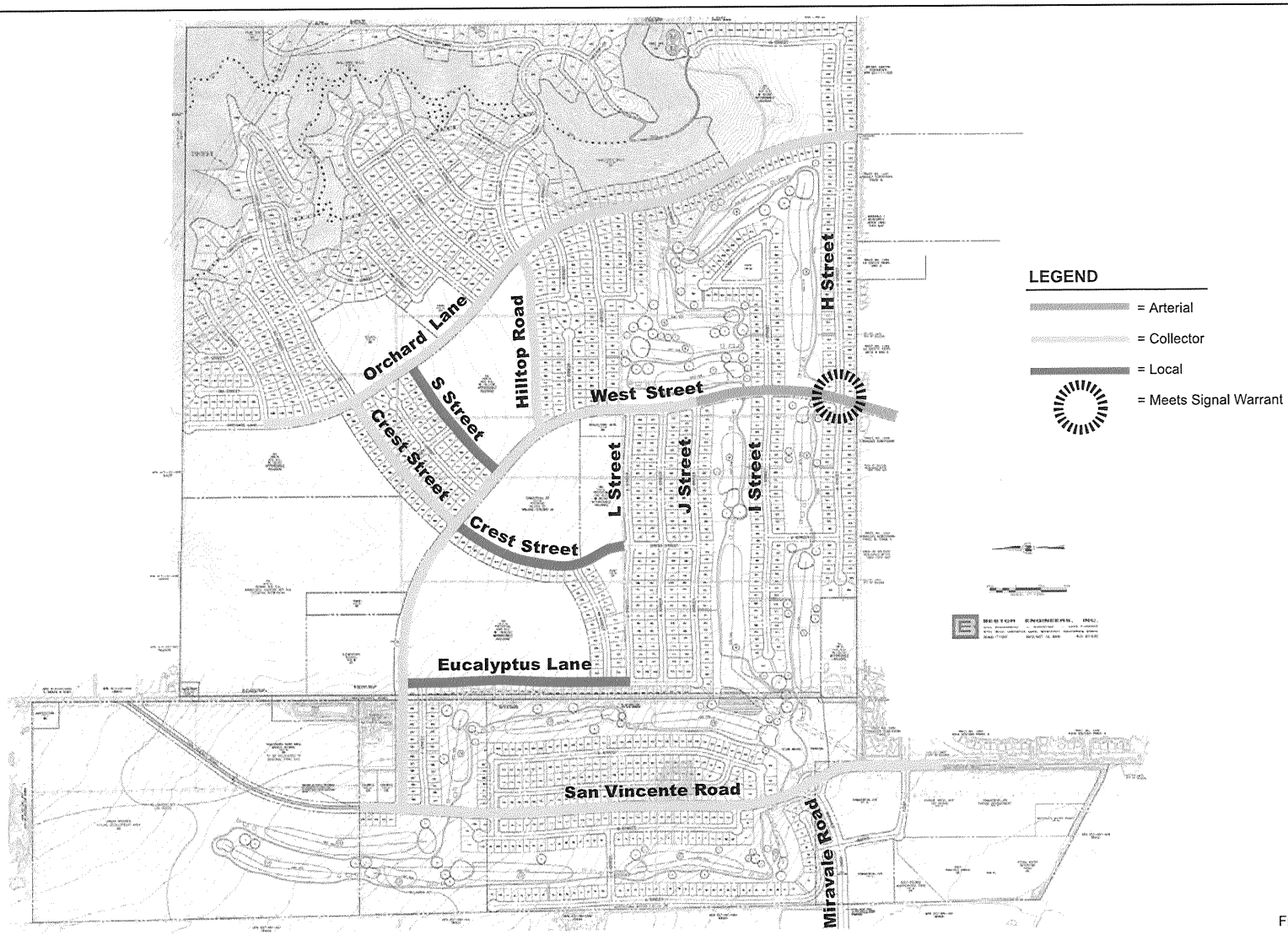


Figure 13

MIRAVALE SITE ROADWAY DESIGNATION

Soledad Miravale

Hexagon
Transportation Consultants, Inc.

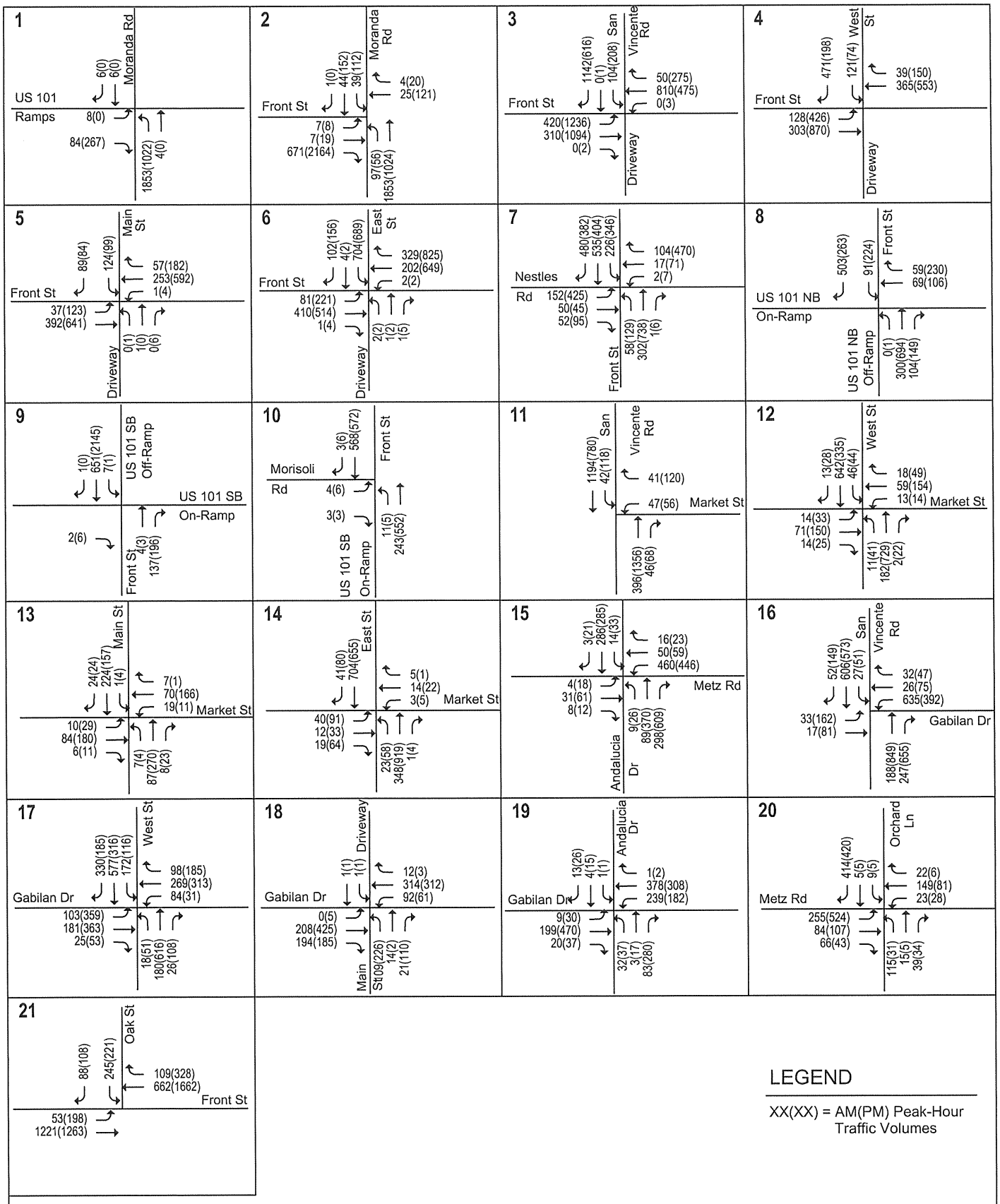
Table 23

Cumulative Project Trip Generation Estimates

		Daily		AM Peak Hour				PM Peak Hour			
Land Use	Size	Rate /a/	Trips	Rate /a/	In	Out	Total	Rate /a/	In	Out	Total
The Village at Soledad											
Shopping Center /d/	139,730 s.f.	42.94	6,000	1.03	88	56	144	3.75	252	272	524
Hotel /e/	84 Rooms	8.17	686	0.56	29	18	47	0.59	26	23	50
Cinema	1,329 seats							0.08	38	68	106
Totals			6,686		116	74	191		316	364	680
Soledad Plaza											
Shopping Center /d/	415,000 s.f.	42.94	17,820	1.03	261	167	427	3.75	747	809	1556
263 Front Street											
Specialty Retail Center /c/	12,200 s.f.	44.32	541	1.35	8	9	16	2.71	15	19	33
Residential /b/	152 units	5.86	891	0.44	11	56	67	0.52	53	26	79
Totals			1,431		19	64	83		68	45	112
Total All Approved Projects			**25,938**		**397**	**305**	**702**		**1,131**	**1,218**	**2,348**

Notes:
/a/ Rates expressed in trips per dwelling units.
/b/ Trip Generation rates for residential condominium/townhouse (ITE Land Use #230) used for this project.
/c/ Trip Generation rates for specialty retail center (ITE Land Use #814) used for this project.
/d/ Trip Generation rates for shopping center (ITE Land Use #820) used for this project.
/e/ Trip Generation rates for hotel (ITE Land Use #310) used for this project.

Source for rates: *ITE Trip Generation, Seventh Edition.*



LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 14

CUMULATIVE TRAFFIC VOLUMES

Soledad Miravale

Hexagon
Transportation Consultants, Inc.

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Table 24
Cumulative Conditions Intersection Levels of Service

				No Project		With Project: No Gabilan Extension		With Project: With Gabilan Extension	
	Intersection	Intersection Control	Peak Hour	Ave. Delay	LOS	Ave. Delay	LOS	Ave. Delay	LOS
1	Moranda Road and US 101 NB Ramps	Signal	AM	8	A	14	B	18	B
			PM	15	B	16	B	10	B
2	Moranda Road and Front Street	Signal	AM	10	A	5	A	15	B
			PM	18	B	11	B	14	B
3	San Vicente Road and Front Street	Signal	AM	19	B	13	B	16	B
			PM	20	C	17	B	19	B
4	West Street and Front Street	Signal	AM	11	B	19	B	14	B
			PM	25	C	34	C	13	B
5	Main Street and Front Street	Signal	AM	9	A	23	C	21	C
			PM	24	C	22	C	23	C
6	East Street and Front Street	Signal	AM	20	B	24	C	23	C
			PM	25	C	38	D	32	C
7	Front Street and Nestles Road	Signal	AM	17	B	20	B	21	C
			PM	24	C	42	D	42	D
8	Front Street and US 101 NB Ramps	Signal	AM	20	C	10	A	12	B
			PM	19	B	25	C	23	C
9	Front Street and US 101 SB Ramps	Signal	AM	11	B	7	A	7	A
			PM	21	C	12	B	13	B
10	Front Street and Morisoli Road	TWSC	AM	11	B	14	B	14	B
			PM	14	B	18	C	18	C
11	San Vicente Road and Market Street	Signal	AM	***14***	***B***	8	A	11	B
			PM	***34***	***D***	10	B	11	B
12	West Street and Market Street	Signal	AM	9	A	6	A	10	A
			PM	11	B	9	A	11	B
13	Main Street and Market Street	AWSC	AM	8	A	9	A	8	A
			PM	9	A	11	B	9	A
14	East Street and Market Street	Signal	AM	11	B	5	A	5	A
			PM	34	D	9	A	8	A
15	East Street and North Street/Metz Road	Signal	AM	13	B	16	B	14	B
			PM	15	B	16	B	16	B
16	San Vicente Road and Gabilan Drive	Signal	AM	18	B	21	C	16	B
			PM	19	B	23	C	27	C
17	West Street and Gabilan Drive	Signal	AM	11	B	27	C	30	C
			PM	13	B	39	D	38	D
18	Main Street and Gabilan Drive	Signal	AM	9	A	12	B	10	A
			PM	10	B	16	B	15	B
19	Andalucia Drive and Gabilan Drive	TWSC	AM	12	B	20	B	20	B
			PM	16	C	23	C	23	C
20	Orchard Lane and Metz Road	TWSC	AM	17	C	36	D	18	B
			PM	11	C	32	C	20	B
21	Front Street and Oak Street	TWSC	AM	12	B	12	B	12	B
			PM	26	C	13	B	12	B

Notes:
1. Intersection control based on project with mitigation conditions
   -TWSC = Two-way stop-controlled intersection
   -AWSC = Four-way stop-controlled intersection
2. Significant impacts are shown in **BOLD** and boxed.
3. *Italics* and **BOLD** indicates signal warrant met.

Table 25

Cumulative Intersection Signal Warrant Analysis Summary

Study Number	Intersection Name	Existing Conditions AM	Existing Conditions PM	Background Conditions AM	Background Conditions PM	Project Conditions AM	Project Conditions PM	Cumulative Conditions AM	Cumulative Conditions PM
Existing Unsignalized Intersections									
1	Moranda Road & US 101 NB Ramps	No	No	No	No	No	No	**Yes**	**Yes**
2	Moranda Road & Front Street	No	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
3	San Vicente Road & Front Street	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
4	West Street & Front Street	No	No	No	No	**Yes**	**Yes**	**Yes**	**Yes**
5	Main Street & Front Street	No	No	No	No	No	**Yes**	No	**Yes**
6	East Street & Front Street	No	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
7	Front Street & Nestles Road	No	No	No	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
8	Front Street & US 101 NB Ramps	No	No	No	**Yes**	No	**Yes**	No	**Yes**
9	Front Street & US 101 SB Ramps	No	No	No	No	No	No	No	No
10	Front Street & Morisoli Road	No	No	No	No	No	No	No	No
11	San Vicente Road & Market Street	No	No	No	No	No	No	No	**Yes**
12	West Street & Market Street	No	No	No	No	No	**Yes**	No	**Yes**
13	Main Street & Market Street	No	No	No	No	No	No	No	No
14	East Street & Market Street	No	No	No	No	No	**Yes**	No	**Yes**
15	East Street & North Street/Metz Road	No	No	No	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
16	San Vicente Road & Gabilan Drive	No	No	No	No	**Yes**	**Yes**	**Yes**	**Yes**
17	West Street & Gabilan Drive	No	No	No	No	**Yes**	**Yes**	**Yes**	**Yes**
18	Main Street & Gabilan Drive	No	No	No	No	No	**Yes**	No	**Yes**
19	Andalucia Drive & Gabilan Drive	No	No	No	No	No	**Yes**	No	**Yes**
20	Orchard Street & Metz Road	No	No	No	No	**Yes**	**Yes**	**Yes**	**Yes**
21	Oak Street & Front Street	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Notes:
1. Signal warrant analysis based on Caltrans Peak Hour Signal Warrant #11.

Table 26
Cumulative Roadway Segment Analysis (No Project)

				Background Conditions						Cumulative Trips				Cumulative Conditions					
		# Of	Capacity	AM Peak-Hr			PM Peak-Hr			AM Peak-Hr		PM Peak-Hr		AM Peak-Hr			PM Peak-Hr		
Segment	Direction	Lanes	(vph)	Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase	Volume	V/C	LOS	Volume	V/C	LOS
Front St																			
Moranda Rd and San Vicente Rd	EB	2	2,400	474	0.198	A	1,254	0.523	A	14	2.95%	56	4.47%	488	0.203	A	1,310	0.546	A
	WB	2	2,400	976	0.407	A	600	0.250	A	43	4.41%	38	6.33%	1,019	0.425	A	638	0.266	A
San Vicente Rd and West St	EB	2	2,400	267	0.111	A	730	0.304	A	55	20.60%	188	25.75%	322	0.134	A	918	0.383	A
	WB	2	2,400	513	0.214	A	353	0.147	A	71	13.84%	196	55.52%	584	0.243	A	549	0.229	A
West St and Main St	EB	1	1,200	253	0.211	A	571	0.476	A	54	21.34%	188	32.92%	307	0.256	A	759	0.633	B
	WB	1	1,200	272	0.227	A	358	0.298	A	71	26.10%	193	53.91%	343	0.286	A	551	0.459	A
Main St and East St	EB	1	1,200	293	0.244	A	503	0.419	A	65	22.18%	169	33.60%	358	0.298	A	672	0.560	A
	WB	1	1,200	337	0.281	A	427	0.356	A	35	10.39%	203	47.54%	372	0.310	A	630	0.525	A
East St and Nestles Rd	EB	1	1,200	683	0.569	A	692	0.577	A	86	12.59%	240	34.68%	769	0.641	B	932	0.777	C
	WB	1	1,200	534	0.445	A	825	0.688	B	48	8.99%	**286**	**34.67%**	582	0.485	A	**1,111**	**0.926**	**E**
Gabilan Dr																			
San Vicente Rd and West St	EB	2	2,400	182	0.076	A	309	0.129	A	29	15.93%	142	45.95%	211	0.088	A	451	0.188	A
	WB	2	2,400	329	0.137	A	231	0.096	A	46	13.98%	131	56.71%	375	0.156	A	362	0.151	A
West St and Andalucia Dr	EB	2	2,400	256	0.107	A	405	0.169	A	21	8.20%	101	24.94%	277	0.115	A	506	0.211	A
	WB	2	2,400	396	0.165	A	344	0.143	A	33	8.33%	93	27.03%	429	0.179	A	437	0.182	A
San Vicente Rd																			
Market St and Gabilan Dr	NB	1	1,200	210	0.175	A	500	0.417	A	71	33.81%	290	58.00%	281	0.234	A	790	0.658	B
	SB	1	1,200	480	0.400	A	298	0.248	A	72	15.00%	273	91.61%	552	0.460	A	571	0.476	A
North of Gabilan Dr	NB	1	1,200	63	0.053	A	139	0.116	A	93	147.62%	467	335.97%	156	0.130	A	606	0.505	A
	SB	1	1,200	129	0.108	A	81	0.068	A	143	110.85%	420	518.52%	272	0.227	A	501	0.418	A
West St																			
Market St and Gabilan Dr	NB	2	2,400	107	0.045	A	261	0.109	A	5	4.67%	23	8.81%	112	0.047	A	284	0.118	A
	SB	2	2,400	221	0.092	A	132	0.055	A	8	3.62%	21	15.91%	229	0.095	A	153	0.064	A
North of Gabilan Dr	NB	2	2,400	151	0.063	A	201	0.084	A	5	3.31%	21	10.45%	156	0.065	A	222	0.093	A
	SB	2	2,400	205	0.085	A	135	0.056	A	7	3.41%	19	14.07%	212	0.088	A	154	0.064	A

Notes:
1. Capacity of roadways based on assumed capacity of 1,200 vphpl and existing lanes on roadways.
2. **BOLD** indictaes significant increase in roadway segment volume and LOS.

Table 27
Cumulative Roadway Segment Analysis (With Project)

				Cumulative No Project Conditions						Project Trips				Cumulative Conditions With Project					
		# Of	Capacity	AM Peak-Hr			PM Peak-Hr			AM Peak-Hr		PM Peak-Hr		AM Peak-Hr			PM Peak-Hr		
Segment	Direction	Lanes	(vph)	Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase	Volume	V/C	LOS	Volume	V/C	LOS
Front St																			
Moranda Rd and San Vicente Rd	EB	2	2,400	488	0.203	A	1,310	0.546	A	247	50.61%	**1,034**	**78.93%**	735	0.306	A	**2,344**	**0.977**	**E**
	WB	2	2,400	1,019	0.425	A	638	0.266	A	1,001	98.23%	517	81.03%	2,020	0.842	D	1,155	0.481	A
San Vicente Rd and West St	EB	2	2,400	322	0.134	A	918	0.383	A	107	33.23%	373	40.63%	429	0.179	A	1,291	0.538	A
	WB	2	2,400	584	0.243	A	549	0.229	A	356	60.96%	202	36.79%	940	0.392	A	751	0.313	A
West St and Main St	EB	1	1,200	307	0.256	A	759	0.633	B	140	45.60%	125	16.47%	447	0.373	A	884	0.737	C
	WB	1	1,200	343	0.286	A	551	0.459	A	89	25.95%	159	28.86%	432	0.360	A	710	0.592	A
Main St and East St	EB	1	1,200	358	0.298	A	672	0.560	A	238	66.48%	123	18.30%	596	0.497	A	795	0.663	B
	WB	1	1,200	372	0.310	A	630	0.525	A	59	15.86%	246	39.05%	431	0.359	A	876	0.730	C
East St and Nestles Rd	EB	1	1,200	769	0.641	B	932	0.777	C	**584**	**75.94%**	**301**	**32.30%**	**1,353**	**1.128**	**F**	**1,233**	**1.028**	**F**
	WB	1	1,200	582	0.485	A	1,111	0.926	E	144	24.74%	603	54.28%	726	0.605	B	1,714	1.428	F
Gabilan Dr																	0		
San Vicente Rd and West St	EB	2	2,400	211	0.088	A	451	0.188	A	91	43.13%	339	75.17%	302	0.126	A	790	0.329	A
	WB	2	2,400	375	0.156	A	362	0.151	A	317	84.53%	180	49.72%	692	0.288	A	542	0.226	A
West St and Andalucia Dr	EB	2	2,400	277	0.115	A	506	0.211	A	130	46.93%	92	18.18%	407	0.170	A	598	0.249	A
	WB	2	2,400	429	0.179	A	437	0.182	A	51	11.89%	143	32.72%	480	0.200	A	580	0.242	A
San Vicente Rd																	0		
Market St and Gabilan Dr	NB	1	1,200	281	0.234	A	790	0.658	B	170	60.50%	**711**	**90.00%**	451	0.376	A	**1,501**	**1.251**	**F**
	SB	1	1,200	552	0.460	A	571	0.476	A	**688**	**124.64%**	355	62.17%	**1,240**	**1.033**	**F**	926	0.772	C
North of Gabilan Dr	NB	1	1,200	156	0.130	A	606	0.505	A	130	83.33%	447	73.76%	286	0.238	A	1,053	0.878	D
	SB	1	1,200	272	0.227	A	501	0.418	A	422	155.15%	254	50.70%	694	0.578	A	755	0.629	B
West St																	0		
Market St and Gabilan Dr	NB	2	2,400	112	0.047	A	284	0.118	A	110	98.21%	461	162.32%	222	0.093	A	745	0.310	A
	SB	2	2,400	229	0.095	A	153	0.064	A	446	194.76%	230	150.33%	675	0.281	A	383	0.160	A
North of Gabilan Dr	NB	2	2,400	156	0.065	A	222	0.093	A	219	140.38%	890	400.90%	375	0.156	A	1,112	0.463	A
	SB	2	2,400	212	0.088	A	154	0.064	A	858	404.72%	453	294.16%	1,070	0.446	A	607	0.253	A

Notes:
1. Capacity of roadways based on assumed capacity of 1,200 vphpl and existing lanes on roadways.
2. **BOLD** indictaes significant increase in roadway segment volume and LOS.

Table 28
Cumulative Freeway Segment Analysis (No Project)

				Background Conditions						Cumulative Trips				Cumulative Conditions					
		# Of	Capacity	AM Peak-Hour			PM Peak-Hour			AM Peak-Hour		PM Peak-Hour		AM Peak-Hour			PM Peak-Hour		
Segment	Direction	Lanes	(vph) /a/	Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase	Volume	V/C	LOS	Volume	V/C	LOS
US 101																			
North Gonzales and Gonzales-5th Street	Both	4	9,600	4,791	0.499	B	4,903	0.511	B	120	2.50%	204	4.15%	4,911	0.512	B	5,106	0.532	B
	NB	2	4,800	2,863	0.597	C	1,985	0.413	B	76	2.64%	139	7.02%	2,939	0.612	C	2,124	0.443	B
	SB	2	4,800	1,928	0.402	B	2,918	0.608	C	44	2.29%	64	2.21%	1,972	0.411	B	2,982	0.621	C
Gonzales-5th Street and Gloria Road	Both	4	9,600	4,697	0.489	B	4,824	0.503	B	137	2.91%	233	4.83%	4,834	0.504	B	5,057	0.527	B
	NB	2	4,800	2,805	0.584	C	1,957	0.408	B	86	3.08%	159	8.14%	2,892	0.602	C	2,116	0.441	B
	SB	2	4,800	1,892	0.394	B	2,868	0.597	C	50	2.66%	74	2.57%	1,942	0.405	B	2,941	0.613	C
Gloria Road and Soledad Prison	Both	4	9,600	3,853	0.401	B	3,996	0.416	B	154	3.99%	262	6.55%	4,007	0.417	B	4,258	0.444	B
	NB	2	4,800	2,297	0.479	B	1,629	0.339	A	97	4.23%	179	11.00%	2,394	0.499	B	1,808	0.377	B
	SB	2	4,800	1,556	0.324	A	2,367	0.493	B	57	3.64%	83	3.50%	1,613	0.336	A	2,450	0.510	B
Soledad Prison and Camphora	Both	4	9,600	3,681	0.383	B	3,832	0.399	B	162	4.41%	276	7.21%	3,844	0.400	B	4,109	0.428	B
	NB	2	4,800	2,193	0.457	B	1,565	0.326	A	103	4.68%	189	12.08%	2,296	0.478	B	1,754	0.365	B
	SB	2	4,800	1,488	0.310	A	2,267	0.472	B	60	4.02%	87	3.86%	1,548	0.322	A	2,355	0.491	B
Camphora and North Soledad	Both	4	9,600	4,859	0.506	B	5,018	0.523	B	108	2.22%	199	3.97%	4,967	0.517	B	5,217	0.543	B
	NB	2	4,800	2,899	0.604	C	2,041	0.425	B	63	2.17%	92	4.51%	2,962	0.617	C	2,133	0.444	B
	SB	2	4,800	1,960	0.408	B	2,977	0.620	C	45	2.30%	107	3.59%	2,005	0.418	B	3,084	0.643	C
North Soledad and South Soledad	Both	4	9,600	3,954	0.412	B	3,994	0.416	B	105	2.66%	299	7.49%	4,059	0.423	B	4,293	0.447	B
	NB	2	4,800	2,379	0.496	B	1,601	0.334	A	55	2.31%	145	9.06%	2,434	0.507	B	1,746	0.364	B
	SB	2	4,800	1,575	0.328	A	2,393	0.499	B	50	3.17%	154	6.44%	1,625	0.339	A	2,547	0.531	B
South Soledad and Arroyo Seco Road	Both	4	9,600	3,861	0.402	B	3,909	0.407	B	108	2.80%	353	9.03%	3,969	0.413	B	4,262	0.444	B
	NB	2	4,800	2,104	0.438	B	1,780	0.371	B	60	2.85%	171	9.61%	2,164	0.451	B	1,951	0.406	B
	SB	2	4,800	1,757	0.366	B	2,129	0.444	B	48	2.73%	182	8.55%	1,805	0.376	B	2,311	0.481	B
Arroyo Seco Road and North Greenfield	Both	4	9,600	3,703	0.386	B	3,749	0.390	B	103	2.77%	335	8.95%	3,806	0.396	B	4,084	0.425	B
	NB	2	4,800	2,018	0.420	B	1,707	0.356	A	57	2.82%	162	9.52%	2,075	0.432	B	1,869	0.389	B
	SB	2	4,800	1,685	0.351	A	2,042	0.425	B	46	2.71%	173	8.47%	1,731	0.361	B	2,215	0.461	B
North Greenfield and Walnut Avenue	Both	4	9,600	3,187	0.332	A	3,228	0.336	A	92	2.88%	300	9.30%	3,279	0.342	A	3,528	0.367	B
	NB	2	4,800	1,736	0.362	B	1,470	0.306	A	51	2.94%	145	9.89%	1,787	0.372	B	1,616	0.337	A
	SB	2	4,800	1,451	0.302	A	1,757	0.366	B	41	2.81%	155	8.80%	1,492	0.311	A	1,912	0.398	B
Walnut Avenue and Oak Avenue	Both	4	9,600	2,971	0.309	A	3,007	0.313	A	81	2.73%	265	8.81%	3,052	0.318	A	3,272	0.341	A
	NB	2	4,800	1,619	0.337	A	1,369	0.285	A	45	2.78%	128	9.37%	1,664	0.347	A	1,497	0.312	A
	SB	2	4,800	1,352	0.282	A	1,638	0.341	A	36	2.66%	137	8.33%	1,388	0.289	A	1,775	0.370	B
South Greenfield and Oak Avenue	Both	4	9,600	2,455	0.256	A	2,486	0.259	A	70	2.86%	229	9.23%	2,525	0.263	A	2,715	0.283	A
	NB	2	4,800	1,337	0.279	A	1,132	0.236	A	39	2.92%	111	9.82%	1,376	0.287	A	1,243	0.259	A
	SB	2	4,800	1,117	0.233	A	1,354	0.282	A	31	2.79%	118	8.74%	1,149	0.239	A	1,472	0.307	A

Notes:
/a/ Capacity of freeway lanes based on assumed capacity of 2,400 vphpl, as prescribed by the Highway Capacity Manual
/b/ Data provided by Caltrans Data System Unit 2005, Route 101 District 5.

Table 29
Cumulative Freeway Segment Analysis (With Project)

				Cumulative No Project Conditions						Project Trips				Cumulative Conditions With Project					
		# Of	Capacity	AM Peak-Hour			PM Peak-Hour			AM Peak-Hour		PM Peak-Hour		AM Peak-Hour			PM Peak-Hour		
Segment	Direction	Lanes	(vph)	Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase	Volume	V/C	LOS	Volume	V/C	LOS
US 101																			
North Gonzales and Gonzales-5th Street	Both	4	9,600	4,911	0.512	B	5,106	0.532	B	1,837	37.40%	1,688	33.07%	6,748	0.703	C	6,795	0.708	C
	NB	2	4,800	2,939	0.612	C	2,124	0.443	B	**1,019**	**34.68%**	1,266	59.62%	**3,958**	**0.825**	**D**	3,390	0.706	C
	SB	2	4,800	1,972	0.411	B	2,982	0.621	C	818	41.46%	422	14.15%	2,790	0.581	C	3,404	0.709	C
Gonzales-5th Street and Gloria Road	Both	4	9,600	4,834	0.504	B	5,057	0.527	B	2,099	43.43%	1,930	38.16%	6,933	0.722	C	6,987	0.728	C
	NB	2	4,800	2,892	0.602	C	2,116	0.441	B	**1,165**	**40.28%**	1,447	68.39%	**4,056**	**0.845**	**D**	3,563	0.742	C
	SB	2	4,800	1,942	0.405	B	2,941	0.613	C	934	48.11%	482	16.40%	2,877	0.599	C	3,424	0.713	C
Gloria Road and Soledad Prison	Both	4	9,600	4,007	0.417	B	4,258	0.444	B	2,362	58.94%	2,171	50.98%	6,369	0.663	C	6,429	0.670	C
	NB	2	4,800	2,394	0.499	B	1,808	0.377	B	**1,310**	**54.73%**	1,628	90.05%	**3,705**	**0.772**	**C**	3,436	0.716	C
	SB	2	4,800	1,613	0.336	A	2,450	0.510	B	1,051	65.18%	543	22.15%	2,664	0.555	C	2,993	0.624	C
Soledad Prison and Camphora	Both	4	9,600	3,844	0.400	B	4,109	0.428	B	2,493	64.86%	2,291	55.77%	6,336	0.660	C	6,400	0.667	C
	NB	2	4,800	2,296	0.478	B	1,754	0.365	B	1,383	60.25%	1,719	97.98%	3,679	0.766	C	3,473	0.723	C
	SB	2	4,800	1,548	0.322	A	2,355	0.491	B	1,110	71.69%	573	24.33%	2,657	0.554	C	2,927	0.610	C
Camphora and North Soledad	Both	4	9,600	4,967	0.517	B	5,217	0.543	B	1,456	29.31%	1,809	34.68%	6,423	0.669	C	7,026	0.732	C
	NB	2	4,800	2,962	0.617	C	2,133	0.444	B	**1,168**	**39.43%**	603	28.27%	**4,130**	**0.860**	**D**	2,736	0.570	C
	SB	2	4,800	2,005	0.418	B	3,084	0.643	C	288	14.36%	**1,206**	**39.11%**	2,293	0.478	B	**4,290**	**0.894**	**D**
North Soledad and South Soledad	Both	4	9,600	4,059	0.423	B	4,293	0.447	B	374	9.21%	465	10.83%	4,433	0.462	B	4,758	0.496	B
	NB	2	4,800	2,434	0.507	B	1,746	0.364	B	250	10.27%	189	10.82%	2,684	0.559	C	1,935	0.403	B
	SB	2	4,800	1,625	0.339	A	2,547	0.531	B	124	7.63%	276	10.84%	1,749	0.364	B	2,823	0.588	C
South Soledad and Arroyo Seco Road	Both	4	9,600	3,969	0.413	B	4,262	0.444	B	416	10.48%	517	12.13%	4,385	0.457	B	4,779	0.498	B
	NB	2	4,800	2,164	0.451	B	1,951	0.406	B	82	3.79%	345	17.68%	2,246	0.468	B	2,296	0.478	B
	SB	2	4,800	1,805	0.376	B	2,311	0.481	B	334	18.50%	172	7.44%	2,139	0.446	B	2,483	0.517	B
Arroyo Seco Road and North Greenfield	Both	4	9,600	3,806	0.396	B	4,084	0.425	B	395	10.38%	491	12.03%	4,201	0.438	B	4,575	0.477	B
	NB	2	4,800	2,075	0.432	B	1,869	0.389	B	78	3.75%	328	17.53%	2,153	0.449	B	2,197	0.458	B
	SB	2	4,800	1,731	0.361	B	2,215	0.461	B	317	18.34%	163	7.38%	2,048	0.427	B	2,378	0.495	B
North Greenfield and Walnut Avenue	Both	4	9,600	3,279	0.342	A	3,528	0.367	B	354	10.78%	439	12.46%	3,632	0.378	B	3,967	0.413	B
	NB	2	4,800	1,787	0.372	B	1,616	0.337	A	70	3.90%	293	18.15%	1,857	0.387	B	1,909	0.398	B
	SB	2	4,800	1,492	0.311	A	1,912	0.398	B	284	19.03%	146	7.65%	1,775	0.370	B	2,058	0.429	B
Walnut Avenue and Oak Avenue	Both	4	9,600	3,052	0.318	A	3,272	0.341	A	312	10.22%	388	11.85%	3,364	0.350	A	3,659	0.381	B
	NB	2	4,800	1,664	0.347	A	1,497	0.312	A	62	3.70%	259	17.28%	1,726	0.360	A	1,756	0.366	B
	SB	2	4,800	1,388	0.289	A	1,775	0.370	B	251	18.05%	129	7.27%	1,638	0.341	A	1,904	0.397	B
South Greenfield and Oak Avenue	Both	4	9,600	2,525	0.263	A	2,715	0.283	A	270	10.71%	336	12.38%	2,795	0.291	A	3,051	0.318	A
	NB	2	4,800	1,376	0.287	A	1,243	0.259	A	53	3.87%	224	18.04%	1,430	0.298	A	1,468	0.306	A
	SB	2	4,800	1,149	0.239	A	1,472	0.307	A	217	18.90%	112	7.60%	1,366	0.285	A	1,584	0.330	A

Notes:
/a/ Capacity of freeway lanes based on assumed capacity of 2,400 vphpl, as prescribed by the Highway Capacity Manual
/b/ Data provided by Caltrans Data System Unit 2005, Route 101 District 5.

Table 30

Cumulative Freeway Ramp Analysis (No Project)

					Background Conditions						Cumulative Trips				Cumulative Conditions					
					AM Peak-Hour			PM Peak-Hour			AM Peak-Hour		PM Peak-Hour		AM Peak-Hour			PM Peak-Hour		
Interchange	Direction	# Of Lanes	Type	Capacity (vph)	Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase	Volume	V/C	LOS	Volume	V/C	LOS
US 101																				
Camphora Road	SB to Camphora Road	1	Diagonal	1,500	24	0.016	A	30	0.020	A	0	0.00%	0	0.00%	24	0.016	A	30	0.020	A
	NB from Camphora Road	1	Diagonal	1,500	40	0.027	A	32	0.021	A	0	0.00%	0	0.00%	40	0.027	A	32	0.021	A
	SB from Camphora Road	1	Diagonal	1,500	88	0.059	A	115	0.077	A	2	2.27%	5	4.35%	90	0.060	A	120	0.080	A
	NB to Camphora Road	1	Diagonal	1,500	96	0.064	A	80	0.053	A	3	3.13%	5	6.25%	99	0.066	A	85	0.057	A
Moranda Road	SB to Moranda Road	1	Diagonal	1,500	408	0.272	A	1107	0.738	C	21	5.15%	74	6.68%	429	0.286	A	1181	0.787	D
	NB from Moranda Road	1	Loop	1,500	877	0.585	C	482	0.321	A	48	5.47%	59	12.24%	925	0.617	C	541	0.361	B
	SB from Moranda Road	1	Loop	1,500	52	0.035	A	42	0.028	A	25	48.08%	121	288.10%	77	0.051	A	163	0.109	A
	NB to Moranda Road	1	Loop	1,500	37	0.025	A	86	0.057	A	39	105.41%	112	130.23%	76	0.051	A	198	0.132	A
Front Street	SB to Front Street	1	Loop	1,500	162	0.108	A	283	0.189	A	25	15.43%	33	11.66%	187	0.125	A	316	0.211	A
	NB from Front Street	1	Loop	1,500	322	0.215	A	216	0.144	A	15	4.66%	33	15.28%	337	0.225	A	249	0.166	A
	SB from Front Street	1	Diagonal	1,500	281	0.187	A	376	0.251	A	23	8.19%	61	16.22%	304	0.203	A	437	0.291	A
	NB to Front Street	1	Diagonal	1,500	317	0.211	A	508	0.339	A	21	6.62%	60	11.81%	338	0.225	A	568	0.379	B
Arroyo Seco Road	SB to Arroyo Seco Road	1	Diagonal	1,500	75	0.050	A	93	0.062	A	2	2.67%	9	9.68%	77	0.051	A	102	0.068	A
	NB from Arroyo Seco Road	1	Diagonal	1,500	91	0.061	A	76	0.051	A	3	3.30%	9	11.84%	94	0.063	A	85	0.057	A

Notes:
1. Capacity for all ramps based on assumed capacity of 1,500 vphpl, as prescribed by the Highway Capacity Manual

Table 31

Cumulative Freeway Ramp Analysis (With Project)

					Cumulative No Project Conditions						Project Trips				Cumulative With Project Conditions					
		# Of		Capacity	AM Peak-Hour			PM Peak-Hour			AM Peak-Hour		PM Peak-Hour		AM Peak-Hour			PM Peak-Hour		
Interchange	Direction	Lanes	Type	(vph)	Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase	Volume	V/C	LOS	Volume	V/C	LOS
US 101																				
Camphora Road	SB to Camphora Road	1	Diagonal	1,500	24	0.016	A	30	0.020	A	0	0.00%	0	0.00%	24	0.016	A	30	0.020	A
	NB from Camphora Road	1	Diagonal	1,500	40	0.027	A	32	0.021	A	0	0.00%	0	0.00%	40	0.027	A	32	0.021	A
	SB from Camphora Road	1	Diagonal	1,500	90	0.060	A	120	0.080	A	14	15.56%	60	50.00%	104	0.069	A	180	0.120	A
	NB to Camphora Road	1	Diagonal	1,500	99	0.066	A	85	0.057	A	58	58.59%	30	35.29%	157	0.105	A	115	0.077	A
Moranda Road	SB to Moranda Road	1	Diagonal	1,500	429	0.286	A	1181	0.787	D	230	53.61%	**965**	**81.71%**	659	0.439	B	**2146**	**1.431**	**F**
	NB from Moranda Road	1	Loop	1,500	925	0.617	C	541	0.361	B	**935**	**101.08%**	482	89.09%	**1860**	**1.240**	**F**	1023	0.682	C
	SB from Moranda Road	1	Loop	1,500	77	0.051	A	163	0.109	A	67	87.01%	34	20.86%	144	0.096	A	197	0.131	A
	NB to Moranda Road	1	Loop	1,500	76	0.051	A	198	0.132	A	16	21.05%	69	34.85%	92	0.061	A	267	0.178	A
Front Street	SB to Front Street	1	Loop	1,500	187	0.125	A	316	0.211	A	58	31.02%	241	76.27%	245	0.163	A	557	0.371	B
	NB from Front Street	1	Loop	1,500	337	0.225	A	249	0.166	A	234	69.44%	121	48.59%	571	0.381	B	370	0.247	A
	SB from Front Street	1	Diagonal	1,500	304	0.203	A	437	0.291	A	267	87.83%	138	31.58%	571	0.381	B	575	0.383	B
	NB to Front Street	1	Diagonal	1,500	338	0.225	A	568	0.379	B	66	19.53%	276	48.59%	404	0.269	A	844	0.563	C
Arroyo Seco Road	SB to Arroyo Seco Road	1	Diagonal	1,500	77	0.051	A	102	0.068	A	17	22.08%	9	8.82%	94	0.063	A	111	0.074	A
	NB from Arroyo Seco Road	1	Diagonal	1,500	94	0.063	A	85	0.057	A	4	4.26%	17	20.00%	98	0.065	A	102	0.068	A

Notes:
1. Capacity for all ramps based on assumed capacity of 1,500 vphpl, as prescribed by the Highway Capacity Manual

Table 32
Year 2030 Freeway Segment Analysis

				Year 2030 Conditions						Miravale Phase III Project Trips			
		# Of	Capacity	AM Peak-Hour			PM Peak-Hour			AM Peak-Hour		PM Peak-Hour	
Segment	Direction	Lanes	(vph)	Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase
US 101													
Soledad Prison and Camphora	NB	2	4,800	**4,170**	**0.869**	**D**	2,920	0.608	C	**770**	**18%**	150	5%
	SB	2	4,800	2,920	0.608	C	**4,170**	**0.869**	**D**	150	5%	**770**	**18%**
Camphora and North Soledad	NB	2	4,800	3,300	0.688	C	2,310	0.481	B	250	8%	50	2%
	SB	2	4,800	2,190	0.456	B	3,130	0.652	C	0	0%	0	0%
North Soledad and South Soledad	NB	2	4,800	2,760	0.575	C	1,930	0.402	B	40	1%	200	10%
	SB	2	4,800	1,880	0.392	B	2,690	0.560	C	0	0%	0	0%
South Soledad and Arroyo Seco Road	NB	2	4,800	2,750	0.573	C	1,930	0.402	B	60	2%	320	17%
	SB	2	4,800	1,930	0.402	B	2,750	0.573	C	320	17%	60	2%
Arroyo Seco Road and North Greenfield	NB	2	4,800	2,700	0.563	C	1,890	0.394	B	60	2%	290	15%
	SB	2	4,800	1,890	0.394	B	2,700	0.563	C	290	15%	60	2%

Notes:
1. Capacity of freeway lanes based on assumed capacity of 2,400 vphpl, as prescribed by the Highway Capacity Manual
2. Year 2030 traffic volumes based on projections produced by Omni Means, March 27, 2007
3. Miravale Phase III project trips based on Year 2030 projections produced by Omni Means, Miravale III Future Traffic Volume, March 27, 2007

Table 33
Year 2030 Freeway Ramp Analysis

					Year 2030 Conditions						Miravale Phase III Year 2030 Project Trips			
					AM Peak-Hour			PM Peak-Hour			AM Peak-Hour		PM Peak-Hour	
Interchange	Direction	# Of Lanes	Type	Capacity (vph)	Volume	V/C	LOS	Volume	V/C	LOS	Volume	Increase	Volume	Increase
US 101														
Camphora Road	SB to Camphora Road	1	Diagonal	1,500	900	0.600	C	**1290**	**0.860**	**D**	150	17%	**770**	**60%**
	NB from Camphora Road	1	Diagonal	1,500	970	0.647	C	680	0.453	B	520	54%	100	15%
	SB from Camphora Road	1	Diagonal	1,500	180	0.120	A	250	0.167	A	0	0%	0	0%
	NB to Camphora Road	1	Diagonal	1,500	100	0.067	A	70	0.047	A	0	0%	0	0%
Moranda Road	SB to Moranda Road	1	Diagonal	1,500	390	0.260	A	550	0.367	B	0	0%	0	0%
	NB from Moranda Road	1	Loop	1,500	830	0.553	C	580	0.387	B	250	30%	50	9%
	SB from Moranda Road	1	Loop	1,500	80	0.053	A	110	0.073	A	0	0%	0	0%
	NB to Moranda Road	1	Loop	1,500	290	0.193	A	200	0.133	A	40	14%	200	100%
Front Street	SB to Front Street	1	Loop	1,500	220	0.147	A	320	0.213	A	0	0%	0	0%
	NB from Front Street	1	Loop	1,500	360	0.240	A	250	0.167	A	0	0%	20	8%
	SB from Front Street	1	Diagonal	1,500	270	0.180	A	380	0.253	A	320	119%	60	16%
	NB to Front Street	1	Diagonal	1,500	350	0.233	A	250	0.167	A	30	9%	140	56%
Arroyo Seco Road	SB to Arroyo Seco Road	1	Diagonal	1,500	110	0.073	A	150	0.100	A	30	27%	10	7%
	NB from Arroyo Seco Road	1	Diagonal	1,500	150	0.100	A	110	0.073	A	10	7%	30	27%

Notes:
1. Capacity of freeway lanes based on assumed capacity of 1,500 vphpl for all ramps, as prescribed by the Highway Capacity Manual
2. Year 2030 traffic volumes based on projections produced by Omni Means, March 27, 2007
3. Miravale Phase III project trips based on Year 2030 projections produced by Omni Means, Miravale III Future Traffic Volume, March 27, 2007

APPENDIX K

Water Supply Assessment

Water Supply Assessment and Written Verification of Supply

Proposed
Miravale III Residential Project

Prepared by the City of Soledad

and

Byron Buck & Associates
Water Resources and Environmental Consulting

August 30, 2007

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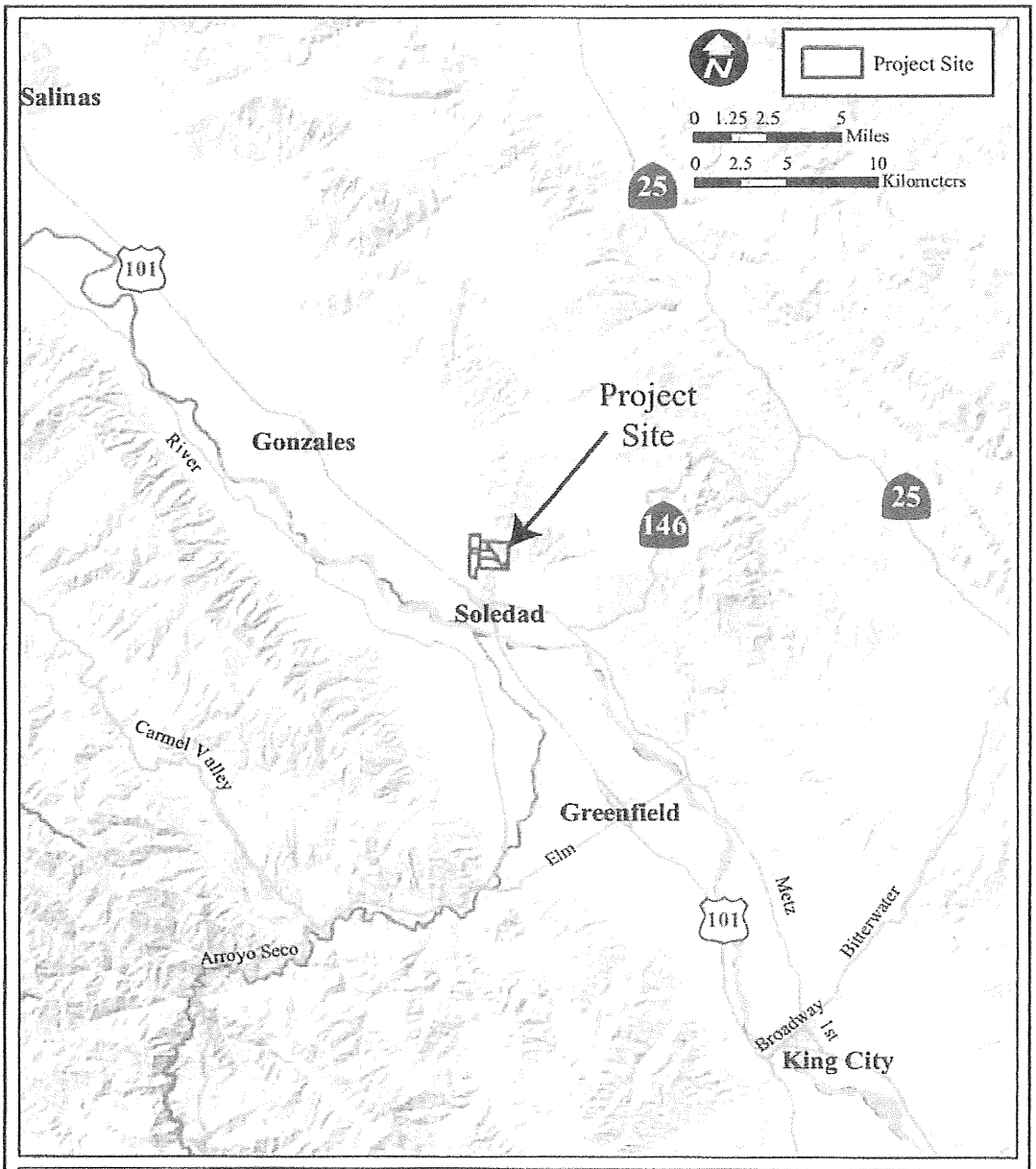
1.0 Introduction and Purpose of Report

1.1 Project Description and Location

The City of Soledad proposes to adopt a Specific Plan for the Miravale Phase III Project. This project is proposed to be located on the northern edge of the City of Soledad (see Figures 1 and 2) and consists of a mixed use development of 1,470 single-family residential units at an average density of 6.1 dwelling units/acre, 2,614 units in village residential settings consisting of a variety of attached housing styles at an average density of 18.99 dwelling units/acre. Commercial uses include a 120 room hotel, up to 275,000 square feet of retail commercial uses and an 18-hole golf course and driving range. Two elementary and one middle school sites are also planned, along with fire and police substations, and 75 acres of parkland and open space and a 1.67 acre church site. Table 1 depicts a summary of these proposed land uses. The project site is generally between San Vicente Road and Orchard Lane, and is surrounded by agricultural land to the north and east, an existing residential subdivision to the south, and undeveloped foothills of the Gabilan Mountain Range to the west. Figure 3 depicts the overall land use plan for the Specific Plan.

The project site is currently zoned for farmland and grazing, which has comprised the recent historic uses, with row crops cultivated on the lower, more level terrain below the 400-foot contour line and grazing uses above this line. Row crops have been irrigated with groundwater from the Salinas Basin.

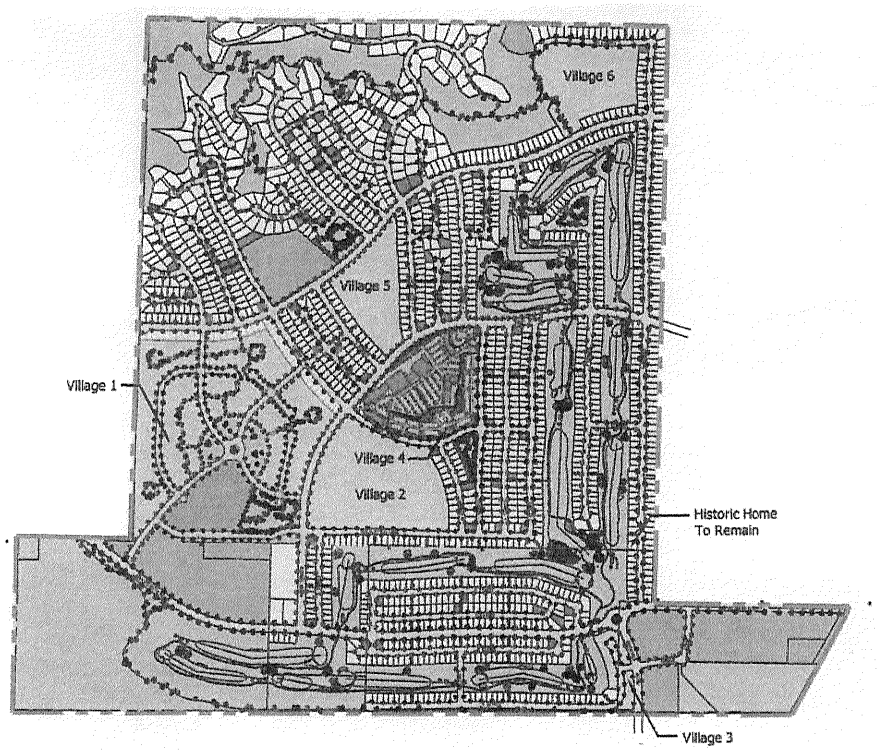
Figure 1
City of Soledad Vicinity Map



	Vicinity Map	Figure 1

DENISE DUFFY & ASSOCIATES, INC.

Figure 2 Specific Plan



Legend

- Single Family Residential (1 to 6 du/ ac)
- Single Family Residential-Hillside (0 to 2 du/ ac)
- Village Residential (10 to 24 du/ ac)
  - * Affordable Housing
  - * Senior Housing
  - * Work Force Housing
  - * Entry Level Housing
- Attached Single Family Residential Units (Affordable Housing)
- Commercial (Hotel, Commercial, Mixed Use)
- Public/ Institutional/ Recreational (Schools, Water Storage, Police, Fire)
- Open Space/ Parks, Agriculture, Golf Course, and Urban Reserve

North

0 500' 1000' 2000'

Notes:
1. Street locations are shown for illustrative purposes only. Actual alignments will be approved with the Vesting Tentative Map.

2. Location of Attached Single Family units are for illustrative purposes only, and are subject to relocation within their same phase.

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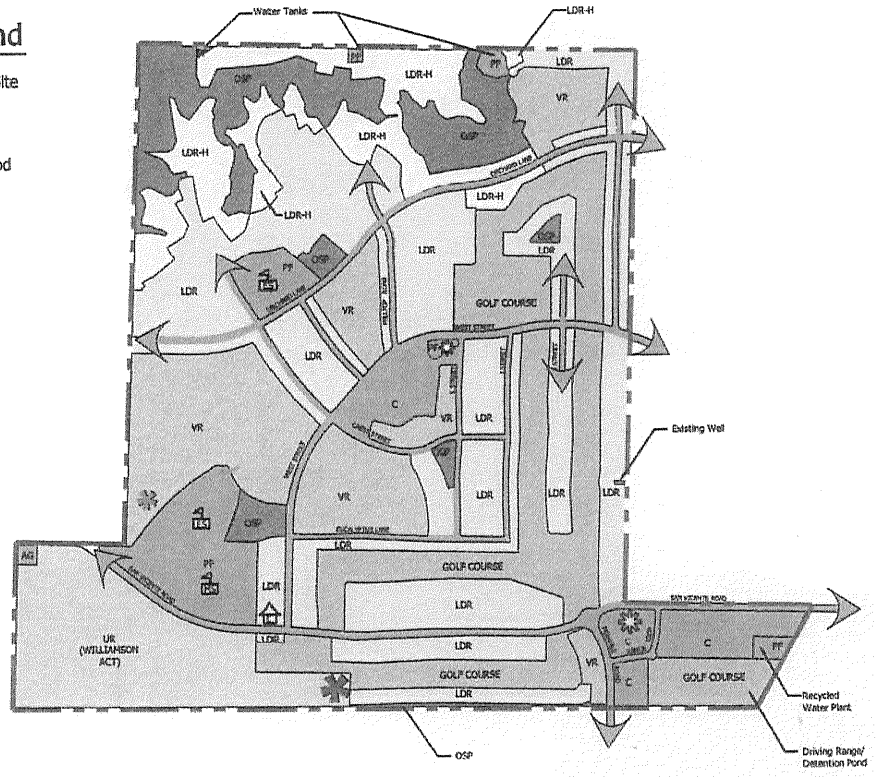
Miravale III Specific Plan
City of Soledad
June, 2007

Conceptual Lotting
Illustrative Plan

Figure 3
Miravale III Land Use Plan

Symbol Legend

- Hotel Opportunity Site
- Fire/ Police Station
- Future Neighborhood Park Opportunity
- Elementary School
- Middle School
- Alternative Middle School
- Church Opportunity Site



Land Use Legend

- LDR-H — Single Family Residential-Hillside (0-2 du/ ac)
- LDR — Single Family Residential (1 to 10 du/ ac) *
- VR — Village Residential (12-30 du/ ac)
- C — Commercial
- PF — Public/Institutional/ Recreational (Schools, Water Storage, Police, Fire
- OSP — Open Space/ Parks
- AG — Agriculture
- GOLF COURSE — Golf Course
- UR (WILLIAMSON ACT) — Urban Reserve - Williamson Act Property (Senior Living - 55 and older, Medical Facilities, High School, Mini/ RV/ Boat Storage, Farm Worker Housing)

Note:
Street locations are shown for illustrative purposes only.
Actual alignments will be approved with the Vesting Tentative Map.

* This zone is primarily 1-6 du/ac. The density above 6 du/ac is allowed to accommodate affordable duplexes and triplexes. Refer to Figure 2-3 to see proposed locations for affordable housing in LDR Districts.

North

0 500' 1000' 2000'

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Miravale III Specific Plai
City of Soledad
June, 20
Land Use Plan

Table 1 - Proposed Land Uses

Table 1-1 Proposed Land Uses	
Residential Uses	**No. Units**
Large Lot Single Family	80
Standard Lot Single Family	1390
Duplex/small lots	116
Village residential - attached	2614
total	4200
Non-Residential	**No. Acres**
General Commercial	33.22
Institutional (Police, Fire Church Recycled Water Plant	4.80
Elementary Schools	20.00
Middle School	19.00
Hotel – 120 Rooms	6.5
Open Spaces	
Golf Course	144.87
Practice Driving Range	12.62
Golf Pond	3.12
Linear Park	1.61
Upland Open Space Park	75.77
Agriculture	
Agriculture	1.0
Urban Reserve	84.80

1.2 Purpose of Water Supply Assessment.

The City of Soledad is required to consider this water supply assessment (Water Code section 10910 et. seq.) and written verification of supply (Government Code section 66473.7) as part of the review and approval process for the land use entitlements on the Project. This water supply assessment and written verification of supply will be included in the draft Environmental Impact Report for the Miravale III Specific Plan.

1.3 Requirements for Water Supply Assessments

On October 9, 2001 former Governor Gray Davis signed into law Senate Bills 610 (Costa) and 221 (Kuehl) (Chapters 643 and 642, respectively, Statutes of 2001) requiring the preparation of a water supply assessment in conjunction with project review under the California Environmental Quality Act (CEQA), and a written verification of water supply where a tentative subdivision map is proposed for approval. The general intent of SB 221 and 610 was to create additional assurance that certain new developments could be provided with a reliable supply of water. It also intended that existing users and others dependent on common sources of water affected by new development were informed of the development's effect on those supplies, and plans to maintain reliable supplies. The legislation also serves to better inform decision makers regarding the water supply implications of development.

SB 610 requires that a water supply assessment be prepared for certain developments, including residential developments in excess of 500 units, where an environmental impact report or negative declaration is being prepared under CEQA. The requirement adds a specific water supply assessment protocol for land use jurisdictions to follow and consider in evaluating the environmental impacts for a proposed project. In the present case, a Water Supply Assessment must be included in the Environmental Impact Report prepared for the proposed Specific Plan. The City of Soledad must determine, based on the entire record, whether water supplies projected in the water supply assessment will be sufficient to satisfy the demands of the proposed project in addition to existing and planned future uses over a 20-year planning horizon.

SB 221 requires a city or county to include as a condition of approval of any tentative map, parcel map or development agreement for residential developments of 500 dwelling units or more, a requirement that a "sufficient

water supply" be available.[1] Proof of this supply must be on the basis of a written verification from the public water system that will serve the development. The City of Soledad is the public water supplier for the proposed development. The City requested an independent analysis of water supply availability for the project from Byron Buck and Associates.

1.4 Relationship of this Document to City of Soledad Urban Water Management Plan

The Urban Water Management Planning Act requires municipal water providers serving over 3,000 acre-feet per year (AF/Y) of water or having 3,000 service connections to prepare plans (urban water management plans or UWMPs) on a five-year, ongoing basis. A UWMP must demonstrate the continued ability to provide water supplies for current and future expected development under normal, single dry and multiple dry year scenarios. These plans also require the assessment of urban water conservation measures and wastewater recycling. Pursuant to Section 10632 of the California Water Code, the plans must also include a water shortage contingency plan outlining how water providers will manage water shortages of up to 50 percent of their normal supplies in a given year.[2]

Soledad adopted a revised UWMP in December of 2005. The 2005 UWMP projects demands for 20 years and UWMPs are updated on a five-year basis, with the next update coming in 2010. As provided for in the law, this water supply assessment incorporates by reference and relies upon many of the planning assumptions and projections of the 2005 UWMP in assessing the water

---

[1] Under SB221, a "sufficient water supply" is defined as *"... the total water supply available during normal, single dry and multiple dry years within a 20-year projection that will meet the projected demand associated with the proposed subdivision, in additional to existing and planned future uses..."* (Government Code 66473.7(a)(2).) This does not mean that 100 percent of the development's normal or unrestricted water demand must be met 100 percent of the time, nor does it mean that the new development may not have any impact on the service level to existing customers of the water provider. A "sufficient water supply" may be found to exist for a proposed subdivision as well as for existing customers as long as an acceptable water supply can be estimated and planned for during a record drought (ACWA, 2002).

[2] Like SB 610 and SB 221, specific levels of supply reliability are not mandated (i.e., whether a specific level of demand can be met over a designated frequency). Rather, the law provides that a specific level of reliability is a local policy decision of the water provider.

demand of the proposed project relative to the overall increase in demands expected by Soledad. The 2005 UWMP assumes the development of the Miravale III Project in evaluating the demands to be made on Soledad's water supplies, although proposed uses discussed herein are more detailed, allowing for a more refined water demand analysis. The UWMP anticipates the Miravale project to phase in beginning in 2010 through 2025 (UWMP, p.6). The 2005 UWMP finds a sufficient supply available to meet expected water demands based upon the general plan build-out of the City.

2.0 Project Water Demands and Forecasting Methods

2.1 Project Water Demands

Table 2 depicts projected average annual water demands for the Miravale III project using water use factors that are based upon local climate and geography for land uses proposed. The analysis recognizes that plumbing fixtures in new development will comply with current plumbing code standards, requiring low flow plumbing devices. Soledad is planning to implement an aggressive wastewater recycling program, where current and future wastewater flows will be treated to tertiary treatment standards allowing for reuse in irrigation applications. The City is currently expanding its wastewater treatment plant to 5.5 million gallons per day (MGD) treatment capacity and a 4.3 MGD disposal capacity and is planning to purchase the wastewater treatment plant owned by the State Department of Corrections and Rehabilitation and leased and operated by the City with a disposal capacity of 1.2 MGD. By 2010 the City plans to upgrade both facilities to meet tertiary treatment standards, allowing for use of recycled water for irrigation. The recycled water from these plants not used for urban reuse is ultimately planned to substitute for groundwater use by agricultural land uses surrounding the City.

A satellite recycled water plant with an initial capacity of 1.0 MGD treatment capacity expandable to 2+MGD will be constructed with the project. The

development will also provide sufficient storage pond capacity for build out of the project in an amount necessary to be able to store excess recycled water in times of low demand, such as rain events. This plant will store water in the golf course pond, allowing for recycled water use at the golf course and throughout the development. The Miravale III project will be designed to utilize recycled wastewater for the golf course, parkland, roadway landscaping and single family residential front-yard irrigation demands. This will lower the net demand for groundwater pumped to supply the development.

Table 2 depicts projected demands based upon currently proposed land uses and densities. Actual water demands will vary depending upon the ultimate mix of specific uses, water use behavior of the residents and property managers, and landscape development and maintenance practices. These estimates are based on long-term averages at full project build-out. In any given year, consumption is expected to vary year-to-year by as much as seven percent, depending on weather and precipitation, with the greater use in drier years. During the first few years after any given phase of development occurs, expected water use would likely be higher for landscape uses on a unit basis as new landscape plantings require additional water to become established. After plantings mature, landscape use would reduce to a more static level.

2.2 Forecasting Methodology

Analysis of water demands for a project such as the Miravale III development where prior land uses existed must take into account the local context of historic and future water use. The development site was historically in agricultural uses, with the lower, more level lands irrigated for row crop production with groundwater pumped from the Salinas groundwater basin. Upland areas of the site were used for dry-land grazing, resulting in no groundwater demand. Historic water use for the site was estimated based upon aerial photo analysis of cropped areas and typical water consumption and irrigation efficiencies for row crops, allowing for proper soil salinity management and annual rotational

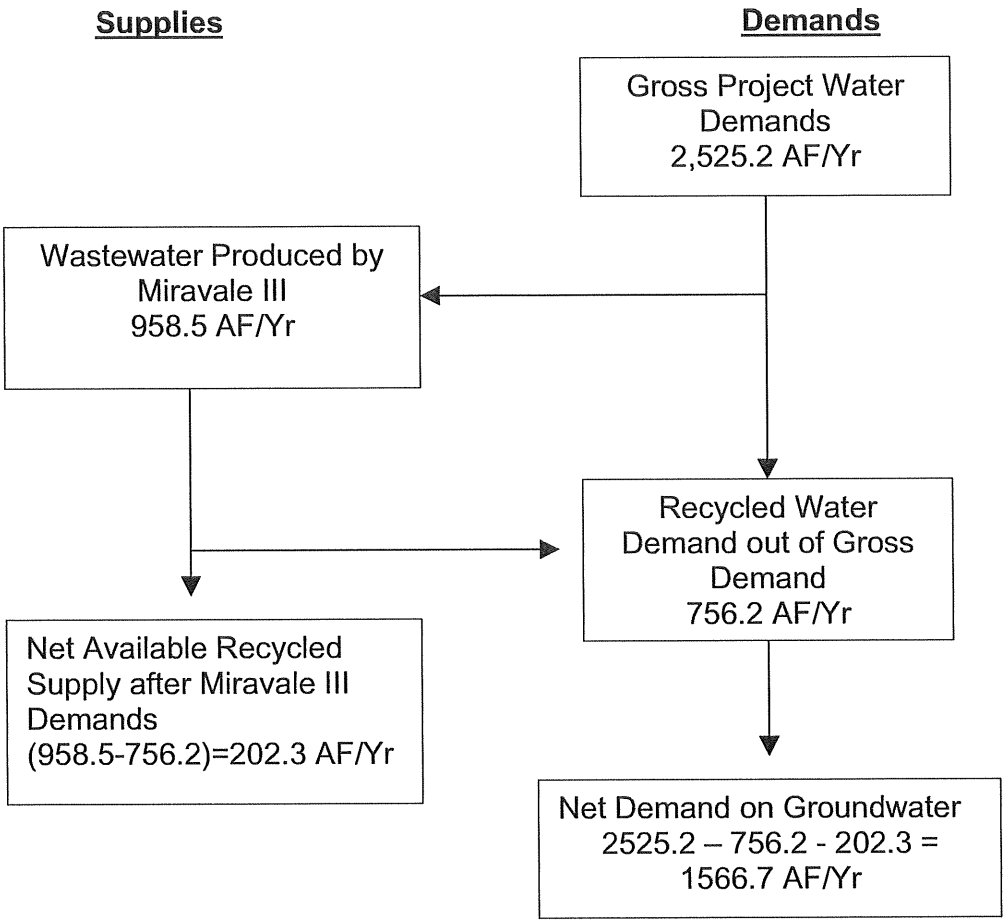
fallowing (about 20 percent of lands would be fallowed annually to allow for good soil management practice).[3]

Development into residential, commercial and recreational uses will replace agricultural water use. Additionally, as mentioned above, recycled water will be extensively used in the development, and the residential and commercial uses will also produce wastewater that will become reusable water supply through the recycled water systems. Thus, an analysis of water use must account for these factors in order to indicate what the net demand on the local and regional groundwater aquifer system, the primary water source for the City of Soledad and the Salinas Valley region. The analysis as shown in Table 2 follows this general water demand equation: (gross water demands including potable and recycled water demands) - (wastewater produced for recycling – recycled water demand) = Net groundwater water demand for the project. Then, (net groundwater water demand for the project) – (net groundwater demand from historic uses) = net total change in groundwater demand/aquifer impact. Figure 4 shows this diagrammatically.

Legal requirements for water supply assessments do not specify a particular method to project usage, nor are specific water use factors mandated for given land uses, as such use varies by location and other use factors such as population and visitor densities. Because water demand forecasts are estimates, not guarantees, with them come varying degrees of uncertainty. For example, for residential uses of the project the analysis utilizes a conservative average consumption factor for each residential unit, broken in to standard (<.0.25 acre) and larger lot classes. Lot sizes in the development and the number of persons per household will vary, and landscaping preferences and practices of future residents will cause individual units to vary from the mean value figures used in

[3] There is no data available on actual fallowing practices for this site. However, this assumption is conservative in that if fallowing was not practiced, prior consumption would be about 20 percent higher than estimated herein and the net benefit of the Miravale project on the groundwater basin as proposed would be even greater.

Figure 4
Miravale III Water Balance



this analysis. Such variations, however, would not affect the overall conclusions in this analysis.

3.0 Available Water Supply

The City of Soledad is the municipal purveyor of water for lands within its limits. Soledad's water supply is groundwater from the Forebay Subarea of the Salinas Valley groundwater basin. The status of the groundwater basins, their management and current production of Soledad from the Salinas Basin and Soledad's legal entitlement to groundwater is discussed in detail in Section 3 of the 2005 Urban Water Management Plan. Historic and projected groundwater to be pumped is found in Tables II and III in the UWMP. The City pumped 1,716 AF in 2000 and that has grown to 2,345 AF in 2004. The City anticipates pumping up to 8,458 AF in 2025 and by extension, 8,764 AF in twenty years time, at 2026. However, this projection is conservative in that it does not represent all new demands on the groundwater basin, as existing agricultural uses will be retired in this process, mitigating much of the impact on the basin.

The City's UWMP also discusses the Salinas Valley Water Project, the regional plan to manage surface and groundwater for the Salinas Valley and its groundwater basin, overseen by the Monterey County Water Resources Agency. Soledad's total groundwater production currently constitutes less than 2 percent of the annual Salinas Valley Groundwater Basin yield. The large buffering capacity of this basin insulates its users from water shortages more common within systems dependent upon annual surface water runoff. Therefore, Soledad's supplies do not vary significantly due to annual hydrology. As such normal, single dry, and multiple dry years are considered similar for water supply planning purposes.

The Salinas Valley groundwater basin is not an adjudicated basin and there are currently no limits on groundwater that may be pumped for overlying uses within the Forebay Subarea. While the basin has experienced overdraft at its coastal

margins, no overdraft concerns exist in the Soledad region, or in the Forebay Subarea of the aquifer. The adoption of the Salinas Valley Water Project convinced the State Water Resources Control Board that adjudication was not the proper approach to address issues of overdraft in this basin, rather that the physical solutions offered by the Salinas Valley Water Project would bring the basin into balance over time.

The City has, however, experienced local groundwater contamination from nitrate and pesticide contamination that has had to be managed, as discussed in Section 3 of the UWMP.

Table 2 MIRAVALE III Estimated Water Demands			
Residential Uses	**No.Units**	**Annual Water Demand**	**Demand**
-	-	**Factor AF/Y=Unit**	**AF/YR**
Large Lot Single Family	80	0.9	72.0
Standard Lot Single Family	1390	0.6	834.0
Duplex, small lots	116	0.25	29.0
Village Residential	2614	0.25	653.50
total	4200	**subtotal**	**1588.50**
Non-Residential	**No. Acres**	**Annual Water Demand (AF/Acre)**	
Village and Gateway Commercial	33.22	2.91	96.67
Institutional(4)	9.71	2.95	28.64
Elementary Schools	20	3.87	77.40
Middle School	19	4.0	76.00
Hotel, 120 Rooms	20	(.0.27 AF/Unit)	32.40
		subtotal	**311.11**
Open Spaces			
Golf Course(1)	144.87	3.75	543.26
Practice Driving Range (1)	12.62	3.75	47.33
Golf Pond	3.13	3.00	9.39
Developed Park(1)(2)	1.61	3.75	5.13
Upland Park(6)	75.77	2.50	18.94
Agriculture	1	3.85	1.54
Urban Reserve (7)	84.8	0.00	0.00
		subtotal	**625.59**
		Total Annual Gross Demands AF/Yr	**2525.21**
Wastewater Produced for Recycling in AF/Yr			
Residential Return Flows			865.17
Non-Residential Return Flows			93.33
		subtotal	**958.50**
Recycled Water Demands			
SF Home Front Yard Irrigation		15% gross demand	135.90
Golf Course		90% gross demand	488.94
Golf Course Driving Range		90% gross demand	42.59
Golf Course Pond (100% recycled)		100% gross demand	8.45
Developed Park		90% gross demand	5.13
Upland Park		100% gross demand	18.94
Elementary School playfields		8 acres	30.00
Middle School playfields		7 acres	26.25
Ag Buffer		1 acre	3.75
Roadway landscaping		10% of 122 acres of roadways	36.53
		subtotal	**756.20**
Net Recycled Water Available Due to Project			
			202.30
Net Consumptive Demand On Groundwater			
			1566.70
Historical Irrigated Agricultural Uses (746 out of 922 acres)			
Row Crops Annual Groundwater Demand (3)			**2067.9**
Net Demand Change (reduction) on Aquifer			**(501.2)**
Notes			
(1) 3.0 ETO @80% efficiency			
(2) 85% irrigated, 15% hardscape			
(3) 10% unirrigated roads, access;net of deep percolation and 20% annual fallowing at 3.85 ETO			
(4) Police/Fire,Golf Maint., Recycled water plant and Church site			
(5) 40% landscape			
(6) 10% buffer area irrigated only, drought tolerant landscape			
(7) no change in land use			

4.0 Water Conservation

Water conservation and Soledad's efforts to implement the Best Management Practices (BMPs) for Urban Water Conservation are discussed in Section 8 of the 2005 UWMP. Conservation effects of current water conserving plumbing code requirements on water demands are built into the demand forecasts for Soledad. The proposed Miravale III project will be fully metered and required to comply with current plumbing code requirements calling for low-flow plumbing fixtures.

5.0 Water Supply Sufficiency Analysis

As shown in Table 2, while the City will have to pump about 1,566 AF/Y to meet the demands of the project, the net effect of the Miravale III Specific Plan development as proposed, when taking into account prior groundwater use on the site by agricultural uses, will be a reduction in historic net groundwater pumping from the basin by approximately 501 acre-feet per year. Therefore, the project will assist the Monterey County Resources Agency in achieving balanced use and recharge to the Salinas Valley groundwater basin through the Salinas Valley Water Project. This net increase in regionally available water supply can be attributed to the recycled water component of the project and the City's overall recycled water plans. These plans must be pursued to assure a net positive impact on the region's water resources.

6.0 Availability of Water Treatment and Delivery System Capacity

The significant growth in Soledad, including the Miravale III project, will require commensurate investment in water supply infrastructure for the City, and the Miravale III development in particular. Soledad's current plans to upgrade its water delivery infrastructure are described in Section 7 of the 2005 UWMP and include installation of two new high capacity wells, 1.4 million gallons of system storage, two miles of new transmission mains, four new pump stations and

remote electronic monitoring and management systems. The Miravale III water distribution system on site will be designed for five pressure zones, with development of the zones phased in along with other improvements. In-tract distribution systems will be designed and constructed by the developer to accommodate necessary demand and fire flows for the project in accordance with City design standards. No treatment other than chlorination for maintenance of system disinfection is currently expected.

7.0 Regulatory Permits Necessary for Supply Delivery

Soledad's local supplies are maintained under a public water supply permit from the State Department of Health Services. Additions to Soledad's water supply infrastructure will require the permits to be updated to include new supply facilities for the Miravale III development. Soledad is the permitting entity for local building codes with respect to construction of water treatment and delivery facilities. Implementation of recycled water systems will require new authorizations from the Department of Health Services. No other discretionary permits are expected to be necessary for supply infrastructure as sensitive resources such as wetlands or other waters of the United States are not affected.

8.0 Effect on Agricultural and Industrial Users Not Supplied by the City of Soledad but Reliant on the Same Sources

Agricultural users in the Salinas Valley generally rely on the same basin-wide supply from the Salinas Valley Groundwater Basin. These uses are taken into account in the basin planning of the Monterey County Water Resources Agency as part of developing a water balance for the Basin. Because of Soledad's plans for recycled water and the net reduction in demand on the Salinas Valley groundwater basin due to the Miravale III project's aggressive use of recycled water, the Miravale project will have a net positive impact on water supplies available for other users of the Salinas Valley groundwater basin.

9.0 Summary Water Supply Sufficiency Determination

Pursuant to Section 10910 of the California Water Code, and based on the foregoing analysis and representations by the project's proponents and the City of Soledad, Soledad has determined that its currently projected water supplies are sufficient to meet the projected annual water demands of existing and previously approved uses and the Miravale III project during normal, single dry and multiple dry years during the next twenty years.

Pursuant to California Government Code Section 66473.7, Soledad has determined based on the foregoing analysis and representations by the project's proponents that it has sufficient currently available water supply available within normal, single-dry and multiple dry years over the next 20 years, in addition to existing and planned future uses to provide for the anticipated water demands of the Miravale III Tentative Subdivision Map.

10.0 References

Association of California Water Agencies, Water Supply and Development A Users Guide to California Statutes Including AB 221 (Kuehl) & SB 610 Costa. 2002.

Bestor Engineers, Miravale III Water System. July 15, 2006

California Irrigation Management System, Data for King City and Salinas. 2006

Littleworth, Arthur L. and Garner, Eric L., California Water. 1996

City of Soledad, 2005 Urban Water Management Plan. December, 2005

City of Soledad, 2006 Miravale III Specific Plan. 2006

City of Soledad, Miravale Phase III Notice of Preparation. August, 2006

Monterey County Water Resources Agency, Salinas Valley Water Project EIR, 1998.

The Miravale Phase III Subdivision EIR outlines the four phased build out of the 920 acre project site over the next twenty years. The totals for the completed project are 1,470 single-family residential units, 2,730 multi-family units, and 120 hotel rooms. Due to the phasing of the project in five year intervals the actual building schedule is:

2008-2013	304 Single Family units, and 71 Multi-family units = 375 residential
2013-2018	682 Single Family units, and 358 Multi-family units = 1,040 residential
2018-2023	280 Single Family units, and 358 Multi-family units = 438 residential
2023-2028	204 Single Family units, 746 Multi-family units, and 500 senior housing units = 1,450 residential

The combination of the existing and approved housing units in Monterey County (147,879) plus the 375 increase of proposed housing units in the Miravale Phase III Subdivision EIR is 147,907 still less then the regional forecasts for Monterey County (161,255) in year 2015. The 1,040 residential units to be added by 2018 is also less than the forecasted county limits, as is each future build phase. Therefore the Miravale Phase III Subdivision EIR is **consistent** with the 2004 regional forecasts and the Air Quality Management Plan.

Please feel free to contact me if you have any questions about this determination.

Sincerely,

David Roemer
Associate Planner

cc: Jean Getchell, MBUAPCD